

Report of the Director of Medical and Sanitary Services / [Ceylon].

Contributors

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PART IV.—EDUCATION, SCIENCE, AND ART (C).

Administration Report of
the Director of Medical
and Sanitary Services
for 1926.



(Dr. J. F. E. BRIDGER.)

DECEMBER, 1927.

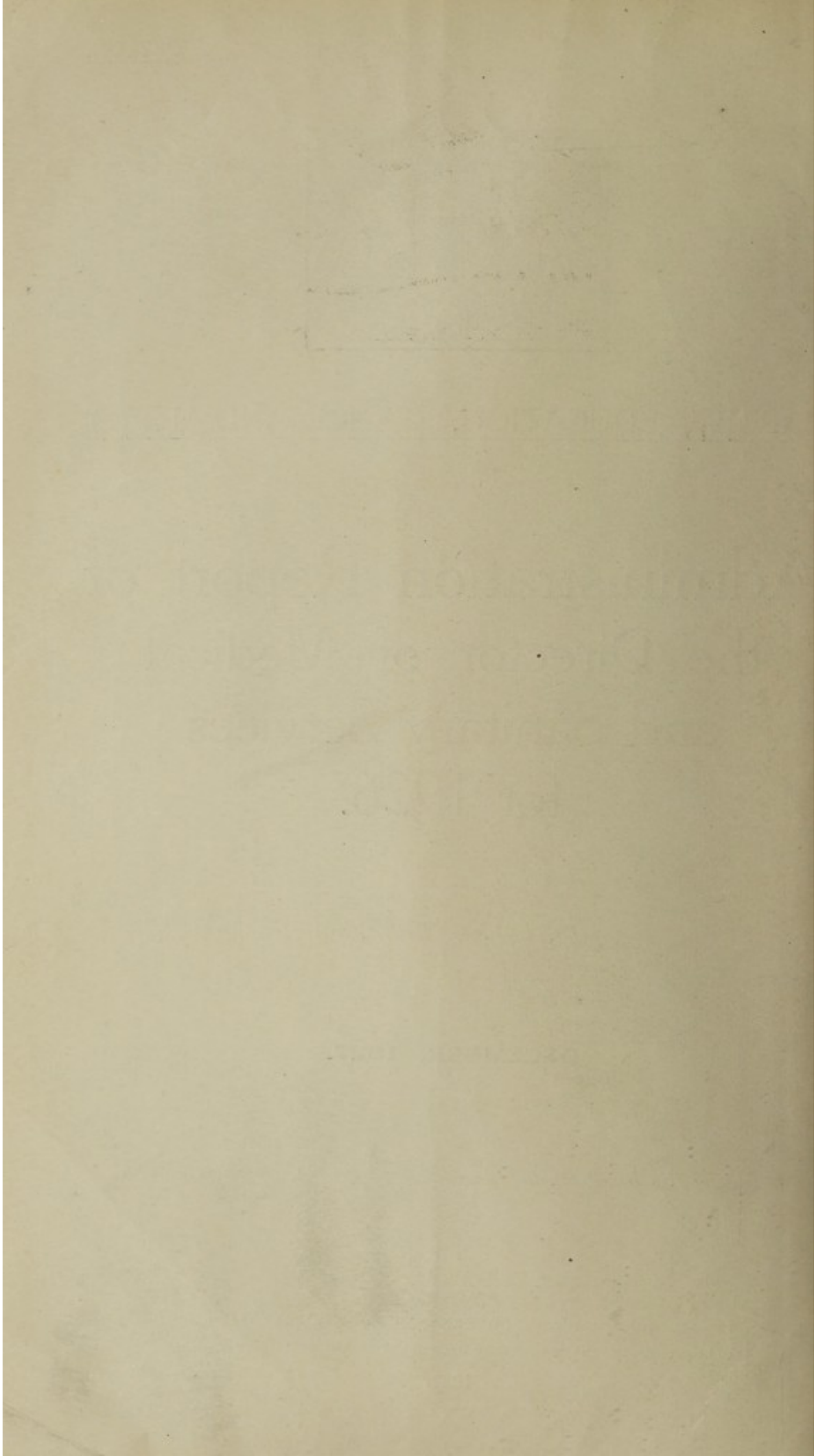
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1927.



CEYLON

CHIEF HEADMEN'S BOUNDARIES AND HEALTH DISTRICTS

Scale, 8 Miles to an Inch

REFERENCE



- WAYS (LINES)
- DO (DISTRICTS)
- VILLAGE MARKERS
- LIGHTHOUSES
- REST HOUSES
- HOSPITALS
- DISPENSARIES
- POST & TELEGRAPH OFFICES
- POLICE STATIONS
- TOWNS

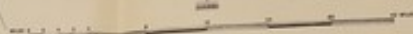
HEALTH DISTRICTS SHOWN IN COLOURS

- AL
- DO
- AL
- DISPENSARIES & VISITING STATIONS
- AL

By order of A. H. D. Dawson Director General Ceylon

SHOWING HEALTH DISTRICTS
BY UTILIZING CHIEF HEADMEN'S BOUNDARIES

Scale, 8 Miles to an Inch



REFERENCE

REGIONAL NAME	TIME ZONE	
WIND	Dr. (compass)	
WAVE NUMBER	WAVE NUMBER	
WAVE	LIGHTHOUSE	
TELEPHONE LINE	POST HOUSE	
RAILWAY LINE	HOSPITAL	
Dr. (compass)	DISPENSARY	
WAVE NUMBER	Dr. & TELEPHONE OFFICE	
DISTRICT	POST STATION	
CHIEF WARDEN'S	WATER	
HEALTH DISTRICTS SHOWN IN COLOURS		
HOSPITAL		
WAVE NUMBER		
WAVE		
CENTRAL HOSPITALS		
RAILWAY DISTRICTS & WAVE STATIONS		
RAILWAY		

Published under the orders of A. H. G. Duncan, Sergeant General, Cyprus

Department of Medical and Sanitary Services.
Colombo, May 31, 1927.

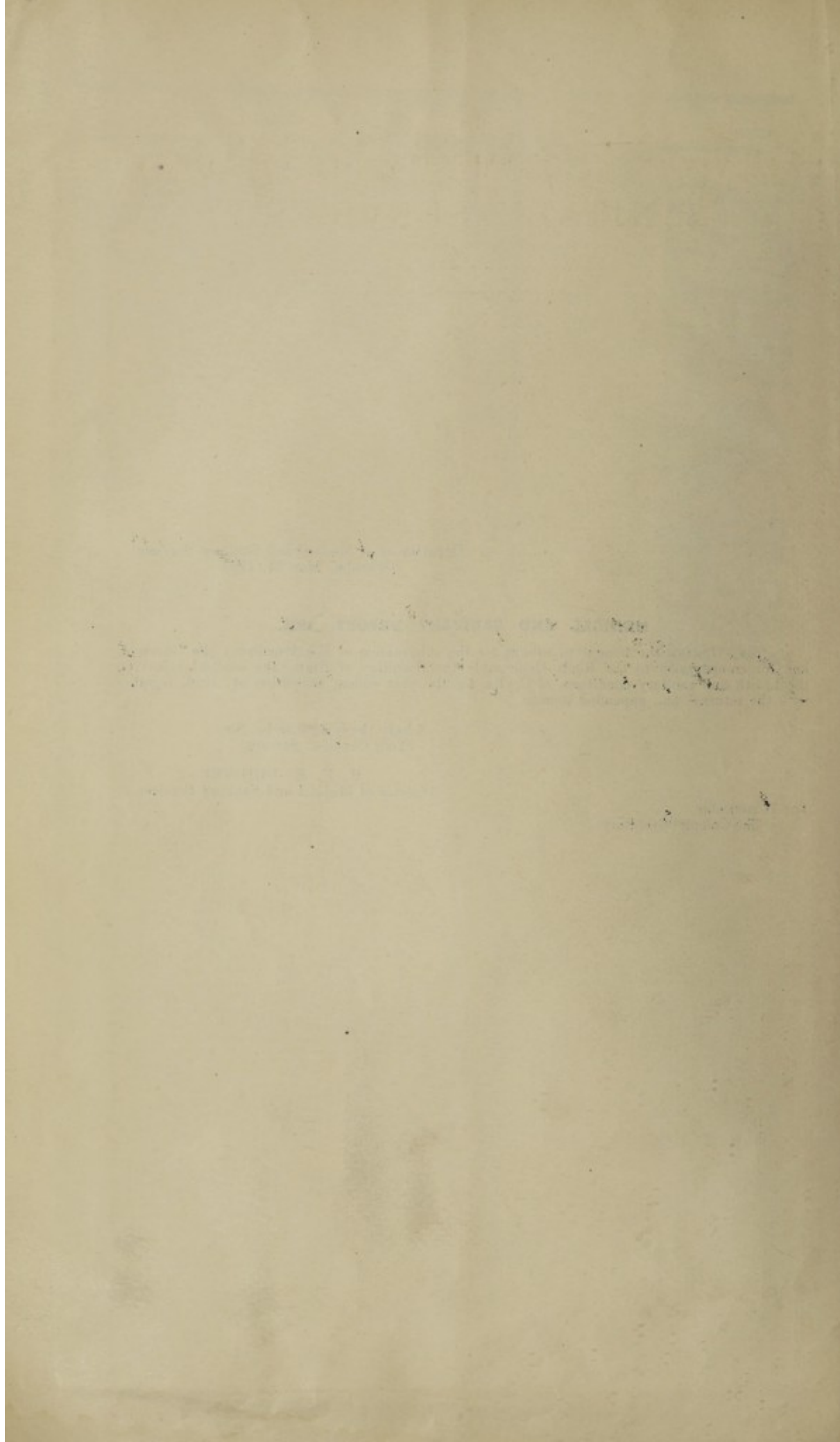
MEDICAL AND SANITARY REPORT, 1926.

SIR,—I HAVE the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the medical report on the health and sanitary conditions of Ceylon for the year ending December 31, 1926, together with the returns, &c., appended thereto.

I have the honour to be, Sir,
Your Obedient Servant,

J. F. E. BRIDGER,
Director of Medical and Sanitary Services.

The Honourable
The Colonial Secretary.



DEPARTMENT OF MEDICAL AND SANITARY SERVICES.

REPORT OF THE DIRECTOR OF MEDICAL AND SANITARY SERVICES FOR THE YEAR 1926.

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I.—ADMINISTRATION.

(a) (1) *Staff on December 31, 1926.*

- 1 Director of Medical and Sanitary Services.
1 Deputy Director of Medical and Sanitary Services.
1 Assistant Director of Medical Services.
1 Assistant Director of Sanitary Services.
1 Office Assistant.
1 Accountant.
1 Assistant Accountant.

Medical Side.

- 1 Medical Superintendent, General Hospital,
Colombo.
1 Medical Superintendent, Lunatic Asylum,
Angoda.
1 Medical Superintendent, Leper Asylum,
Hendala.
9 Provincial Surgeons.
1 Medical Officer in Charge, Anti-Tuberculosis
Institute, Colombo.
1 Medical Officer in Charge, Lady Havelock
and Lady Ridgeway Hospitals, Colombo.
1 Radiologist, General Hospital, Colombo.
1 Pathologist, General Hospital, Colombo.
1 Medical Officer in Charge, Dental Institute,
Colombo.
65 Medical Officers in Grade I.
212 Medical Officers in Grade II.

Sanitary Side.

- 3 Inspecting Medical Officers of Estates.
2 Senior Medical Officers of Health.
4 Medical Officers of Health, Grade I.
15 Medical Officers of Health, Grade II.
3 Sanitary Engineers.
3 Assistant Inspecting Medical Officers of
Estates in Grade II. (Medical Officers).
1 Sanitary Superintendent.
16 Sanitary Inspectors, Class I.
217 Sanitary Inspectors, Class II.

Research.

- 1 Director of Bacteriological and Pasteur
Institute.
1 Assistant Bacteriologist.
17 Laboratory Assistants.
11 Laboratory Cleaners.
1 Medical Entomologist.
5 Medical Officers.
8 Entomological Assistants.
1 Laboratory Assistant.
1 Laboratory Attendant.

Nursing Staff.

European—

- 8 Matrons, 5 in Class I. and 3 in Class II.
1 Assistant Matron.
33 Sisters.

Religious (European)—

- 6 Mothers.
109 Sisters.

Ceylonese—

- 86 Matrons.
190 Nurses.
66 Pupil Nurses.
35 Hospital Midwives.
22 Pupil Midwives.

Clerical Staff.

General Branch, Head Office—

- 1 Chief Clerk, Special Class.
1 Clerk, Class I.
30 Clerks in Classes II. and III.
1 Telephone Clerk.

Financial Branch, Head Office—

- 1 Clerk, Class I.
37 Clerks in Classes II. and III.

Branch Offices—

- 9 Clerks of the Provincial Surgeons.
7 Clerks of the Medical Officers of Health.
2 Clerks, General Hospital, Colombo.
16 Clerks, Medical Stores.
3 Clerks, Lunatic Asylum, Angoda.
3 Clerks of the Inspecting Medical Officers of
Estates.
1 Clerk, Office of the Medical Entomologist.
1 Clerk, Health Unit Office, Kalutara.

Apothecaries.

- 16 Apothecaries in Special Class.
92 Apothecaries in Class I.
292 Apothecaries in Class II.
4 others.

Vaccination

- 9 Inspectors of Vaccination.
33 Male Vaccinators, Class I.
107 Male Vaccinators, Class II.
14 Female Vaccinators.
1 Officer in Charge, Vaccine Station.
7 Dépôt Assistants and Cleaners.

Medical Stores.

- 1 Superintendent and Chief Storekeeper.
1 Assistant Superintendent.
1 Temporary Additional Storekeeper.
4 Overseers.

Opium Branch.

- 1 Opium Storekeeper.
12 Opium Clerks.
24 Opium Sellers.

Miscellaneous.

- 3 Hospital Stewards in Special Class.
6 Hospital Stewards in Class I.
33 Hospital Stewards in Class II.

Minor Employees.

- Binders
Peons
Overseers
Dispensary Orderlies
Caretakers
Male Attendants
Female Attendants
Disinfecting Orderlies
Tappal Coolies
Itinerating Coolies
Latrine Coolies
Garden Coolies
Burial Coolies
Nurses Ayahs
Barbers, Dhobies, &c.

(2) *Promotions, Appointments, &c.*

Drs. E. W. Scharenguivel and H. J. de Saram were promoted to the Grade of Provincial Surgeon. Drs. C. Fernando, H. E. Schokman, A. Chellappa, C. Sabapati, S. F. Wickramasinghe, F. Amerasinghe, C. Kandiah, and T. K. Jayaram were promoted from Grade II. to Grade I. Mr. G. M. Rennie, Ceylon Civil Service, was appointed Office Assistant to the Director of Medical and Sanitary Services on April 28, 1926, *vice* Mr. C. J. D. Lanktree, Ceylon Civil Service, who went on leave to England. Dr. M. de Costa was appointed a Senior Medical Officer of Health. Drs. D. M. de Silva, M. A. B. Muttunayagam, A. M. Samarasinghe, H. N. C. V. Kelaart, E. C. Gilles, K. Somaskander, and W. L. P. Dassanayake were appointed Medical Officers of Health, Grade II. Drs. R. F. Labrooy and C. S. Rutnam, Provincial Surgeons; F. Grenier, C. L. A. de Silva, R. Jeremiah, and H. Cooray, Medical Officers, retired from the service; Drs. A. H. D. R. de Silva and D. R. Peiris, Medical Officers, and F. N. Jayawardene, Medical Officer of Health, resigned from the service; and Dr. M. A. Ludowyke died.

(3) *Officers on Leave.*

Twenty-four Medical Officers were on leave in Europe at the beginning of the year, 29 Medical Officers proceeded to Europe, and 22 returned to the Island during the year.

(b) *List of Ordinances affecting Public Health enacted during the Year.*

Nil.

(c) *Financial.*

Revenue and expenditure in 1925-1926 financial year (*i.e.*, October 1, 1925, to September 30, 1926):—

EXPENDITURE.	Rs.	c.	REVENUE.	Rs.	c.
Salaries, wages, &c.	4,263,816	41	Hospital and dispensary receipts	307,479	17
Diets	1,695,278	65	Sale of drugs and medical requisites	7,018	46
Equipment and contingencies	469,644	34	Sale of drugs under the Medical Wants Ordinance	13,140	92
Special equipment	103,098	41	Medical aid dues, maintenance, and visits	175,261	25
Medicines and instruments	880,696	20	Sale of opium	433,859	99
Transport and travelling	452,731	35	Medical aid dues, export duties	1,279,545	30
Rents	57,033	31			
Grants	24,817	0			
Epidemics and prevention of same	73,002	64			
Incidental expenses	11,515	85			
Rebates payable under the Medical Wants Ordinance	133,520	0			
Purchase of opium, &c.	230,164	96			
Compensation to Local Bodies for loss in opium revenue	83,902	12			
Purchase of periodicals, &c.	1,233	16			
Three public health scholarships	37,549	95			
Running cost of Laboratory Motor Van	1,294	38			
Completing construction of Laboratory Motor Van	660	31			
<i>Head 37, Medical Research and Preventive Measures.</i>					
Personal Emoluments	46,842	46			
Travelling	4,564	10			
Anti-Malarial Campaign	22,717	8			
Incidental	4,840	35			
Total	8,598,923	3	Total	2,216,305	9

The following table shows the expenditure for each of the past six years:—

	Rs.	c.		Rs.	c.
1920-1921	5,388,791	45	1923-1924	7,250,657	20
1921-1922	5,633,096	46*	1924-1925	7,798,824	24
1922-1923	5,524,453	70	1925-1926	8,598,923	3

* Including arrears of salary under the new Salaries Scheme.

II.—PUBLIC HEALTH.

(a) *General Remarks.*I.—*General Diseases.*

The most prevalent general diseases are rheumatism, ulcers, intestinal disorders (gastro-enteritis, enteritis, and diarrhoea), and bronchitis. Malignant growths prevail to some extent.

The following table shows the most noteworthy contrasts in the cases of general diseases treated during the years 1922, 1923, 1924, 1925, and 1926, the figures being for the whole Island (in-patients at hospitals):—

	1922.	1923.	1924.	1925.	1926.
Rheumatism—					
Cases	3,638	3,754	4,377	4,535	4,398
Deaths	31	55	34	39	20
Ulcers—					
Cases	8,984	9,341	9,233	10,778	17,925
Deaths	89	127	76	59	114
Intestinal Disorders—					
Cases	3,929	4,283	4,716	4,919	4,991
Deaths	984	995	1,137	1,186	1,149
Bronchitis—					
Cases	4,183	4,982	5,168	5,645	6,206
Deaths	724	811	564	699	871
Malignant Growths—					
Cases	463	503	442	400	407
Deaths	79	59	57	63	106

As regards malignant growths, the total number of deaths from "cancer or malignant diseases" reported by the Registrar-General was 509, as against 406 registered in 1925, 473 in 1924, and 433 in 1923. Twelve cases of cancer were admitted to the Lady Havelock Hospital for Women, Colombo, during the year under review. Of these, the sites were cervix uteri 4, breast 3, bowel 1, glands 3, humerus 1. The average age was 39.4 in 1926, 36.57 in 1925, and 38.96 in 1924.

The following is an analysis of admissions for cancer to the General Hospital, Colombo, in 1926:—

Cancer Returns, General Hospital, for 1926.

SINHALESE.																	
Age.	Sex.	Cheek.	Tongue.	Penis.	Breast.	Cervix.	Rectum.	Palate and Jaw.	Skin and Extremities.	Cæcum.	Pharynx and Oesophagus.	Glands.	Stomach.	Vagina.	Liver.	Total.	Deaths.
20-30	Male	3..	2..	3..	—	—	—	1..	1..	—	1..	1..	—	—	—	12..	—
	Female	1..	1..	—	—	—	—	—	—	—	—	—	—	—	—	2..	—
31-40	Male	8..	13..	7..	—	—	—	4..	2..	—	—	1..	1..	—	—	36..	—
	Female	—	—	—	4..	—	—	—	—	—	—	—	—	—	—	4..	1
41-50	Male	18..	4..	5..	—	—	1..	6..	2..	2..	1..	3..	—	—	—	42..	—
	Female	2..	1..	—	3..	1..	—	—	1..	—	—	—	—	—	—	8..	—
51-60	Male	10..	4..	7..	—	—	1..	7..	1..	—	—	—	2..	—	—	32..	1
	Female	3..	—	—	4..	1..	—	—	—	—	—	—	—	—	—	8..	—
61 upwards	Male	8..	3..	3..	—	—	—	3..	1..	—	5..	1..	1..	—	—	25..	1
	Female	1..	—	—	—	—	—	—	—	—	—	—	—	—	—	1..	—
		54	28	25	11	2	2	21	8	2	7	6	4	—	—	170	3
TAMILS.																	
20-30	Male	2..	—	—	—	—	—	—	—	—	—	—	—	—	—	2..	—
	Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31-40	Male	3..	—	—	—	—	—	2..	—	—	—	1..	—	—	—	6..	—
	Female	1..	—	—	—	—	—	—	—	—	—	—	—	—	—	1..	—
41-50	Male	3..	—	1..	—	—	—	1..	—	—	—	—	1..	—	1..	7..	1
	Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
51-60	Male	2..	—	—	—	—	—	—	—	—	—	1..	—	—	—	3..	—
	Female	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
61 upwards	Male	1..	—	1..	—	—	—	—	—	—	—	—	—	—	—	2..	—
	Female	1..	—	—	—	—	—	—	—	—	—	—	—	—	—	1..	—
		13	—	2	—	—	—	3	—	—	—	2	1	—	1	22	1

II.—Communicable Diseases.

(a) Mosquito or Insect-borne.

(1) *Malaria*.—There were 29,334 cases of malaria admitted into hospital during the year 1926, and 1,061,457 cases treated at dispensaries.

The following table shows a comparison of 1926 figures with the figures of 1922, 1923, 1924, and 1925:—

	1922.	1923.	1924.	1925.	1926.
(1) Number of cases treated at dispensaries ..	956,810 ..	1,193,225 ..	925,476 ..	785,903 ..	1,061,457
(2) Cases admitted to hospitals ..	29,377 ..	34,522 ..	26,865 ..	22,600 ..	29,334
(3) Total number of deaths in hospitals ..	475 ..	568 ..	504 ..	392 ..	632
(4) Total number of deaths registered for the Island ..	1,621 ..	2,118 ..	1,388 ..	1,063 ..	1,331

It may be stated that many deaths due to malaria are registered under pyrexia of unknown origin.

The following table shows the hospital admissions in the different Provinces for the last three years:—

	1924.		1925.		1926.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
General Hospital, Colombo ..	2,677 ..	21 ..	2,041 ..	27 ..	2,324 ..	37
Western Province ..	2,984 ..	60 ..	2,429 ..	38 ..	3,492 ..	60
Central Province ..	3,268 ..	44 ..	2,215 ..	38 ..	3,759 ..	64
Northern Province ..	2,634 ..	57 ..	2,630 ..	33 ..	2,554 ..	55
Eastern Province ..	1,903 ..	45 ..	1,480 ..	30 ..	1,219 ..	33
Southern Province ..	2,223 ..	34 ..	1,793 ..	24 ..	2,110 ..	55
North-Western Province ..	2,394 ..	83 ..	2,396 ..	85 ..	4,053 ..	130
North-Central Province ..	2,102 ..	54 ..	2,215 ..	45 ..	2,361 ..	88
Province of Uva ..	2,422 ..	41 ..	2,132 ..	25 ..	3,125 ..	46
Province of Sabaragamuwa ..	3,018 ..	54 ..	2,424 ..	35 ..	3,985 ..	58
Railway Extensions ..	1,240 ..	11 ..	845 ..	12 ..	204 ..	5
Lunatic Asylum ..	— ..	— ..	— ..	— ..	148 ..	1
	26,865	504	22,600	392	29,334	632

Quinine to the value of Rs. 248,068 was issued free for preventive and curative purposes during the year.

The report of the Medical Entomologist, Mr. H. F. Carter, for 1926 appears in the Appendix.

(2) *Dengue Fever*.—Mention might also be made of occasional small outbreaks of dengue fever in different parts of the Island.

(b) *Infectious Diseases.*

(1) *Enteric.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	800 ..	921 ..	1,600 ..	1,520 ..	1,352
Hospital deaths ..	188 ..	270 ..	408 ..	392 ..	361
Total number of deaths registered for the Island	542 ..	597 ..	816 ..	721 ..	544

As stated in previous reports, the number of hospital admissions does not indicate the actual prevalence of the disease, for some deaths from enteric are undoubtedly included amongst those reported as due to "pyrexia."

The Registrar-General's returns show that 544 deaths from enteric fever and 17,798 from pyrexia of unknown origin were registered during the year, and doubtless some of the latter should have been included under the former head.

The corresponding figures in his returns for the previous year were 721 and 15,707 respectively. Many cases are taken to hospital only in the late stages of the disease, and the mortality rate of such cases is therefore high.

(2) *Smallpox.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	337 ..	240 ..	45 ..	28 ..	65
Hospital deaths ..	43 ..	35 ..	9 ..	3 ..	4

Of the cases reported during the year, 9 cases were landed in Colombo and 2 cases in Galle from steamers; 10 cases occurred in Colombo town, 44 in the Southern Province.

The steps taken by this Department to deal with the epidemics of smallpox in 1926 are given in Section III. of this Report.

(3) *Diphtheria.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	46 ..	15 ..	19 ..	18 ..	20
Hospital deaths ..	2 ..	6 ..	7 ..	6 ..	6

(4) *Influenza.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	3,937 ..	4,443 ..	3,888 ..	5,711 ..	5,345
Hospital deaths ..	158 ..	162 ..	115 ..	91 ..	96
Number of cases treated at dispensaries ..	— ..	23,372 ..	30,719 ..	38,519 ..	44,179

(5) *Cholera.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	Nil ..	Nil ..	17 ..	305 ..	56
Hospital deaths ..	Nil ..	Nil ..	14 ..	186 ..	47
Total number of deaths registered for the Island	Nil ..	Nil ..	20 ..	189 ..	54

Of the 56 cases, 50 occurred in the Northern Province, 5 in the Province of Uva, and 1 in the Western Province. There was an outbreak in the Northern Province during the second quarter of the year, and another in the Province of Uva during the beginning of the first quarter of the year. The steps taken to deal with these outbreaks are given in Section III. of this report.

(6) *Dysentery.*—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	3,446 ..	5,884 ..	6,165 ..	5,478 ..	5,004
Hospital deaths ..	673 ..	993 ..	1,217 ..	1,079 ..	862
Total number of deaths registered for the Island	2,515 ..	3,326 ..	4,080 ..	3,723 ..	3,514

Of the in-patients treated during the year, 971 cases and 246 deaths were reported from the Central Province, 986 cases and 112 deaths from the Western Province, and 513 cases and 103 deaths from the Province of Sabaragamuwa. The continued prevalence of, and the mortality from, this disease emphasize the necessity for improved water supplies in many districts and towns. In a large number of cases, estate coolies and people of the poorer classes have been the victims of the disease.

(7) *Leprosy.*—Two asylums are maintained in the Island for the segregation of lepers under the Leper Ordinance, No. 4 of 1901—one at Hendala in the Western Province and the other on the Island of Mantivu in the Eastern Province. They are staffed by Religious Sisters with the help of male and female attendants.

Mantivu.—There were 131 lepers at Mantivu Island on December 31, 1925. Thirty-nine were admitted during the year, 10 died, 25 were discharged or absconded, and 135 remained on December 31, 1926. Of the admissions, 16 were new cases and 23 readmissions. The daily average in the asylum during the year was 130.18, and the percentage of deaths 5.88, as against 1.25 the previous year.

Hendala.—The following are the figures for Hendala for the year under review:—

	Males.	Females.	Total.
Remaining on December 31, 1925 ..	429 ..	112 ..	541
Admitted during 1926 ..	143 ..	28 ..	171
Discharged during 1926 ..	86 ..	4 ..	90
Died during the year ..	57 ..	16 ..	73
Remaining on December 31, 1926 ..	429 ..	120 ..	549

Of the 171 admissions, 137 were new cases, and they were in the following stages of the disease: tubercular 20, anaesthetic 28, and mixed 89. The new admissions were from the following Provinces:—Western 59, Central 24, Southern 24, Northern 9, North-Central 4, North-Western 2, Sabaragamuwa 13, and Uva 2.

The number of deaths was 73 (males 57 and females 16). The percentage of deaths to total treated was 10.25, as against 9.80 the previous year.

As regards the specific treatment of leprosy in 1926 with preparations of chaulmoogra oil the following statistics may be given:—

	Males.	Females.
Remaining at the beginning of the year	242	77
New cases during the year	69	22
Deaths among patients taking treatment during the year	25	4
Remaining at the end of the year	286	95
Attendance total 381.		

Practically in every case in which the treatment was continued even for about six months, tubercles either disappeared or were greatly reduced in size, and the ulcers were healed.

In some instances where the treatment was not continued for a sufficiently long time the disease again became active.

Owing to the great irregularity of the attendance it is impossible to give definite statistics as to the results of the treatment, but judging from the whole number under treatment the results were very satisfactory.

(8) *Parangi*.—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Hospital cases ..	13,545	9,748	6,149	4,897	4,386
Hospital deaths ..	56	32	18	19	14
Number of cases treated at dispensaries ..	58,299	56,459	50,236	42,320	39,782

The decrease in the number of admissions to hospitals was due to the intensive campaigns carried out by nine Itinerating Medical Officers in Central, Southern, Eastern, Uva, Sabaragamuwa, North-Western, and North-Central Provinces (two Itinerating Medical Officers in each of the last two named), and the treatment of a large number of out-patients brought by headmen to, and voluntarily seeking treatment at, dispensaries and the out-patient departments of hospitals.

The distribution of the disease judged from hospital returns of cases treated is shown in the following table:—

	1923.	1924.	1925.	1926.
General Hospital, Colombo ..	436	445	312	305
Lunatic Asylum, Colombo ..	—	—	1	—
Western Province ..	770	485	486	456
Central Province ..	1,194	911	646	525
Northern Province ..	504	367	281	213
Eastern Province ..	616	404	446	228
Southern Province ..	2,672	1,123	591	633
North-Central Province ..	696	584	483	556
North-Western Province ..	645	400	367	414
Province of Uva ..	731	370	433	395
Province of Sabaragamuwa ..	1,741	1,058	851	661
Railway Extensions ..	11	2	—	—
	9,748	6,149	4,897	4,386

The dispensary cases as regards Provinces were as follows:—

	1925.	1926.		1925.	1926.
Western ..	2,245	1,994	North-Western ..	10,833	11,688
Central ..	3,084	2,106	North-Central ..	15,502	12,994
Northern ..	840	698	Uva ..	1,354	1,243
Eastern ..	3,045	2,881	Sabaragamuwa ..	1,624	1,811
Southern ..	3,793	4,367			

The nine Itinerating Medical Officers treated a total number of 15,440 cases (a large number of these patients attended a second and a third time), and 30,666 injections were given during the campaign in 1926, as against 13,075 cases and 27,957 injections in 1925.

The treatment of villagers by means of Itinerating Medical Officers has met with very great success. That it has been appreciated by the villagers themselves is shown by the readiness with which they come themselves and bring their children to the Itinerating Medical Officer. The speedy disappearance of the parangi eruption in, to them, almost miraculous fashion after salvarsan injections greatly impresses the villagers, and is no doubt the explanation of their eagerness to be treated.

(9) *Plague*.—The following table shows the number of cases and deaths in the past five years:—

	1922.	1923.	1924.	1925.	1926.
Cases ..	160	232	153	68	16
Deaths ..	150	211	145	63	15

Of the 16 cases reported in 1926 (13 from Colombo town, 1 from Kandana, and 2 from Puttalam), 7 bubonic cases, all males, were admitted to the Infectious Diseases Hospital, Colombo. Of these 7 cases, 6 died. Of these 6, 2 had groin, 2 axillary, and 2 cervical buboes.

The measures taken to deal with the cases of plague reported to the Department are given in Section III. of this Report.

(10) *Tubercular Diseases of the Lungs*.—The following table shows a comparison with the figures of the last four years:—

	1922.	1923.	1924.	1925.	1926.
Cases treated in hospitals	3,308 ..	4,099 ..	3,656 ..	4,155 ..	4,363
Total number of deaths in hospitals	865 ..	990 ..	860 ..	1,000 ..	1,074
Total number of deaths registered for the Island	3,108 ..	3,332 ..	3,235 ..	3,241 ..	3,309

Three special institutions—the Anti-Tuberculosis Institute, Colombo, and the Kandana Sanatorium, Western Province, for early cases, and the Ragama Tuberculosis Hospital, Western Province, for advanced and chronic cases—are maintained to deal with this disease. A large number of cases are also treated in the Tuberculosis Wards of the General Hospital, Colombo.

The Anti-Tuberculosis Institute, Colombo, and the Kandana Sanatorium were built from money provided by the King Edward VII. (Memorial) Anti-Tuberculosis Fund. The report of the Secretary of that Fund is given in Section X. (Miscellaneous).

(c) *Helminthic Diseases*.

Anchylostomiasis.—The following table shows a comparison of 1926 figures with the figures of the last four years:—

	1922.	1923.	1924.	1925.	1926.
(1) Number of cases treated at dispensaries ..	— ..	114,157 ..	153,488 ..	147,528 ..	152,195
(2) Cases admitted to hospitals ..	9,818 ..	11,344 ..	11,720 ..	12,618 ..	13,040
(3) Total number of deaths in hospitals ..	982 ..	1,030 ..	865 ..	923 ..	897
(4) Total number of deaths registered for the Island ..	1,869 ..	1,857 ..	1,853 ..	2,119 ..	2,121

The full report of Dr. W. P. Jacocks, Director, Anchylostomiasis Campaign, is given in the Appendix to this report.

(b) VITAL STATISTICS.

		1925.	1926.
I.—Ceylonese Population—			
Estimated population on December 31 ..		4,409,566 ..	4,475,311
Total births ..		169,699 ..	179,180
*Birth rate per thousand ..		38.48 ..	40.04
Total deaths ..		97,812 ..	105,632
*Death rate per thousand ..		22.18 ..	23.60
Infant mortality (rate per thousand births registered) ..		167 ..	169
II.—European Population (including officials)—			
Estimated population on December 31 ..		10,212 ..	10,834
Total births ..		131 ..	193
*Birth rate per thousand ..		12.0 ..	16.9
Total deaths ..		88 ..	85
*Death rate per thousand ..		8.0 ..	7.4
Infant mortality (rate per thousand births registered) ..		15 ..	26
III.—Indian Immigrant Population on Estates—			
Estimated population on December 31 ..		589,724 ..	638,847
Total births ..		23,431 ..	27,515
Birth rate per thousand ..		38.20 ..	43.1
Total deaths ..		19,643 ..	19,168
Death rate per thousand ..		32.03 ..	30.0
Infant mortality (rate per thousand births registered) ..		216 ..	209

* Calculated on the population of July 1.

The registration of births and deaths is compulsory throughout the Island, but the registration of the causes of deaths cannot be totally relied on as the majority of the registering officers are non-medical men. The Registrar-General supplies figures concerning the vital statistics of the 33 principal towns in Ceylon, and these figures may be considered more reliable as regards the causes of death, as the larger proportion of them are certified to by Registered Medical Practitioners.

Causation of Deaths.—The following table shows the number of deaths registered amongst all classes (Ceylonese, European, and Indian immigrant populations) during the years, 1924, 1925, and 1926 under the several classes of disease:—

	1924.	1925.	1926.
I.—General diseases—			
(a) Epidemic diseases ..	8,879 ..	7,793 ..	7,599
(b) Septic diseases ..	117 ..	127 ..	140
(c) Tuberculous diseases ..	3,564 ..	3,525 ..	3,583
(d) Venereal diseases ..	254 ..	202 ..	193
(e) Cancer or malignant diseases ..	473 ..	406 ..	509
(f) Other general diseases ..	8,832 ..	8,621 ..	8,842
II.—Diseases of the nervous system and organs of special sense ..	16,011 ..	15,312 ..	17,392
III.—Diseases of the circulatory system ..	1,015 ..	1,027 ..	1,080
IV.—Diseases of the respiratory system ..	13,114 ..	11,653 ..	12,300
V.—Diseases of the digestive system ..	17,555 ..	17,107 ..	18,057
VI.—Non-venereal diseases of the genito-urinary system and annexa ..	1,456 ..	1,594 ..	1,686
VII.—The puerperal state ..	3,417 ..	3,576 ..	3,951
VIII.—Diseases of the skin and cellular tissues ..	9,537 ..	10,352 ..	10,409
IX.—Diseases of bones and organs of locomotion ..	25 ..	19 ..	23
X.—Malformations ..	16 ..	17 ..	15
XI.—Diseases of early infancy ..	8,653 ..	8,448 ..	9,420
XII.—Old age ..	4,553 ..	4,789 ..	4,877
XIII.—Affections produced by external causes ..	2,492 ..	2,562 ..	2,577
XIV.—Ill-defined diseases ..	22,996 ..	20,415 ..	22,236

The more notable causes of deaths amongst all classes (Ceylonese, Europeans, and Indian immigrant populations) were the following diseases:—

	1924.	1925.	1926.
(1) Dysentery	4,080 ..	3,723 ..	3,514
(2) Pulmonary tuberculosis	3,235 ..	3,241 ..	3,309
(3) Infantile convulsions	13,899 ..	13,015 ..	14,996
(4) Diarrhoea	9,026 ..	8,140 ..	8,595
(5) Pneumonia	8,339 ..	7,371 ..	7,627
(6) Anchylostomiasis and its sequelae	1,853 ..	2,119 ..	2,121
(7) Dropsy	2,580 ..	1,986 ..	1,879
(8) Anaemia	2,692 ..	2,492 ..	2,317
(9) Intestinal parasites	3,246 ..	3,328 ..	3,541
(10) Puerperal septicaemia	1,322 ..	1,372 ..	1,533
(11) Malaria	1,388 ..	1,063 ..	1,331
(12) Enteric fever	816 ..	721 ..	544
(13) Rickets	4,078 ..	4,061 ..	4,192
(14) Tetanus	269 ..	292 ..	305
(15) Rabies	37 ..	31 ..	58
(16) Cholera	— ..	189 ..	54
(17) Pyrexia	17,697 ..	15,707 ..	17,798

The following table shows the principal causes of deaths amongst Indian immigrant population on estates:—

	1924.	1925.	1926.
(1) Dysentery	2,402 ..	2,470 ..	2,132
(2) Debility	4,050 ..	3,517 ..	4,108
(3) Diarrhoea	1,495 ..	1,442 ..	1,440
(4) Pneumonia	2,990 ..	2,454 ..	2,310
(5) Anchylostomiasis	1,240 ..	1,501 ..	1,474
(6) Infantile convulsions	1,636 ..	1,386 ..	1,749
(7) Dropsy	137 ..	137 ..	137
(8) Pulmonary tuberculosis	317 ..	320 ..	388
(9) Anaemia	— ..	— ..	45
(10) Other diseases	6,275 ..	6,390 ..	6,961

III.—HYGIENE AND SANITATION.

A.—General Review of Work done and Progress made.

I.—Preventive Measures.

(A) Mosquito and Insect-borne Diseases.

Malaria: (a) *Medical Entomologist's Department.*—A full account of the anti-malarial work done by the Medical Entomologist's Department during 1926 is contained in the report of the Medical Entomologist, Mr. H. F. Carter (*vide* Appendix).

(b) *Sanitary Branch of the Department of Medical and Sanitary Services.*—The following is an account of the work done by the Sanitary Branch of the Department of Medical and Sanitary Services:—

(1) *Work at Kirillapone.*—The Sanitary Branch dealt with an outbreak of malaria at Kirillapone near Wellawatta during the early part of the year among the labour force in the Municipal metal quarries and the people living in the vicinity of the quarries. On investigation it was found that there were carriers among the quarry coolies. The pools in the quarries and the swamps in the Municipal lands acquired for a cemetery were heavily infested with malaria-carrying anopheline larvae.

After special measures, such as oiling collections of water, introduction of larvivorous fish into pools, draining, cleaning of water channels, distribution of quinine, and treatment of malaria cases, were adopted the outbreak subsided.

A lecture was given to the residents of Kirillapone at the school near the metal quarry regarding the causation and prevention of malaria, and quinine tablets were distributed for prophylactic use.

Balapokuna, an abandoned metal quarry, which was heavily infested with anopheline larvae, was treated with Paris Green.

(2) *Railway Anti-Malaria Work.*—

Area of premises cleared	5,499,708½ square feet
Pits dug to bury receptacles capable of holding water	80 of a cubic capacity of 8,677
Number of earth drains weeded, cleaned, and graded	44
Length of above in feet	8,149
Cubic feet of earth removed in cleaning and grading the above	14,974½
Number of new drains opened out to drain hollows, &c.	32
Length of above in feet	3,286
Cubic feet of earth removed from above	4,549½
Number of old drains closed (not required)	3
Length of above in feet	113
Cubic feet of earth used to fill above	605
Number of cement drains cleared of silt, &c.	1
Length of above in feet	330
Cubic feet of earth removed from above	82½
Number of pits closed	120
Cubic feet capacity of pits closed	77,386½
Number of water-stagnating pits cleaned and oiled	26
Square feet area of above	42,924
Amount of kerosine oil used in gallons	10½
Amount of liquid fuel used in gallons	24½
Number of trees pruned or overhanging branches, &c.	503
Number of trees completely removed	851
Number of live fences pruned	22
Length of above in feet	2,098
Number of needle and palmyra plants uprooted and buried	325
Number of low-lying lands filled in	1
Cubic feet of earth used to fill above	4,660

(B) *Epidemic Diseases.*

The incidence of most of these diseases has already been dealt with under Section II.—Public Health. The following information deals with the activities of the Sanitary Branch of this Department in connection with the cases and outbreaks of disease reported to it:—

Enteric Fever.—This disease continued to occur throughout the Island in more or less sporadic form, Colombo District contributing the greatest number of cases. Infection in most of the cases was traced to Colombo, and the spread was due to the ignorance and the indifference evinced by the inmates of the houses, and the failure on the part of the vedaralas who treated the cases to notify the illness. Cases are not notified at all, or notified late, with the result that no steps are taken to prevent contact infection or infection of food, &c., through improper disposal of excreta. Consequently the disease spreads among the inmates whose housing conditions do not permit of proper isolation.

People are beginning to realize the benefits of anti-typhoid inoculation, and, whenever cases occurred and the people were willing, inoculation was carried out, and thereby the incidence of the disease has been greatly reduced. Measures adopted now include inoculation of contacts in addition to the usual preventive steps.

Smallpox.—An epidemic of smallpox occurred within the Municipality of Galle in March. The control of the epidemic was at first in the hands of the Municipal authorities, but, when the total number of cases went up to 41 and after infection had spread to several localities, they sought Government help, and the Department of Medical and Sanitary Services took charge of the epidemic on May 20, 1926, till it was over on July 15, 1926.

The disease was brought by a Muslim who had arrived at Colombo from Singapore on March 9 and had proceeded to Galle on the 11th idem.

On March 20 the Municipal Sanitary Inspector of Ward No. 5 discovered the case.

From this case the disease spread to various parts of the town and gave rise to a total of 44 cases and 3 deaths.

The usual preventive measures were taken, but owing to the delay in detecting the original case and the conservative habits of those first infected vigorous action had to be taken by the Department to stamp out the disease.

Vaccination.—The total number of primary vaccinations performed during the year was 137,179; of these, 124,967 were successful and 4,966 were failures. In 7,246 cases the results were not determined.

The percentage of successful primary vaccinations was 96.18 per cent. in 1926, 93.81 per cent. in 1925, and 97.81 in 1924. Vaccination is carried on throughout the year by trained male and female vaccinators; the former vaccinate in the towns, villages, and estates periodically according to annual programmes of vaccination, and the latter itinerate in the towns and villages to vaccinate Muslim women and children.

A Vaccine Establishment for the preparation of calf lymph is maintained by Government.

Cholera.—Cholera broke out at Jaffna in two outbreaks. The first occurred on April 2 at Karaiyoor, in which locality it subsided with the last case on April 9.

A second outbreak then occurred in the jail on April 20, and offshoots from it occurred in Jaffna town, Rathaladi, Tholpuram, and Chulipuram on May 3.

The infection was introduced to Jaffna by the sailing boat "Puravy" bringing people ill with the disease from Tuticorin, where she had gone for the pearl fishery. One of the men brought in by this vessel developed cholera and caused the first outbreak of the epidemic at Karaiyoor within the Urban District Council limits. It gave rise to 14 cases, of which 13 were fatal. On the night of the April 20/21 cases commenced to occur in the jail, with the last case on April 26. There occurred in the jail 17 cases, of which 16 were fatal.

Prior to the discovery of the outbreak at the jail, two prisoners who had been discharged went, one to Chulipuram and the other to Second Cross street, Jaffna, where they were responsible for 6 and 3 cases respectively.

Two men working at Pannai ferry developed the disease and went, one to Rathaladi and the other to Tholpuram. At the former place, due to the prompt action taken, no further cases occurred; but the Tholpuram case gave rise to 3 other fatal cases.

One case, believed to have acquired his infection at Pannai ferry, went to Vidaltivu in the Mannar District, developed the disease there, and died. No further cases occurred there.

The duration of the whole epidemic was from March 29, 1926, to May 3, 1926; and the total number of cases was 48, of which 44 were fatal.

The preventive measures adopted included the proclamation of the Karaiyoor area as a diseased locality, the isolation of the patients and the segregation of contacts, the chlorination of infected wells, and the systematic examination of contacts for the detection of carriers.

A case of cholera was reported from Avissawella on August 30; the patient was one of a gang of 122 coolies from Mandapam Camp bound for estates on the Kelani Valley. He was detected while travelling by the Railway authorities, and information was given to the District Medical Officer, Avissawella. This case proved fatal. Prompt action was taken in the matter, and the disease did not spread.

The source of infection of all the cholera cases was India.

There was an outbreak of cholera at Spring Valley estate, Province of Uva, at the end of December, 1925.

The first case occurred in a woman who had arrived from India on December 23, 1925, and became ill with acute diarrhoea on December 28, 1925. She was treated by the estate dispenser and recovered.

The second case occurred on December 31, 1925. This case proved fatal. The District Medical Officer suspected this to be cholera and made a post-mortem examination; bacteriological examination of intestinal contents confirmed the diagnosis of cholera.

Subsequently 3 other cases occurred. They all recovered. The usual precautionary measures were adopted.

The first case, no doubt, was the source of infection, and the 4 other cases occurred owing to the fact that the original case had not been diagnosed as one of cholera by the estate dispenser and no precautions had therefore been taken.

The outbreak was a very short-lived one. It started on December 28, 1925, and subsided on January 3, 1926. The total number of cases was 5 with 1 death.

Dysentery.—Most of the cases reported were from rural areas. Dysentery being chiefly a water-borne disease, its spread in the villages is due mainly to defective water supply, which is from unprotected shallow wells. The difficulty of isolation of patients from lack of accommodation and the ignorance and apathy of the people and their indifference towards instructions given lead to the spread of the disease by contact infection also.

The failure on the part of vedaralas who treat these cases to report them in time is another cause of spread.

The number of cases reported from Sanitary Board towns continued to be very small. This is due to the fact that considerable attention has been paid to the improvement of water supplies during the past few years and to the sanitary disposal of night soil, not to mention other sanitary improvements that have been effected in these towns as compared with rural areas.

Plague.—One case of plague occurred at Kandana. The patient was admitted to the General Hospital and died there; the case was diagnosed as plague after bacteriological examination. No further cases occurred. There was no rat plague in the area, and the source of infection of this case could not be definitely traced.

Two cases of plague occurred in Puttalam. The first case was admitted into Puttalam hospital in a moribund condition on February 18 and died on 20th idem. The infection was traced to Colombo.

The second case occurred in the person of the cooly who assisted at the post-mortem examination of the first case. He was admitted to the hospital on February 24 and died on March 1. Bacteriological examination confirmed the diagnosis of plague.

There were no further cases.

The rat gang of the Department were detailed for duty at Kandana and Puttalam and the rats caught were examined for plague; no infected rats were found.

Chickenpox and Measles.—These diseases occurred in small outbreaks in the Western, Southern, and Central Provinces.

Schools were responsible in many instances for their spread. In such cases prompt action was taken to close them for such periods as was considered necessary. The housing conditions that obtain in village areas are favourable for the spread of infectious disease of the type of chickenpox and measles, as the two essential preventive measures, viz., isolation of patients and segregation of contacts, are quite impracticable in the majority of village homes.

(C) Helminthic Diseases.

Anchylostomiasis.—A full account of the preventive measures taken to control this disease is given in the report of the Director, Anchylostomiasis Campaign, Ceylon (*vide* Appendix).

The following is a brief summary of the work done in 1926:—

<i>Treatments.</i>			
		First Treatments.	Total Treatments.
By campaign units	..	173,307	174,691
By Government hospitals and dispensaries ..	..	829,887	1,020,092
By Mandapam Camp	..	77,278	77,278
By estates staff	..	64,851	85,840
		1,145,323	1,357,901
<i>Lectures.</i>			
Number given	..	..	823
Estimated attendance	..	..	112,053
<i>Sanitation.</i>			
		Latrines built prior to 1926.	Latrines built during 1926.
Villages	..	5,390	436
Schools	..	543	No data
<i>Laboratory.</i>			
Number of examinations made	..	..	21,505

II.—General Measures of Sanitation.

Disposal of Night Soil.—In all the Board towns, except a few, the dry-earth system of conservancy is in vogue. Latrines are conserved by coolies under the supervision of the Inspectors. Conservancy of latrines by night is being gradually given up in favour of day conservancy. Effective supervision is not possible with night conservancy, and the work is better done by day. With the exercise of ordinary care no nuisance is caused.

The night soil is disposed of by trenching. The trenching grounds have been regularly supervised and maintained in good order. Daily inspections of trenching grounds form part of the routine work of Sanitary Inspectors. In some up-country districts and some parts of the low-country subject to floods there is great difficulty in selecting suitable sites for trenching grounds. In these cases the only alternative is incineration. Unfortunately this method is expensive, owing to the high cost of fuel and the careful supervision necessary for the efficient working of a faeces incinerator.

Conservancy: (1) Public Latrines.—During the financial year 1925-26 23 public latrines were built by the Local Boards and Sanitary Boards throughout the Island as shown below:—

Province.	Number of Latrines.	Total Number of Seats.
Western ..	3 ..	28
Central ..	4 ..	20
Southern ..	7 ..	30
Northern ..	4 ..	18
North-Central ..	2 ..	18
Eastern ..	1 ..	12
Sabaragamuwa ..	2 ..	11
	23	137

Government contributed a sum of Rs. 30,000 towards the cost of the above.

(2) *Private Latrines.*—The following is a statement of the work done in this connection throughout the Island:—

(a) Number of notices served during the year	..	23,899
(i.) To construct latrines	..	18,432
(ii.) To repair	..	5,210
(iii.) To convert pits into Dry Earth	..	257
(b) Number of latrines—	Pits.	Dry Earth.
(i.) Completed	11,797	799
(ii.) Repaired	2,841	297
(iii.) Pits converted into Dry Earth	—	144
(c) Number of persons who failed to comply with the requirements of the notices	..	9,282
(d) Number of prosecutions entered	..	5,220
(e) Number of convictions obtained	..	3,642

The figures annexed below show the distribution of latrines in the various Provinces:—

Province.	Latrines completed.		Latrines repaired.		Pits converted into Dry Earth.
	Pits.	Dry Earth.	Pits.	Dry Earth.	
Western ..	6,307	429	2,445	270	77
Southern ..	1,606	124	129	4	17
Central ..	3,090	85	264	23	15
Northern ..	—	50	—	—	—
North-Western ..	212	76	—	—	28
Uva ..	91	10	3	—	7
Sabaragamuwa ..	491	25	—	—	—
	11,797	799	2,841	297	144

Comment has been made in the administration report of the Government Agent, Western Province, for 1925 that the latrines in rural areas are merely built to escape prosecution and that they are not used. While not denying that there are instances where latrines have not been used as such, there is not the slightest doubt that the great majority of the latrines are actually used and also that the villagers are getting into the habit of using them. With the gradual education of the villagers in health matters it is confidently expected that latrines will be in general use throughout the Island in due course.

Scavenging and Disposal of Refuse.—Arrangements are in force in the various Local Board and Sanitary Board towns throughout the Island for the collection and disposal of household and town refuse. In the majority of the towns scavenging is done on contract; in a few by coolies employed by the Board. Considerable supervision has to be exercised for the efficient working of scavenging arrangements.

Disposal of refuse is carried out in a large number of towns either by dumping or spreading on grass fields and coconut plantations for the purpose of manuring, either within town areas or their vicinity. This procedure is highly insanitary owing to the breeding of flies and other vermin, which invariably occurs in these places. This in its turn leads to the persistence of fly-borne diseases, which are so common in Ceylon. It would therefore be preferable to dispose of refuse by incineration. In this respect the Central Province is far ahead of the Western Province, in which only two incinerators were built during the year under review, whereas the Central Province installed eight.

Drainage: Western Province.—Built roadside drains are urgently needed in most of the towns; the lack of these interferes with the provision of drainage to private houses. The construction of drains in the following places is urgently needed:—Karagampitiya, Egoda Kolonnawa, Hanwella, Homagama, Avissawella, Puwakpitiya, Kochchikade, and Divulapitiya.

Central Province.—Most towns in this Province are provided with sufficient built roadside drains. In a few cases they need extension. There are no built drains in the following towns:—Dambulla, Kaudupelella, Mailapitiya, and Panwila. Unbuilt drains do not allow of proper cleaning, and are often a source of nuisance and danger to the public. As these towns are poor and cannot afford the necessary funds, steps have been taken to get the drains constructed at the expense of the Public Works Department.

In the following towns great progress has been made and several lengths of drains have been built during the year:—Gampola, Nawalapitiya, Hatton-Dikoya, Ulapane, Teldeniya, Maskeliya, and Welimada. As regards back drainage, though particular attention has been paid to it, yet much remains to be done in this direction in most of the towns.

Back pavements and drains are sufficiently provided in the following towns:—Norwood, Rosita, Wootem, Ragalla, Nanu-oya, Dimbula, and Kadugannawa (bazaar area), and to a lesser extent at Nawalapitiya, Wattegama, Teldeniya, Hanguranketa, Talawakele, Pundaluoya, and Rattota.

During the year under review several lengths of back drains with pavements have been constructed in most of the towns in the Central Province, and no new buildings are permitted to be built without them. However, in some of the larger towns this work has been seriously hampered owing to the lack of suitable public drains to which the house drains could be connected. Steps are being taken to provide these public drains.

Southern Province, Galle District.—The Sanitary Boards of Dodanduwa and Ambalangoda are provided partly with adequate drainage, but there is yet much work to be done in both these towns.

In rural districts generally the bazaar areas only are provided with drainage, and that to a limited extent. Their cleansing is expected to be looked after by the Village Committee, while repairs are done by the Public Works Department. Most of these drains are in disrepair, and many are inadequate and defective, having no suitable gradient. The bazaar areas of Ahangama, Kurundugahetakma, and Elpitiya need early attention regarding construction and maintenance of proper drains. These busy bazaar areas cannot be maintained in a satisfactory condition without proper drainage.

Matara District.—Of the two Sanitary Boards of this district, Weligama is partly provided with efficient drainage.

Built drains are urgently needed for the following towns:—Dondra, Mirissa, Gandara, Dikwella, Kottegoda, Walasgale, Akuressa, and Tibbotuwewa. Kamburupitiya and Hakmana also require a set of cement drains to the bazaar areas.

Hambantota District.—In Hambantota and Tangalla the drains are urgently required. The existing drains at Beliatta should be repaired. Tissamaharama has no drainage.

Water Supply: (1) Public Wells.—105 public wells were built during the year throughout the Island as shown below:—

Western Province	3
North-Central Province	10
North-Western Province	14
Province of Uva	7
Province of Sabaragamuwa	7
Eastern Province	9
Northern Province	7
Southern Province	10
Central Province	38
Total	105

(2) *Private Wells.*—

(a) Number of inspections made	67,481
(b) Number found unprotected	42,981
(c) Number of notices served for improvement	769
(d) Number improved	1,572
(e) Number prosecuted for non-compliance with notices	343
(f) Number convicted	225

Number of water samples sent for—

(i.) Bacteriological examination	12
(ii.) Chemical examination	35

Number of samples found unfit for drinking purposes—

(i.) Bacteriologically	6
(ii.) Chemically	22

With regard to unsuitable supplies, necessary action has been taken to improve the sources of such supply.

Very few Sanitary Board towns in the Island can boast of a pipe-borne water supply.

In very many places water is obtained from wells which are mostly shallow and unprotected and liable to contamination by impurities draining from the surface of the soil and percolating through the soil.

An adequate and wholesome source of water supply is of primary sanitary importance for the maintenance of the health of the people. As by-laws relating to construction of wells are in operation in Sanitary Board areas, the construction of wells is under control, and a large number of wells in Sanitary Board towns has been improved under these regulations. Unfortunately the same cannot be said of rural areas, where in the absence of any by-laws on the subject the construction of suitable wells and improvement of existing unsatisfactory wells cannot be enforced.

Licensed Trades.—The following is a statement of applications for licensed trades dealt with—

(1) *Food and Drink handling Trades.*

Name of Trade.	Number of Applications.		
	Received.	Recom- mended.	Not recom- mended.
(1) Bakeries	348	304	74
(2) Tea and coffee boutiques	947	896	51
(3) Eating-houses	252	241	11
(4) Daires	103	81	22
(5) Butcher stalls	99	92	7
(6) Fish stalls	55	50	5
(7) Pork stalls	2	2	—
(8) Aerated water manufactory	1	1	—

(2) *Offensive Trades.*

Name of Trade.	Number of Applications.		
	Received.	Recom- mended.	Not recom- mended.
(1) Public galas ..	45	37	8
(2) Manure stores ..	21	20	1
(3) Soap manufactories ..	1	1	—
(4) Hide stores ..	4	3	1
(5) Lime kilns ..	36	31	5
(6) Brick kilns ..	26	23	3
(7) Laundries ..	159	123	36
(8) Cabook quarries ..	10	8	2
(9) Plumbago sheds ..	16	15	1
(10) Metal quarries ..	14	9	5
(11) Public bathing places ..	2	2	—
(12) Kraals for soaking coconut husks ..	1	1	—
(13) Fibre mills ..	3	3	—
(14) Desiccating mills ..	5	4	1
(15) Tanneries ..	3	3	—
(16) Gravel quarries ..	2	2	—
(17) Storage for raw bones ..	1	—	1
(18) Fat melting ..	1	—	1

Maintenance of sanitary condition of licensed trade premises—

(a) Number inspected ..	3,005
(b) Number of notices served for breach of rules ..	670
(c) Number voluntarily complied with ..	485
(d) Number prosecuted ..	429
(e) Number convicted ..	365
(f) Number warned and discharged ..	12

Licensed trades within Sanitary Boards are controlled by regulations and are maintained in a fairly satisfactory state. Unfortunately there are no regulations for the control of such premises in rural areas, and as a result it is almost impossible to maintain them in a sanitary state. They are generally kept in a filthy condition, and beyond taking action in extreme cases under the Nuisance Ordinance nothing can be done to improve them. In a very few cases where the parties are amenable to persuasion minor improvements have been effected by that means. Even in such cases, it is after several visits and repeated advice that it is possible to get absolutely necessary work done.

Until some simple regulations suitable for village areas are passed it would not be possible to effect any material improvement in regard to licensed trades in such areas. These regulations are therefore urgently wanted.

Sanitary Inspections.—The following is a statement of inspections done:—

Private Premises.

Number of inspections made during the year ..	505,830
Number found insanitary ..	122,325
Number of mosquito breeding places detected ..	14,867
Number of notices served to abate nuisance ..	14,848
Number voluntarily complied with ..	15,900
Number prosecuted ..	2,663
Number convicted ..	2,027
Number warned and discharged ..	172

Licensed Trade Premises.

Number inspected ..	3,005
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The Sanitary Inspectors are repeatedly instructed to get house premises cleaned up in their presence whenever possible, and to utilize every opportunity that presents itself for explaining to the villager the reason he is asked to keep his premises clean.

The following statement gives particulars of offences against sanitary regulations which have not already been dealt with in this report:—

Offence.	Prosecuted.	Convicted.
Unauthorized buildings ..	152	124
Failing to demolish a temporary shed ..	1	1
Occupying building after closing and after expiry of notice ..	5	5
Occupying building without certificate of conformity ..	15	14
Failing to repair house ..	11	9
Deviating from approved plan ..	23	23
Failing to provide drains ..	8	6
Leaving house while suffering from infectious disease ..	2	2
Faecal pollution ..	171	138
Unlicensed trades ..	275	247
Food unfit for human consumption ..	101	80
Slaughtering of unpassed cattle ..	2	2
Depositing rubbish on drains ..	34	33
Damaging roadside drains ..	2	2
Throwing rubbish on public roads ..	48	47
Contaminating public water supplies ..	23	23
Obstructing Sanitary Inspectors in the discharge of the duties ..	12	11

III.—*School Hygiene.*

In 1926 there were three School Medical Officers, one for the northern division of the Island and the other two (one of them a lady) for the rest of the Island. It is anticipated that two other School Medical Officers will be appointed early next year.

The following figures show the work done by the three officers during the year:—

Schools inspected ..	350
Pupils examined ..	22,636
Defects noted ..	9,242

Two school nurses were employed, one for the Western Province and one for the Jaffna Peninsula.

School clinics were maintained for the Colombo schools at the Eye Hospital, General Hospital Dental Clinic, and at the Anti-Tuberculosis Institute, Colombo, during the year, and at outstations cases were referred to the local District Medical Officers.

The School Medical Officers give the following particulars of the more important defects noted by them:—

	School Medical Officer of Western, Central, and South- ern Provinces.	School Medical Officer of Northern Province.	Lady Doctor.
Schools inspected ..	48	232	70
Children examined ..	5,231	14,124	3,281
Defects: Dental caries ..	333	797	128
Defective vision ..	300	163	111
Enlarged tonsils ..	220	518	201
Anchylostomiasis ..	215	3,074*	18
Malnutrition ..	105	—	60
Adenoids ..	21	—	202
Scabies ..	18	613	—
Malaria ..	18	1,668	2

* This figure gives the number of cases of anchylostomiasis, including anaemia.

These figures show that in the Northern Province more than 10 per cent. of the children suffer from malaria. Steps have been taken to distribute quinine to all the schools in the Island to be issued as a prophylactic during the fever season. As regards anchylostomiasis, a very extensive campaign is being carried out to treat school children for this disease. Full details of the campaign are given in the report of Dr. Jacocks, Director, Anchylostomiasis Campaigns, Ceylon, in the Appendix.

As regards the school buildings, those that have been constructed for the purpose of a school are generally satisfactory so far as accommodation, ventilation, and lighting are concerned. Many buildings, however, now used as schools were not originally built for the purpose and are not satisfactory. At a large number of schools the sanitary arrangements are suitable. Latrines are provided in the majority of cases, but, especially in the north of the Island, enough use is not made of them. The children are gradually becoming acquainted with more up-to-date sanitary arrangements than those they have been accustomed to, but some time must elapse before they fully appreciate their advantages.

In the case of some schools the water supply is not adequate. The provision of good drinking water and of suitable vessels in which to contain and distribute it is absolutely necessary.

The increasing number of visits by School Medical Officers must necessarily result in greater attention being paid by teachers and parents to the health of the children, but good progress cannot be made until the parents and teachers take steps to see that the defects noted are treated. This is realized in the larger towns, where defects reported are promptly attended to, but the response in the village schools is not so satisfactory. Time and further propaganda will probably rectify this.

IV.—Labour Conditions.

The subject of labour conditions is dealt with under the following heads:—

- (A) Medical Aid to Immigrant Coolies, Mandapam Camp.
- (B) Estate Medical Wants.
- (C) Medical Works in connection with Railway Extensions.

(A) Medical Aid to Immigrant Coolies, Mandapam Camp.

The number of immigrants in Ceylon who passed through the Mandapam Depôt during the year 1926 was 160,281, consisting of 101,746 estate labourers and 58,535 miscellaneous passengers.

The following are the figures for the previous years since the opening of the permanent camp in 1917:—

Year.	Number of Immigrants passed.		Total.
	Estate Labourers.	Miscellaneous Passengers.	
1917 ..	46,267	46,881	93,148
1918 ..	44,010	41,431	85,441
1919 ..	112,195	53,360	165,555
1920 ..	45,912	57,809	103,721
1921 ..	25,344	52,132	77,476
1922 ..	78,106	47,740	125,846
1923 ..	90,289	42,240	132,709
1924 ..	153,989	53,106	207,095
1925 ..	125,585	60,663	186,248
1926 ..	101,746	58,535	160,281

Water Supply.—The fresh water supply was satisfactory. During the dry season six water coolies were employed for drawing water from the superficial wells in the quarantine wards for bathing and washing by the detainees.

The Deputy Director of Public Works, who visited the camp, inspected the water area and suggested that the new scheme under proposal be kept in abeyance and the existing area be improved by having additional wells and adits to feed the pump wells.

Sea water used for the flushing of latrines was ample throughout the year.

Sewage Disposal.—The water carriage system has, as usual, worked satisfactorily.

Sanitation.—The sanitation of the camp has been excellent.

Feeding.—The supply of food to the detainees has been ample and of best quality under the management of the diet contractors (Messrs. Spencer & Co.).

Claimed and Refused Cases.—1,183 cases were disposed of during the year:—

Rejection on Medical grounds..	..	..	182
Rejection by the Protector of Emigrants ..	..	..	1,001
Total ..	..	..	1,183

School.—The school was inspected by the Indian educational authorities, who were pleased with its prosperous condition. A fourth teacher has been appointed from November 1.

Free education has been introduced since April 1, consequently there has been an increase in the strength of pupils, the total on the roll at the end of the year having been 142, against 116 in the previous year.

A sum of Rs. 337.75 was received from the Madras Educational Department as grant for the school, while Rs. 110.96 was realized in fees from the pupils for three months from January.

Boy Scout and Girl Guide movements are making satisfactory progress.

Expenditure.—25 cents per head per diem was the cost incurred by Government on 160,281 immigrants passed to Ceylon, and 24 cents the cost per head per diem on 43,488 passengers passed after full quarantine. A detailed statement of expenditure is given hereunder.

Half the cost of meals supplied to estate labourers in quarantine which was borne by Government has ceased from October 1.

Table No. 5.—Statement of Expenditure on Mandapam Camp from January to December, 1926, and Cost per Head.

Sub-head.	Expenditure.	Total Expenditure.	Rate per Head per Day.	Total Cost per Head for 7 Days.	Remarks.
	Rs. c.	Rs. c.	Rs. c.	Rs. c.	
A.—Government Vote—					
(1) Emoluments ..	109,109 75				
(2) Travelling ..	598 22				
(3) Maintenance of camp ..	12,966 35				
Stationery ..	343 46				
(4) Stores and fuel for disinfection station, &c. ..	2,165 39				
(5) Drugs, medicines, &c. ..	3,169 72				
Customs, &c., charges on medicines for anchylostomiasis treatment ..	479 24				
(6) Dieting ..	89,998 31				
(7) Uniforms ..	1,469 87				
(8) Maintenance of and minor improvements to buildings and works ..	21,852 46				
(9) Cost of working water, sewage scheme, &c., Mandapam ..	23,244 34				
(10) Incidental expenses ..	571 62				
Special expenditure ..	18,697 44				
(11) Bakery ..	87 76				
(12) Cement rendering to wards, &c. ..	257 50				
(13) Cooking stoves and boilers ..	1 75				
		285,013 18..	0 25..	1 78	cost to Govern-ment
—Paid by Immigration Fund—					
Diets to labourers, plates, &c., excluding train fare ..	—	201,159 84..	0 28..	1 98	cost to Immigration Fund
					Rs. 3.76 is the cost for both Immigration Fund and Government per head for 7 days.
C.—Paid by Passengers—					
<i>I.e.</i> , Cash to contractors for meals ..	63,843 78..	0 24..	1 47..		(For 6 days) cost to public
Total number of passengers for 1926 ..					101,746
Passengers passed through direct ..				15,047	
Passengers passed after quarantine in camp ..				43,488	
					58,535
Total passed through ..					160,281

The general health of the camp was excellent throughout the year under review. The treatment of estate labourers for anchylostomiasis was begun in January, 1925, and was satisfactorily carried out during the year. 77,278 persons were so treated, as against 53,187 persons the previous year.

The following statement shows the number of cases of smallpox, cholera, &c., occurring in camp in 1926, and of the deaths that resulted:—

	Cases.	Deaths.		Cases.	Deaths.
Smallpox ..	1	—	Chickenpox ..	12	—
Cholera ..	4	1	Measles ..	37	—
Plague ..	—	—			

In the outdoor dispensary a very large number of skin diseases, eye affections, and gastrointestinal troubles were treated. There were 6,488 cases who paid a total number of 8,018 visits, as compared with 8,246 and 11,413, respectively, in 1925.

The number of deaths that occurred during the year, including those in the camp outside the hospital, was 40, as compared with 65 of the previous year.

The number treated in hospital was 538 with 24 deaths, as compared with 920 of the previous year with 65 deaths. Out of 40 deaths, 3 occurred within 48 hours of admission, and out of 16 deaths at the camp outside the hospital 6 deaths were among infants.

The number of births that occurred during the year was 28, as compared with 44 in the previous year, 2 occurring among estate labourers and 26 among the staff.

Vaccination.—The total number vaccinated during the year was 125,451, as compared with 126,713 the previous year, out of which 39,561 were among miscellaneous passengers and 85,890 were among estate labourers.

Rejections.—182 estate labourers and 33 passengers were rejected on medical grounds as unfit to proceed to Ceylon, as compared with 72 estate labourers and 28 passengers of the previous year. Among estate labourers a large number of them were rejected for leprosy and general debility, and 33 passengers were rejected for leprosy.

An account of the anchylostomiasis work done at Mandapam Camp is given in the report of the Director, Anchylostomiasis Campaign, Ceylon, in the Appendix.

Visitors.—The following visited the camp during the year. A few extracts from their remarks are given hereunder. There were 3 visits of inspection by the non-official visitors appointed by the Government of Madras:—

(a) *From Ceylon.*

- (1) The Chairman, Board of Immigration and Quarantine.
- (2) The Director, Bacteriological Institute.
- (3) The Deputy Director of Public Works.
- (4) The Assistant Government Agent, Mannar.
- (5) The Director, Anchylostomiasis Campaign, Colombo.
- (6) Miss Beatrice Osmond of the League of Nations.
- (7) Dr. V. G. Heiser, International Health Board.
- (8) Mr. Bantock, Assistant Superintendent of Police, Colombo Harbour.
- (9) Hon. Mr. Natesa Aiyer, M.L.C.

(b) *From India.*

- (1) His Excellency the Governor of Madras.
- (2) The Director of Anchylostomiasis Campaigns, Madras.
- (3) The Ceylon Emigration Commissioner, Trichinopoly.
- (4) The Emigration Agent of the Government of India.
- (5) The District Collector, Ramnad.
- (6) The Protector of Emigrants, Madras Government.
- (7) The Medical Inspector of Emigrants, Madras Government.
- (8) Mr. C. Wilson, Malaya Civil Service.
- (9) Mr. Davis, Assistant Emigration Commissioner, Malaya.

Extracts from Visitors' Book.

I visited the emigration camp to-day and was much impressed by the prevailing air of efficiency.

The buildings for the emigrants, kitchens, stores, &c., were spotlessly clean and well kept. The food which I saw cooked was excellent.

I have no doubt that when the emigrant leaves the camp after medical examination and treatment he is a better man physically.

I congratulate those in charge on their management.

July 23, 1926.

GOSCHEN,
Governor of Madras.

I have been so delighted with all I have seen at the Mandapam Camp, and most particularly with the children's educational section. The boys doing their drill to English words compares most favourably with those doing it in an English school. Everything seems to have been thought out for comfort and utility and to produce contentment, which certainly shows on all the emigrants' faces.

Quite apart from the necessity and utility of the camp, there seems to be a fine practical idealism in its management that results in big progress for our Empire. The comfort too of the resthouse is most enjoyable.

January 7, 1926.

BEATRICE OSMOND,
Social Welfare Work, London.

Dr. Schokman has shown me every department of this camp and explained the working in detail. I do not see that it is open to any criticism. The design of the camp lays it open to public inspection without interfering with the object of its existence.

I was greatly struck by the extraordinary difference in appearance between the persons admitted on the day of my visit and those ready to depart. This remark applies both to passengers and assisted emigrants.

February 6, 1926.

C. WILSON,
Malaya Civil Service.

It is a pleasure to have had the privilege of being a visitor to this most excellent camp and to have this visible evidence of the great good modern science is accomplishing in the alleviation of human ills. The progress made since my visit in 1915 is most gratifying. I wish also to express my appreciation for the hospitable manner in which I have been received and the thoughtful arrangements made for my comfort.

February 14, 1926.

VICTOR G. HEISER,
International Health Board.

This is my first visit to the camp. I have visited several other quarantine camps in the tropics, and for sanitation and organization this is far in advance of any I have visited. I paid this visit for the purpose of establishing a branch Bacteriological Laboratory.

March 12, 1926.

LUCIUS NICHOLLS, M.D. (Cantab.)
Director, Bacteriological Institute.

I visited the camp to-day, and had the pleasure of being taken round by Dr. Schokman, who explained to me the system of quarantine for labourers and passengers and I was impressed with the sanitary conditions and the dieting arrangements.

Mandapam Camp. April 16, 1926.

K. NATESA AIYER,
M.L.C., Ceylon.

(B) *Estate Medical Wants.*

The Medical wants of estates are provided for by Ordinance No. 9 of 1912.

The planting districts of Ceylon have 62 well-equipped district hospitals (with accommodation for 5,132 patients) and 100 district dispensaries for the use of labourers on estates. These hospitals are under the charge of fully qualified Medical Officers, and are staffed with matrons, nurses, apothecaries, and attendants. Besides these, there are 78 estate hospitals and 645 estate dispensaries which are maintained by proprietors of estates. As an aid to their maintenance the proprietors are given in the case of hospitals a free supply of drugs and a rebate on the duties paid on the exportation of the produce of such estates and in the case of dispensaries a free supply of drugs to the value of 50 cents per labourer per annum.

From October, 1925, to September, 1926, Rs. 133,520 was paid by Government as rebate, as against Rs. 110,300 the previous financial year. The total cost of the drugs issued free during the year 1926 was Rs. 274,612.30, as against Rs. 222,584.22 the previous year.

The Medical Wants Ordinance provides for the making of rules and regulations governing the construction, maintenance, and sanitation of lines. It is to be expected that with the advancement of the knowledge of sanitation these rules will have to be changed from time to time to keep abreast of the rising standard of general sanitation throughout the civilized world.

Three Inspecting Medical Officers and three Assistants are appointed to inspect and report on the sanitary conditions on estates and to advise the superintendents on the best methods of improving the existing conditions so as to bring all estates up to the standard required.

The number of estates scheduled for inspection was 2,852. The number inspected during 1926 was 799.

In the year 1926 good progress has been reported in the sanitary conditions of the larger estates, most of which are under company management. This cannot be said of the smaller estates owned by private individuals. The conditions existing there fall short of the standard required. The fact that labour on estates cannot ever be stationary, a percentage of an estate's labour force will move from time to time, makes it very desirable that the sanitary conditions prevailing on all estates should be up to a standard laid down by Government. If otherwise, the estate which spends heavily in maintaining its high standard of sanitation, and of such there are many, suffers badly from labourers coming in from other estates of a lower sanitation. This evil is frequently seen in the case of a disease which saps the strength and energy of the labourers—*anchoylostomiasis* or hookworm. A gang from an ill-sanitated estate, untrained to the proper disposal of excreta, rapidly re-infects the labour force which by care and treatment had been freed from hookworm. Estate managements are advised to inspect all new gangs, and if these are suspected of this disease to have them treated and segregated in lines apart from the healthy coolies. The treatment is easy; the training of new gangs to the use of latrines is probably more difficult, but it can be eventually attained by constant supervision and perseverance. In this connection it is desirable to emphasize the necessity of having an adequate number of latrines, and, what is of equal importance, of maintaining them in a clean and sanitary condition. There is no real benefit in having well-constructed, expensive latrines if their surroundings are allowed to be polluted and no supervision is exercised over the cleanliness of the interior. Unfortunately the subordinate officers charged with the supervision of sanitation sometimes look upon this particular work as degrading; and from this neglect, resulting in misuse and disuse of latrines, the management often concludes that the Indian labourer is beyond the possibility of being trained to use latrines. Superintendents should have weekly reports on lines and latrines and frequently verify them.

Infant mortality on estates is a subject which will have to be alluded to for many years to come, as its reduction to any degree approaching the rates of European countries is still not in sight. A good move for its reduction has been made in the right direction by the greater employment of midwives. It is hoped that estates will do their utmost to induce mothers to attend the clinics held in district hospitals and dispensaries and form "welfare" centres in their own estates. Government medical men are only too willing to give their service to any estate desiring help in this line. The educative influence of these lectures may at first seem slight, but it is felt that by constant repetition in the vernacular of the simple laws of hygiene the colossal ignorance of the Indian mother will be overcome. If it has the effect of preventing the practices of superstition to which a mother and infant are now subjected a marked reduction in infantile mortality will be achieved. Superintendents who can conveniently inspect the work of the Health Unit now being done in the estates near Kalutara are invited to examine the method of work, and, when convinced of its utility, to introduce it in their own estates.

A disease that takes a heavy toll of the labour force of the Island is pneumonia. Of the 20,734 estate deaths registered in 1926, 2,310 or 11.14 per cent. were due to this disease. The causative organisms are found in the secretions of a simple cold, and they assert their virulence and cause pneumonia only when the resistance of the body has been lowered by depressing conditions, such as repeated attacks of malaria, hookworm disease, &c., and cold and damp. The planting districts where it mostly prevails are Nuwara Eliya, Badulla, Matale, and Kandy. In the districts of the low and middle country the pneumonia rate will fall with the decreasing incidence of malaria and hookworm, but in the hill country (5,000 feet to 7,000 feet) its diminution could be obtained only by increasing the body resistance. The Indian labourers come from the hot dry plains of India, where their clothing is of the scantiest and their diet a bland, non-stimulating one of rice and vegetable. Before coming up to the high cold hills of Ceylon with a heavy rainfall they should be provided with clothing that can protect them against the depressing effects of cold, and their food on the estates should be made more stimulating by the additional of animal food where possible and dhal and fat-forming foods, such as ghee, oil, coconut, &c. They should have means to dry their wet clothes and cumblies, and the dwelling rooms should have a thoroughly dry floor and be freely ventilated.

Overcrowding is reported to be much less this year than before. However slight it may be, its presence is a source of danger to a labour force, and every effort should be made to prevent it. The habit of constructing temporary line rooms on verandahs of permanent lines is most undesirable. In back-to-back room lines the circulation of air is hindered by their construction; to place another barrier on the verandah is to effectively make the line rooms grossly insanitary.

All necessary line rooms should be constructed before the labour force is increased.

It is satisfactory to note that there has been no outbreak of any epidemic on estates in 1926; a fact which reflects great credit on the Mandapam Camp authorities, who form the first line of defence against epidemics from India.

(C) *Medical Works in Connection with the Railway Extensions.*

The general health of the labourers employed was satisfactory and there were no outbreaks of epidemics during the year. The following were the hospitals and dispensaries on the extensions:—

Topawewa hospital with outpatient department and Oddamavady dispensary with its branch dispensary at Punanni.

In the Topawewa hospital 538 cases were treated during the year. Of these, 204 were cases of malaria, 55 of dysentery, and 68 of pneumonia. There were 36 deaths, of which 23 were due to pneumonia, which occurred during the wet season.

In the outpatient department attached to this hospital 2,783 patients who paid 2,976 visits were treated.

In the dispensary at Oddamavady 2,143 patients were treated.

There was a marked improvement in the general health of coolies, due to better sanitary conditions in respect of preventive measures against malaria, better housing accommodation with provision for sufficient number of latrines, and also greatly to the prophylactic use of quinine, which has become popularized among the coolies.

Subjoined is a statement of work done in connection with railway sanitation:—

(a) *Of Stations.*

	Inspected.	Defective.	Improved.
Premises	2,401	318	245
Drains	1,513	304	175
Latrines	4,611	206	145
Mosquito breeding	147	40	39
Water supply places	1,105	148	56
Scavenging	1,339	248	227
Conservancy	2,261	141	132

(b) *Of Bungalows.*

Premises	6,442	823	573
Drains	4,429	1,017	463
Latrines	6,135	554	111
Mosquito breeding	515	297	296
Water supply places	3,502	356	22
Scavenging	4,333	991	732
Conservancy	3,641	161	109

(c) *Of Cooly Lines.*

Premises	5,130	1,128	845
Drains	3,776	1,209	615
Latrines	2,879	1,266	213
Mosquito breeding	513	329	322
Water supply places	2,243	608	21
Scavenging	3,090	1,034	729
Conservancy	1,311	201	181

V.—Housing and Town Planning.

All areas under local authorities and special areas declared under the Ordinance come under the operation of the Housing Ordinance, No. 19 of 1915.

All applications for new buildings and for alteration to existing buildings in areas supervised by Medical Officers of Health were carefully scrutinized and made to conform with the legal requirements.

Applications continue to be made for building on sites with unsatisfactory access. Plans of some of the towns of the Western Province have been prepared by the Sanitary Engineer, and in some of these existing roads and proposed roads are shown. Plans of this nature are very necessary to ensure the orderly development of towns, and it is hoped that such plans will soon be ready for all towns and suitable street lines laid down thereon so that future buildings might be made to abut on the proposed streets.

There are many insanitary buildings both within Board towns and in rural areas. Those that are situated within Board limits can be dealt with under the Housing Ordinance; but it is unwise to take vigorous action in regard to them as the inmates, who usually belong to the poorest classes, would be rendered homeless. Progress in housing conditions has therefore to be necessarily slow.

The following is a statement of work done under the Housing Ordinance:—

(1) *New and Re-constructed Buildings.*

Number of applications received and dealt with in respect of—	New.	Reconstruction and Repairs.
(a) Dwelling houses	1,228	586
(b) Other buildings	631	278

(2) *Insanitary Buildings.*

(a) Number of insanitary buildings reported upon during the year	407
(b) Number of closing orders obtained	193
(c) Number improved	158
(d) Number of demolishing orders obtained	136
(e) Number demolished	129

The Sanitary Engineer of the Department, in addition to his routine duties, carried out the following during the year under review:—

- (a) Cadastral survey for town planning of the Sanitary Board town of Wattala, about 330 acres; and of a portion of the Sanitary Board area of Kalubowila, about 75 acres in extent.
- (b) Plotting and drawing of the survey plan of Wattala.
- (c) Drawing up of type plans of a cattle pound and conservancy cart.
- (d) Supervision of the construction of a public latrine of 10 seats at Ratmalana in accordance with departmental type plan.
- (e) Construction in wood of models of a private dry-earth latrine, a private pit latrine, a village house.

VI.—Food in Relation to Health and Disease.

There is a general provision in the law by which food unfit for human consumption could be seized and dealt with, but for the efficient control of food a specific pure food act is needed.

All food handling establishments in areas controlled by local authorities have to be licensed, and such licences are granted on the recommendation of the Medical Officer of Health, who sees to their complying with by-laws framed for such places. A statement relating to work done in this connection is given under licensed trades.

Milk Supply.—No standards are in existence in the Island at present. Adulteration and illicit sale of milk are being carried on in spite of the vigilance of the Sanitary Inspectors, but not to such an extent as in the past. If the public refused to deal with unlicensed vendors, the work of improving the milk supply and preventing illicit sale of milk could be carried out with better chance of success.

The existing regulations in Matara District have been improved during the year, and the supply of milk from the suburbs is now controllable as well as that within the town.

On representations made, the Municipal town of Kandy and the Urban District of Matale were brought under the operation of the Suburban Dairies and Laundries Ordinance, No. 38 of 1908.

The following is a statement of work done in connection with milk control:—

(a) Number of samples taken and sent for analysis	..	200
(b) Number of samples found adulterated	..	151
(c) Percentage of water added varied from	..	4 per cent. to 84 per cent.
(d) Average adulteration	..	34.33 per cent.
(e) Number prosecuted	..	137
(f) Number convicted	..	109
(g) Number warned and discharged	..	4
(h) Amount of fines realized	..	Rs. 2,032

Meat Inspection.—All cattle slaughtered in areas under the control of Local Bodies are inspected before slaughter, which takes place in slaughter-houses provided by such Local Bodies, and the meat is sold in licensed stalls. Little slaughter takes place outside areas controlled by local authorities.

Markets.—For the sale of meat, fish, vegetables, and fruits markets are in existence in areas under local bodies. In recent years many model markets in conformity with the departmental type plan have been constructed.

Other foods exposed for sale are inspected and action taken under the general law which prohibits the sale of food unfit for human consumption.

There are specific regulations in certain towns for the sale of rice as a precautionary measure against plague.

B.—Measures taken to spread the Knowledge of Hygiene and Sanitation.

Public health sections were opened at the Mannar, Nuwara Eliya, Katugastota, Pugoda, Weligama, and Kandy Agri-Horticultural Exhibitions during March, April, May, and August.

Exhibits consisting of models of sanitary appliances, posters, diagrams, &c., conveying information on sanitary matters, charts and maps showing the prevalence of malaria and hookworm disease, together with live and mounted specimens of mosquitoes of different species, their larvae, and pupae, of hookworm and other intestinal parasites and illustrations of patients before and after treatment, house flies, their larvae and pupae in natural breeding grounds explaining their life-cycle and how they contaminate food and the various appliances to trap and kill flies were displayed in these sections. Villagers who attended the shows in large numbers were given free access and everything was carefully explained to them in Sinhalese and Tamil.

A series of health lectures to school children was started during the month of March and continued up to October. The four Government Anglo-vernacular schools at Homagama, Padukka, Hanwella, and Bomiriya were selected for this purpose, and lectures were delivered once a week at each school on elementary physiology and hygiene. The teachers, police headmen, and other residents, with the help of several planters and missionary ladies, organized an association called the Padukka Health and Child Welfare Association, and it is hoped that this association will do some useful work in the district. Lectures were delivered at the following places by Medical Officers of Health and the Sanitary Superintendent:—Nittambuwa, Mirigama, Gampaha, Ananda College, Kirillapone, Borelesgomuwa, Gangodawila, Matale, Nawalapitiya, Mannar, Ratnapura, Pugoda, Kotte, Ahungalla, and Nugegoda. These lectures, which were illustrated by lantern slides, were well attended and much appreciated.

A course of lectures were also delivered to the Police Force of the Southern and of the Central Provinces. They were also well attended.

Health Unit, Kalutara.—A Health Unit was started in Kalutara on July 1, 1926, on the lines of the County Health Organizations in vogue in the United States of America.

Dr. W. P. Jacocks, Director, Anchylostomiasis Campaign, Ceylon, and the local representative of the International Health Board organized the work of the Unit. Dr. S. F. Chellappah, Senior Medical Officer of Health, collaborated and was in charge.

In view of the importance of this form of health work in the development of public health in the Island a complete summary of the first report of Dr. Chellappah is included (*vide* Appendix).

During the year under review the following special reports were submitted by the officers of the Department:—

- (1) Report of the sanitary survey of Mahawatta within the Welikada-Nawala Sanitary Boards by Dr. M. de Costa, at the request of the Chairman, Sanitary Board, Colombo.
- (2) Report on the outbreak of malaria at Kirillapone by Dr. M. de Costa, Senior Medical Officer of Health.
- (3) Report on outbreak of cholera at Jaffna, Northern Province, by Dr. S. F. Chellappah, Senior Medical Officer of Health.
- (4) Report on the epidemic of smallpox at Galle, Southern Province, by Dr. S. F. Chellappah, Senior Medical Officer of Health.
- (5) Report on dysentery outbreak at Kalupahana by Dr. D. M. de Silva, Medical Officer of Health, Kalutara.
- (6) Report on dysentery outbreak at Halwala area by Dr. D. M. de Silva, Medical Officer of Health, Kalutara.
- (7) Report on sanitary condition of the administrative area of the Urban District Council of Ratnapura by Dr. L. J. Kahawita, Medical Officer of Health, at the request of Local Government Board.
- (8) Report on sanitary condition of the administrative area of the Local Board, Kegalla, by Dr. L. J. Kahawita, Medical Officer of Health, at the request of the Chairman, Local Board, Kegalla.
- (9) Report on the incidence and prevalence of anchylostomiasis in Galboda and Kinigoda korales by Dr. L. J. Kahawita, Medical Officer of Health, at the request of the Assistant Government Agent, Kegalla.
- (10) Sanitary survey of Nuwara Eliya by Dr. E. S. Godlieb, Medical Officer of Health.
- (11) Report on malaria in Tenmaratchi by Dr. R. W. Crossette-Thambyah, Medical Officer of Health, Northern Province.
- (12) Report on Madhu Festival by Dr. R. W. Crossette-Thambyah, Medical Officer of Health, Northern Province.
- (13) Report on burial ground at Kudahakapola by Dr. D. C. de Fonseka, Medical Officer of Health, Western Province, A Division.

C.—Training of Sanitary Personnel.

A training class for Sanitary Inspectors was started in June, 1926, with 54 students, including 2 Entomological Assistants working under the Medical Entomologist. The course of instruction lasted six months. At the end of the course 49 students sat for the examination (5 having dropped out during the training for various reasons) and passed, thus qualifying for appointment as probationary Sanitary Inspectors.

It may be mentioned that the members of this class were also given a training in Scouting under the direction of Mr. J. H. de Saram, Deputy Commissioner of Scouts, who organized a troop of Public Health Rovers consisting of 48 members of the Training Class.

They were also given a course of lectures in first aid based on the syllabus of the St. John's Ambulance Association. At the end of this course 36 candidates took up the examination, and it is gratifying to note that all were successful. St. John's Ambulance Certificates were awarded to the successful candidates.

The set of rules for the guidance of Sanitary Inspectors drawn up during 1925 was printed in book form entitled "Instructions for the Guidance of Sanitary Inspectors" and copies were distributed among the Medical Officers of Health and Sanitary Inspectors. Copies were also issued to all the Chairmen of Sanitary Boards in the Island.

D.—Recommendations for Future Work.

The Department's aim is to obtain a cadre of Medical Officers of Health sufficient for the needs of the Colony, and concurrently to develop these activities which make for the betterment of the Public Health.

Reference was made in last year's administration report to six Public Health Fellowships—of which three were given by the International Health Board of the Rockefeller Foundation—the object of which was to increase the personnel of this branch of the Department.

Five of these Fellows returned to the Colony at the end of 1926 and were appointed Medical Officers of Health. The sixth showed such outstanding merit that he was granted by the International Health Board an extension of his Fellowship for six months.

A request for six further Public Health Fellowships was granted by the Finance Committee of the Legislative Council in August, 1926, and the selected candidates will be returning in October, 1927, to take up appointments as Medical Officers of Health. It will be many years before the requisite number of these officers can be supplied.

A Sanitary Engineering Division will begin to function along modern lines next year under the control of a Sanitary Engineer whose services are being given to Government by the International Health Board for a period of two years.

The need for a Public Health Ordinance drafted on modern lines and for a Food and Drugs Ordinance has been reiterated on many occasions by me when Sanitary Commissioner, and at this present time remains an urgent one. The victims of the dishonest milk vendor cry aloud for protection. Under the existing law a conviction can only be obtained against the seller of adulterated milk if the added water can be proved to be noxious in itself.

Intensive health work along the lines of the Health Unit at Kalutara (*vide* Appendix) should be extended as personnel becomes available and the co-operation of the people is assured.

IV.—PORT HEALTH WORK AND ADMINISTRATION.

During the year 2,753 British and Foreign steamers and 306 native sailing vessels called at the port of Colombo and were inspected, as against 2,826 steamers and 301 sailing craft in 1925 and 2,584 steamers and 297 sailing craft in 1924. Seventeen steamers arrived infected and were placed in strict quarantine. Of these, 7 had cases of smallpox on board. All the cases were landed and sent to the Infectious Diseases Hospital. Eight vessels which had landed cases of smallpox and 2 vessels which had landed cases of cholera at previous ports of call were also kept in strict quarantine. No ships infected with cholera or typhus fever arrived at the port during this year. The practice of taking samples of water from water boats has been discontinued. Boats are regularly cleansed and cement-washed every three months and passed by the Port Surgeon before being used.

The number of immigrants vaccinated during the year was 4,286, mostly arrivals from India *via* Tuticorin and Mandapam. 422 males and 291 females were vaccinated at the Port Surgeon's Office, Colombo, and 3,573 at the Disinfecting Station. The disinfection of 176,566 persons and their clothing was carried out at the Port Disinfecting Station; the figures for the previous year were 165,510.

At the port venereal clinic for seamen 106 cases of syphilis were treated by intravenous injections in 1926, as against 56 in 1925 and 61 in 1924.

V.—MATERNITY AND CHILD WELFARE.

(a) *Ante-Natal and Baby Clinics.*—In the 1925 report reference was made to the instructions issued to District Medical Officers in charge of hospitals to which are attached a matron to start ante-natal and baby clinics, and it is now possible to report on the results obtained.

On the whole the response made by expectant mothers and the mothers of infants has not been as satisfactory as was hoped for. The idea of taking advantage of the help so offered is a novel one in a country like Ceylon, but with perseverance satisfactory progress may be expected.

During 1926 an attempt was made at all district hospitals to which are attached a matron to hold one ante-natal and one baby clinic each week, but the District Medical Officers report that the attendances, which in some places were satisfactory at first, gradually dwindled, the reasons given being the long distances mothers had to travel in some instances, especially in estate districts, and general apathy to this novel idea. The problem has therefore been chiefly dealt with by taking advantage of the attendance of pregnant mothers and of children as ordinary out-patients at hospitals, and of the attendance of these patients for the purpose of vaccination, to give instructions and treatment.

One satisfactory result seems to be that more women are admitted to the maternity wards of hospitals for their confinement.

It may be stated that some 1,200 talks and informal lectures were given in the various Provinces on this subject, and the attendances were between 7,000 and 8,000.

In Colombo the most important ante-natal clinic is attached to the De Soysa Lying-in Home, and the following figures show a satisfactory increase in the number of attendances in the past six years:—

Year.	Number of Pregnant Mothers	Number of Visits.
1921	93	97
1922	216	226
1923	319	326
1924	335	343
1925	707	713
1926	948	1,038

Considerable attention was paid to Maternity and Child Welfare in the Kalutara Health Unit area, details of which are given in the report on the work of that unit in the Appendix.

(b) *Training of Midwives.*—Steps are being taken to supply separate maternity blocks and trained midwives to all district hospitals, and several such blocks were completed in 1926. The training of midwives was carried out, as usual, at the Lying-in Home, Colombo, and details regarding these midwives are given under the report on the Lying-in Home in Section VI. Most of the passed midwives start practice for themselves; some are taken into Government service (there are now 38 of them employed in Government hospitals throughout the Island), or are employed by local authorities. Unfortunately the advantage of having a trained midwife in attendance is not appreciated by village women as much as it should be, and the services of unqualified and not properly trained midwives are often requisitioned in preference. Time and increasing knowledge will rectify this.

(c) *Social Service Work.*—An increase in activity has been shown in Child Welfare generally by various bodies of Social Service workers in the principal towns.

(d) *Infantile Mortality*.—The infantile mortality rate in the 33 principal towns of the Island is shown in the following table for the past ten years:—

	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926
Infantile mortality rate per 1,000 births	233 ..	252 ..	259 ..	228 ..	238 ..	240 ..	258 ..	235 ..	216 ..	208

There is every reason to hope that the decrease shown in 1925 and 1926 will continue. It is true that these figures compare unfavourably with those of European countries, but, apart from tropical conditions, the poverty and ignorance of the majority of the people are serious obstacles to a greater reduction in the infantile mortality rate.

The chief causes of infantile mortality during 1926 were convulsions, prematurity, and infantile debility. As regards infantile convulsions the following are the mortality figures for the past three years:—

	1924.	1925.	1926.
Infantile convulsions ..	13,899 ..	13,015 ..	14,996

VI.—HOSPITALS, DISPENSARIES, AND VENEREAL CLINICS.

In 1926 there were 86 Government general hospitals with accommodation varying from 8 beds in smaller outstations to 720 beds in the General Hospital, Colombo. There were in addition a number of special hospitals, viz., a Lying-in Home with 100 beds, an Eye Hospital with 58 beds, a Women's Hospital of 34 beds, a Children's Hospital of 67 beds, a Female Venereal Hospital of 29 beds, a Police Hospital of 31 beds, a Tuberculosis Hospital for chronic cases of 338 beds, a Tuberculosis Sanatorium of 72 beds, and an Infectious Diseases Hospital of 158 beds.

Seventy-eight estate hospitals and 645 estate dispensaries were maintained by proprietors of estates.

There were 543 Government dispensaries in different parts of the Island in 1926, and 2,864,733 patients who paid 4,102,466 visits were treated at these dispensaries and the out-patient departments of hospitals during the year, as against 2,360,468 and 3,653,016 respectively in 1925. The total number of in-patients who were treated at the various hospitals was 205,529 with a mortality rate of 6.20, as against 188,354 and 7.1 the previous year.

The following are some of the more important buildings that were completed during the year:—Apothecary's quarters, Dimbula Hospital; Chavakachcheri Hospital (24 beds); Quarters for matron and nurses and New Maternity ward (2 beds), Mannar Hospital; Dispensary and quarters, Horawapotana; additional ward (6 beds), Lunugala Hospital; Infectious Diseases Ward (6 beds), Haputale Hospital; and a new milk room to Kahawatta Hospital.

The following improvements and additions were also carried out:—Improvements to maternity wards of Marawila, Chilaw, Kurunegala, and Ridigama hospitals; improvements to Kurunegala, Karawanella, and Aranayake hospitals; additions to Eheliyagoda hospital; improvements to the maternity wards of hospitals in the Province of Sabaragamuwa; and improvements to Ratnapura hospital.

Many other works were begun but are not yet completed.

Reports on Colombo Hospitals.

A brief summary of the work done in 1926 in the chief Colombo hospitals is given hereafter.

General Hospital, Colombo.—The following is a summary of the chief features of the report of the Medical Superintendent, General Hospital, Colombo:—

Seven hundred and ninety-one patients remained in hospital on December 31, 1925, 50 in the paying section and 741 in the non-paying section. During the year 21,650 patients were admitted, 20,051 to the non-paying wards and 1,599 to the paying wards. At the out-patient department 39,629 persons were treated representing 134,240 attendances, i.e., a daily average attendance of over 300.

Of the 1,649 under treatment in the paying section, 1,475 were discharged, 109 died, and 65 remained on December 31, 1926.

Of the 20,792 under treatment in the non-paying section, 17,988 were discharged, 1,996 died, and 808 remained on December 31, 1926.

The daily average sick in hospital was 77.35 in the paying section and 875.98 in the non-paying section.

The maximum and minimum numbers of patients in hospital on any one day during the year 1926 in the paying and the non-paying sections respectively were as under:—

<i>Paying Section.</i>			
Maximum	..	..	89 on July 17, 1926
Minimum	..	..	52 on March 8, 1926
<i>Non-paying Section.</i>			
Maximum	..	..	860 on August 10, 1926
Minimum	..	..	680 on March 8, 1926

Of the 20,051 admitted in 1926 to the non-paying section, 7,959 were surgical cases and 12,092 were medical cases. The number of surgical operations performed in 1926 was 2,501, exclusive of 198 minor operations performed in the Out Patient Department.

2,059 operations were performed in the non-paying section with 74 deaths, giving a percentage mortality of 3.1. In the paying section the number of operations was 442 with 17 deaths, giving a percentage mortality of 3.8. The following table gives the figures for the past three years of the cases under treatment, the percentage mortality, and the daily average number in hospital in the paying and non-paying sections respectively:—

<i>Paying Section.</i>					
Year.		Cases under Treatment.	Deaths.	Percentage Mortality.	Daily Average Sick.
1924	..	1,194	82	6.8	65.38
1925	..	1,331	121	9.0	70.53
1926	..	1,649	109	6.6	77.35

<i>Non-paying Section.</i>					
Year.		Cases under Treatment.	Deaths.	Percentage Mortality.	Daily Average Sick.
1924	..	16,744	1,746	10.42	713.55
1925	..	18,331	1,948	10.62	782.48
1926	..	20,792	1,996	9.63	875.98

As regards particular diseases the following figures are appended showing their prevalence and mortality during the last three years:—

<i>Anchylostomiasis.</i>			<i>Malaria.</i>		
1924	..	524 cases with 72 deaths	1924	..	2,610 cases with 14 deaths
1925	..	595 cases with 71 deaths	1925	..	1,980 cases with 23 deaths
1926	..	574 cases with 106 deaths	1926	..	2,220 cases with 34 deaths

<i>Appendicitis.</i>			<i>Parangi.</i>		
1924	..	171 cases with 2 deaths	1924	..	430 cases with no deaths
1925	..	165 cases with 5 deaths	1925	..	301 cases with no deaths
1926	..	162 cases with 3 deaths	1926	..	295 cases with no deaths

<i>Dysentery.</i>			<i>Pneumonia.</i>		
1924	..	185 cases with 87 deaths	1924	..	539 cases with 256 deaths
1925	..	375 cases with 96 deaths	1925	..	627 cases with 189 deaths
1926	..	312 cases with 90 deaths	1926	..	871 cases with 325 deaths

<i>Enteric Fever.</i>			<i>Pulmonary Tuberculosis.</i>		
1924	..	260 cases with 102 deaths	1924	..	535 cases with 226 deaths
1925	..	373 cases with 121 deaths	1925	..	530 cases with 297 deaths
1926	..	356 cases with 116 deaths	1926	..	630 cases with 278 deaths

Cases of malaria, pneumonia, and pulmonary tuberculosis show an increase over last year—especially the last two diseases. The increase in the number of cases of pneumonia is in all probability due to the epidemic of influenza which prevailed towards the end of the year.

Expenditure and Receipts.—The receipts during the last financial year from patients in the paying section amounted to Rs. 165,316.84 and in the non-paying section Rs. 6,699. The approximate expenditure during the same period was Rs. 87,441.65 in the paying section and Rs. 212,225.39 in the non-paying section; the expenditure in both sections does not include the salaries of the medical and nursing staff nor the cost of drugs and dressings.

X-Ray Department (General Hospital).—In 1926 this Department was enlarged and furnished with a considerable amount of new equipment. There is now available for patients of the hospital practically every kind of electrical treatment, namely, galvanism, faradism, diathermy, high frequency, ultra-violet light, and radiant heat.

During this year 1,651 cases were examined in this Department. Of this number 163 were patients sent for X-Ray examination from private practitioners, 77 were patients from the paying wards, 20 were sent for X-Ray screen examination only, 17 were sent from the Military Hospital, and 2 were from the Naval authorities. When the total for this year is compared with the figure for 1925 one finds the substantial and significant increase of a little over 50 per cent., the figure for the last year being 1,095.

Dental Clinic (General Hospital).—Pending the construction of a Dental Institute (which is expected to be ready for opening early in 1927), a start on affording some treatment for dental cases amongst the out-patients attending the General Hospital, Colombo, was made in August, 1925. During the year 1926 some 4,340 cases received attention at the hands of Dr. Balendra—a house surgeon who is also a qualified dentist—and his services were much appreciated, and the attendance at the clinic rapidly increased.

The De Soysa Lying-in Home.—The number of cases under treatment was 3,976, as against 3,604 the previous year, 3,045 in 1924, 2,934 in 1923, and 3,002 in 1922. The daily average in hospital for the year under review was 107.91. The death rates for the last five years (1922-1926) were 3.27, 3.24, 3.18, 2.4, and 2.5 respectively. There were 134 deaths during the year, and of these, 39 were due to accidents of child birth, 15 to puerperal causes, and 80 to intercurrent diseases, such as anchylostomiasis, pneumonia, dysentery, heart failure, peritonitis, &c. The number of live births was 3,194. Of these, 3,057 infants left the hospital alive and 137 died after delivery, as against 2,677, 2,272, and 122 respectively in 1925. Sixty-six pairs of twins and 2 sets of triplets were born in 1926, as against 76 and 1 respectively in 1925. Two hundred and fifty-two operations were performed during the year, including the use of forceps in 99 cases, decapitation in 4 cases, bi-polar podalic version in 10 cases, internal podalic version in 26 cases, external cephalic version in 2 cases, evacuation of uterus in 84 cases, manual extraction in 9 cases, and 18 other operations. Labour was classified as normal in 2,507 cases. There were 753 cases with other presentations. In 46 cases of placenta praevia 16 infants were born alive, 30 were born dead. Forty mothers recovered and 6 died. Of the 79 cases of puerperal eclampsia, 71 recovered and were discharged.

The training of midwives was carried on as usual during the year. Sixty-two were admitted and 60 passed. During the past five years, 1922-1926, the number of midwives trained in the De Soysa Lying-in Home has been 52, 41, 57, 55, and 60 respectively.

The Victoria Memorial Eye Hospital and the Grenier Ear, Nose, and Throat Infirmary.—24,087 patients paid 62,684 visits to the out-patients department during the year, as against 22,801 and 63,451 in 1925 and 21,679 and 56,360 in 1924 respectively. Of the out-patients treated, 19,666 were eye cases, 521 throat, 3,431 ear, and 369 nose cases.

The number of new admissions as in-patients was 1,544, as against 1,462 in 1925 and 1,401 in 1924; and the daily average in hospital was 104.99 in 1926, 96.56 in 1925, and 90.46 in 1924. The total number of operations performed on in-patients during the year was 807, on out-patients 2,163, the corresponding figures for the previous year being 589 and 1,854 respectively.

The Lady Havelock Hospital for Women and the Lady Ridgeway Hospital for Children.—The total number of admissions in 1926 was 2,387, and with those remaining from the previous year the total treated during the year was 2,477, as against 2,272 and 2,356 respectively in 1925. The daily average sick in hospital was 99.93. The number of paying patients admitted during the year was 92, and of these 19 were maternity cases. The percentage of deaths to total treated was 18.12, as against 18.2 the previous year; a great number of these deaths was amongst babies brought to hospital in a moribund condition. Thirty-nine cases of enteric fever, 132 cases of advanced ancylostomiasis, 62 cases of babies suffering from congenital syphilis, 9 cases of parangi, 29 cases of pulmonary tuberculosis, 4 cases of diphtheria, 101 cases of dysentery, and 83 cases of puerperal septicaemia were admitted during the year. All patients were treated for ancylostomiasis in the non-paying sections with oil of chenopodium and carbon tetrachloride as a matter of routine. Sixteen cases died of puerperal septicaemia. The majority of these cases had been attended to by outside midwives, whose practice of midwifery is generally bad and not according to modern methods. The number of surgical operations performed was 493. Of these, 359 were major and 134 minor; the former included 24 abdominal sections. The operation mortality rate was 1.8 per cent., as against 3.6 per cent. the previous year.

Twenty-eight pupils were admitted to the training school during the year. Of these, 7 resigned and 2 were found unfit. Two examinations were held during the year, 25 nurses passed and there were no failures. The total nursing staff consists of 1 European matron, 2 European sisters, 9 Ceylonese charge nurses, and 27 pupils.

The Police Hospital, Borella.—The number of patients treated during the year was 1,606, as against 1,409 in 1925. The increase in the number of patients was due chiefly to the prevalence of influenza, of which 513 cases were admitted, as against 302 in 1925. The other principal diseases were malaria 131, diseases of the digestive system 146, of the respiratory system 85, of the skin 118, and venereal diseases 112. There was 1 death in 1926 from pneumonia with a mortality rate of .06 per cent., as against 1 death and a mortality rate of .07 per cent. in 1925.

5,098 patients who paid 7,159 visits, as against 5,278 cases with 7,067 visits in 1925, were treated at the out-patient department of the hospital and by the Assistant Police Surgeon at the City Police Stations on his visits.

A permanent matron was appointed to the hospital during the year. A Police Surgeon and an Assistant Police Surgeon are in charge of the medical care of about 1,500 officers of all ranks and their families in Colombo and its suburbs.

Infectious Diseases Hospital (Angoda), Colombo.—This institution, which was housed in three permanent wards and in several large temporary cadjan sheds, was transferred in the early part of the year to its new and permanent site in extensive grounds at Angoda, six miles away from Colombo. The new hospital was opened for patients on February 16, 1926, but the old Infectious Diseases Hospital was not closed until all the old cases were discharged, i.e., March 2, 1926.

This institution is available for cases of infectious diseases from Colombo and the neighbouring villages and from ships arriving at the port.

The total number of cases treated during the year was 1,238 with 23 deaths and a mortality rate of 1.43 per cent., as against 1,457 cases treated with 46 deaths and a mortality rate of 3.15 per cent. in 1925.

The number of cases of smallpox treated during the year was 21, of which 14 were imported and 7 were local cases. One case being of a severe confluent type proved fatal. Of the other 20 cases, 10 were confluent, 3 were discrete, and 7 were modified. Twelve of them had visible marks of vaccination.

All the smallpox contacts who were sent to the camp were vaccinated during their stay there.

Seven cases of plague were admitted and treated during the year with 6 deaths, as against 26 cases with 21 deaths the previous year. All the cases admitted were males and were bubonic. Of these 7 cases, 3 had groin, 2 axillary, and 2 cervical buboes. The recovered case had groin and cervical buboes.

No cases of cholera were treated during the year though cases were sent on suspicion. Of the other cases of infectious disease admitted during the year, 53 were cases of enteric, 6 of diphtheria, 94 of chickenpox, 27 of mumps, 6 of influenza, 12 of whooping cough, and 144 of measles.

A sum of Rs. 4,015.85 was realized from paying patients, as against Rs. 3,521 the previous year.

Medical Institutions Aided by Government.—The following institutions were aided by Government during the year:—

(1) The Victoria Home for Incurables; (2) Wiseman Hospital, Welimada; (3) McLeod Hospital, Inuvil; (4) Jevon's Dispensary, Puttur; (5) The Wesleyan Medical Mission Hospital, Batticaloa; (6) The Wesleyan Medical Mission Branch Dispensary at Kattankudy; and (7) The Denepitiya Medical Mission Hospital, Southern Province. Nos. (1) and (7) are for males and females; Nos. (2) to (6) for females and children only.

Victoria Home for Incurables.—Eighty-three patients remained on December 31, 1925, and 25 were admitted during the year. Of these, 12 died, 11 were discharged, and 82 remained at the end of the year, as against 32, 26, 12, and 83 respectively reported in the previous year.

Wiseman Hospital, Welimada.—Three hundred and eighteen patients were treated in hospital during the year, including 43 maternity cases. Of these, 14 died, 298 were discharged, and 5 remained at the end of the year. The number of cases treated at the dispensary was 3,928, as against 2,409 in 1925. The diseases treated were mostly dysentery, burns, and scalds, pneumonia, vermes, malaria, anchylostomiasis, scabies, and bronchitis. Monthly visits of inspection were paid by the Medical Officer of Health, Central Province.

McLeod Hospital, Inuvil.—The total number of in-patients treated during the year was 2,806 with 123 deaths and a mortality rate of 4.38 per cent., as against 2,474 with 104 deaths and a mortality rate of 4.2 per cent. in 1925 and 2,289, 126, and 5.05 per cent. respectively in 1924.

The number of maternity cases treated was 848, 739 in hospital and 109 in the villages, and in 1925 775, 672, and 103 respectively. Of the 848 maternity cases, 500 were normal and 89 were cases of premature labour. Eighteen pairs of twins were born during the year. There were 31 cases of puerperal eclampsia, of which 21 made a good recovery, 4 died, and 6 remained in hospital at the end of the year. There were 22 cases of placenta prævia, of which 5 died.

Pupil midwives are being trained for service in the villages. Six pupil midwives presented themselves at the examination held in the De Soysa Lying-in Home, Colombo, in March, 1926, and 5 of these passed and obtained certificates in midwifery. In September, 1926, a second batch of 7 pupil midwives took up the examination and all passed.

4,967 out-patients paid 8,503 visits in 1926, as against 4,331 and 7,074 respectively the previous year.

The Jevon's Dispensary, Puttur, Northern Province.—Much educational work in regard to maternal and infant welfare and home nursing and prophylactic work were done during the year in Puttur and the surrounding villages by the Sisters of the Wesley Deaconess Order. Over 80 lectures on health topics illustrated by charts, diagrams, and lantern slides were given to village women. 2,263 visits were paid by patients to the dispensary, as against 1,433 in 1925.

The Wesleyan Medical Mission Hospital, Batticaloa.—6,810 visits were paid by out-patients in 1926, as against 7,503 in 1925. Fifty-four in-patients were treated and 2 of them died. Most of the cases were maternity ones.

The Wesleyan Medical Mission Branch Dispensary, Kattankudy.—This dispensary is visited by the Medical Missionary Lady-in-Charge of the hospital at Batticaloa, and large numbers of Muslim women and children attend for advice and treatment. Her services are also available in cases of accouchement in this thickly-populated Muslim village.

The Denepitiya Medical Mission Hospital.—This hospital was established in 1924 by the members of the Anglo-Catholic Union, Ceylon, and is in charge of a qualified Medical Officer, Dr. D. R. Peiris, L.M.S. (Ceylon), assisted by an apothecary, a nurse, and a trained midwife.

4,084 cases who paid 12,982 visits were treated during the year. Of these, 150 cases were of parangi, 341 of anchylostomiasis, and 351 of malaria.

VENEREAL CLINICS.

There are three Venereal Diseases Clinics maintained in the town of Colombo, viz., one at the General Hospital, Colombo (outdoor); one at the Port Surgeon's Office (outdoor); and one at the Female Branch Hospital, Borella (outdoor).

As regards No. 1, the Medical Officer in charge, Dr. E. C. Alles, gives the following particulars:—

"The number of cases treated in this clinic for the past 3 years is tabulated as follows:—

Cases.	1924.	1925.	1926.
Syphilis	524	480	781
Soft sores	48	126	28
Gonorrhoea	463	336	530
Yaws	27	61	67
Total	1,062	1,003	1,406

"A few cases of arsenical dermatitis have occurred even after two injections, due to individual idiosyncrasies of the patient. I have also thought it due to the long period of starvation these men are in when they come for the injection. In starvation the liver cells, being devoid of glycogen, have a great affinity to arsenic and become vulnerable to it. So that now before injections I order the patient be given the following mixture:—

Glucose	1 ounce	Syrup of lemon	$\frac{1}{2}$ drachms
Bicarbonate of soda	15 grains	Distilled water	3 ounces

"This seems to be an excellent prophylactic against arsenical dermatitis."

At the Port Venereal Clinic for seamen 106 cases of syphilis were treated by intravenous injections in 1926, as against 56 in 1925 and 61 in 1924.

At the Female Branch Hospital, Borella, the following cases have been treated in the past 3 years:—

	1924.	1925.	1926.
Syphilis	325	284	244
Gonorrhoea	238	189	244
Rheumatism (Gonorrhoeal)	—	—	8
Other venereal diseases	—	—	6
	<u>563</u>	<u>473</u>	<u>502</u>

Charts, Hospital Returns, &c.

Charts.—The following charts are given at the end of this Report, *vide* Table III.:—

- (a) Chart showing the general systemic and preventable diseases treated at the Government hospitals during the year 1926.
- (b) Chart showing deaths from general systemic and preventable diseases treated at the Government hospitals during the year 1926.
- (c) Chart showing cases of infectious diseases treated at the Government hospitals during the year 1926.
- (d) Chart showing deaths from infectious diseases treated at the Government hospitals during the year 1926.

Hospital Returns.—The following Hospital Returns, extracts from the Ceylon Blue Book for 1926, are given at the end of this Report:—

- (1) Details regarding hospitals (patients, attendants, &c.) in each Province.
- (2a) Return of Diseases—Cases treated, according to districts.
- (2b) Return of Diseases—Cases treated, according to diseases.
- (3) Special Diseases.
- (4) Water supply, &c., at hospitals.

Table.—Table III. gives a return of diseases (out-patients).

VII.—PRISONS AND ASYLUMS.

Prisons.

Prisons were maintained at the following places during the year 1926:—Welikada, Bogambra, Mahara, Anuradhapura, Badulla, Batticaloa, Galle, Jaffna, Negombo, Hulftsdorp, Kandy (old jail).

The number of prisoners in those prisons on December 31, 1925, was 3,034 (2,966 males and 68 females). During the year 1926 14,955 males and 417 females were admitted. 14,957 males and 407 females were discharged and 68 males and 1 female died during the year. On December 31, 1926, there were 2,896 males and 77 females remaining in the prisons.

In 1926 there were 10 hospitals for prisoners, *viz.*:—

The Prison hospital at Welikada	180 beds (for males)
Do.	12 beds (for females)
The Mahara Prison hospital	124 beds
The Negombo Prison hospital	17 beds
The Bogambra (Kandy) Prison hospital	66 beds
The Jaffna Prison hospital	12 beds
The Galle Prison hospital	12 beds
The Anuradhapura Prison hospital	52 beds
The Badulla Prison hospital	7 beds
The Batticaloa Prison hospital	5 beds

The new hospital built at Welikada to replace the old hospital at Borella was occupied on February 8, 1926. There are 120 beds at the new institution and 60 beds in the Infectious Diseases Hospital attached to it.

The health of the prisoners in all the prisons in the Island was on the whole satisfactory. The following is a brief statement concerning each prison:—

Name of Prison.	Daily Average in Prison.	Daily Average Sick in Hospital.	Total Number of Cases Treated.	Total Number of Deaths.	Chief Diseases treated (for meaning of figures please see Table X. below).
Prison Hospital, Welikada	1237.45	71.57	2,873	32	1, 2, 3, 4, and 5
Female Jail Hospital, Welikada	—	2.29	71	1	1, 2, 3, and 5
Mahara	689.80	25.25	1,190	5	1, 2, 3, 4, and 5
Bogambra	420.54	6.29	250	3	1, 2, 3, 4, and 5
Jaffna	269.89	9.12	335	23	1, 2, 3, and 6
Negombo	107.73	4.79	122	3	1 and 3
Galle	94.11	2.65	184	—	1, 2, 7, and 8
Anuradhapura	98.57	5.97	346	2	1, 2, and 3
Badulla	23.96	.20	13	—	1 and 3
Batticaloa	30.21	.78	45	—	1 and 4

Table X.

1. Malaria	5. Influenza
2. Diarrhoea	6. Cholera
3. Dysentery	7. Enteritis
4. Eye diseases	8. Conjunctivitis

It may be noted, as regards Mahara Prison, that there has been a very satisfactory decrease in the number of cases of malaria occurring there, thanks to the anti-malarial measures adopted. Full details are given in the report of the Medical Entomologist in the Appendix.

The large number of deaths at Jaffna was due to an epidemic of cholera in the prison. Seventeen prisoners contracted the disease and 16 of them died. The source of infection could not be traced, but it was surmised that the infection was imported into the prison by a carrier, inasmuch as, at the time, there was an outbreak of cholera in the town of Jaffna. Details of this outbreak in Jaffna are given in Section III. of this report under cholera.

Asylums.

(a) *Lunatic Asylum, Angoda.*—The new home for the Asylum and House of Observation, providing 1,728 beds and quarters for the staff, which has been under construction for the last eight years at Angoda in extensive grounds six miles away from Colombo, was completed, and the transfer of the establishment from Jawatta (Colombo) was effected on January 31, 1926.

The branch Asylum at Matara was continued till September, 1926, and the 122 male patients who were there were transferred to the new Asylum on September 26, 1926.

There were 821 males and 470 females in the Asylum at the beginning of the year, 381 males and 199 females were admitted during the year, 122 males were transferred from Matara Asylum, and the total number treated in 1926 was 1,324 males and 669 females, as against 1,120 males and 648 females in 1925 and 721 males and 483 females treated in 1924. One hundred and eighty-six males and 73 females were discharged, and 97 males and 54 females died during the year. 1,041 males and 542 females remained at the end of the year, as against 821 males and 470 females the previous year.

The average daily number in the Asylum was 901.74 males and 500.49 females, as compared with 827.67 males and 493.65 females in 1925 and 757.37 males and 470.60 females in 1924.

In the House of Observation 39 males and 23 females remained at the end of the previous year, 382 males and 202 females were admitted during the year, and a total number of 421 males and 225 females had to be dealt with during the year, as against 308 males and 146 females in 1925. Of the cases dealt with, 208 males and 125 females were transferred to the Asylum, 151 males and 70 females were discharged, and 11 males and 12 females died. The deaths in 1925 were 12 males and 2 females. The numbers remaining on December 31, 1926, were 51 males and 23 females. The daily average for both institutions together was 955.10 males and 525.36 females, as against 854.96 males and 507.55 females, respectively, the previous year.

The largest number resident in both institutions on any one day during the year was 1,663 and the lowest 1,349, as compared with 1,399 and 1,319 in 1925.

An average of 63 males was employed in gardening, 81 in trade, and 43 in household work. Of the women, 43 were employed in gardening and outdoor work, 32 in sewing, rope-making, and mat-making, and 111 in household work.

(b) *Leper Asylums.*—The reports on the two Leper Asylums—at Hendala and Mantivu—have already been given in Section II., Public Health, Infectious Diseases.

VIII.—METEOROLOGY.

Rainfall.—A rough summary of rainfall in 1926 can be given by saying that the south-west monsoon was above the average, while the inter-monsoon periods and north-east monsoon were below average. As a result the totals for the year will be found to be above the average at most stations on the west side and below the average on the east side and centre. The chief exceptions to this generalization were that in the extreme south the area of deficient rainfall extended westward to include the Galle District, while several stations on or near the east coast (e.g., Mullaittivu, Trincomalee, Rugam) did just reach their average, even though others a trifle more inland were in deficit.

As regards actual figures, Kenilworth 268.5 inches, Ingoya 258.5, and Carney 253.3 head the list, and beat their own averages, thanks to heavy south-west monsoon rain. At the other extreme totals of less than 40 inches occurred throughout the south-east of the Island, from Tissamaharama to Pottuvil, and in a more irregularly defined area, which may be roughly described as south and south-east of Mannar. The former included Udawila 28.3 and Tanamalwila 33.5, and the latter Murunkan 37.65 Nachchakali 37.1, while an isolated reading of 24.4 at Sangilikandarawa may be considered with this group.

Temperature.—Temperatures were decidedly above average in March and April of 1926, and, largely as a result of this, the mean temperatures for the year were above average at all stations. A numerical offset of + 2.4° F. at Hakgala may be discounted somewhat owing to the site of the new shed not being strictly comparable with that of the old one.

Trincomalee again had the highest mean temperature for the year with 83.6° F., or 0.70° above its own average, while at the other extreme, Nuwara Eliya with 59.3° F. was 1.2° above its average. At Colombo and Kandy the figures were 81.3° F. and 77.5° F.

The highest shade temperature in air recorded during the year was 100.3° F. at Anuradhapura on April 22, and the lowest 30.8° F. at Nuwara Eliya on January 21, both of which are well within the absolute records of 103.7° F. at Trincomalee on May 12, 1890, and 27.1° F. at Nuwara Eliya in 1914. The extremes at Colombo in 1926 were 93.4° F. on February 15 and 66.0° F. on January 19.

The mean daily range, i.e., the difference between the mean of the maxima and mean of the minima, was highest at Nuwara Eliya (18.4°) and lowest at Galle (8.3°). The extreme values of the absolute range, i.e., the difference between the highest and the lowest readings recorded at any one station, occurred at the same places, viz., 46.9° F. at Nuwara Eliya and 20.4° F. at Galle.

Returns.—Meteorological returns are given at the end of this report for the towns of Colombo, Jaffna, Galle, Nuwara Eliya, Kandy, Batticaloa. (Vide Table II. (a)-(f).)

IX.—SCIENTIFIC.

(1) Government Bacteriological and Pasteur Institutes.

The report of the Director, Dr. L. Nicholls, for the year 1926 is as follows:—

A.—BACTERIOLOGICAL INSTITUTE.—During the year 1926 there were examined at the Bacteriological Institute 16,785 specimens; this is an increase of nearly 5,000 specimens over 1925.

The fees received at the Bacteriological Institute totalled Rs. 7,345 and the Pasteur Institute Rs. 2,897.97, making a total of Rs. 10,242.97.

The specimens examined were as follows:—

Specimens.	Official.	Private.	Total.	Positive.	Negative.
Blood for typhoid (Widal) ..	1,849	35	1,884	684	1,200
Blood for paratyphoid A (Widal) ..	894	21	915	16	899
Blood for paratyphoid B (Widal) ..	894	20	914	—	914
Blood for Wassermann test ..	1,536	191	1,727	648	1,019
Blood for malaria ..	30	46	76	14	62
Human material for <i>B. pestis</i> ..	16	—	16	6	10
Rats for <i>B. pestis</i> ..	519	—	519	—	519
Sputa for tubercle bacilli ..	86	33	119	22	97
Sputa for pneumococci ..	3	1	4	4	—
Fæces for amoebæ ..	18	91	109	20	89
Fæces for <i>B. dysenteriae</i> ..	14	1	15	5	10
Fæces for ancylostomiasis ova, &c. ..	2	24	26	12	14
Fæces for <i>B. typhosus</i> ..	—	1	1	—	1
Urine for simple chemical examination ..	12	9	21	—	—
Urine for complete chemical examination ..	6	4	10	—	—
Urine for bacteriological examination ..	64	3	67	—	—
Secretions for gonococci ..	41	6	47	8	39
Secretions for <i>B. diphtheriae</i> ..	48	19	67	17	50
Evacuations for cholera vibrio ..	2,111	—	2,111	89	2,022
Scrapings for spirochaetes ..	—	7	7	4	3
Secretions for <i>B. lepræ</i> ..	11	2	13	4	9
Miscellaneous specimens ..	133	7	140	—	—
Water for examination ..	33	24	57	—	—
Auto-vaccine ..	19	11	30	—	—
Typhoid vaccine (doses) ..	2,037	1,551	3,588	—	—
Gonococcal vaccine (doses) ..	3,450	—	3,450	—	—
Cholera vaccine (doses) ..	700	—	700	—	—
Staphylococcal vaccine (doses) ..	—	150	150	—	—
Streptococcal vaccine (doses) ..	2	—	2	—	—
Total ..	14,528	2,257	16,785	—	—

B.—PASTEUR INSTITUTE.—The number of patients who were treated at the Pasteur Institute during 1926 was 957, this being an increase over the previous year of 447 patients. The number of dogs examined for rabies during the year 1926 was 195, which is an increase of 69 over the previous year. There can be no doubt that rabies has been greatly on the increase during the last year. Table I. shows the results of the examinations of the brains. Table II. shows the Provinces from which the patients came for treatment.

Table I.

District.	Positive.	Negative.	Unfit for Examination.	Total.
(1) Colombo ..	67	23	7	97
(2) Kandy ..	13	5	10	28
(3) Nuwara Eliya ..	8	4	3	15
(4) Kalutara ..	6	2	3	11
(5) Matale ..	6	—	1	7
(6) Ratnapura ..	3	3	3	9
(7) Kegalla ..	4	3	—	7
(8) Badulla ..	4	1	3	8
(9) Kurunegala ..	2	—	2	4
(10) Jaffna ..	—	—	2	2
(11) Galle ..	—	5	—	5
(12) Mannar ..	—	—	1	1
(13) Trincomalee ..	1	—	—	1
Total ..	114	46	35	195

Table II.

Province.	Patients.	Province.	Patients.
Northern ..	94	Sabaragamuwa ..	46
Western ..	576	Uva ..	18
Southern ..	57		
North-Western ..	13		957
Central ..	147		
North-Central ..	6		

Motor Laboratory.—The Motor Laboratory, which was built in 1925 for the investigation of outbreaks of diseases, was away from Colombo for 66 days. The bacteriological work done was connected with outbreaks of cholera and 1,908 specimens were examined. Among 442 contacts of cholera patients 42 were found to harbour *V. cholerae*.

The importance of discovering "temporary contact carriers" is obvious; and in many outbreaks of cholera this can only be done in a travelling laboratory.

The Medical Entomologist used the laboratory on three occasions for the investigation of anopheline carriers of malaria.

Branch Laboratories.—Nine branch laboratories were opened and equipped from this laboratory. The towns in which these are situated are—

- | | |
|------------------|----------------|
| (1) Anuradhapura | (6) Jaffna |
| (2) Badulla | (7) Kandy |
| (3) Batticaloa | (8) Kurunegala |
| (4) Chilaw | (9) Ratnapura |
| (5) Galle | |

These laboratories were established in the district hospitals of the towns enumerated with a view to affording aid to the Medical Staff in the diagnosis of fevers, intestinal parasites, &c. The Laboratory Assistant underwent a course of training at the Bacteriological Institute and at the Offices of the Malariologist and the Director of the Anchylostomiasis Campaign.

During part of 1926 the Director of the Bacteriological Institute superintended the work of the Malariologist's Office during the absence of Mr. Carter on leave.

Five papers have been written during the year in connection with work done by the staff of the laboratories. These have been published in the Ceylon Journal of Science and are as follows:—

- (1) "The Preparation of an Anti-Rabies Vaccine" by Lucius Nicholls, M.D., and E. Burgess.
- (2) "A Case of Melioidosis in a European" by C. R. Denny, M.R.C.S., and Lucius Nicholls, M.D.
- (3) "The Use of Paris Green as an Anopheline Larvicide" by Lucius Nicholls, M.D.
- (4) "The Organization of Minor Anti-Malarial Work" by Lucius Nicholls, M.D.
- (5) "A Travelling Laboratory" by Lucius Nicholls, M.D.

Melioidosis.—The discovery of the existence of Melioidosis in Ceylon is of considerable importance, and the fact that the first case to be reported occurred in a European indicates that the disease is probably not uncommon among other classes less closely scrutinized. The reason why it has not been previously reported is probably because of the difficulties of recognizing the disease by clinical diagnosis.

Snake-bites.—Many superstitions are extant in Ceylon concerning snakes and snake-bites. And among these is a conviction, which is not confined to the lower classes, that snakes of the genus *Dipsadomorphus* locally called *mapitas* are deadly poisonous. Whereas the great authority, Frank Wall, states that these snakes are "feebly poisonous, the bite producing at the worst some trivial local effects and no constitutional symptoms." I can confirm this statement from some small amount of work which has been done in this laboratory.

During 1926 an attempt was made to obtain numerous specimens of snakes for investigation. But unfortunately very few snakes were obtained in a condition in which their venom was available for experimental work.

It is intended to carry out further work on this subject in future. And it will be necessary to employ an expert snake-catcher. The importance of this work is shown from the fact that in the past deaths have been attributed as due to bites from non-poisonous snakes. In 1926 the Registrar-General recorded 237 deaths from snake-bites, but unfortunately the species of snake was not recorded. It is of interest to note that during the last three years 6 deaths from the bite of the brahmin lizard were recorded. This lizard is incapable of causing anything worse than a trifling local injury. Whilst there exists a public belief in the deadliness of harmless snakes and lizards, there will be opportunity for homicides to attribute their work to snake-bites.

(2) Interesting Hospital Cases, &c.

Space does not permit of full details being given, but a brief reference is submitted as regards the following cases:—

From the Lady Havelock Hospital for Women.—Dr. Catherine Anderson reports a case of tubal pregnancy occurring twice in the same patient and dealt with each time successfully by operation—first in September, 1925, and again in November, 1926; a case of volvulus of the pelvic colon complicated by five months' pregnancy also successfully dealt with by operation; a case of a liver abscess from which 9½ pints of pus were evacuated. Emetine was given daily for six days and rapid recovery occurred.

From the Kandy Hospital.—Dr. F. N. Spittel, Surgeon, reports a successful case of Caesarian section in a patient with a funnel-shaped deformity of the pelvis, and a case of intussusception in an adult necessitating resection of the lower end of the ileum, the caecum, and a portion of the ascending colon. The condition of the patient did not permit of anastomosis being carried out, but Paul's tubes were used. The patient recovered and was to return later for a further operation to close the artificial anus left.

From the Galle Hospital.—Dr. Hinton de Silva reports a case of recovery from diabetic coma under maximum doses of insulin; 2 cases of ruptured tubal pregnancy successfully dealt with; a fatal case of secondary abdominal pregnancy; 12 cases of tetanus with 2 deaths; and 7 cases of eclampsia with 2 deaths.

From the General Hospital, Colombo.—Dr. Lucian de Zilwa, Physician and Gynaecologist, reports on several cases of chronic amoebic dysentery treated with Yatren internally and as a rectal injection with good results. As regards gynaecological cases he remarks on the fact that few cases of cancer are admitted at an operable stage. He reports on a case which after Wertheim's operation has been free from recurrence for 4½ years, and a case of lithopoeidion in the form of a hard tumour in the hypogastrium of some 5 years' duration successfully dealt with. He also comments on the number of cases of plastic operations required for severe damage during confinement. Special anaesthesia is used in his wards for all major operations.

Dr. E. C. Spaar, Physician, reports a case of cerebo-spinal meningitis (meningococci isolated from the spinal fluid) which recovered after lumbar puncture on several occasions, a case of latent amoebiasis with a history of prolonged irregular fever treated by two injections of emetine which was followed by a rapid recovery. He comments on the seasonal prevalence of acute lobar pneumonia in the early and later months of the year and on the lessened severity of the cases of hookworm now admitted to hospital.

Dr. G. Cooke submits a report with photograph (not reproduced) of a case of very large ventral hernia where most of the small intestine and a large portion of the omentum was found in the sac at the operation performed by Dr. S. C. Paul, to whom Dr. Cooke referred the case when he was acting as Medical Officer in charge of the Lady Havelock Hospital.

Dr. G. Sinnatamby, Acting Out-patient Surgeon, comments on the increasing number of serious motor accidents, and also submits a report with drawings on a case of lingual thyroid undergoing adeno-parenchymatous degeneration and on two cases of ainhum.

(3) *Clinical Laboratory (General Hospital).*

In the Clinical Laboratory, General Hospital, 19,544 specimens were examined, as compared with 15,573 in 1925, and 9,528 in 1924. Interesting cases from the post-mortem room included a ruptured aneurism of the ascending aorta which had presented no definite clinical signs or symptoms, a case of acute leukaemia simulating pulmonary tuberculosis, the pre-dominating cells being of the large lymphocyte type, a case of sarcoma of the right ovary with general metastases, a case of primary carcinoma of the liver, a case of malignant cysto-adenoma of both supra-renals, and a case of acute vomiting and diarrhoea found to be due to plague.

(4) *Dr. F. Hirst, the City Microbiologist, Colombo.*

Dr. Fabian Hirst, the City Microbiologist, Colombo, has published Part I. of his Memoir on the Parasitology of Plague in the Ceylon Journal of Science, and it is expected that Part II. will be published shortly in the same Journal. Part I. deals with the experimental and entomological aspects of the subject and Part II. deals with epidemiology.

(5) *Special Reports.*

The following reports are given in the Appendix:—

- (1) Report of Dr. W. P. Jacocks, Director of the Anchylostomiasis Campaign, Ceylon, for the year 1926.
- (2) Report of Mr. H. F. Carter, Medical Entomologist, for the year 1926.
- (3) Summary of the Annual Report by Dr. S. F. Chellappah, Senior Medical Officer of Health, on the Health Unit, Kalutara Badda—July 1 to December 31, 1926.

X.—MISCELLANEOUS.(1) *Ceylon Medical College.*

The following extracts from the report of the Registrar of the Ceylon Medical College, Dr. F. O'B. Ellison, for the year 1925-26 are given:—

Representations were made to Government by the Registrar that it was advisable that the buildings and equipment of the Physiological Department of the College should be brought up to the modern standard, which has been already done in the case of the Anatomy Department. Accordingly a Sub-Committee was deputed by the Finance Committee of the Legislative Council to inspect the College accommodation and report on what was necessary. The Sub-Committee, consisting of the Hon. Messrs. Jayatilaka, Senanayake, Tambimuttu, Villiers, and Wille, together with the Principal of the College and the Registrar, inspected all the College buildings and equipment, and recommended that provision be made in the Estimates for 1926-27 for erecting a three-storey block on the site of the present College offices, to include a complete Physiological Department, Administration Offices, and students' Library and Common Room to accommodate 100 students, and recommended also that the College fees should be reduced to encourage a larger entry into the Medical College. The recommendations were adopted by the Legislative Council, and the necessary amount included in the Estimates for the year 1926-27.

Plans were made by the Public Works Department and approved by the Registrar and Professor of Physiology in consultation with Mr. Woodeson, the Chief Architect, and the building operations will be begun at an early date. As the Medical College Council did not think it advisable to reduce the College fees generally, it was decided by the Government, on the Council's recommendation, to institute Bursaries for the poor students, to cover the whole Pre-Medical and Medical Course fees, the number of such Bursaries not to exceed 10 per cent. of the accepted entries for the Pre-Medical Course in University College. Sanction was also obtained from the Government for the appointment of a Professor of Anatomy as a permanent whole-time appointment, and the Secretary of State was requested to take necessary steps to secure a suitable candidate.

It was stipulated that the Professor must hold a degree in Medicine of a British University or the Fellowship of the Royal College of Surgeons of England, and have been a Demonstrator in Anatomy in a British Medical School for three years, and confidence is felt that the teaching of both Physiology and Anatomy being thus in the hands of permanent whole-time professional teachers, the standard of teaching will be greatly improved, and that wider recognition of the courses and examinations in these subjects will be obtained from the Examining Bodies and Medical Schools in Great Britain.

Notification was received late in December, 1926, that the Secretary of State had appointed Archibald Gordon Smith, M.B.B.S. (Glasgow), F.R.C.S. (England), to be the Professor of Anatomy. Dr. Smith had also held the post of Senior Demonstrator of Anatomy at the Middlesex Hospital Medical School for three years.

The following permanent changes have been made during the year, viz.:—

The Senior Physician on the Staff of the General Hospital, Dr. F. Grenier, retired on March 31, and appreciation is here recorded of the long and valuable services of Dr. Grenier to the Medical College as a teacher.

Dr. Lucian de Zilwa has been appointed Lecturer in Senior Ward Class Medicine to succeed Dr. Grenier.

Dr. E. C. Spaar as Lecturer in Junior Ward Class Medicine in place of Dr. Lucian de Zilwa, promoted.

Mr. H. V. de Zoysa Abeywardene has been transferred from Police Court, Galle, and appointed as Librarian to succeed Mr. Saparamadu, deceased.

A night watcher also has been appointed with effect from October 1, 1925.

Academical.—Twenty-four students passed and qualified for L.M.S. Diploma. Thirteen new medical students were admitted.

*Distribution of Medical Students and Examination Results.**Distribution according to years.***October, 1925—**

First year ..	..	..	..	9
Second year ..	..	..	..	10
Third year ..	..	..	..	27
Fourth year ..	..	..	..	21
Fifth year ..	..	..	..	67

Total number of medical students .. 134

Results of Examinations held.

	December, 1925.		March, 1926.		July, 1926.		Total.	
	Sat.	Passed.	Sat.	Passed.	Sat.	Passed.	Sat.	Passed.
Final ..	27	12	27	6	36	6	90	24
Third Professional ..	—	—	19	9	20	13	39	22
Second Professional ..	—	—	23	10	19	11	42	21
Pre-Medical ..	—	—	19	7	27	8	46	15

Apothecary Students admitted.

Admitted in October, 1925 ..	25
Admitted in May, 1926 ..	28
	53

Classes.

	October.	May.
First year ..	29	50
Second year ..	15	13
	46	63

Results of Examinations.

	March, 1926.		July, 1926.		Total.	
	Sat.	Passed.	Sat.	Passed.	Sat.	Passed.
First Apothecaries ..	4	4	22	16	26	20
Second Apothecaries ..	7	6	9	3	16	9

Scholarships.—A new scholarship under the auspices of the Dutch Burgher Union has been founded under the name of "Dr. de Hoedt Scholarship."

(2) King Edward VII. (Memorial) Anti-Tuberculosis Fund.

The report of the Secretary of the Fund for the year 1926 is as follows:—

The series of seven health letters dealing with the incidence, spread, and prevention of tuberculosis, which are published annually in the English and vernacular newspapers in Colombo and Jaffna, was repeated last year, and the thanks of the Sub-Committee of the King Edward VII. (Memorial) Anti-Tuberculosis Fund are due to the press for their willing co-operation with the efforts of the Sub-Committee to educate the public in this manner in the value of fresh air, cleanliness, hygienic living, &c.

The duplication of the pumping plant at the Kandana Sanatorium is at present under consideration, and in this connection Mr. A. E. de Silva, who has already generously donated the land for the new well and the engine house, has further extended his generosity by donating an additional strip of land required for this purpose. The Sub-Committee owes a debt of gratitude to Mr. de Silva for his generous donations.

The construction of the new sanatorium at Kankasanturai has been delayed owing to the survey and other preliminaries which have to be gone through before the land is acquired. A sum of Rs. 5,015.10, being the total of the amounts awarded by the Government Agent, Northern Province, for the seven lots of land required for the sanatorium, has been remitted to him. Some of the claimants, however, have refused to accept the Government Agent's offer, and their claims have been referred to court for adjudication. As soon as the several amounts have been paid, formal possession of the entire block of land will be taken and a commencement in the construction of the sanatorium will be made as early as possible.

The accounts of the Fund have been audited by the Colonial Auditor, and certified statement of receipts and payments showing the working of the Fund during the year 1926, together with a statement of receipts and payments from the inception of the Fund up to December 31, 1926, is attached.

KING EDWARD VII. ANTI-TUBERCULOSIS FUND.

Summary Statement of Receipts and Payments for the Year ending December 31, 1926.

RECEIPTS.	Rs.	c.	PAYMENTS.	Rs.	c.
To Balance on December 31, 1925	111,920	29	By payment to Mr. L. A. Nethasinghe, being a bonus for auditing the account of the fund	20	0
Interest on current bank account	400	35	Payment to Government Agent, Northern Province, re erection of a new sanatorium in Jaffna	5,015	10
Interest on fixed deposit	3,423	11	Balance on December 31, 1926—		
			Rs. c.		
			Current account	16,135	44
			Fixed deposit	94,573	21
				110,708	65
	115,743	75		115,743	75

H. N. COLLYER,
Honorary Treasurer.

Audited and found correct:

J. JOS. JACOB,
for Colonial Auditor.

February 3, 1927.

KING EDWARD VII. ANTI-TUBERCULOSIS FUND.

Summary of Receipts and Payments up to December 31, 1926.

RECEIPTS.	Rs.	c.	PAYMENTS.	Rs.	c.
To donations, subscriptions, and sundry collections ..	392,141	11	By cost of erection of hospital sanatorium, apparatus, fittings, &c. ..	414,345	23
Interest—			Honorarium to Secretary, and bonuses to clerks for auditing and clerical work ..	4,187	84
Current account ..	7,314	21	Advertising, printing, stationery, travelling expenses, &c. ..	2,322	46
Fixed deposits ..	54,399	20	Balance—		
On donation by the late Mr. J. N. and Mrs. Campbell ..	77,657	24	On current account with Imperial Bank ..	16,135	44
On advance to contractor ..	52	42	On fixed deposit bank ..	94,573	21
	139,423	7		110,708	65
	531,564	18		531,564	18

Audit Office,
Colombo, February 3, 1927.

J. JOS. JACOB,
for Colonial Auditor.

(3) Civil Medical Stores.

The report of the Superintendent, Civil Medical Stores, is as follows:—

During the year the work in all branches increased considerably, and larger supplies of drugs and instruments were indented for and supplied to hospitals and dispensaries, especially to those dispensaries to which qualified Medical Officers had been appointed.

Drugs and dressings arrived in good time and in sufficient quantities.

Several new institutions in the civil and estate branches were opened during the year.

Drugs and instruments were purchased at a cost of Rs. 879,066.87. A sum of Rs. 163,187.87 was spent on quinine and quinine tablets.

10,054 lb. 13 oz. quinine and 1,124,375 tablets, costing Rs. 248,068.34, and 27,290 bulbs of Neo Salvarsan for treatment of parangi, costing Rs. 36,022.80, were issued during the year.

Free drugs and instruments were supplied to Government departments other than the Department of Medical and Sanitary Services to the value of Rs. 24,110.40.

Opium.—Opium and preparation were purchased during the year for Rs. 230,697.22, and the amount recovered by sales of opium preparations amounted to Rs. 4,749.13.

Cannabis Indica.—None was purchased during the year. Sales amounted to Rs. 24.80 (including duty). Dr. E. V. Ratnam and the Colombo Apothecaries Company were the two principal purchasers.

The staff was increased during the year by the addition of 1 typist, 3 packers, 1 peon, and 1 apothecary; and 1 packer for the Naval Stores which have been added to this store.

(4) Sale of Opium to Registered Consumers and to Vedaralas.

The number of opium depôts in the Island remained the same as during the previous year, namely, 53.

Three new consumers, as against 2 in 1925, were added to the register on purely medical grounds under section 11, sub-section (4) of Ordinance No. 5 of 1910. The total number of registered consumers served from the opium depôts in the Island during the year was 7,165, as against 7,792 in 1925, 8,323 in 1924, and 8,647 in 1923. 582 consumers obtained smoking opium in 1926, 622 in 1925. The number of vedaralas who purchased opium during the year was 2,890, as against 2,756 in 1925 and 2,673 in 1924.

3,587 lb. of eating opium and 408 lb. of smoking opium, which realized Rs. 376,761.65 and Rs. 57,098 respectively were sold to consumers and vedaralas during the year, as compared with 3,970 lb. of eating and 431½ lb. smoking opium which realized Rs. 398,224.32 and Rs. 60,442.50 respectively in 1925. The total amount realized by the sale of eating and smoking opium was Rs. 433,859.95, as against Rs. 458,666.82 in 1925. This decrease in the sales during the year was due to deaths among consumers.

There was no change in the selling price of opium. Eating opium was sold at 1½ cents and smoking opium at 2 cents per grain.

(5) Medical Requirements.

(1) A scheme for the rebuilding of the non-paying section of the General Hospital—long overdue—has been planned. A series of three-storey blocks will gradually replace the present single-storey wards. These new blocks will comprise wards built on modern lines. The provision for the first of these blocks has been voted this year, and the programme of construction should year by year be steadily adhered to until the whole scheme is completed.

(2) Closely associated with the above is the provision of a Nurses Home to afford accommodation for the Nursing Staff of the hospital and a training school for probationers.

(3) A Casualty Department—separate from the present Out-patient Department—is desirable, thus permitting extension of facilities for out-patient treatment, *e.g.*, in diseases of the skin, &c.

(4) The extension of the Lying-in Home in order to provide greater facilities for the training of midwives.

(5) The necessity for provision of adequate medical research laboratories has been stressed for many years. Government have approved (and the Legislative Council) of such provision being made. The difficulty of obtaining a suitable site at present stands in the way. Every effort should be made to overcome this difficulty as the need is a pressing one, and the scientific work of the Department is seriously hampered by the inadequacy of the accommodation at the Bacteriological Institute, Pasteur Institute, and the Laboratories of the Medical Entomologist and the Government Analyst.

May 31, 1927.

J. F. E. BRIDGER,
Director of Medical and Sanitary Services.

APPENDIX.

The following reports are given in the Appendix:—

- (1) Report of Dr. W. P. Jacocks, Director of the Anchylostomiasis Campaign, Ceylon, for the year 1926.
- (2) Report of Mr. H. F. Carter, Medical Entomologist, for the year 1926.
- (3) Summary of the report by Dr. S. F. Chellappah, Senior Medical Officer of Health, on the Health Unit, Kalutara Badda, from July 1 to December 31, 1926.

Report of the Director, Anchylostomiasis Campaign, Ceylon, for the Year 1926.

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1. Summary Figures.—

Persons treated and Number of Treatments given, 1916-1926.

By Campaign Units.

	First Treatments.	Total Treatments.		First Treatments.	Total Treatments.
1916-1917 ..	42,427	—	1924 ..	145,991	186,700
1918 ..	50,374	444,695	1925 ..	178,518	186,497
1919 ..	88,602	—	1926 ..	173,307	174,691
1920 ..	126,529	290,732			
1921 ..	84,617	190,131		1,015,274	1,677,706
1922 ..	24,136	54,711			
1923 ..	100,773	149,549			

By Other Agencies.

	First Treatments.	Total Treatments.		First Treatments.	Total Treatments.
1921.			1924.		
Estates ..	7,308	—	Government hospitals and dispensaries ..	776,913	980,905
Government hospitals and dispensaries ..	25,284	47,161			
	32,592	47,161	1925.		
1922.			Government hospitals and dispensaries ..	742,735	914,656
Estates ..	18,530	18,530	Mandapam Camp ..	52,784	52,784
Government hospitals and dispensaries ..	219,879	282,770		795,519	967,440
	238,409	301,300			
1923.			1926.		
Estates ..	18,000	18,000	Government hospitals and dispensaries ..	829,887	1,020,092
Government hospitals and dispensaries ..	501,537	664,008	Mandapam Camp ..	77,278	77,278
	519,537	682,008	Estate Staffs ..	64,851	85,840
				972,016	1,183,210

	Persons Treated.	Total Treatments.
Total campaign units ..	1,015,274	1,677,706
Total other agencies ..	3,334,986	4,162,024
Grand total 1916-1926 ..	4,350,260	5,839,730

2. *Organization.*—The Government of Ceylon and the International Health Board of the Rockefeller Foundation continued the co-operative work for the relief and control of hookworm disease during the year on the same basis and in accordance with the same general plan as in 1925.

During the year the Director in charge drew up a programme of permanent control measures by treatment. This programme was approved by the Anchylostomiasis Committee and was gradually put into operation. It is believed that the plan can be followed until hookworm control work becomes a part of the general health programme of the Colony.

3. *Administrative Organization: Personnel.*—Many changes in the personnel of the staff occurred during the year. The International Health Board Director, Dr. W. P. Jacocks, served during the year. Dr. W. C. Sweet, Acting Director in 1925, sailed for New York, on leave, in January.

Senior Field Directors.—Dr. T. K. Jayaram went on leave in April. He returned in November and was assigned to Mandapam Camp, where his duties, in part, are treating the labourers for hookworm disease while they are detained at the camp.

Dr. W. S. Fernando was recalled to general medical duties in April.

Dr. A. T. Kuriyan was assigned to the Colombo office in July, and is acting as Assistant Director of the Anchylostomiasis Campaign.

Junior Field Directors.—Dr. D. S. de Simon went on study leave to England in March. Dr. G. F. Vaidyakularatne, who succeeded Dr. Simon, was appointed Assistant

Inspecting Medical Officer of Western Province from October 1.

Dr. H. A. Dirckze left for foreign fellowship studies in August.

Dr. J. S. Fernando went on study leave to England in September.

Dr. A. C. Fernando was placed in charge of a Government hospital in October.

Present Field Staff—all Junior Medical Officers: In Estate Work.—Dr. E. Jayatilleke, Central Province.

Dr. S. G. Jackson, Province of Uva.

In School Work.—Dr. S. C. Manikawasager, Central Province.

Dr. L. O. Abeyratne, Province of Sabaragamuwa.

Dr. S. N. Chelliah, Northern Province (Jaffna Peninsula).

Dr. P. A. M. Jayawardena, Southern Province.

Dr. K. Kanagaratnam, Northern Province (mainland).

In the present programme of work five field medical officers are doing school treatment work and two estate treatment work.

It has been the policy this year to place junior medical officers in charge of itinerating field work, as this work requires much travelling with a minimum of equipment. The strength of the staff is shown in Table I.

Table I.—Personnel of the Anchylostomiasis Campaign Staff during 1926 by Months.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Senior Medical Officers	3	3	3	2	1	1	1	1	1	1	1	1
Junior Medical Officers	5	5	5	5	6	6	6	7	9	7	7	7
Clerks*	7	7	7	7	7	7	7	6	5	5	3	4
Microscopists	5	5	5	5	5	5	4	4	4	4	5	6
Dispensers	30	29	28	29	29	29	25	21	20	20	18	26
Labourers	8	8	8	7	7	7	7	8	8	8	10	10
Total	58	57	56	55	55	55	50	47	47	45	44	54

* All field office clerks were discontinued during the year. An additional temporary clerk was employed in December in Colombo office.

In addition to the officers mentioned above, Drs. K. T. Nath and T. K. Jayaram treated labourers at the Mandapam Camp, and Drs. A. N. Coomaraswamy and H. U. Leembruggen, Medical Inspectors of School, Northern Province, treated some of the schools in that district.

4. *Co-operation.*—The co-operation which was received from all sides has made it possible to carry on the work with the degree of success that has been attained.

The Department of Medical and Sanitary Services has readily furnished medical officers as they were needed.

The Department of Education has co-operated in getting the work done in schools. School managers and teachers, with few exceptions, gave excellent assistance.

The Government Agents and Assistant Government Agents, Mudaliyars, and Ratamahatmayas in the various Provinces have rendered needed help in getting the co-operation of villagers.

The Provincial Surgeons have been prompt in returning hospital and dispensary treatment figures, and in co-operating with the campaign work in their respective Provinces.

The Medical Officers themselves and the staff in general have entered upon their tasks with enthusiasm and determination to carry out a programme the value of which they are fully appreciative.

5. *Present Programme of Work.*—In 1925 an Island-wide survey of the Colony was completed and was included as a part of the report for that year. The figures gathered in that survey indicated that the hookworm disease was widespread from Point Pedro to Dondra Head and

from Chilaw to Batticaloa. In fact, it probably is the only disease of importance which is found in all sections of the Island with a fairly constant intensity. Other preventable diseases, like malaria and parangi, are more severe in certain areas, but hookworm disease is universally present.

In general the disease is more prevalent in those districts where no hookworm work has been done heretofore; consequently it became necessary to devise a programme which would reach all parts of the Island with a fairly constant intensity. Other preventable diseases, like malaria and parangi, are more severe in certain areas, but hookworm disease is universally present.

The programme which was decided upon was planned to reach the people through (a) schools, (b) estates, (c) Government hospitals and dispensaries, and (d) Mandapam Camp. In addition, particular measures were taken for doing (e) educational work; and (f) the laboratory in Colombo for examination of fecal specimens was enlarged to meet the needs of the new programme. This programme, a part of which was already in force, was put into effect gradually, and by the end of the year all phases of it were in operation.

Village work, which had been in progress in the Western Province for several years, was carried on during a part of the year as reported herein. Village work was, however, gradually discontinued, so that by October 1 all village work had ceased and the village field staff had been transferred to school and estate work. In the new programme, however, villagers have every facility for getting treatment.

6. Work accomplished:—

(a) Total Work during 1926.—Hookworm treatment work was carried on by—

- (1) Village units.
- (2) School units.
- (3) Estate units.
- (4) Mandapam Camp treatment of immigrants.
- (5) Government hospitals and dispensaries.
- (6) Central office treatments.
- (7) Estate staffs.

Table II. gives the number of persons treated and the total treatments given under the mass treatment plan.

Table II.—Total Anchylostomiasis Treatments by all Agencies, 1926.

		Number of Persons in Census.	Treatments given.		
			First.	Subsequent.	Total.
Village units	..	68,061	62,299	1,382	63,681
School units	..	78,498*	74,701	—	74,701
Estate units	..	42,625*	36,091	—	36,091*
Central office	..	80	80	2	82*
Bogambra Jail	..	136	136	—	136
Total for campaign units	..	189,400	173,307	1,384	174,691
Mandapam Camp	..	101,011	77,278	—	77,278
Government hospitals and dispensaries	..	3,697,625	829,887	190,205	1,020,092
Estate staff	..	241,423†	64,851	20,989	85,840
Total for non-campaign units	..	4,040,059	972,016	211,194	1,183,210
Grand Total for Ceylon	..	4,229,459	1,145,323	212,578	1,357,901

* 623 labourers were treated by school units.

† Census of 299 estates only.

Much of the work recorded in the above table was done by organizations not attached to the campaign. However, this is as it should be, for facilities already existing in Ceylon should carry on the treatment work, and the present task is, in part, to bring these facilities into complete use.

The campaign staff gave 174,691 treatments to 173,307 people. Usually only one treatment was given. In severe cases, or where special requests were made, additional treatments were given after an interval of 10 to 14 days, but it was rare that more than two treatments were given to anyone. The total first treatments given by all agencies were 1,145,323; in addition, 212,578 second treatments were given, making a grand total for Ceylon of 1,357,901 treatments.

Under the column "Number of Persons in Census" the figures for school units are not entirely accurate, as pre-school children and adults were also treated at schools and it was the custom to add these figures to the school census. The census of central office represents only those who applied for treatment. In other respects the census is accurate as far as can be determined.

Attention is called to the high percentages of the village (91.5) and school (95.7) populations treated.

(b) *Village Work*.—Village work was carried on during the year in Western Province in the (a) Horana, (b) Gampaha, (c) Veyangoda areas. With the change in the programme, village work closed when work in the above areas was completed. The villagers have every facility in the new programme to get treatment (a) by school units and (b) by Government hospitals and dispensaries.

Horana Area.—Work commenced in this area on August 1, 1925, under the direction of Dr. A. T. Kuriyan and was completed on July 31, 1926. On July 1 Dr. Kuriyan was transferred to the headquarters office in Colombo. Dr. J. S. Fernando worked as Assistant Director from January 1 to April 9, when he was shifted to take charge of the school unit in the Southern Province; Dr. S. C. Manikavasagar took his place as Assistant Director and continued till July 15, when he was sent to Chavakachcheri to undergo training in school work; all treatments were stopped on this date, and dispensers were engaged in collecting tins from the old treated areas till the closing of the campaign on July 31. In order to complete the work in the entire area by the end of July, an additional Assistant Director, Dr. H. A. Dirckze, and four dispensers were assigned to the unit on April 1 and worked till July 26, when they left to start school work in the Central Province.

The census for the year was 44,760, of whom 40,365 persons received first treatment; hence 90.1 per cent. of the population had the benefit of treatment. In addition 154 subsequent treatments were given, making a total of 40,519 treatments. Besides treatment work, 51 lectures were given to approximately 10,400 persons, and 3,100 pamphlets were distributed. Sanitation of the area was taken up side by side with the mass treatment campaign and was continued as long as the work was in progress. The villages around Milleniya and Paragastota were poorly supplied with latrines.

Great assistance was received from Messrs. J. D. Brown, H. A. Burden, and E. T. Dyson, successive Assistant Government Agents of Kalutara District, and from the Mudaliyar of Rayigam korale as well as from the village headmen. To 43 of the latter certificates of merit were distributed by the Government Agent and Assistant Government Agent for their co-operation with the campaign staff and for their success in persuading at least 90 per cent. of the villagers under their jurisdiction to take treatment.

Gampaha Area.—Work commenced in this area on January 3, 1925, and was completed on September 30, 1926. Dr. D. S. de Simon was in charge of the work till March 20, 1926, when he went on study leave, and was succeeded by Dr. G. V. F. Vaidyakularatne. On completion of the work the latter officer became Assistant Inspecting Medical Officer of Estates in the Western Province. From January 1, 1926, to September 30, 7,920 persons presented themselves for treatment, of whom 7,421 received first treatment and 1,228 second treatment, making a total of 8,649 treatments given; 499 persons were found to be physically unfit for treatment. No certificates of merit were distributed in the area as the headmen exercised little influence over the villagers and did not secure their complete co-operation. A campaign had been conducted in this area a few years previously and the villagers' interest was not again obtained.

Veyangoda Area.—Work commenced in this area on September 2, 1925, and was completed on September 30, 1926. Dr. A. C. Fernando was in charge of the work throughout the period, and on completion of the work he was placed in charge of a Government hospital in the Kegalla District. From January 1, 1926, to September 30, 14,513 persons were given first treatment out of 15,381 physically examined. In this area 17 headmen received certificates of merit for persuading at least 90 per cent. of the villagers to take treatment.

Triangular Area.—The above two areas included the triangular area, but extended beyond its limits. The triangular area was sanitated some years ago, and at the present time the general sanitation of the area is fair. Many of the latrines are in a good state of preservation and are being used. Opposition to re-treatment continued, however, particularly in the Gampaha area. The triangular area still shows, however, the benefit of treatment and sanitation work done in 1921 and in parts of 1920 and 1922.

Table III. shows the treatment and lecture work done in villages in 1926.

Table III.—Treatment and Lecture Work done in Western Province Villages during 1926.

Area.	Census.	Treatments.				Lectures.	
		First.	Sub.	Total.	Percentage treated.	Number.	Attendance.
Horana ..	44,760 ..	40,365 ..	154 ..	40,519 ..	90.2 ..	51 ..	0,400
Gampaha ..	7,920 ..	7,421 ..	1,228 ..	8,649 ..	93.7 ..	23 ..	3,024
Veyangoda ..	15,381 ..	14,513 ..	— ..	14,513 ..	94.4 ..	9 ..	800
Total ..	68,061	62,299	1,382	63,681	91.5	83	14,224

The sanitation work done in these areas is shown in Table IV.

Table IV.—Census, Homes, Latrines, and Sanitary Inspectors in Horana, Gampaha, and Veyangoda Village Areas in 1926.

Area.	Census, 1921.	Number of Houses, 1921 Census.	Number of Latrines built.		Total.	Number of Sanitary Inspector employed in 1926.
			Prior to 1926.	During 1926.		
Horana ..	32,002 ..	6,177 ..	1,492 ..	201 ..	1,693 ..	5
Gampaha ..	18,718 ..	3,701 ..	1,414 ..	93 ..	1,507 ..	5
Veyangoda ..	24,871 ..	5,065 ..	2,484 ..	142 ..	2,626 ..	8
Total ..	75,591	14,943	5,390	436	5,826	18

It will be seen from the above table that the number of latrines per house and per population was greater in Gampaha and Veyangoda areas, which include the old triangular area. Considerable work yet remains to be done, however, to get all these areas thoroughly sanitated.

(c) *School Units*.—The main feature of the 1926 campaign work was the extension of the school treatment programme.

To reach all the schools the Island was divided into five districts as follows:—

1. Northern Province (Jaffna Peninsula).
2. (a) Northern Province (Mainland),
(b) North-Central Province, and
(c) Eastern Province (Trincomalee District).
3. (a) Central Province and
(b) North-Western Province.
4. (a) Province of Sabaragamuwa and
(b) Western Province.
5. (a) Southern Province,
(b) Province of Uva, and
(c) Eastern Province (Batticaloa District).

To each district were assigned one medical officer, four dispensers, and one labourer, all of whom itinerated, the medical officer using a motor cycle or small car, the dispensers a push bicycle. The medical officer visited each school in his territory, once for delivering a lecture and once for giving treatment. Headmen, patrons, and villagers were invited to the lecture and were informed that they could receive treatment on the treatment day. The lecture was given, or interpreted, in the vernacular, and included the life history of hookworm disease, its cause, prevention, and cure. The value of sanitation was dwelt upon, and the reason why it was stressed was explained. On suitable occasions the medical officer included other public health subjects in his lecture.

The response to school work has been quite satisfactory, and was due largely to the interest of the Director of Education, who gave sympathetic and capable assistance. With few exceptions teachers and managers co-operated satisfactorily. The medical officers deserve much credit also, for, in addition to those easy of access, they visited schools in remote districts, which had to be reached by travelling on foot for miles through jungle which was infested with dangerous wild animals. It is pleasing and encouraging to note that these journeys were undertaken willingly and freely, the stimulus being a desire to do a thorough job and to render help where it was much needed. Such visits to remote villages gave the people first information about hookworm disease.

In assigning work to dispensers the medical officer delegated three to giving treatments and the fourth to collecting fecal specimens both before and after treatment and posting them to the central laboratory for examination. This arrangement proved to be the most satisfactory method of dividing the work.

During the year under review the first round of school treatment work was completed in the North-Western Province and in the Trincomalee District of the Eastern Province. Work was started in the Southern Province (April), Northern Province (Jaffna Peninsula) (June), Central Province (July), Province of Sabaragamuwa (October), and Northern Province (Mainland), 2nd round (November), and was well under way in each district at the end of the year.

Work in School Units: North-Western Province.—Part of the school work in this Province was done in 1925. Beginning January, 1926, the remaining area was divided into two parts, (a) southern and (b) northern. Dr. W. S. Fernando did the work in the southern district, which he completed on April 17. Dr. E. Jayatilleke was in charge of the northern district, which was completed on April 10.

In the two districts treatments were given to 13,796 school children, to 2,518 villagers, and to 623 estate labourers, making a total of 16,937 treatments.

Eastern Province (Trincomalee District).—On completion of the campaign in the North-Western Province, Dr. Jayatilleke started work in the Trincomalee District on April 16, and completed it on June 16. During that period 2,188 school children and 1,116 villagers were treated, making a total of 3,304 treatments given.

Northern Province (Jaffna Peninsula).—Work was begun in the Jaffna Peninsula in the latter part of June by Dr. E. Jayatilleke after completing the work in Trincomalee District. He did much preliminary educational work prior to starting treatments. In August Dr. Jayatilleke was transferred to the school unit in the Southern Province to relieve Dr. J. S. Fernando. Dr. L. O. Abeyratne succeeded him and remained in charge till September 30, when he was assigned as medical officer of the school unit in the Province of Sabaragamuwa. Dr. S. N. Chelliah succeeded Dr. Abeyratne and was in charge of the unit for the rest of the year. Up to December 31 treatments were given to 10,645 school children and to 2,820 villagers, making a total of 13,465.

In Jaffna Peninsula, before the campaign unit started, treatments were carried on by Dr. H. U. Leembruggen and Dr. A. N. Coomarasamy, Medical Inspectors of Schools, with one dispenser from January 1 to June 19. They gave treatments to 2,712 pupils.

Northern Province (Mainland).—Work was commenced at Elephant Pass on November 8, 1926, with Dr. K. Kanagaratnam as Medical Officer in charge. As this was in the area of the north-east monsoon, floods interfered considerably with the progress of the work. Many of the schools were in remote districts and difficult to reach when the jungle roads and rice fields were covered with water. During the period 779 school children and 452 villagers were treated, making a total of 1,231 treatments given.

Central Province.—Work was begun in Matale District of the Central Province on July 27 by Dr. H. A. Dirckze, Medical Officer. On August 14 Dr. Dirckze was awarded a Public Health Scholarship for foreign study. He was succeeded by Dr. S. C. Manickavasagar. In this district many schools were located far in the jungle and could only be reached by walking. In this area 7,077 school children and 2,177 villagers were treated, making a total of 9,254 treatments given.

Province of Sabaragamuwa.—In the second week of October Dr. L. O. Abeyratne was assigned to work in the Province of Sabaragamuwa. He began first in the Haldummulla section and worked westward towards Ratnapura. The country in this section is mountainous and sparsely settled and poorly provided with roads. It is very rugged, and much time was consumed in going from school to school. Dr. Abeyratne was able to treat 4,230 school children and 2,253 villagers, making a total of 6,483 treatments given.

Southern Province.—Dr. J. S. Fernando began work in the Southern Province on April 19 in the Bentota section. On August 25 he proceeded on study leave, and Dr. E. Jayatilleke assumed charge. On the transfer of Dr. Jayatilleke to estate unit work in October, Dr. S. G. Jackson and Dr. P. A. M. Jayawardena carried on the work in succession, Dr. Jayawardena finally remaining in charge. This work was done in one of the most populous sections of the country, but where little if any hookworm work had been done before. The unit was able to treat 17,485 school children and 4,453 villagers, a total of 21,938 in all.

The treatment and lecture work done by school units is shown in Table V.

Table V.—Treatment and Lecture Work done by School Units during 1926.

Area.	Census.	School Children.	Villages.	Estates.	Total.	Lectures.	
						Number.	Attendance.
North-Western Province	No record ..	13,796 ..	2,518 ..	623 ..	16,937* ..	84 ..	No record
Trincomalee District ..	3,337 ..	2,188 ..	1,116 ..	— ..	3,304 ..	57 ..	5,630
Jaffna Peninsula ..	14,110 ..	10,645 ..	2,820 ..	— ..	13,465 ..	222 ..	28,625
Jaffna Peninsula by Medical Inspector of Schools ..	3,266 ..	2,712 ..	— ..	— ..	2,712 ..	— ..	—
Northern Province, (Mainland) ..	1,231 ..	779 ..	452 ..	— ..	1,231 ..	30 ..	1,437
Central Province ..	9,648 ..	7,077 ..	2,177 ..	— ..	9,254 ..	101 ..	12,779
Province of Sabaragamuwa ..	6,684 ..	4,230 ..	2,253 ..	— ..	6,483 ..	60 ..	14,001
Southern Province ..	40,845 ..	17,485 ..	4,453 ..	— ..	21,938 ..	253 ..	48,947
Total ..	78,498	58,912	15,789	623	75,324*	807	111,419

* Includes treatment of 623 labourers.

The Medical Officers made inspections of latrines at schools in the course of their work. Report forms were not available for the whole year, so that the report is not entirely complete. The number of schools in each Province was taken from the 1925 edition of the District Classification. The work done is shown in Table VI.

Table VI.—Sanitation Information reported by School Units in Various Provinces in 1926.

Province.	Number of Schools in Province.	Number of Schools visited.	Latrines.				Evidence of Soil Pollution.
			Number.	Kind.	Used.	Maintained.	
North-Western	322 ..	214 ..	90* ..	Pit.	Bucket.	..	..
Eastern (Trincomalee District) ..	52 ..	52 ..	21 ..	10 ..	11 ..	20 ..	21 ..
Northern ..	397 ..	235 ..	69 ..	54 ..	15 ..	62 ..	62 ..
Central ..	318 ..	92 ..	79 ..	72 ..	7 ..	78 ..	78 ..
Southern ..	416 ..	265 ..	231 ..	209 ..	22 ..	218 ..	210 ..
Sabaragamuwa ..	234 ..	56 ..	53 ..	49 ..	4 ..	52 ..	52 ..
Total ..	1,739	804	543	394	59	430	423

* In North-Western Province latrines were reported—

Satisfactory ..	..	..	..	72
Unsatisfactory ..	..	..	..	18

(d) *Estates.*—The estate treatment campaign as carried on in 1925 was continued in the Maskeliya and Matale Districts of the Central Province till March 31. Dr. T. K. Jayaram, who was in charge of the work, was granted long leave from April 1, and this work was temporarily suspended. Dr. Jayaram was assisted from February 14 to March 31 by Dr. H. A. Direkze.

The new programme was started in October. The object of the new programme is to arrange for periodic treatment visits to each estate every 12 to 18 months until sanitation is well established. To reach all estates and bring them in line with the Island-wide treatment programme the planting area was divided into two districts as follows:—

- (1) Central and North-Western Provinces.
- (2) Sabaragamuwa, Western, Eastern, and Uva Provinces.

In each district there was placed a Medical Officer with three dispensers, all of whom itinerated as in the school districts.

This work was started in the Dimbula area of the Central Province in late October with Dr. E. Jayatilleke in charge, and in the Lunugala area of the Province of Uva in late November with Dr. S. G. Jackson in charge.

Through previous experience treatment work is well understood in many estate areas. In some districts, however, no treatment work has been done.

In the present programme the Medical Officer remains on the estate only one day. If he can treat the entire labour force that day with one dispenser, he does so; if not, the estate dispenser continues the treatment. If the estate has no dispenser the campaign is able to furnish a dispenser from its surplus staff at the estate's expense to carry on treatments. Having dispensers available for such work has proven a help in getting estates to fall in with this programme. In putting this programme into effect many district meetings were attended and the programme was explained fully. Questions were asked and answered. Co-operation from estates has been all that could be desired.

Table VII. shows the amount of estate work which was done during the short period of operations in 1926.

Table VII.—Estate Treatment Work done in 1926 by Campaign Units.

Province.	District.	Census.	First Treatment.	Total Treatments.
Central ..	Maskeliya and Bogawantalawa.	6,862 ..	6,045 ..	6,045
Central ..	Matale ..	13,263 ..	11,781 ..	11,781
Central ..	Dimbula ..	19,619 ..	15,809 ..	15,809
Uva ..	Lunugala ..	2,258 ..	1,833 ..	1,833
Total ..*		42,002	35,468	35,468

Treatment of Estate Staffs.—In starting the estate programme it was learned, as was expected, that many estates were doing this work without outside assistance. This is the line along which it is planned that this work should develop. As was shown, however, in last year's report, the number of estate dispensers will need to be greatly increased before that can be done, and in order to co-operate with estates in this respect the campaign has offered to train estate dispensers, or to make available at the estate's expense for a brief period a few surplus campaign dispensers. Both of these offers were availed of during the year, and will no doubt be of great assistance in enabling estates to carry on this work independently. To determine what estates were doing in this respect 876 letters of inquiry were sent out in December and 738 replies were received.

The hookworm treatment figures done by estates staffs during 1926 are shown in Table VIII.

Table VIII.—Anchylostomiasis Treatments reported as given by Estates Staffs in 1926.

Number of Letters sent out.	Number of Answers received.	Number reporting nil Treatments.	Number reporting Treatment.	Census.	Treatments.		
					First.	Second.	Total.
876 ..	738 ..	154 ..	584 ..	241,423*	64,851 ..	20,989 ..	85,840

* Figures for 299 estates only, as 285 estates did not report estate census figures.

The response to the questionnaire, 84.2 per cent., was quite satisfactory. The percentage of estates reporting carrying on treatment, 79.1, is encouraging, and indicates that this work can and is being tackled by estates on their own responsibility. The average number of treatments per estate is 147. In the absence of census figures from 285 estates it is not possible to calculate the percentage of labourers treated.

It is hoped that the 154 estates reporting no treatments will undertake treatments in 1927. It is probable that the failure to report census by 285 estates may have been due to a lack of clearness in the form sent out.

Sanitation on Estates.—Campaign Medical Officers have little opportunity for observing or inspecting sanitary conditions on estates. This work is done by Government Inspecting Medical Officers. The Inspecting Medical Officer of the Central Province has kindly furnished figures gathered on inspecting estates in his area during 1926, which are shown in Table IX.

Table IX.—Sanitary Conditions Found by the Inspecting Medical Officer, Central Province, on 221 Estates visited by him in 1926.

Number of Estates visited.	Population.	Number of Latrine Compartment.		General Sanitary Conditions.						Dispensers employed.		
		Present.	Required.	Very Good.	Good.	Very Fair.	Fair.	Poor.	Bad.	Yes.	No.	No Comment.
221 ..	40,509 ..	2,070 ..	2,118 ..	1 ..	22 ..	7 ..	71 ..	24 ..	96 ..	76 ..	144 ..	1

From this table it will be seen that something has been done, but much remains to be done to bring the latrine compartments up to the required number. The general sanitary condition is as much as "fair" on 101 estates. Dispensers are employed on 34 per cent. of estates. In commenting on this point the Inspecting Medical Officer writes that "at least in 70 per cent. of the estates shown in my return the dispensers are shared with neighbouring estates." This statement bears out the figures shown in the 1925 report on this point. However, it seems certain that progress is being made in this respect.

(c) *Mandapam Camp.*—Treatment at Mandapam Camp of Indian labourers travelling to Ceylon was begun in January, 1925, and was continued during the year. Of 101,911 labourers who passed through the camp, 77,278 or 75.83 per cent. were treated. In addition 59 others took treatment, making a total of 77,337. No difficulty was experienced in getting the labourers to take treatment. Those exempted included pregnant women, nursing mothers, infants, the aged, and alcoholics.

Up to October 31 hookworm treatments were given by Dr. K. T. Nath, Quarantine Medical Officer, who was assisted from May to October, rush months, by Dr. A. W. Rasiah of the Department of Medical and Sanitary Services. On November 1 Dr. T. K. Jayaram, who has had long experience in treating estate labourers in Ceylon, was assigned to the camp and took charge of treatment work. The Quarantine Medical Officer was assisted by an apothecary, compounder, dispenser, and peon. The dispenser and peon were paid by the Anchylostomiasis Campaign; the rest are the regular camp staff furnished by the Ceylon Government and were given additional pay for this work.

The labourers remain at the camp six full days in order that they may be observed for symptoms of plague, cholera, or other quarantinable diseases. Up to October 31 labourers were treated on the third day; since November 1 they have been treated on the fourth day, and by so doing the Medical Officer states that he is able to observe the labourers one day longer for development of cholera before treatment, and that he is thus able to proceed with greater assurance in giving treatments. During October, November, and December (cholera months) the percentages treated were 78.61, 86.23, and 86.66 respectively; during the same months in 1925 the figures were 41.1, 29.9, and 0.

This is a useful change of method, as it is desirable to treat as large a proportion of the labourers as possible each month. The treatments by months is shown in Table X.

Table X.—Showing Number of Arrivals, Number treated, and Percentage of Labourers treated at Mandapam by Months during 1925.

	Number arrived.	Number treated.	Percentage treated.
January ..	2,763	1,802	65.2
February ..	4,240	3,373	79.6
March ..	5,794	4,929	85.1
April ..	8,435	7,350	87.1
May ..	11,675	9,577	82.0
June ..	14,683	11,413	77.7
July ..	13,989	10,867	77.7
August ..	10,935	7,555	69.1
September ..	11,521	5,592	48.1
October ..	8,125	6,387	78.6
November ..	4,061	3,502	86.2
December ..	5,690	4,931	86.7
	101,911	77,278	75.8

Egg Counts at Mandapam Camp.—The egg count figures which were done at the camp were furnished through the courtesy of Dr. J. F. Kendrick, who is in charge of hookworm work in the Madras Presidency. These figures are interesting to Ceylon as will be seen from Table Xa.

Table Xa.—Egg Counts at Mandapam Camp, January 1 to November 27, 1926, on Labourers in the Madras Presidency who had not been to Ceylon previously and who had been to Ceylon.

	Positive.	Negative.	Total.	Eggs per Group.	Average Eggs per Gram per Person.	Percentage Positive.
Persons who had not been to Ceylon ..	6,893	1,179	8,072	6,370,050	789	85.4
Persons who have been to Ceylon ..	4,621	539	5,160	5,044,900	978	89.5

The fact that those who have been to Ceylon have a higher average egg count than those who have never been here appears to indicate, keeping in view the general sanitary conditions in both places, that climatic conditions are probably better in Ceylon for the proper development of larvae in the soil, and hence greater exposure to infection occurs for that reason. One would expect that a much higher count would be found for those having been to Ceylon if the above reason is true, but some credit should be given to the large amount of treatment work which has been done and to the amount of sanitation which has been put into practice. Those examined from Ceylon included both those who had as well as those who had not been treated.

(f) *Government Hospitals and Dispensaries.*—Since 1921 treatment for hookworm disease has been given to people who apply for attention at Government hospitals and dispensaries. In 1925, the last attendance figures available, 2,454,081 villagers and others applied for attention to outdoor dispensaries and were given 914,656 treatments. In 1926 1,020,092 treatments were given at outdoor dispensaries. In treating these applicants for hookworm disease medical officers and apothecaries are doing a great service to their countrymen. The figures of this work are shown in Table XI.

Table XI.—Hookworm Treatments given at Government Hospitals and Dispensaries by Provinces in 1926.

Province.	First Treatment.	Sub. Treatment.	Total Treatments.
Uva ..	34,767	3,687	38,454
Southern ..	140,288	52,376	192,664
Western ..	118,120	37,408	155,528
Central ..	137,594	26,103	163,697
Eastern ..	114,602	17,695	132,297
Sabaragamuwa ..	98,221	14,299	112,520
Northern ..	39,283	10,374	49,657
North-Central ..	20,415	4,280	24,695
North-Western ..	126,597	23,983	150,580
Total ..	829,887	190,205	1,020,092

Table XII.—Hookworm Treatments given at Government Hospitals and Dispensaries in 1926 by Provinces and Percentages of these Treatments to 1925 Outdoor Dispensary Patients, also showing Figures for Average Eggs per Gram per Persons and Incidence Rates.

Province.	Outdoor, 1925.	Hookworm Treatments, 1926.	Percentage.	Survey Figures Average Eggs per Gram of Faeces.	Percentage Infected Survey Figures.
Uva ..	89,249	38,454	43.1	761	84.9
Southern ..	302,022	192,664	63.8	941	90.7
Western ..	554,207	155,528	28.1	956	88.1
Central ..	321,048	163,697	51.0	975	89.3
Eastern ..	215,392	132,297	61.4	1,131	91.4
Sabaragamuwa ..	215,812	112,520	56.8	1,203	90.0
Northern ..	183,149	49,657	27.1	1,345	95.2
North-Central ..	150,211	24,695	16.4	1,527	96.5
North Western ..	422,991	150,580	35.6	1,567	96.0
Total ..	2,454,081	1,020,092	41.6	1,102	90.5

The percentage treated, 41.6, is the highest reported since 1921, when this work began, but it should be noted that 90.5 per cent. of the people harbour hookworms, and it is desirable that this figure be approached in treatments given. It will be seen from these figures that the lowest percentages of treatments given are in the Provinces which show the highest egg counts. It would be useful if medical officers and apothecaries in these Provinces should endeavour to get higher percentages in 1927. In order to stimulate interest in this particular work the following letter and memorandum were sent to medical officers and apothecaries by the Director of Medical and Sanitary Services:—

DEPARTMENT OF MEDICAL AND SANITARY SERVICES.

To all Medical Officers and Apothecaries in Charge.

A recent survey of the Island disclosed an average hookworm egg count sufficient to justify mass treatment to the general population.

2. In Ceylon one of the most effective means of attacking hookworm disease by treatment is through the utilization of the existing facilities at Government hospitals and dispensaries. The figures for the last five years are shown as follows:—

				First Treatments.	Total Treatments.
1921	..	..	..	25,284	47,161
1922	..	..	..	219,879	282,870
1923	..	..	..	501,537	664,008
1924	..	..	..	776,913	980,905
1925	..	..	..	742,735	914,656

There was a steady increase in treatments up to 1924; the 1925 total treatments, however, are less than those for 1924, and even these large figures represent only 36.6 per cent. of the outdoor patients applying (based on 1924 attendance figures).

In view of these circumstances the attention of all concerned is drawn to the value of treatments in controlling hookworm disease, and it is requested that a special effort be made during 1926 to treat at least 60 per cent. or 70 per cent. of those applying. Physicians and apothecaries will render valuable service to their own countrymen by giving special attention to this disease.

Dr. W. P. Jacocks, M.D., Director of Anchylostomiasis Campaigns in Ceylon, and his Assistant have been authorized to visit hospitals and dispensaries in the Island to advise medical officers and apothecaries on this matter.

J. F. E. BRIDGER,
Director of Medical and Sanitary Services.

Memorandum concerning Treatment of Anchylostomiasis in Government Hospitals and Dispensaries.

1. By experiment and by practice carbon tetrachloride has been shown to be the best drug for removing hookworms, and oil of chenopodium for removing round worms.
2. When both parasites are found by examination to be harboured by the same person the "combined" treatment is recommended.
3. Dosage tables are enclosed. To get the best results the dosages recommended should be administered, unless there are contra-indications.
4. The precautions mentioned with regard to use of the drug and the type of people to be excluded should be observed.
5. If the morning meal is light and has been taken as much as two hours previously, hookworm and ascariis treatment may be given with the expectation of obtaining satisfactory results.
6. Treatment should be given at the dispensary. Allowing the patient to take the medicine home is not recommended.
7. Only one treatment need be given. In severe cases treatment may be repeated in two weeks. It is best to keep such cases in the hospitals while being treated.

(g) *Treatments at the Central Office, Colombo.*—During the year 105 persons were treated by the Central Office staff, of whom 72 belonged to the Industrial School at Wellawatta. Treatments at the Central Office are not encouraged as the staff has other work to do. It is the present custom to examine such patients, and if infected to send them to one of the nearby outdoor dispensaries. This arrangement has proved acceptable to all to whom it was recommended.

Bogambra Jail, Treatments.—For several years treatment of prisoners has been given at Bogambra Jail, Kandy. In January, 1926, 136 prisoners were treated.

7. *Central Laboratory.*—As a part of the 1926 record the work of the Central Laboratory is recorded. With the beginning of 1926 all field laboratory work was stopped and specimens were sent to Colombo for examination. In view of the accessibility of Colombo to all field areas of operation this arrangement was deemed more useful, and obviated the need for an itinerant laboratory, which is expensive. No disadvantage to the work has resulted from this move; in fact it probably has been advantageous, in that all the microscopical work has been done by the same staff of workers.

During the greater part of the year all specimens were examined by the Stoll method if the quantity of material was sufficient and if the stool was soft formed; otherwise it was discarded, as were all other types of stools. This arrangement simplified procedure and tended to give accuracy in general results. Plenty of material came to the laboratory, so that the number of examinations were a fair representation of conditions in the districts from which they were sent. All specimens negative by Stoll were examined by the Willis method. Table XIII. shows the microscopical work done by the egg count method.

Table XIII.—Laboratory Report of Microscopical Examinations made during 1926, using Egg Count Method only.

Area.	Not treated.					Treated.				
	Number examined.	Total Egg Count.	Average per Gram of Faeces per Person.	Positives.	Percentage.	Number examined.	Total Egg Count.	Average per Gram of Faeces per Person.	Positives.	Percentage.
School children—										
Trincomalee	687	5,708	1,246	586	85.3	405	438	162	94	23.2
North-Western Province	1,657	9,524	862	1,419	85.6	1,265	1,504	178	393	31.1
Northern Province	799	3,235	607	592	74.1	—	—	—	—	—
Central Province	1,156	7,748	1,005	1,019	88.2	397	1,299	490	290	73.0
Southern Province	2,936	20,245	1,034	2,635	86.3	208	1,004	724	176	84.6
Province of Sabaragamuwa	284	1,458	770	246	86.6	103	36	52	23	22.3
Total	7,519	47,918	956	6,497	86.4	2,378	4,281	270	976	41.1
Estate labourers—										
Maskeliya	45	222	740	41	91.1	32	17	80	6	18.8
Matale	88	375	640	70	79.5	90	226	377	56	63.3
Dimbula	522	2,564	737	401	76.8	459	443	145	189	41.2
Province of Uva	86	284	495	75	87.2	—	—	—	—	—
Total	741	3,445	697	587	79.2	581	686	177	251	43.2
Villagers and others—										
Horana	806	4,343	808	626	77.7	126	266	317	57	45.2
Gampaha	1,368	8,730	957	1,113	81.4	288	454	236	130	45.1
Veyangoda	1,068	6,702	914	838	78.5	160	442	414	106	66.3
Scattering	101	710	1,054	84	83.2	32	2	9	3	9.4
Total	3,343	20,485	919	2,661	79.6	606	1,164	288	296	48.8

Grand total of microscopical examinations by egg count method—15,168.

Ova of other Intestine Parasites.—Parasitic ova discovered other than hookworm ova are incidental findings. Table XIV. shows the findings of all parasites and the total laboratory examinations made during 1926.

Table XIV.—Intestinal Parasites found in the course of Microscopical Examinations made in the Central Laboratory, Ceylon, during the Year 1926.

	Before Treatment.		After Treatment.	
	Number.	Per Cent.	Number.	Per Cent.
Persons examined	15,436	—	6,069	—
Infected with hookworms	13,278	86	3,268	53.8
Infected with <i>Ascaris</i> L.	10,349	67.1	2,878	47.4
Infected with <i>Trichuris</i> T.	8,876	57.5	2,557	42.1
Infected with <i>Enterobius</i> (<i>Oxyuris</i>)	—	—	—	—
Ver.	159	1	47	.8
Infected with <i>Toenia</i>	16	.1	2	.03

Total number of Examinations: 21,505.

8. *Drugs Used.*—During the year carbon tetrachloride and oil of chenopodium were used exclusively in campaign units and for a part of the year in Government hospitals and dispensaries in the treatment for hookworms and round worms. A dosage table with instructions was prepared for campaign use and use in hospitals and dispensaries. The table was also furnished to estate dispensers. Magnesium sulphate solution and castor oil were the purges used. A dosage table giving quantities and methods follows:—

Treatment of Hookworm and Round Worm Infection.

In view of recent tests of treatment methods for the removal of hookworms and round worms, infections which the great majority of the people in Ceylon have, the following doses and methods of administration are recommended for routine use:—

Be sure your Drugs are Chemically Pure.

The Civil Medical Stores stock Tested and Safe Supplies.

A.—COMBINED TREATMENT.*Dosage Table in Minims.*

Apparent Age.	Carbon Tetrachloride.	Oil of Chenopodium.	Apparent Age.	Carbon Tetrachloride.	Oil of Chenopodium.
2	2	1	13-15	16	8
3-4	4	2	16-18	20	10
5-6	6	3	19-50	30	10
7-9	10	5	51-65	24	8
10-12	14	7	66 and over	21	7

The ratio of carbon tetrachloride to oil of chenopodium is 2 to 1 up to 18 years of age, and 3 to 1 thereafter.

B.—TREATMENT OF CHILDREN UNDER 10 YEARS OF AGE.

Children 10 years and under are best treated for this double infection with chenopodium solely, as carbon tetrachloride is not very efficient in destroying *ascaris*.

Dosage Table in Minims.

Apparent Age.	Oil of Chenopodium.	Apparent Age.	Oil of Chenopodium.
2	1	7	6
3	2	8	7
4	3	9	8
5	4	10	9
6	5		

One treatment only should be given using the full dose mentioned—administered in castor oil—as the purge. Prompt purging is very necessary in administering oil of chenopodium.

TREATMENT OF HOOKWORM INFECTION ONLY BY CARBON TETRACHLORIDE.

Dosage Table in Minims.

Apparent Age.	Carbon Tetrachloride.	Apparent Age.	Carbon Tetrachloride.
2-12	1½ times age in years	36-40	35-40 minims
13-20	Twice age in years	41-50	30-40 "
21-35	35-45 minims	51-55	20-30 "

Drug to be given in one dose in an efficient purge of magnesium sulphate solution.

Magnesium Sulphate Solution.—

One part of crystals of magnesium sulphate.

Two parts of water.

Maximum Dose.—3½ oz. of the solution.

Directions.

- (1) Treatments should be given on an empty stomach, preferably in the morning.
- (2) The carbon tetrachloride and oil of chenopodium should be mixed immediately before giving. They will separate if allowed to stand.
- (3) The mixture must be given in or followed immediately by an efficient purgative dose of magnesium sulphate in water.
- (4) If bowels have not moved within four hours, give a second purgative.
- (5) One treatment is frequently sufficient. A second treatment should not be given until two weeks after the first.

The following persons should not be treated except on the advice of a physician:—

- (1) Children under two years of age.
- (2) Pregnant women.
- (3) Epileptics.
- (4) Alcoholics.*
- (5) Persons suffering from acute febrile diseases, or obviously in poor physical condition.

* Alcoholic drinks should not be taken for two days previous to treatment, nor for the two days following. Habitual alcoholics should not be treated with carbon tetrachloride.

9. *Educational Work.*—Educational work is important in developing a proper attitude towards health work. A thorough understanding by the people concerned of the objects sought will simplify the efforts of those doing the work.

Lectures have been given and literature distributed for the past ten years on the life history of hookworms, the cause, treatment, and prevention of the disease. In those districts where hookworm work has been done the people are informed in these matters. To a certain extent this information has extended, through newspapers and through lectures, to other sections. In the areas where intensive hookworm campaigns have been conducted, the people understand the value of preventive measures and are now willing to undertake the control of other public health problems.

As has been pointed out, the present programme is Island-wide in scope. The medical officers gave lectures at every school which they visited, and they propose to visit all schools in the Island yearly. Such information given to a group which readily absorbs and remembers what it hears and sees will be reflected in the attitude which these children will have towards preventive measures when they became adults. The medical officer used charts and pictures taken in Ceylon; he used a microscope to show the eggs and larvae of hookworms and of flies and other disease-carrying insects. To selected audiences and at selected places and times he gave lantern lectures. In 1926 only two lanterns were available. In 1927 every medical officer will be provided with a lantern and a good selection of local slides. At these lectures the value of sanitation was stressed, and in pictures and slides proper types of latrines were shown.

The educational work done by the campaign officers during the year is shown in Table XV.

Table XV.—Number of Lectures given during 1926 with Attendance Figures.

Kind.	Number.	Attendance.
General	16	634
School	807	111,419
Total	823	112,053

10. *Sanitation.*—All operations against hookworm disease are, and will be, inadequate unless it is appreciated by those concerned that ultimate control will come only with the establishment of sanitation. While most important, it is a slow process to get sanitation well established. It involves an expenditure of money, time, and educational effort. It is necessary to get latrines built; it is also necessary to get them used and maintained. In other words, an effort will need to be made to change customs that have prevailed for generations. This involves a careful interest in the whole matter, and the amount of individual interest displayed locally will determine the success or failure of sanitation.

Sanitation requires Inspectors. There are not enough Inspectors, trained or untrained, to carry on sanitation work successfully over the whole Island. While desirable, this wide distribution is not particularly necessary at the present time. Sanitation should spread from particular centres like the triangular area in the Western Province and Kalutara Health Unit and well-sanitised towns and villages. The present treatment programme calls for visits to schools, hospitals, and estates; from these centres, also sanitation can and should spread. As sanitation improves the need for other control measures will decrease.

Much progress has been made in sanitation in recent years, but much still remains to be done. It would be idle and incorrect to state that all latrines constructed have been used and maintained. Many have been built of sound material—stone, wood, tiles—and have been used and maintained when interest was manifested from the proper quarter. But in many instances the types recommended were altered, the material used unsuited, the workmanship faulty, supervision slack, and maintenance not provided for. As a consequence, use was only temporary, intermittent, and sometimes entirely lacking. As in all other measures relating to public health, co-operation of all concerned is essential to assure success. A most encouraging

indication is the fact that commercial firms are building and offering portable metal latrines on the market at reasonable prices. This would indicate that there is a demand for such an article. Some of the commercial latrines have received the Government's approval.

That sanitation is effective is shown by the figures from Bogambra Jail, which were found when arrangements to give treatment there were made in January, 1926. The figures are shown in Table XVI.

Table XVI.—Examinations made at Bogambra Jail, Kandy, January, 1926, of prisoners who have not been treated and those who were treated one Year previously.

Condition.	Examined.	Positive for Hookworms.	Percentage Positive.
Not previously treated ..	37	30	81.0
Treated one year previously ..	97	2	2.1

The 97 previously treated prisoners did not go outside the jail compound. They lived under sanitary conditions. The figures show that the chances of re-infection are practically nil where proper sanitary conditions are established, and indicate that treatment was unnecessary.

The sanitation done in the various areas of operation have already been mentioned. To meet the situation as a whole Government has 7 Medical Officers of Health and 147 Sanitary Inspectors who are located in the various Provinces. There are also 3 Inspecting Medical Officers of Estates with 3 assistants, and 3 Medical Officers who inspect schools. With added interest which is being given to estate sanitation, and keeping in mind the general scheme outlined by Government and mentioned elsewhere in this report, it is evident that sanitation is being given serious attention, and this problem, like many others, can be solved if industriously and conscientiously attacked.

W. P. JACOBS,

January 31, 1927.

Director of Anchylostomiasis Campaign, Ceylon.

Report of the Medical Entomologist for the Year 1926.

Staff.—The Medical Entomologist, 3 Medical Officers (Drs. E. T. Saravanamuttu, J. Pedris, and W. H. Schokman), 7 Entomological Assistants, 1 Laboratory Assistant, 1 Laboratory Attendant, 1 Clerk (Class III.), 1 peon, and 5 coolies.

In March, 1926, His Excellency the Governor with the approval of the Secretary of State for the Colonies sanctioned the appointment of the Malariologist to the post of Medical Entomologist with effect from April 1, 1926; this post to be included on the permanent establishment of the Medical Department. The Medical Entomologist was on long leave from March 31 to November 30, during which period Dr. L. Nicholls, Director of the Bacteriological Institute, supervised the work of the office.

In May, 1926, Dr. J. Pedris was appointed District Medical Officer, Maturata.

In September, 1926, Dr. K. J. Rustomjee returned to the Island after completing his studies under the scholarship granted him by the International Health Board of the Rockefeller Foundation. His studies abroad were devoted exclusively to malaria and associated problems, and a considerable proportion of his time in the United States was spent at the Field Station for Malaria Studies at Leesburg, Georgia. At this station, under the direction of Dr. M. F. Boyd, he carried out researches upon the food of *Anopheles* larvae, the influence of saline waters upon the eggs of *Anopheles quadrimaculatus*, bird malaria, and the various species of human malaria parasites; he also conducted a spleen census of Isle of Wight County, Virginia. In addition he visited several towns where experimental or practical field work on malaria was being performed. On his homeward journey he was enabled to visit and study anti-malaria operations and methods of research in Italy, Sardinia, Palestine, India, the Federated Malay States, and Straits Settlements.

In September, 1926, Dr. W. H. Schokman unfortunately contracted enteric fever while at Anuradhapura, and was on sick leave until November, when he was transferred to the staff of the General Hospital, Colombo.

In October, 1926, three Medical Officers—Drs. I. J. Fernando, O. G. Weerasinghe, and G. Jeremiah—were appointed to this office for training in entomology and malaria preventive methods.

Entomological Assistants S. C. Clement and A. C. F. Abeyekoon were transferred from Anuradhapura to Colombo in May, 1926, in order to undergo the course of training for Sanitary Inspectors. They returned to their station in December. In July, 1926, Entomological Assistant J. L. N. Fernando was seconded for service in connection with the newly inaugurated Health Unit at Kalutara, Western Province.

Organization.—Two meetings of the Anti-Malaria Advisory Committee were held during the year, in April and December. At the second meeting the Director of Medical and Sanitary Services made a statement relative to the organization of the Anti-Malaria Division. He proposed that a departmental committee consisting of the Assistant Director of Sanitary Services (Chairman), the Medical Entomologist, and the Sanitary Engineer appointed by the International Health Board be formed for the purpose of inaugurating and administering the various anti-malaria campaigns undertaken. He further proposed that Dr. K. J. Rustomjee be appointed Executive Officer of this Committee. After discussion this scheme was approved by the Advisory Committee.

Education.—A number of public lectures and demonstrations and lectures to school children were given at various towns by members of the staff during the year. In May a motion picture projector and accessories and a three-reel film on malaria were purchased. This apparatus has proved a most valuable acquisition and has been extensively used; the reels were produced for the International Health Board and relate respectively to the distribution, cause and effects of the disease, to the development of the malaria parasites in man and in the mosquito and the life-history of *Anopheles*, and to preventive measures.

Tuition in entomology and blood examination was given during the period January to August, 1926, to those assistants selected in connection with the scheme for the training of technicians for district laboratories. Twelve of these assistants attended the course. In September and October a further series of lectures and demonstrations, including practical work in the field, was given to the Training Class for Sanitary Inspectors held by the Sanitary Branch of the Department; and during the same months a similar course of training was given to an Inspector of the Local Board, Batticaloa.

Kalutara Health Unit.—Investigations in connection with malaria within the area selected for health unit work were commenced in July, 1926. The area in question is situated in the Western Province, and embraces the northern portion of the Kalutara Totamune known as Kalutarabadda. It occupies approximately 25 square miles, and includes the town of Kalutara, numerous villages, and several rubber estates; it extends along the coast for some five miles, and inland for a similar distance. The country, except in the coastal region, is undulating or hilly, and is largely under cultivation. Rubber and coconut are grown extensively on the hill slopes, and rice in the valleys.

This area is situated in the hot moist zone of Ceylon, and is subjected to heavy rain during both the south-west and north-east monsoons, the annual average rainfall exceeding 100 inches. Previous work in this region in connection with the preliminary malaria and mosquito surveys showed that, in general, the endemicity of malaria was low, and that Anopheline mosquitoes which were recognized carriers of the disease were not abundant. The earlier results obtained from sampling in this zone indicated that the predominant Anopheles present were the "swamp-breeding" and relatively innocuous species *A. hyrcanus*, *A. jamesi*, and *A. barbirostris*. The earlier work in the health unit area itself was, however, of a restricted nature and was limited to the town of Kalutara; and it was therefore necessary, in view of the inauguration of an intensive public health campaign in this area, to investigate in greater detail the conditions existing in regard to malaria.

Accordingly, arrangements were made to undertake more extensive surveys in order to obtain, in the first instance, more exact information upon the endemicity of malaria and upon the prevalence, distribution, and breeding places of the Anopheline mosquitoes. For the latter purpose an Entomological Assistant (Mr. J. L. N. Fernando) was seconded for service at Kalutara under the Medical Officer of Health in charge of the unit.

Spleen examinations of children between the ages of 2 and 12 years at all schools (24) within the area were made by Dr. E. T. Saravanamuttu. The results are shown in the following tables:—

SPLEEN RATES, KALUTARA BADDA.

I.—Urban Area.

School.	Number of Children examined.	Number with Enlarged Spleens.	Spleen Rate.
(1) Kalutara North Government School ..	253	4	1.6
(2) Kalutara North Empire Day School ..	215	4	1.8
(3) Kalutara North Diamond Jubilee School ..	186	9	4.8
(4) Kalutara North Wesleyan ..	44	1	2.3
(5) Kalutara South St. John's ..	86	2	2.3
(6) Kalutara South Wesleyan Vernacular ..	86	1	1.2
(7) Kalutara South Holy Cross (Boys') ..	260	4	1.5
(8) Kalutara South Holy Cross (Kindergarten) ..	80	4	5.0
(9) Kalutara South Holy Cross (Girls') ..	56	1	1.8
(10) Kalutara South Nanodaya Vernacular ..	197	7	3.5
(11) Kalutara South Nanodaya (Lower School) ..	159	4	2.5
(12) Katukurunda Vernacular (Boys') ..	80	2	2.5
(13) Katukurunda Vernacular (Girls') ..	158	3	1.9
(14) Katukurunda Buddhist Vernacular ..	170	4	2.3
Urban District Council area ..	2,030	50	2.5

II.—Rural Area.

(1) Kalamulla (Roman Catholic Boys') ..	116	7	6.0
(2) Kalamulla (Roman Catholic Girls') ..	149	7	4.7
(3) Kalamulla (Buddhist) ..	110	6	5.4
(4) Heenatiyangala (Wesleyan) ..	139	5	3.6
(5) Kuda Heenatiyangala (Buddhist) ..	54	2	3.7
(6) Palatota (Buddhist) ..	149	8	5.3
(7) Koholana (Buddhist) ..	110	4	3.6
(8) Gamagoda (Government) ..	140	3	2.1
(9) Bombuvella (Buddhist) ..	175	12	6.8
(10) Bollesagama ..	132	5	3.8
Rural area ..	1,274	59	4.6

It will be observed that the numbers of children with enlarged spleens, both in schools situated within the town and in the surrounding rural districts, were small, and that although a slight increase occurred in the latter areas, the average spleen rates for both series were less than 5 per cent. In the urban area the rates varied from 1.2 per cent. to 5.0 per cent., and in the rural area from 2.1 per cent. to 6.8 per cent. The degree of enlargement of the spleen was in the great majority of cases small, the spleen usually being only just palpable; and in no case was great enlargement (to the umbilicus or beyond) observed.

Blood films were taken at random from 247 children, but in two only were malaria parasites found. These two cases were both from the rural area (villages of Palatota and Gamagoda), and were infections of Benign Tertian and Quartan malaria.

Anopheline survey work was commenced in the urban area and subsequently extended to the rural districts where the villages of Palatota and Heenatiyangala and the Lagos and Clyde rubber estates were examined. A summary of the results obtained is given overleaf.

Anopheline Survey, Kalutara Badda.
July-December, 1926.

Breeding Place.	Kalutara Urban District Council Area.				Rural Area.				Estates (Rubber).			
	Number of Situations examined.	Number with Anophes.	Number of Larvae collected.	Species Present.	Number of Situations examined.	Number with Anophes.	Number of Larvae collected.	Species Present.	Number of Situations examined.	Number with Anophes.	Number of Larvae collected.	Species Present.
Paddy fields ..	32	5	27	{ A. hyrcanus A. janesi	140	40	189	{ A. hyrcanus A. janesi A. barbirostris A. listoni A. subpictus	74	26	182	{ A. hyrcanus A. janesi A. maculatus A. tessellatus
River and streams ..	53	2	9	{ A. hyrcanus A. janesi A. barbirostris	70	11	38	{ A. hyrcanus A. janesi A. subpictus	36	4	18	{ A. hyrcanus A. janesi
Earth drains and trenches ..	16	—	—	—	75	24	159	{ A. hyrcanus A. janesi A. barbirostris A. maculatus A. subpictus A. aitkeni	73	42	531	{ A. hyrcanus A. janesi A. maculatus
Pools and pits ..	28	2	33	{ A. hyrcanus A. janesi A. barbirostris A. subpictus	32	17	117	{ A. hyrcanus A. janesi A. barbirostris A. subpictus	20	12	104	{ A. hyrcanus A. janesi
Swamp and seepage ..	8	—	—	—	8	2	7	{ A. janesi A. subpictus	11	3	11	{ A. janesi A. maculatus
Wells ..	491	—	—	—	73	12	47	{ A. hyrcanus A. janesi A. barbirostris	9	3	19	{ A. janesi A. tessellatus
Lagoon ..	117	100	2,396	{ A. hyrcanus A. janesi A. barbirostris A. subpictus	—	—	—	—	—	—	—	—
Miscellaneous ..	19	—	—	—	7	—	—	—	3	—	—	—
Totals ..	764	109	2,465	—	405	106	557	—	256	90	865	—

In all 1,395 situations were examined, and Anopheline larvae were found in 305; and nearly 4,000 larvae were collected and forwarded to Colombo for identification. Eight species of Anopheles were represented, viz., *A. hyrcanus*, *A. jamesi*, *A. barbirostris*, *A. subpictus*, *A. maculatus*, *A. tessellatus*, *A. aitkeni*, and *A. listoni*; the important malaria-carrying species, *A. culicifacies*, which becomes abundant in the dry zone regions of the Island, was not present. Within the limits of the town of Kalutara the survey was of an exhaustive nature and endeavour was made to examine all potential breeding places. Careful attention was given to the lagoon and to the wells, the former being sampled in over one hundred different situations along its margins. In general, Anopheline larvae were not abundant, and excluding the lagoon were present in only 1.4 per cent. of the situations examined. No larvae were found in any of the wells (491) examined during the survey period. In the lagoon, however, larvae were numerous and were found almost everywhere along the shores. The vast majority (2,323 of a total of 2,396) were referable to *A. subpictus*—Indian form—the other species mentioned in the table being apparently confined to a small marshy area at the southern extremity of the lagoon. Elsewhere within the town area *A. subpictus* was not abundant. No larvae of the dangerous species *A. listoni* and *A. maculatus* were encountered within this area.

In the rural area extensive sampling of potential breeding places of Anophelines in and around the villages of Palatota and Heenatiyanagala showed that larvae were present more often—24.0 per cent. of the situations examined serving as breeding places at the time of examination—and in larger numbers than in the urban area. The predominant species were *A. jamesi*, *A. hyrcanus*, and *A. barbirostris*; but *A. subpictus*, *A. maculatus*, *A. listoni*, and *A. aitkeni* also occurred. *A. maculatus* and *A. listoni* were found rarely and in very small numbers, the former being obtained from earth drains on three occasions, and the latter from a paddy field on one occasion only.

The results obtained from examination of the rubber estates mentioned above were somewhat similar to those of the rural area. Actual breeding places of Anophelines were, however, more abundant (forming 40.0 per cent. of the situations examined), and larvae were present in much larger numbers in the drains, *A. jamesi* and *A. hyrcanus* again predominated, although the latter was relatively less abundant than in the villages. *A. maculatus* was found in six situations (chiefly drains), but larvae were always scanty. *A. listoni* occurred once only, in a paddy field.

Of the eight species of Anopheline mosquitoes found within the health unit area to date, two only—*A. maculatus* and *A. listoni*—are recognized as important natural carriers of malaria. Neither of these species occurred in Kalutara town, and in both the rural area and on estates they were definitely uncommon. The remarkably low prevalence of active carrier species of Anopheles, associated with the low spleen rates among the resident children, indicate that malaria in the health unit area is not likely to prove a serious health problem. Entomological investigations in selected centres will, however, be continued during the coming year with a view to determining, chiefly, whether any important seasonal changes in the relative prevalence of the more dangerous Anophelines occur.

Experiments with Paris Green.—Experiments on the use and value of Paris Green as a larvicide were carried out during the months of June to November by members of the staff of this office under the direction of Dr. L. Nicholls. This work was performed in the laboratory at Colombo, and also in the field at Anuradhapura. The results were satisfactory, and led to the use of this substance as a preventive measure—especially for the treatment of paddy fields and irrigation channels—in the various campaigns in progress. Details of the experimental work are, however, not yet available, but will be published shortly by Dr. Nicholls in the Ceylon Journal of Science.

Anti-Malaria Campaign, Mahara Prison.—During the year several visits have been made to the prison by members of the staff. Maintenance of the anti-mosquito measures introduced has been satisfactorily continued in the harbour quarry and jail premises, and towards the close of the year was extended to the quarry of the Public Works Department. Some delay occurred in connection with the completion of initial works in the latter quarry, and during the early months of the year several of the drains still remained in poor condition. Larval examinations made at this time showed that *A. culicifacies* was present in the untreated drains in considerable numbers, and indicated that oiling in this area was not being performed efficiently. Representations were made to the prison authorities and to the quarry foreman, and subsequently the drains in question were built and graded. The inspections also revealed the fact that the practice of digging pits for washing purposes at the site of their work was being continued by the prisoners in spite of previous warnings regarding the dangerous nature of such situations. Two of these pits had been cut by the prisoners at the site of the new quarry, and both were found to contain larvae of *A. culicifacies*. Re-examinations of those bathing wells which had been retained* in the harbour quarry showed that the breeding of Anophelines had not been completely prevented, even although the reduction in the number of the wells ensured those which were left being used daily. It is evident, therefore, that so long as any of these wells or pits remain they will be a constant source of danger, and it is important that suitable arrangements be made as early as possible to eliminate them entirely and to obviate the necessity for their construction in connection with future work in the quarries.

The returns for the prison hospital from 1922 to 1926 inclusive are shown in the following table:—

Mahara Prison Hospital Returns, 1922 to 1926.

Year.	General.				Malaria.	
	Average Daily Strength.	Total Cases treated.	Average Daily Sick. Per Cent.	Death Rate. Per Cent.	Cases treated.	Death Rate Per Cent.
1922 ..	796.9 ..	5,767 ..	11.9 ..	4.4 ..	3,377 ..	2.5 ..
1923 ..	671.8 ..	4,002 ..	10.2 ..	1.3 ..	2,032 ..	0.3 ..
1924 ..	740.1 ..	2,740 ..	8.3 ..	1.2 ..	712 ..	0.1 ..
1925 ..	675.5 ..	1,527 ..	5.1 ..	1.9 ..	387 ..	— ..
1926 ..	689.8 ..	1,344 ..	3.6 ..	0.7 ..	462 ..	0.1 ..

* Over twenty of these wells had been closed during 1923, four only being retained for washing purposes.

It will be observed that the returns for 1926 compare favourably with those for 1925, although the latter themselves showed a very considerable improvement upon those for the preceding years. The number of deaths (5) and the average daily number on the sick list (25.1) during the year and the number of cases (7) treated for malaria during a single month (November) were the lowest on record at the prison. There was, however, a slight increase over 1925 in the total number of cases treated for malaria during the year, which was not wholly due to the larger number of prisoners present. The admissions to hospital for this disease averaged 5.6 per cent. of the average daily strength for the year, as against 4.6 per cent. in 1925 and 7.5 per cent., 29.4 per cent., and 37.4 per cent. in the years 1924, 1923, and 1922 respectively. This increase was due to a rise in the number of cases during the months of May, June, and July, and appeared to be associated with the extension of breeding of *A. culicifacies* noted above. It was, however, accompanied by an increase in the numbers of malaria cases treated at dispensaries (Ragama, Kadawata) in the vicinity.

Anti-Malaria Campaign, Anuradhapura.—Anti-mosquito measures at Anuradhapura were continued throughout the year on the lines mentioned in previous reports. Dr. W. H. Schokman was in charge of the campaign until September, when owing to illness he left. Pending the appointment of another trained medical officer, supervision of the work was temporarily placed under Entomological Assistant Mr. E. A. M. Karunaratne, who had been connected with the campaign for a period of over two years. Entomological Assistants A. C. F. Abeyekoon, S. C. Clement, S. Kanagaratnam, and E. D. Wijesinghe were also associated with the campaign during the year. The labour force consisted of 3 overseers and a gang of approximately 100 coolies and 42 convicts from the local jail; 26 of the coolies were employed on works of oiling, distribution of Paris Green, and maintenance, the rest and the prisoners being engaged upon permanent initial works.

The new permanent works performed during the year included the completion of the Halpan-ela restoration, and the filling and drainage of pools, pits, and swamps in the Abeyegiriya and Selachathiya areas and in the neighbourhood of the railway station.

Halpan-ela.—Work on the Halpan-ela during the early months of the year was confined to the southern portion in Tract I., extending from a point about 300 yards south of the Dickson road bridge to the junction with the river (Malwattu-oya). The length of this section was approximately 1,500 yards, and conditions throughout were difficult, the stream bed being very irregular and passing mainly through dense jungle. The work was greatly obstructed by barriers of rock; these occurred in no less than eleven different places, one of which was nearly 100 feet in length. Over 15,000 cubic feet of rock was removed by blasting, 35 lb. of dynamite being used for the purpose. Of the rock and stones thus removed nine side drains, one retaining wall, and fourteen Irish drains, together totalling 4,138 cubic feet of stone work, were constructed. Twenty pools in or near the bed of the stream were eliminated by filling; some of these were relatively large, one measuring over 200 feet in length and 8 feet in depth. The earth for this work was obtained by sloping the steep banks on either side, and in many places piles had to be driven to retain the earth and keep it from slipping into the bed of the channel. Eleven bends in the original channel were eliminated by straightening the course of the new channel. The earth cutting in this section amounted to 231,059 cubic feet, earth filling amounting to 262,170 cubic feet. The sides of the new channel had to be turfed to strengthen them against erosion caused by floods; 4,325 square feet of turfing were completed. Jungle clearing over an area of 160,576 square feet was also carried out in this area.

In the northern portion of the ela (Tract III.) constructional work was continued northwards from the vicinity of the Government hospital to the river along the subsidiary channel situated a few hundred yards from the Outer Circular road. The work in this section extended over a distance of approximately 1 mile. In this area there were two barriers of sandstone which had to be broken up and removed piecemeal by means of pickaxes; in all 1,130 cubic feet of sandstone were removed. The total amount of earth removed in this section was 8,369 cubic feet, including 438 cubic feet from side drains. No turfing was necessary in this area as the banks were relatively low except in the situations where sandstone occurred.

In addition to the above initial works on the ela certain improvements or repairs were found necessary in connection with areas which had been restored during the previous year. Owing to heavy erosion it was found necessary to eliminate the sharp and somewhat extensive bend in the subsidiary channel leading from the loop below the bridge at Dickson road to the river. This involved the cutting and removal of 15,769 cubic feet of earth, and the insertion on the banks of 587 square feet of turf. In the low-lying and previously marshy section (Tract II.) situated north of Dickson road the continual inrush of waste irrigation water necessitated the rebuilding of some of the side drains with stone, which was transported for the purpose from the site of blasting operations in Tract I. Near the bridge also a large pool was filled (24,630 cubic feet), and turfing of the sides of the stream over an area of 2,300 square feet was performed.

Minor Measures.—The minor anti-mosquito works done during the year included the draining of pools, pits, and swamps in the area situated between the railway station and the river, and the draining and filling of pools and levelling of low-lying areas in the Abeyagiri and Selachathiya areas. In the first named area 28 pools were drained or filled (15,159 cubic feet of earth being used) and approximately one acre of jungle cleared. Two large drains, 1,352 feet long, were cut through the larger pools to the river; the remaining pools and pits were filled with earth taken from the drains or from high ground nearby. In the Abeyagiri area three extensive and numerous small pools and depressions associated with past archaeological works were drained or filled. In all 66 pools were eliminated, involving 2,192 feet of drains being cut and 36,581 cubic feet of earth being taken from surrounding high ground for filling. In the Selachathiya area 9 drains totalling a length of 1,350 feet of drain were cut, and 5 pools filled (5,250 cubic feet).

In addition to the above the coolies employed on maintenance works were required when opportunity occurred to assist in the execution of minor initial works. Apart from their normal work they, in the course of the year, constructed 458 feet of drains and filled 27 pools and borrow-pits, utilizing for the latter purpose 19,164 cubic feet of earth.

Maintenance Works.—Anti-mosquitoes measures under this head comprised the reduction of undergrowth, the clearing of weeds, silt, and rubbish from water courses, and from pools, swamps, and borrow-pits preparatory to oiling, and raising the level of fillings where sinkage had occurred. Regular tours of the whole area in which initial works had been carried out were made by this brigade every 10 to 14 days. The maintenance measures required in connection with the completed portions of the Halpan-ela were considerable.

Oiling and Paris Green.—The application of oil to breeding places of Anophelines which could not be eradicated was continued according to the arrangements mentioned in previous reports. During the year 510 gallons of kerosine oil and 2,028 gallons of liquid fuel were used, the numbers of applications (10,853) being distributed as follows:—

	Applications.
Pools and borrow-pits	2,831
Stone quarries	113
Drains	3,377
Swamps and pokunas	2,711
Wells (disused and earth wells)	644
Irrigation channels (disused)	1,177

Following the experimental work with Paris Green referred to above, the systematic distribution of this substance to known breeding places of Anophelines—particularly paddy fields—was commenced about the middle of November.

Anti-Malaria Campaign, Trincomalee.—Maintenance measures at this town were continued by the local authorities under the supervision of Dr. W. H. Schokman until October, 1926, when their direction and control were undertaken by the Medical Officer of Health, Trincomalee District. During the period January to September Dr. Schokman visited the town from Anuradhapura once every month for inspection and advisory purposes. In March, 1926, a Sanitary Inspector (Mr. Seymour R. da Silva) who had previously been engaged for nearly two years in the initial campaign, and who was conversant with the town and the nature of the works necessary, was seconded for malaria service under the local authorities.

HENRY F. CARTER,
Medical Entomologist.

January 31, 1927.

Summary of the Report on the Health Unit, Kalutara Badda, from July 1 to December 31, 1926.

Health unit work was inaugurated in the Island at Kalutarabadda, in the Kalutara District of the Western Province, on July 1, 1926, and the report is for a period of six months up to December, 1926.

In this new development of health work, in addition to sanitation, the hygiene of the individual is receiving attention.

The objects of the work are to reduce sickness and deaths, and to promote the health of the community by putting into operation measures that modern sanitary science has proved to be of value to mankind. This first unit has also for its object the determination of standards of work and of procedure suitable to local conditions. It is also intended that it should serve as a training ground for personnel that would be required for health work along similar lines.

The area selected is the Kalutarabadda division of the Kalutara totamune—25 square miles in extent and having a population of 33,000. It includes the urban area of Kalutara town, 27 villages, and 7 large rubber estates. It has in it all the health problems that occur in the three types of population to be found in the Island, viz., urban, rural, and estate.

The organization of the work is represented in the accompanying chart. (*Vide* page 56.)

The staff during the six months has consisted of 1 Senior Medical Officer of Health, 1 Medical Officer of Health (temporary), 1 Medical Officer (temporary), 3 public health nurses (1 temporary), 3 midwives, 6 Sanitary Inspectors, 1 clerk, 1 peon, and 2 coolies.

The programme of work during the six months under review has consisted of—

- (1) The establishment of the organization, the securing and training of personnel and the obtaining of necessary material.
- (2) The conduct of the health survey.
- (3) Health education.
- (4) The organization of five maternity and child welfare clinics.
- (5) Attention to the routine sanitary work of the town.
- (6) The establishment of a routine in communicable diseases work.
- (7) School medical inspection.
- (8) Anopheline survey.

The activities of the unit are placed under four heads—

- (1) Administration.
- (2) Hygiene.
- (3) Communicable diseases.
- (4) Sanitation.

ADMINISTRATION.

Health Survey.—A detailed survey dealing with the environment and the personal, social, and medical history of every person was planned and is nearing completion. The survey is temporary, and is preliminary to deciding on a programme of work. The Urban Council area was completed by October 15, and the work in the rural area is in progress. Up to the end of the year 4,801 houses have been surveyed, distributed as follows:—

Urban	..	..	..	..	2,165
Rural	..	..	..	..	2,482
Estate	..	..	..	..	214

Vital Statistics.—The population of the health unit area is estimated at 32,941; of which 13,906 is urban population and 19,035 is rural.

The births during the six months totalled 671; and deaths for the same period amounted to 446. The infant deaths amounted to 100, giving an infant death rate of 148. Of the infant deaths, more than half (52 out of 100) occurred before the end of the first month of life. The principal causes of infant mortality have been convulsions, prematurity, and infantile debility. Of the total deaths, the chief causes have been hookworm disease, convulsions, pneumonia, and worms.

Health Education.—In all, 43 lectures were delivered dealing with maternity and child welfare, health unit work, hookworm disease, malaria, communicable diseases, and social service; of these, 17 were with the aid of magic lantern, 20 with the cinema. The estimated attendance at these lectures was 9,500. In addition to the above, two exhibits were displayed, one dealing with the fly danger and the other a model bakery. Thirteen conferences with the health unit staff were held. Public Health Nurses and Sanitary Inspectors in their daily rounds have been imparting education in health by personal contact.

HYGIENE.

Maternity, Infant, and Pre-school Hygiene.—To develop work among the three types of population, five maternity and "Well-baby" clinics were organized—3 in the urban area, 1 in the rural (Koholana), and 1 on an estate (Clyde). The clinics were held once a week in the afternoon at each centre. In all, 85 clinics were held, and 176 expectant mothers, 151 infants, and 98 pre-school children have been cared for. Home visitation by the Public Health Nurses is a very important feature of the work. Four hundred and seventy-one mothers were visited during pregnancy, making a total of 721 visits; 95 mothers during the puerperium, making a total of 189 visits; and 858 children, making a total of 1,302 visits.

In the development of child hygiene work, the assistance of the community has been fully kept in view. It has responded by organizing a Social Service League to assist the health unit. The community was looked to for the provision of the necessary buildings and furniture for the various health centres. The Social Service League has provided milk for children, food for mothers, and clothing to be loaned out at confinements. It has also started milk stations at Koholana.

In the further development of child hygiene work, it is proposed in the new year to organize clinics at Bolessagama and at Bombuwela, and to obtain the services of a fourth midwife.

School Hygiene.—There are 12 schools in the urban and 9 in the rural areas; of these, 10 were medically inspected, and the following is the summary of the work done:—

Number of schools inspected	..	10	Per cent. defective	..	71.8
Number of students examined	..	1,523	Number of defects	..	1,811
Number found defective	..	1,094	Defects per defective child	..	1.7

The principal defects found were—

Teeth and gums in 26.7 per cent. of the children examined.
Enlarged tonsils in 20 per cent. of the children examined.
Non-vaccination in 13.9 per cent. of the children examined.
Vision in 11.4 per cent. of the children examined.

Correctional work done so far has been only vaccination:—

Number found defective	..	..	..	294
Number treated	..	..	..	83
Per cent. treated	..	..	..	27.1

Adult Hygiene.—Thirteen adults presented themselves for a health examination. All had defects, but no information is available as to correction.

There were 148 consultations with the Medical Officer of Health at his office by people, and necessary advice was given.

COMMUNICABLE DISEASES.

A routine of work has been developed. During the six months 86 cases of communicable diseases have been notified; of which 38 have been in the urban area and 48 in the rural section. The diseases encountered were—

Dysentery	55	Tuberculosis	4
Typhoid fever	15	Influenza	2
Chickenpox	4	Whooping cough	2
Measles	4		

The reporting of cases in the Unit area in common with other parts of the Island has been bad.

Laboratory Work.—Forty-eight specimens of faeces and 58 specimens of urine were examined locally in the office; while 3 specimens of sputum, 1 of blood, and 370 specimens of faeces were examined in Colombo.

Hookworm Examination.—This was commenced on September 11, and 370 specimens were examined; of which 281 were positive giving an infection rate of 75.7 per cent. Egg counts were made in the case of 122 specimens giving an average egg count per gram of 1,115.

Vaccination against Smallpox.—Sanitary Inspectors of the Health Unit have been trained to do this. Primary vaccinations done are as follows:—

Number vaccinated	726	Number unsuccessful	13
Number successful	707	Number unknown	6

Malarial Control.—An Anopheline survey of the whole urban area, a part of the rural section, and of one estate has been done. In all, 1,256 breeding places were examined, and 255 were found to be positive for Anopheline larvae. Six species have been found, viz., *A. jamesi*, *A. barbirostris*, *A. Sinensis*, *A. rossi*, *A. listoni*, and *A. maculatus*. A spleen examination of the school-going children (2,030) within the urban area was done, and only 2.47 per cent. were positive—a negligible rate in comparison with rates in other parts of the Island.

Of the Anopheles found only *A. maculatus* and *A. listoni* are reputed carriers of malaria; they are not found breeding within the urban limits. Considering the very low spleen rate and the absence of reputed carriers of malaria within the urban area, it might be concluded that, as far as this area is concerned, malaria is not a health problem.

SANITATION.

Owing to the Sanitary Inspectors being engaged on the health survey work, not much work in correcting sanitary defects has been carried out.

Water Supply.—There is no pipe-borne water supply for the town of Kalutara; such a supply is the most important need of the town. Water is obtained from wells. In the rural section water is obtained from wells, streams, and the river.

Number of wells inspected	940
Number found defective	698
Number improved	8

Disposal of Excreta.—The latrine accommodation, both in the urban and rural areas, is inadequate. In the town the following improvements have been effected:—(1) The night collection and removal of night soil has been changed to day work; (2) the temporary storage depôts within the town have been reduced from five to two; (3) the trenching grounds have been reduced from two to one. Arrangements have been made for more coolies and for type hand carts.

Number of latrine inspections made	1,213
Number found defective	768
Number improved	32

Disposal of Refuse.—The scavenging work of the town was reorganized, in doing which a daily service for the whole area has been aimed at. The Urban District Council has made provision for more carts and coolies. The collected refuse is made use of for filling the swamp in the heart of the town.

Drainage.—The urban area is lacking in adequate drainage and the swamp at the heart of the town needs filling. This matter is receiving the attention of the Council.

Food Sanitation.—The survey has revealed the necessity for the improvement of all food-handling establishments, and work in this direction is in progress. The milk question is receiving attention; none of the dairies so far has been licensed, and adequate control is needed.

A routine has been established as regards meat inspection. The meat stalls in the market are unsatisfactory, and the Council is taking steps to provide proper stalls.

	Cattle.	Goats.
Number inspected	754	47
Number passed	711	47
Number rejected	43	—

Control of Animals and Insects: Mosquitoes.—Work done in connection with the Anopheline survey has been detailed.

House Flies.—Steady work is being maintained in the cleaning up of their breeding places.

Rats.—No work has been done.

Cattle.—The tethering of cattle in limited compounds is creating a nuisance.

Housing.—

Number of building applications referred ..	..	..	182
Number reported on ..	..	..	156
Number recommended ..	..	..	105
Number not recommended ..	..	..	51

Inspection of Premises.—

	Urban.	Rural.
Number of compounds inspected ..	2,991	2,984
Number defective ..	1,056	2,600
Number improved ..	601	—

FINANCIAL STATEMENT.

The total expenditure for six months, July 1 to December 31, has been Rs. 29,422.56, of which the Urban District Council's contribution has been Rs. 10,625.17 and the Government Rs. 18,797.39.

As far as the Urban District Council is concerned, their expenditure has in no way been increased to any appreciable extent, as they would have incurred the same expenditure whether the health unit was established or not. The expenditure on the part of Government has been slightly heavy, because of the temporary employment of a Senior Medical Officer of Health, a Medical Officer of Health, a Medical Officer, and one Public Health Nurse; but it has to be realized that expenditure is always greater when new work is undertaken.

A model budget for an area and personnel similar to those of the present health unit has been worked out at Rs. 47,000, of which the Government contribution would be Rs. 23,300. Worked on a *per capita* basis the cost is found to be 82 cents excluding expenditure on scavenging and conservancy in the urban area, and Re. 1.41 including this expenditure.

CONCLUSIONS.

As the result of six months' experience of health unit work, the following conclusions have been arrived at:—

(1) *Health Survey.*—This, which was planned to be completed before any work was undertaken, has been delayed. It is very necessary that, in future units, no routine or organization work should be undertaken before the health survey is completed.

(2) The following minimum organization is suggested as suitable for an area and population similar to those of the present health unit:—

- 1 Medical Officer of Health.
- 2 Public Health Nurses.
- 4 Sanitary Inspectors.
- 1 Sanitary Inspector for Entomological work.
- 4 Midwives.
- 1 Clerk.
- 1 Peon and 2 coolies.

The above takes for granted that suitable officers with a proper attitude towards their work are chosen. It would be possible to reduce the Sanitary Inspectors by one, after latrine construction work in the rural area is completed and maintenance only requires attention, provided that the other Sanitary Inspector doing rural work is given a motor cycle. If, after investigation, malaria does not prove to be a health problem, the Sanitary Inspector doing Entomological work and his cooly could be withdrawn, thus reducing the number of Inspectors to three only. The services of a Medical Officer are needed at the start for school medical inspection, on the completion of which he could be withdrawn. It should also be added that the Government Medical Officer and his assistant, if any, should take over a clinic each so as to give the Medical Officer of Health a little more time for his other duties.

(3) *Budget.*—For the minimum personnel above stated, dealing with an area and population similar to those of the present unit, the budget required is Rs. 27,000.* This gives a *per capita* expenditure of 82 cents.

(4) *Public Health Nurse.*—The area and population that one Public Health Nurse can look after have not been adequately determined, due to lack of transport. It is proposed to divide the area into two and to work with suitable transport for a time before a definite conclusion can be arrived at.

* This amount does not include the amount spent by the Urban District Council on scavenging and conservancy, which is about Rs. 20,000.

(5) *Midwife*.—It has been determined that a midwife can conveniently operate within a radius of 3 miles. Her duties are the paying of pre-natal visits to all expectant mothers in her area by visiting designated portions of it daily; the attendance at all confinements and daily visits to mother and child during the post-partum period for ten days, always working under the supervision of the Public Health Nurse.

(6) *Clerk*.—The clerk attached to the health unit office should be of a superior type, intelligent, willing, hardworking, good at figures and typing, because on him depends the routine work of the office.

(7) *Transportation*.—For the transportation of nurses, next to a motor car a buggy cart and bull appear to be the most suitable.

(8) *Type of Work*.—In determining the types of child welfare work suitable in different areas, the necessity for a crèche for estates has been forcibly brought home.

(9) *Registration*.—It would be advantageous to make the Medical Officer of Health the Registrar of the urban area, and his clerk the Deputy Registrar for purposes of registration when the Medical Officer of Health happens to be in the field.

(10) *Relationship between the Medical Officer of Health and the Local Authority*.—By agreement the Urban District Council undertook to do three things in return for being included with the health unit area—

- (1) Hand over all its health work to the Medical Officer of Health.
- (2) Employ a sufficient number of Sanitary Inspectors approved by the Director of Medical and Sanitary Services.
- (3) To pass necessary by-laws for the proper conduct of the work.

The relationship between the Medical Officer of Health and the Chairman is one of cordial co-operation. The Sanitary Inspectors, Overseers, and coolies of the local authority are placed under the direction of the Medical Officer of Health, who assumes control, and is responsible for all the health work of the town.

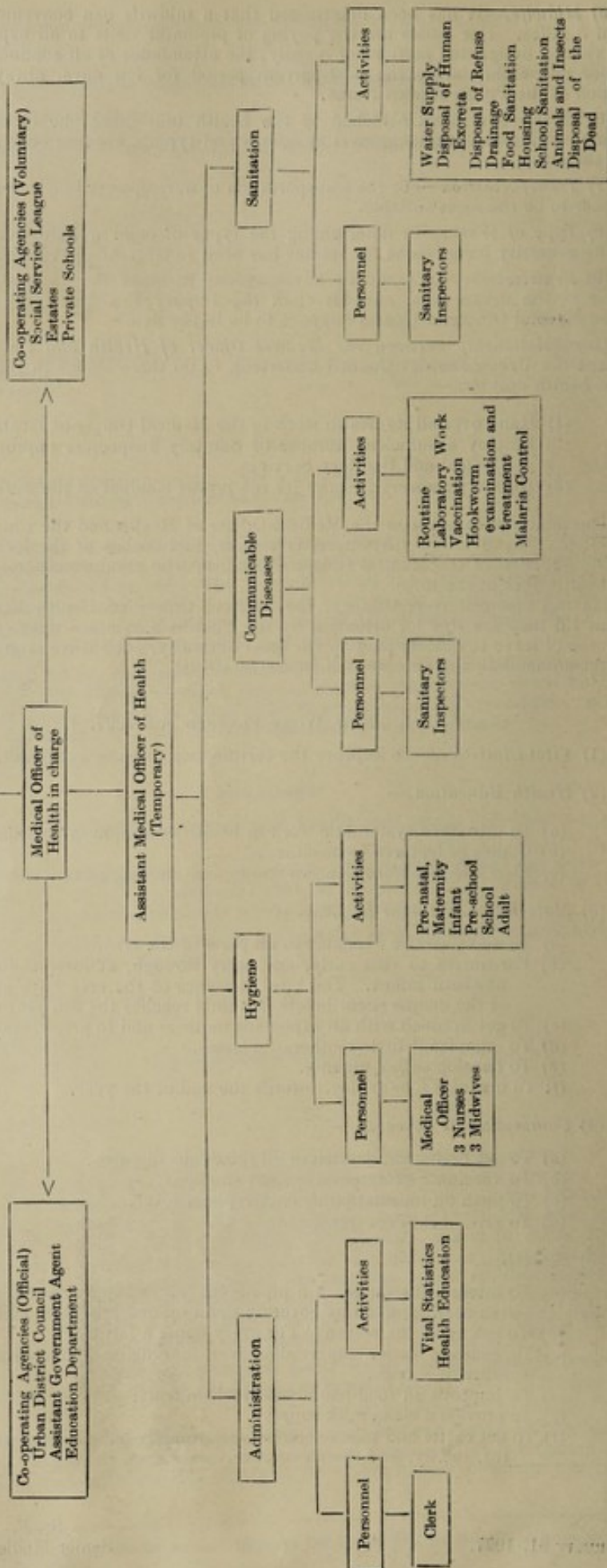
Having assumed responsibility, the Medical Officer of Health has to deal with all the problems till they are ripe for attention by the Chairman in cases where his approval is needed. In the case of leave to officers paid by the local authority, such leave is granted by the Chairman on the recommendation of the Medical Officer of Health.

NEW WORK PLANNED FOR 1927.

- (1) *Vital Statistics*.—To improve the certification of causes of death.
- (2) *Health Education*.—
 - (a) To introduce systematic work in health education in schools.
 - (b) Course of lectures to headmen.
 - (c) Plan series of talks, lantern shows, and moving picture shows for the whole area.
- (3) *Maternity and Infant Hygiene*.—
 - (a) To make service available to all parts of the area.
 - (b) For nurses to visit early, and carry through, at least the first year of life, every newborn infant. The vital statistics of the area have shown that 46 per cent. of the deaths occur before the child reaches the 5th year of life.
 - (c) To get in touch with all expectant mothers and to give them necessary assistance.
 - (d) To organize "little mothers" classes.
 - (e) To develop school nursing.
 - (f) To organize a baby day towards the end of the year.
- (4) *Communicable Diseases*.—
 - (a) To get better notification of all infectious diseases.
 - (b) To vaccinate every child against smallpox.
 - (c) To push on inoculation against typhoid fever.
 - (d) To give hookworm treatment.
- (5) *Sanitation*.—
 - (a) To interest the public in a pipe-borne water supply for the town and in improving the existing wells by covering them up and providing pumps.
 - (b) To act up to the slogan "For every home a latrine."
 - (c) To exercise better supervision over scavenging and conservancy and to provide efficient service.
 - (d) To improve all food-handling establishments.
 - (e) To provide a clean milk supply.
 - (f) To get cattle and pigs in compounds properly housed, and wage warfare against the rat, the fly, and the mosquito.

ORGANIZATION CHART OF HEALTH UNIT.

Department of Medical and Sanitary Services.



TABLES AND RETURNS.

The following tables and returns are annexed:—

Table I.—

Return of Statistics of Population for the year.

Table II. (a)-(f).—

Meteorological Returns.

Table III.—

Return of Diseases (Out-patients).

Table IV. (a)-(d).—

Charts.—

- (a) Chart showing the General Systemic and Preventable Diseases treated at the Government Hospitals during the Year 1926.
- (b) Chart showing Deaths from General Systemic and Preventable Diseases treated at the Government Hospitals during the Year 1926.
- (c) Chart showing Cases of Infectious Diseases treated at the Government Hospitals during the Year 1926.
- (d) Chart showing Deaths from Infectious Diseases treated at the Government Hospitals during the Year 1926.

Hospital Returns (as given in the Ceylon Blue Book for 1926).—

- (1) Details regarding Hospitals (Patients, Attendants, &c.) in each Province.
- (2a) Return of Diseases—Cases treated, according to Districts.
- (2b) Return of Diseases—Cases treated, according to Diseases.
- (3) Special Diseases.
- (4) Water Supply, &c., at Hospitals.

TABLE I.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR 1926.

	Europeans.	Ceylonese.	Indian Immigrants.	Total.
Number of inhabitants on December 31, 1925 ..	10,212 ..	4,409,566 ..	589,724 ..	5,009,502
Number of births during the year 1926 ..	193 ..	179,180 ..	27,515 ..	206,888
Number of deaths during the year 1926 ..	85 ..	105,632 ..	19,168 ..	124,885
Number of immigrants during the year 1926 ..	—	132,792*	101,746 ..	234,538
Number of emigrants during the year 1926 ..	—	—	—	201,051
Number of inhabitants on December 31, 1926 ..	10,834 ..	4,475,311 ..	638,847 ..	5,124,992
Increase of population ..	622 ..	65,745 ..	49,123 ..	115,490

* Miscellaneous passengers.

TABLE II. (a).

Colombo.

Meteorological Return for the Year 1926.

	Temperature.						Rainfall.		Winds.†			
	Solar* Maxi- mum.	Mini- mum on Grass.	Shade Maxi- mum.	Shade Mini- mum.	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.	General Direction.		Aver- age Force.	
	°F.	°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.	A.M.	P.M.	Miles.
January ..	152.4	66.4	87.7	71.1	16.6	79.4	2.51	66	76	NE	NNW	131
February ..	154.5	67.3	89.2	71.9	17.3	80.6	0.14	67	76	NE	WNW	106
March ..	152.4	70.3	90.3	74.4	15.9	82.4	5.74	67	79	Var	W	89
April ..	152.5	73.6	90.5	76.4	14.1	83.4	2.53	70	80	3W	WSW	96
May ..	145.0	74.7	87.9	76.9	11.0	82.4	25.95	78	82	3W	SW	132
June ..	147.7	75.5	86.3	77.7	8.6	82.0	13.25	80	84	3W	SW	155
July ..	146.5	74.8	85.8	76.6	9.2	81.2	11.86	80	84	3W	SW	141
August ..	149.8	74.9	86.4	77.2	9.2	81.8	5.31	76	82	3W	SW	147
September ..	149.1	74.1	86.1	77.0	9.1	81.6	9.43	76	82	3W	SW	141
October ..	150.7	73.2	86.5	76.0	10.5	81.2	12.42	75	82	3W	W	109
November ..	149.3	71.2	86.6	73.0	13.6	79.8	10.23	72	82	Var	WNW	94
December ..	149.9	69.9	86.9	72.8	14.1	79.8	5.61	70	78	NE	NW	128
	150.0	72.2	87.5	75.1	12.4	81.3	104.98	73	81			122

* The information supplied is from black bulb in vacuo solar radiation thermometer.

† The first column gives the mean of the relative humidity as determined by direct readings at 9.30 A.M. and 3.30 P.M. The second gives the mean of the relative humidity as determined from the maximum thermometers and the minimum thermometers.

‡ Mean directions are given for both A.M. and P.M. and the relativity is given in total mileage per day.

TABLE II. (b).

Jaffna.

Meteorological Return for the Year 1926.

	Temperature.						Rainfall.			Winds.†		
	Solar*	Mini-	Shade	Shade	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.		General Direction.		Average Force.
	Maxi- mum.	mum on Grass.	Maxi- mum.	Mini- mum.						A.M.	P.M.	
	°F.	°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.			Miles.
January ..	—	67.4	84.3	71.8	12.5	78.0	2.39	72	77	ENE	ENE	88
February ..	154.9	65.3	86.9	71.3	15.6	79.1	0.85	67	73	ENE	ENE	88
March ..	157.8	73.5	90.5	77.1	13.4	83.8	0.38	68	74	SE	E	128
April ..	158.7	79.4	92.0	81.0	11.0	86.5	0.91	72	74	SSE	SW	222
May ..	154.5	79.9	89.5	81.2	8.3	85.4	1.88	78	78	SSW	SSW	286
June ..	152.3	79.5	87.0	80.9	6.1	84.0	0.29	82	82	SW	SSW	400
July ..	151.5	79.1	87.1	80.4	6.7	83.8	0.01	80	79	SW	SSW	374
August ..	151.9	78.5	87.0	79.9	7.1	83.4	0.29	80	79	SSW	SSW	358
September ..	154.7	78.3	87.9	79.7	8.2	83.8	5.55	78	76	SW	SW	336
October ..	—	75.2	86.8	77.0	9.8	81.9	8.95	77	78	Var	Var	210
November ..	—	71.6	83.2	73.9	9.3	78.6	23.52	81	84	Var	NNE	113
December ..	—	69.8	83.4	73.6	9.8	78.5	4.06	76	80	NE	NE	86
	154.5	74.8	87.1	73.3	9.8	82.2	49.08	76	78			224

TABLE II. (c).

Batticaloa.

Meteorological Return for the Year 1926.

Month.	Temperature.						Rainfall.			Winds.†		
	Solar*	Mini-	Shade	Shade	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.	General		Aver- age Force.	
	Maxi-	mum	Maxi-	Mini-					Direction.			
	mum.	on Grass.	mum.	mum.								
	°F.	°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.	A.M.	P.M.	Miles.
January ..	140.0	71.5	82.7	73.3	9.4	78.0	16.90	77	82	Var	NE	188
February ..	150.2	71.6	84.7	73.6	11.1	79.2	1.90	71	77	Var	NE	166
March ..	149.8	74.0	88.6	75.8	12.8	82.2	1.08	66	76	Var	ENE	142
April ..	149.0	76.5	91.4	78.1	13.3	84.8	0.42	63	74	Var	ENE	131
May ..	143.8	76.3	91.3	77.9	13.4	84.6	3.10	60	72	Var	E	124
June ..	146.8	76.1	94.2	78.7	15.5	86.4	0.04	49	60	Var	E	113
July ..	146.6	75.5	93.8	77.5	16.3	85.6	0.92	52	62	Var	E	123
August ..	147.8	75.2	93.6	77.4	16.2	85.5	1.13	58	66	SW	E	127
September ..	148.1	74.4	91.7	76.5	15.2	84.2	2.75	64	70	S	ESE	132
October ..	149.2	74.0	89.4	76.2	13.2	82.8	7.47	69	74	Var	E	121
November ..	138.5	71.7	84.3	73.4	10.9	78.8	13.48	77	83	W	NE	122
December ..	138.0	71.8	82.7	73.6	9.1	78.2	9.93	78	82	WNW	NNE	167
	145.7	74.1	89.0	76.0	13.0	82.5	59.12	65	73			138

* The information supplied is from black bulb *in vacuo* solar radiation thermometer.

† The first column gives the mean of the relative humidity as determined by direct readings at 9.30 A.M. and 3.30 P.M. The second gives the mean of the relative humidity as determined from the maximum thermometers and the minimum thermometers.

‡ Mean directions are given for both A.M. and P.M. and the relativity is given in total mileage per day.

TABLE II. (d).

Galle.

Meteorological Return for the Year 1926.

		Temperature.						Rainfall.			Winds.†		
		Solar* Maxi- mum.	Mini- mum on Grass.	Shade Maxi- mum.	Shade Mini- mum.	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.		General Direction.		Aver- age Force.
		°F.	°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.	A.M.	P.M.	Miles.
January	..	—	70.0	84.6	74.2	10.4	79.4	2.28	76	82	Var	WSW	109
February	..	—	70.9	85.8	74.7	11.1	80.2	1.64	77	80	NE	WSW	118
March	..	—	72.5	88.3	76.1	12.2	82.2	7.45	74	80	E	SSE	119
April	..	—	74.6	88.0	78.2	9.8	83.1	4.30	76	84	WNW	WSW	140
May	..	—	75.6	85.3	78.2	7.1	81.8	18.18	83	86	Var	Var	237
June	..	—	75.9	83.9	78.3	5.6	81.1	10.27	83	86	W	WNW	287
July	..	—	75.3	84.0	78.0	6.0	81.0	6.89	83	84	W	W	274
August	..	—	75.3	83.8	78.1	5.7	81.0	6.65	82	84	WNW	WNW	287
September	..	—	75.2	83.9	78.0	5.9	81.0	14.16	79	82	W	WNW	268
October	..	—	74.2	84.2	77.2	7.0	80.7	6.75	78	82	NW	WNW	220
November	..	—	71.5	84.2	74.8	9.4	79.5	3.88	76	84	Var	WNW	171
December	..	—	71.2	84.3	74.6	9.7	79.4	4.56	78	82	NNE	WSW	116
			73.5	85.0	76.7	8.3	80.9	87.01	79	83			195

TABLE II. (e).

Kandy.

Meteorological Return for the Year 1926.

		Temperature.						Rainfall.			Winds.†		
		Solar* Maxi- mum.	Mini- mum on Grass.	Shade Maxi- mum.	Shade Mini- mum.	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.		General Direction.		Ave- age Force.
		°F.	°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.			
January	..	138.0	61.8	83.5	66.7	16.8	75.1	2.35	67	72	—	—	—
February	..	146.7	60.3	87.7	67.4	20.3	77.6	0.65	58	66	—	—	—
March	..	149.8	64.2	90.4	69.8	20.6	80.1	3.91	62	70	—	—	—
April	..	149.6	67.2	91.1	71.3	19.8	81.3	4.40	67	74	—	—	—
May	..	141.9	69.7	85.8	71.8	14.0	78.8	17.78	81	83	—	—	—
June	..	140.3	69.6	83.7	71.9	11.8	77.8	5.65	79	81	—	—	—
July	..	140.2	68.6	83.2	70.9	12.3	77.0	9.14	79	81	—	—	—
August	..	140.3	68.5	83.2	71.1	12.1	77.2	5.23	78	79	—	—	—
September	..	143.4	67.4	84.0	69.8	14.2	76.9	3.84	76	80	—	—	—
October	..	146.1	67.3	84.6	69.5	15.3	77.0	6.46	74	80	—	—	—
November	..	—	65.3	83.6	67.3	16.3	75.4	11.29	73	78	—	—	—
December	..	—	64.6	83.9	68.1	15.8	76.0	3.21	71	74	—	—	—
		143.6	66.2	85.4	69.6	15.8	77.5	73.91	72	77			

* The information supplied is from black bulb *in vacuo* solar radiation thermometer.

† The first column gives the mean of the relative humidity as determined by direct readings at 9.30 A.M. and 3.30 P.M. The second gives the mean of the relative humidity as determined from the maximum thermometers and the minimum thermometers.

‡ Mean directions are given for both A.M. and P.M. and the relativity is given in total mileage per day.

TABLE II. (f).

Nuwara Eliya.

Meteorological Return for the Year 1926.

	Temperature.						Rainfall.		Winds.†	
	Solar* Maxi- mum.	Mini- mum on Grass.	Shade Maxi- mum.	Shade Mini- mum.	Range.	Mean.	Amount in Inches.	Degree† of Humid- ity.	General Direction.	Average Force.
		°F.	°F.	°F.	°F.	°F.		9.30 A.M. and 3.30 P.M. Per Cent.	Max. and Min. Per Cent.	
January ..	—	43.4	68.9	47.0	21.9	58.0	5.89	65	74	—
February ..	—	39.6	71.3	44.1	27.2	57.7	0.27	50	69	—
March ..	—	41.9	73.4	45.7	27.7	59.6	1.71	55	71	—
April ..	—	45.4	74.0	48.3	25.7	61.2	2.14	62	76	—
May ..	—	53.2	71.2	55.6	15.6	63.4	13.22	82	82	—
June ..	—	55.7	67.9	57.4	10.5	62.6	8.90	85	84	—
July ..	—	53.7	67.4	55.9	11.5	61.6	10.72	84	84	—
August ..	—	52.9	67.2	55.1	12.1	61.2	9.03	81	84	—
September ..	—	52.4	67.6	54.7	12.9	61.2	8.18	80	82	—
October ..	—	50.5	69.0	53.6	15.4	61.3	6.49	79	82	—
November ..	—	46.1	68.7	49.2	19.5	59.0	9.44	72	78	—
December ..	—	44.6	68.9	48.6	20.3	58.8	5.70	74	78	—
		48.3	69.6	51.3	18.4	60.5	81.69	72	79	

* The information supplied is from black bulb in *vacuo* solar radiation thermometer.

† The first column gives the mean of the relative humidity as determined by direct readings at 9.30 A.M. and 3.30 P.M. The second gives the mean of the relative humidity as determined from the maximum thermometers and the minimum thermometers.

‡ Mean directions are given for both A.M. and P.M. and the relativity is given in total mileage per day.

TABLE III.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE CALENDAR YEAR 1926.

I.—GENERAL DISEASES.		II.—LOCAL DISEASES.	
Diseases.	Number of Persons treated.	Diseases.	Number of Persons treated.
A.—Epidemic—		(1) Diseases of the nervous system ..	13,598
Enteric ..	781	(2) Diseases of the eyes and their annexa ..	54,484
Malaria ..	967,428	(3) Diseases of the ear ..	25,695
Malarial cachexia ..	93,279	(4) Diseases of the nose ..	1,899
Filarial diseases ..	74	(5) Diseases of the circulatory system ..	1,843
Chickenpox ..	86	Diseases of the lymphatic system ..	1,406
Measles ..	38	Diseases of the spleen ..	7,999
Whooping cough ..	7	Anaemia ..	3,873
Diphtheria ..	1	(6) Diseases of the respiratory system ..	162,214
Influenza ..	44,179	Pneumonia ..	31
Cholera ..	1	(7) Diseases of the digestive system—	
Dysentery ..	26,210	Acute diarrhoea ..	82
Dengue ..	529	Diarrhoea ..	37,207
Leprosy ..	13	Anchylostomiasis ..	152,195
Parangi ..	39,797	Worms ..	199,220
Mumps ..	23	Sprue ..	53
B.—Tubercular—		Liver ..	3,599
Lungs ..	1,263	Diseases of the throat ..	621
Other organs ..	165	Other diseases of the digestive system ..	227,831
C.—Venereal—		(8) Diseases of the urinary system ..	8,575
Syphilis ..	5,105	(9) Diseases of the generative system ..	17,062
Gonorrhoea ..	12,151	(10) Diseases of the organs of locomotion ..	1,147
D.—Malignant growths—		(11) Diseases of the connective tissue ..	18,492
Cancer ..	1	Diseases of the skin ..	183,470
Non-malignant growths ..	113	Ulcers ..	203,618
E.—Other General Diseases—		III.—AFFECTIONS PRODUCED BY POISONS ..	
Rheumatism ..	155,068	IV.—INJURIES.	
Diabetes ..	1,095	General ..	14,826
Alcoholism ..	8	Local ..	71,861
Debility ..	32,154		
All other general diseases ..	81,907		

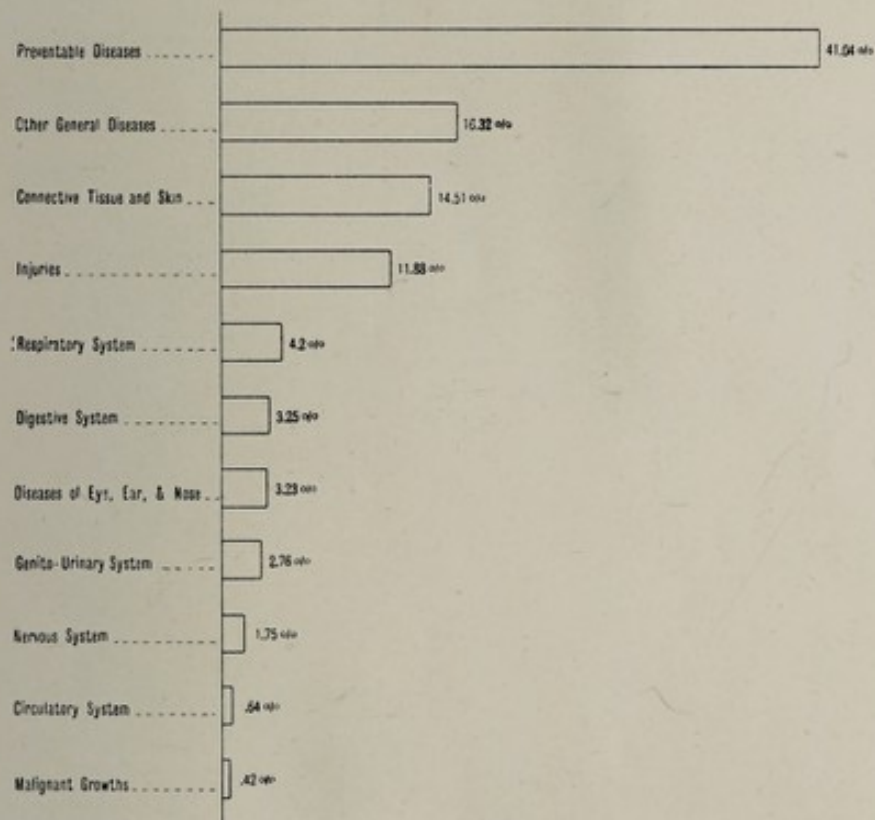
TABLE IV^

CHART SHOWING
THE GENERAL SYSTEMIC AND PREVENTABLE DISEASES

treated at the GOVERNMENT HOSPITALS during the Year

1926.

Total Cases - 205,529



Block by Survey Dept.

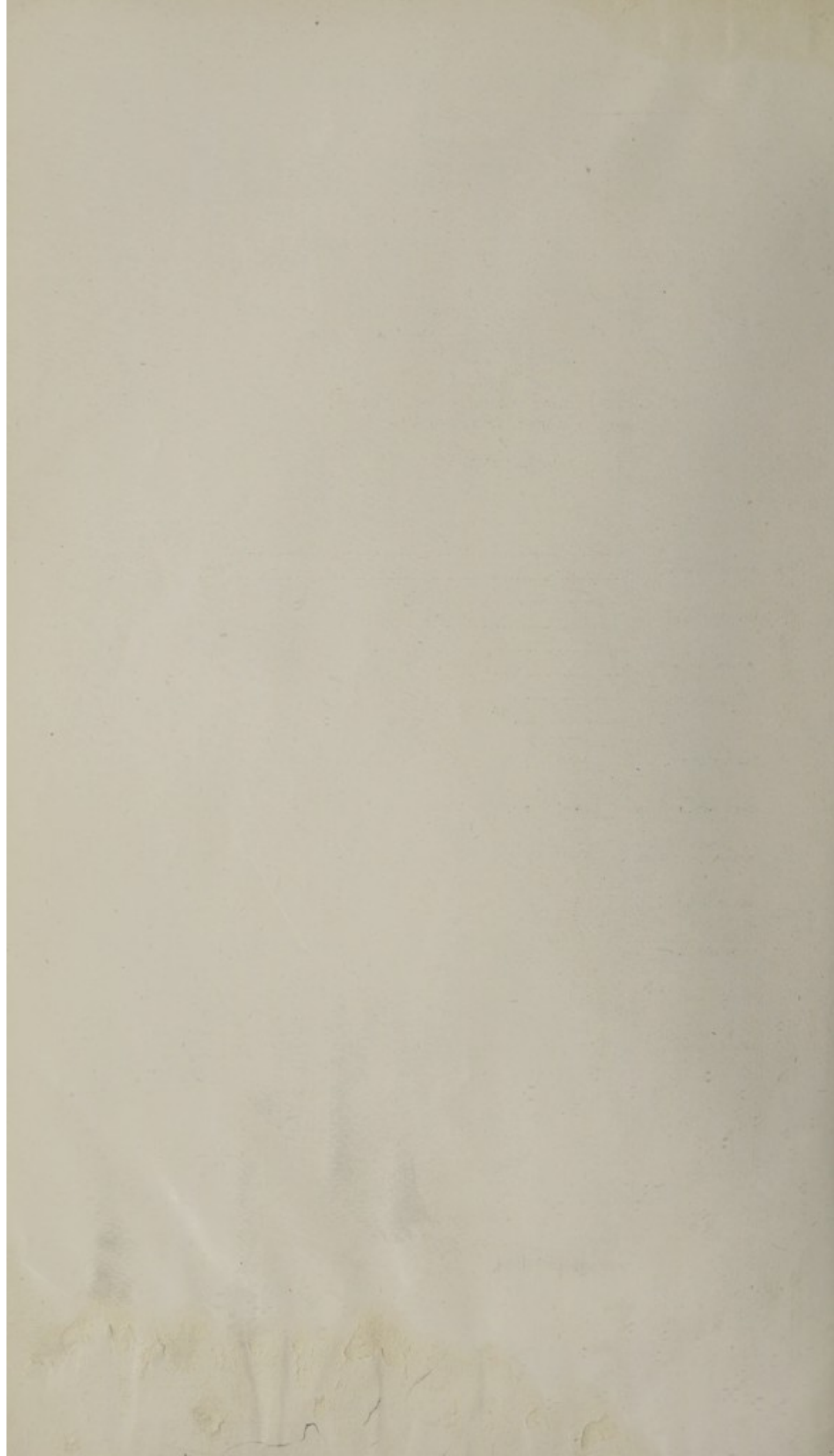


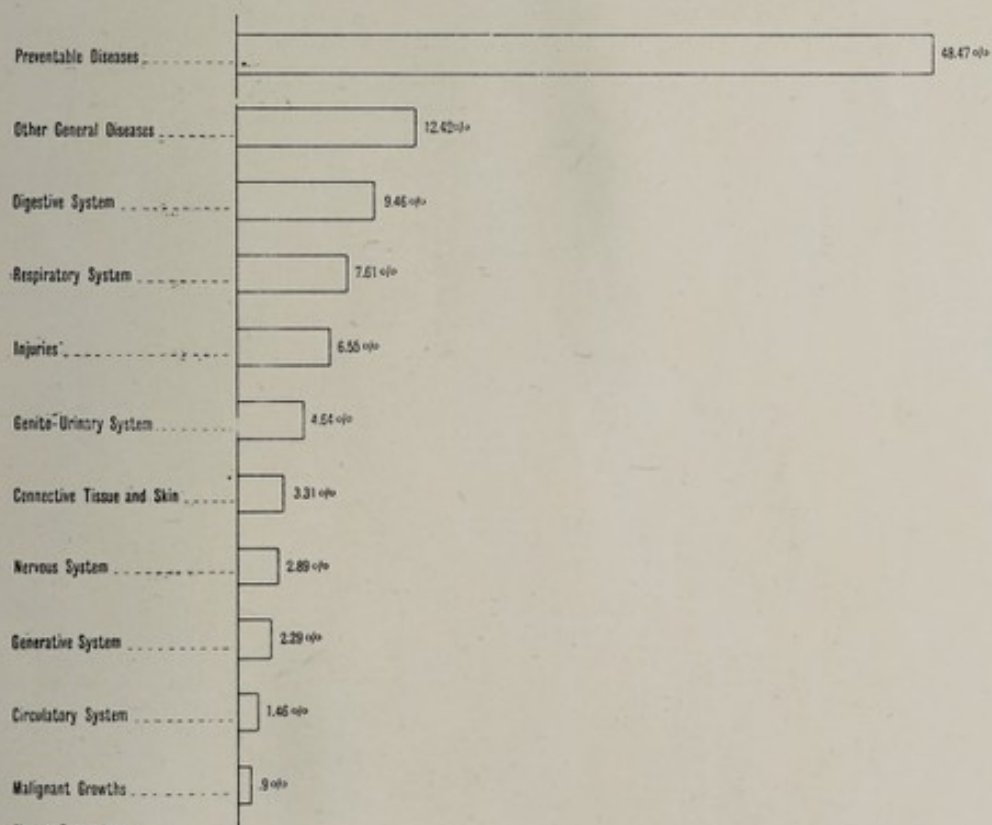
TABLE IV^B

CHART SHOWING DEATHS
FROM GENERAL SYSTEMIC AND PREVENTABLE DISEASES

treated at the GOVERNMENT HOSPITALS during the Year

1926.

Total Deaths, 12,745



Block by Survey Dept.

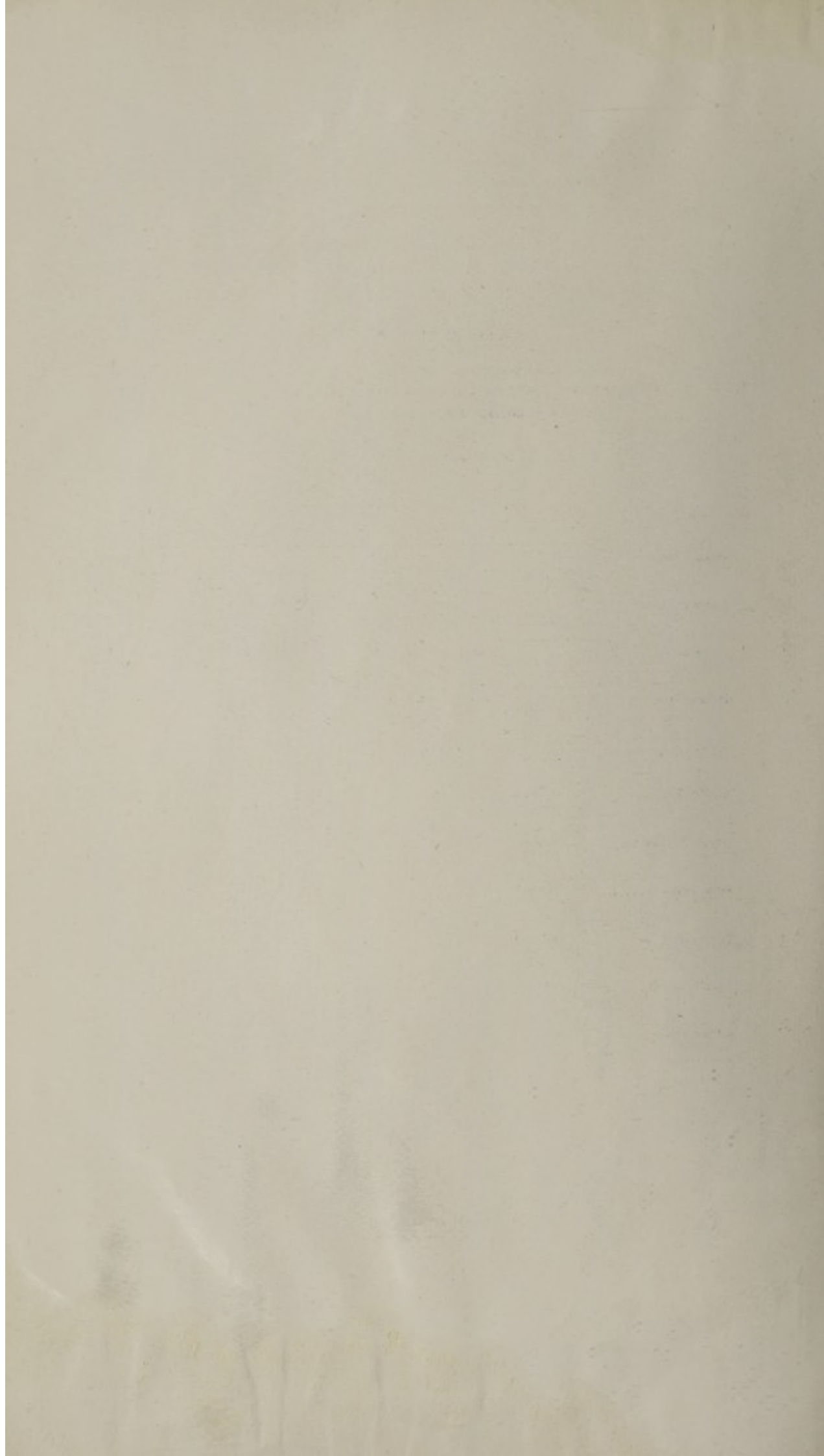
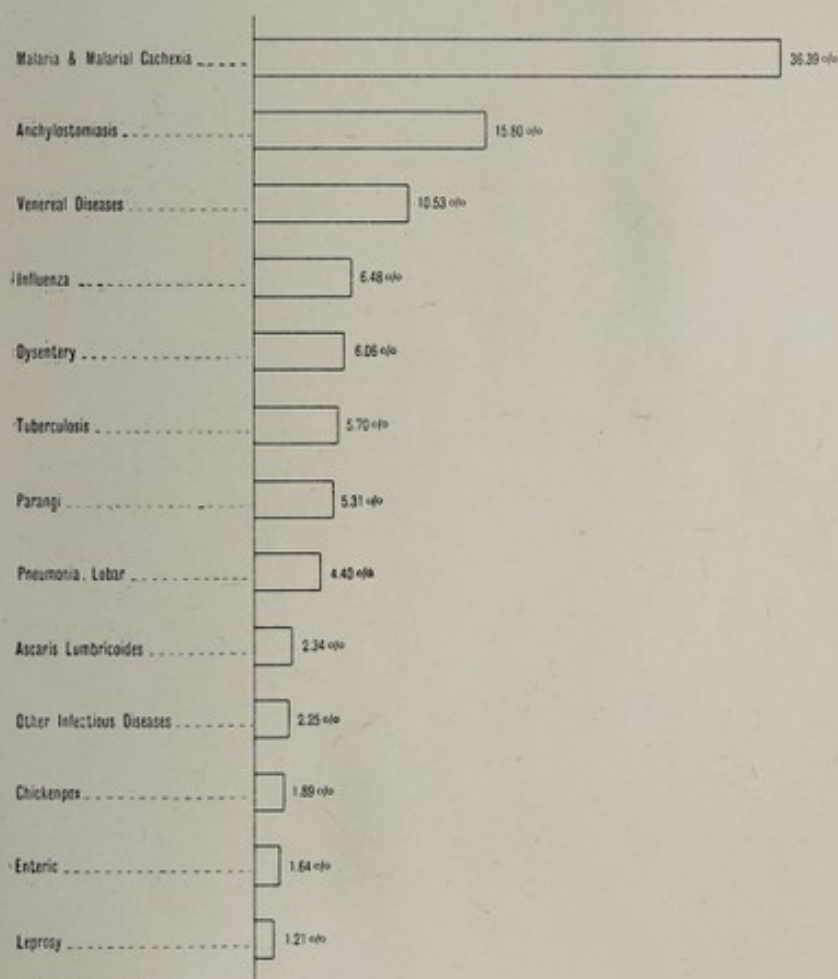


TABLE IV^c

CHART SHOWING
CASES OF INFECTIOUS DISEASES
treated at the GOVERNMENT HOSPITALS during the Year

1926

Total Cases, 82,532



Reck by Survey Dept.

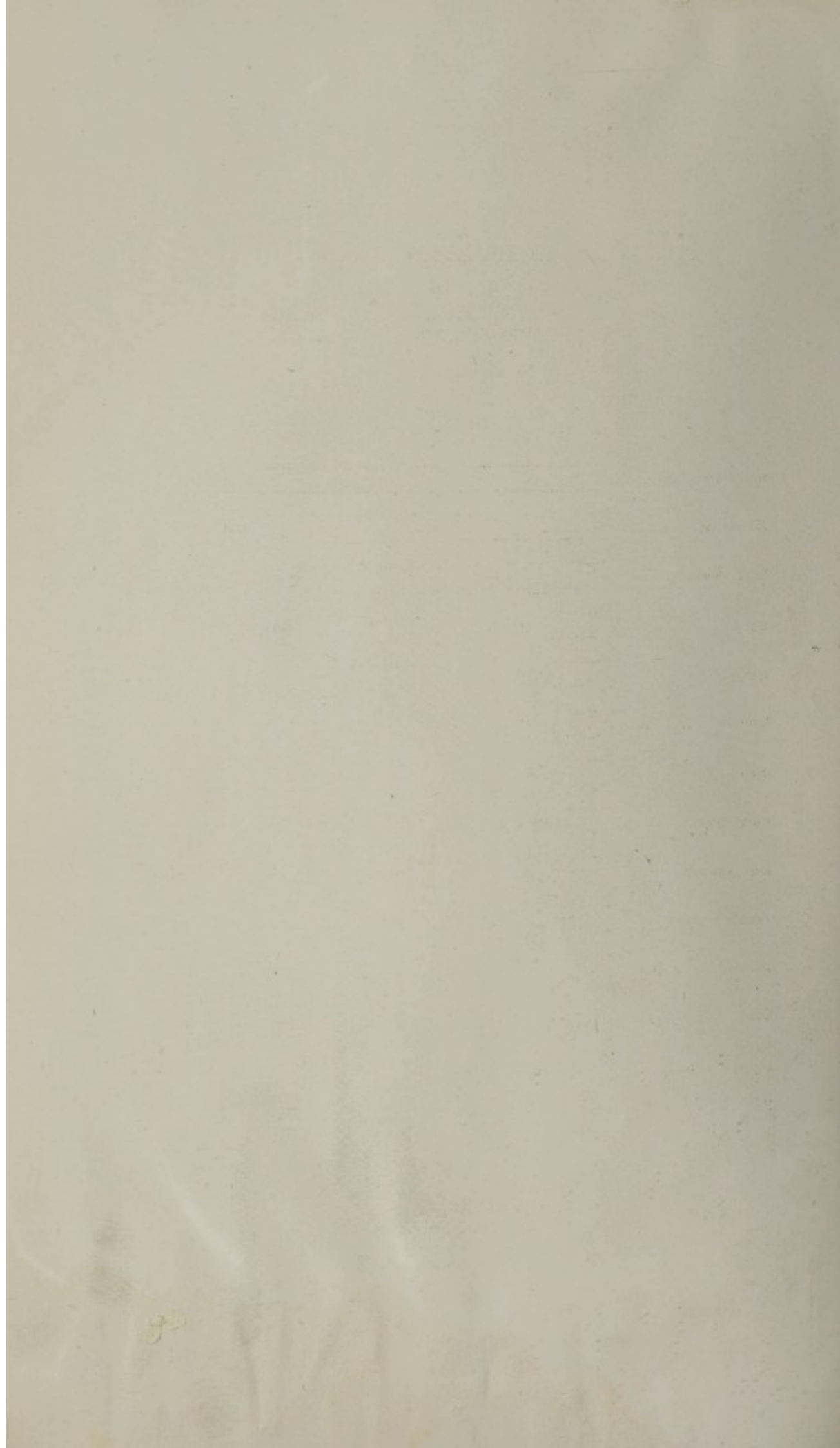
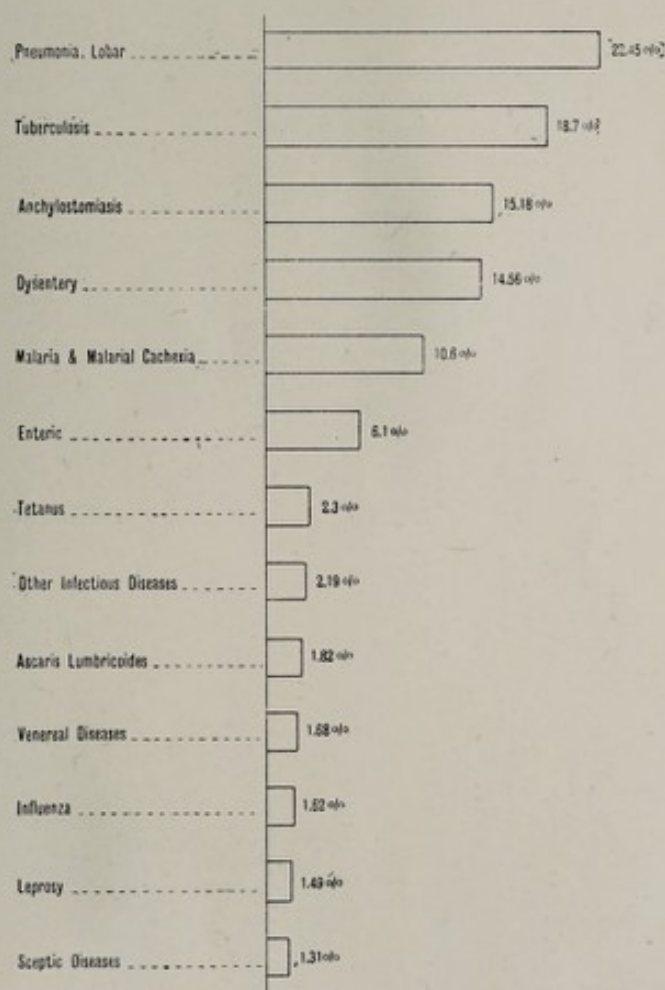
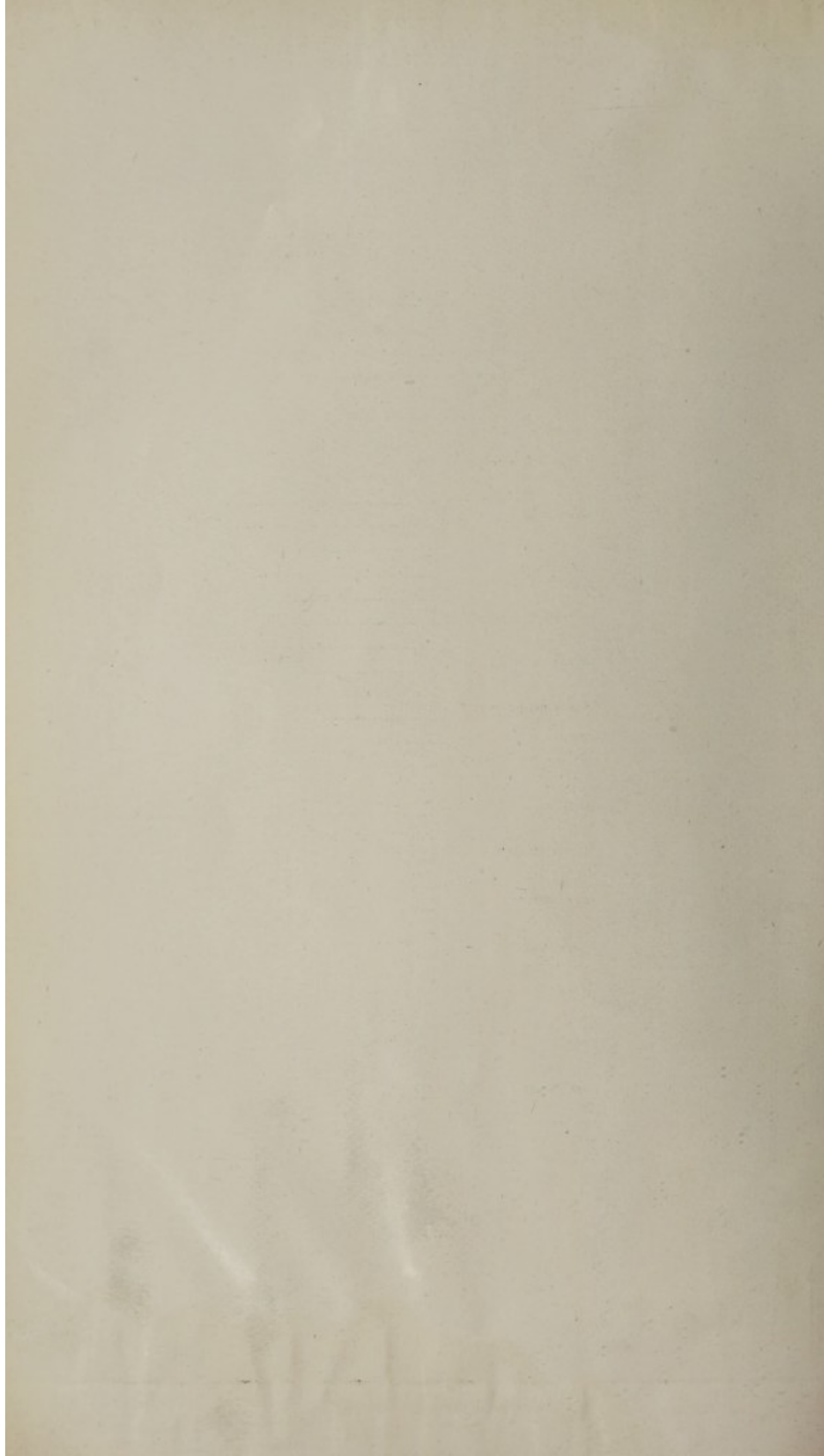


TABLE IV^D

CHART SHOWING
DEATHS FROM INFECTIOUS DISEASES
treated at the GOVERNMENT HOSPITALS during the Year
'1926'
Total Deaths, 5,920



Wash. to Bureau Dept.



I.—Hospital Returns.

Province and District.	No. of Hospitals.	No. of Beds.	No. of Patients remaining in Hospital at the beginning of the Year, 1926.	No. of Patients Admitted during the Year, 1926.	Daily Average No. of Patients in Hospital during the Year, 1926.	Attendants.					Patients discharged.			No. of Patients who died in 1926.	Average Stay of Patients, who were discharged in 1926.			Specify the longest period for which any one patient stayed.
						Nurses doing no other work.		Nurses doing no other work as Servants.			Cured.	Relieved.	Not improved.		Died in 1926.	Were discharged in 1926.	Were remaining in 1926.	
						Day Nurses.	Night Nurses.	Not Nurses.	Partial Day Nurses.	Partial Night Nurses.								
<i>Western Province.</i>																		
Colombo	17	2,714	2,451	48,540	88.66	122	24	118	158	45	18,240	19,713	5,993	3,614	12.46	11.64	1,288	
Kalutara	5	356	285	10,229	44.86	8	—	16	13	9	6,250	3,128	220	478	—	—	168	
<i>Central Province.</i>																		
Kandy	11	801	824	21,598	49.82	51	10	59	39	34	6,112	13,271	384	1,655	15.2	18.65	389	
Matale	2	215	255	6,793	64.52	4	—	19	—	—	4,657	1,086	70	445	10.82	13.01	305	
Nuwara Eliya	6	444	361	8,830	24.05	14	1	27	5	10	4,994	3,050	206	529	11.88	14.58	192	
<i>Southern Province.</i>																		
Galle	5	370	357	13,558	42.44	13	3	43	3	1	5,964	6,406	562	563	13.92	13.93	19.37	
Matara	2	114	171	3,353	55.64	6	—	11	—	3	1,786	1,283	117	213	14.22	10.21	27.49	
Hambantota	3	75	112	2,426	16.54	—	—	9	3	1	1,412	666	79	166	10.29	14.10	12.60	
<i>Northern Province.</i>																		
Jaffna	4	196	124	4,271	19.22	5	—	22	—	—	1,370	2,559	137	177	10.69	11.41	13.72	
Mannar	3	86	72	2,206	10.15	—	—	4	8	—	1,461	638	10	101	7.26	9.52	13.01	
Mullaitivu	2	88	72	1,762	16.02	—	—	6	8	—	1,020	713	20	52	9.87	12.33	10.70	
<i>Eastern Province.</i>																		
Batticaloa	4	318	292	3,312	33.11	12	3	16	—	1	1,635	1,203	249	194	36.98	86.31	95.97	
Trincomalee	1	56	56	1,491	24.58	2	1	6	—	—	345	1,045	21	81	10.42	11.76	37.63	
<i>North-Western Province.</i>																		
Kurunegala	4	346	358	11,050	52.25	11	2	32	6	—	2,788	7,126	346	862	9.20	16.52	11.29	
Puttalam	1	49	38	1,194	17.99	—	—	6	—	—	454	574	32	136	8.9	11.66	13.9	
Chilaw	2	115	104	3,211	28.45	4	—	3	13	1	1,669	1,210	39	259	11.07	11.79	15.27	
<i>North-Central Province.</i>																		
Anuradhapura	3	160	154	6,256	31.29	3	1	14	1	5	457	5,506	23	301	10.70	9.07	7.40	
<i>Province of Uva.</i>																		
Badulla	9	690	529	14,143	30.52	14	1	51	15	2	9,062	4,484	174	972	17.5	15.19	17.3	
<i>Province of Sabaragamuwa.</i>																		
Ratnapura	6	480	524	15,049	48.03	11	—	49	—	—	23,674	12,534	1,205	1,614	13.63	12.01	12.93	
Kegalla	6	506	392	14,924	38.8	18	1	30	8	23	5,121	8,933	335	774	10.4	10.99	11.57	

II.—Cases treated.

[illegible]

II.—Cases treated—*contd.*

(b) According to Diseases.

Diseases.	* Remaining in Hospital at end of 1925.	Admissions in 1926.	Deaths in 1926.	† Total Cases treated in 1926.	‡ Remaining in Hospital at end of 1926.
I.—General Diseases—					
A.—Epidemic—					
Enteric ..	62	1,290	361	1,352	56
Smallpox ..	2	64	2	66	4
Diphtheria ..	—	20	6	20	—
Influenza ..	132	5,213	96	5,345	95
Cholera ..	—	35	29	35	—
Dysentery ..	177	4,827	862	5,004	164
Leprosy ..	682	315	88	997	691
Parangi ..	50	610	2	660	14
Plague ..	—	10	9	10	—
Tuberculosis ..	—	—	—	—	—
Cerebro-Spinal Fever ..	—	1	1	1	—
Malaria ..	681	25,707	432	26,388	441
Blackwater Fever ..	—	—	—	—	—
Acute Polio-Myelitis ..	—	—	—	—	—
Yellow Fever ..	—	—	—	—	—
Malarial Cachexia ..	111	3,533	195	3,644	95
Filarial Diseases ..	—	57	2	57	—
Chickenpox ..	48	1,512	4	1,560	66
Measles ..	9	228	—	237	6
Whooping Cough ..	3	106	4	109	4
Acute Rheumatic Fever ..	5	70	4	75	—
Dengue ..	—	164	—	164	24
Parangi treated with Salvarsan ..	111	3,615	12	3,726	122
Erysipelas ..	3	88	15	91	3
Mumps ..	—	84	2	84	4
Varicella ..	—	—	—	—	—
Rabies ..	—	8	7	8	—
Tetanus ..	11	269	136	280	6
Other Epidemic Diseases ..	24	283	29	307	17
B.—Septic—					
Pyæmia ..	2	49	22	51	—
Septicæmia ..	16	142	50	158	2
Other Septic Diseases ..	3	40	5	43	—
C.—Tubercular—					
Pulmonary ..	528	3,835	1,074	4,363	493
Other Tubercular Diseases ..	16	325	33	341	21
D.—Venereal—					
Syphilis ..	139	3,429	67	3,568	133
Gonorrhoea ..	101	3,035	15	3,136	104
Rheumatism (Gonorrhoeal) ..	10	584	4	594	31
Other Venereal Diseases ..	42	1,254	14	1,296	42
E.—Malignant Growths—					
Sarcoma ..	—	106	23	106	4
Carcinoma ..	9	355	84	364	19
Non-malignant Growths ..	16	366	8	382	25

* I.e., the year previous to that for which the Return is made.

† "Total Cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

II.—Cases treated—*contd.*(b) According to Diseases—*contd.*

Diseases.	* Remaining in Hospital at end of 1925.	Admissions in 1926.	Deaths in 1926.	† Total Cases treated in 1926.	‡ Remaining in Hospital at end of 1926.
I.—General Diseases— <i>contd.</i>					
F.—Other General Diseases—					
Chronic Rheumatism ..	102	3,702	16	3,804	112
Diabetes Mellitus ..	19	254	25	273	16
Diabetes Insipidus ..	—	13	—	13	—
Alcoholism ..	—	17	1	17	—
Rickets ..	8	170	66	178	12
Scurvy ..	—	3	—	3	—
General Diseases not defined above	377	12,839	1,059	13,216	429
II.—Local Diseases—					
1.—Diseases of the Nervous System and Organs of Special Sense—					
Meningitis ..	3	134	67	137	3
Septic Meningitis ..	—	15	7	15	—
Other Diseases of the Spinal Cord ..	3	82	16	85	7
Cerebral Haemorrhage, including Hemiplegia and Paraplegia ..	39	545	106	584	48
Cerebral Thrombosis ..	2	33	10	35	1
Paralysis ..	11	146	9	157	8
Idiocy ..	—	1	—	1	—
Cretinism ..	—	2	—	2	—
Mania (Chronic) ..	25	316	4	341	27
Melancholia ..	—	53	—	53	4
Dementia (Primary) ..	6	12	1	18	1
General Paralysis of the Insane ..	—	4	—	4	1
Delusional Insanity ..	2	65	—	67	7
Epilepsy ..	18	338	17	356	18
Other forms of Mental Alienation ..	1	60	2	61	1
Convulsions ..	1	156	63	157	4
Neuritis ..	10	226	3	236	10
Neuralgia ..	6	279	7	285	5
Other Diseases of the Nervous System	47	952	57	999	23
2.—Diseases of the Eyes and their Annexa—					
Conjunctiva ..	51	2,472	3	2,523	46
Cornea ..	57	953	2	1,010	38
Lens ..	34	568	—	602	61
Iris ..	4	193	—	197	5
Optic Nerve and Retina ..	—	41	—	41	3
Other Diseases of the Eyes and Annexa	54	1,402	25	1,456	69
3.—Diseases of the Ear ..					
External Ear ..	1	76	—	77	2
Middle Ear ..	8	347	4	355	12
Internal Ear ..	1	28	1	29	—
Other Diseases of the Ear ..	—	84	2	84	—
4.—Diseases of the Nose..					
	1	237	1	238	4
5.—Diseases of the Circulatory System—					
Pericarditis ..	2	101	19	103	3
Myocarditis ..	—	18	7	18	1
Valvular Diseases of the Heart ..	20	487	114	507	26
Other Organic Diseases of the Heart	1	75	19	76	1
Aneurysm ..	3	43	3	46	—
Arterio-Sclerosis ..	2	22	3	24	1
Diseases of the Lymphatic System, including Bubo ..	2	29	—	31	—
Elephantiasis Arabum ..	3	99	1	102	3
Diseases of the Spleen ..	—	1	—	1	—
Other Diseases of the Circulatory System, including Haemorrhoids ..	12	481	21	493	48

* I.e., the year previous to that for which the Return is made.

† "Total Cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

II.—Cases treated—*contd.*(b) According to Diseases—*contd.*

Diseases.	* Remaining in Hospital at end of 1925.	Admissions in 1926.	Deaths in 1926.	† Total Cases treated in 1926.	‡ Remaining in Hospital at end of 1926.
II.—Local Diseases— <i>contd.</i>					
6.—Diseases of the Respiratory System—					
Laryngitis ..	4	134	4	138	1
Other Diseases of the Larynx ..	—	—	—	—	—
Bronchitis ..	116	4,069	192	4,185	116
Asthma ..	37	1,451	20	1,488	48
Pneumonia, Lobular ..	57	1,964	679	2,021	47
Pneumonia, Lobar ..	93	3,536	1,332	3,629	95
Pleurisy ..	2	409	37	411	7
Empyema ..	2	48	6	50	3
Other Diseases of the Respiratory System ..	29	320	32	349	16
7.—Diseases of the Digestive System—					
Diseases of the Teeth, Mouth, and					
Gums ..	3	380	7	383	8
Tonsillitis and Quinsy ..	9	536	8	545	16
Gastric Ulcer ..	1	23	4	24	1
Duodenal Ulcer ..	—	2	—	2	—
Gastritis ..	6	409	13	415	6
Gastro-Enteritis ..	3	99	21	102	3
Enteritis ..	35	1,308	415	1,343	29
Diarrhoea ..	142	3,504	713	3,646	102
Anchylostomiasis ..	606	12,434	897	13,040	510
Ascaris Lumbricoides ..	49	1,886	107	1,935	45
Tape Worm ..	—	6	—	6	—
Other Intestinal Parasites ..	—	52	2	52	2
Appendicitis ..	6	248	8	254	6
Hernia ..	11	317	2	328	10
Hernia, Strangulated ..	5	189	22	194	10
Intestinal Obstruction ..	6	116	41	122	—
Psilosis, Sprue ..	—	25	2	25	1
Other Diseases of the Intestines ..	10	460	10	470	8
Cirrhosis of Liver ..	6	382	106	388	17
Abscess of Liver ..	8	196	26	204	6
Peritonitis ..	7	216	73	223	8
Other Diseases of the Liver ..	8	307	20	315	5
Other Diseases of the Digestive System ..	90	3,593	111	3,683	94
8.—Diseases of the Lymphatic System—					
Induration and Enlargement of Spleen ..	—	48	—	48	—
Inflammation of Lymph Vessels ..	1	114	2	115	2
Inflammation of Glands (Bubo), not Gonorrhoeal ..	5	115	3	120	5
Suppuration of Glands (Bubo), not Gonorrhoeal ..	5	60	2	65	2
Hypertrophy of Lymphatic Glands ..	—	33	1	33	—
Other Diseases of the Lymphatic System ..	8	208	2	216	5
9.—Non-venereal Diseases of the Genito- Urinary System and Annexa—					
Nephritis (Acute) ..	50	1,282	307	1,332	53
Nephritis (Chronic) ..	40	914	203	954	47
Other Diseases of the Kidney and Annexa ..	14	331	13	345	6
Diseases of the Bladder, including Cystitis ..	6	539	17	545	9
Diseases of the Male Genital Organs ..	25	1,171	18	1,196	20
Diseases of the Uterus ..	11	522	15	533	10
Uterine Tumours ..	—	14	1	14	—
Cysts and other Tumours of the Ovary ..	—	72	2	72	6
Salpingitis ..	—	55	2	55	—
Other Diseases of the Female Genital Organs ..	26	593	14	619	14

* *I.e.*, the year previous to that for which the Return is made.

† "Total Cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

II.—Cases treated—*contd.*(b) According to Diseases—*contd.*

Diseases.	* Remaining in Hospital at end of 1925.	Admissions in 1926.	Deaths in 1926.	† Total Cases treated in 1926.	‡ Remaining in Hospital at end of 1926.
II.—Local Diseases— <i>contd.</i>					
10.—Puerperal State (Generative System)—					
Ectopic Gestation ..	—	10	3	10	—
Other Accidents of Pregnancy ..	2	156	22	158	1
Puerperal Haemorrhage ..	—	4	—	4	—
Other Accidents of Childbirth ..	4	184	28	188	3
Puerperal Septicaemia ..	19	686	181	705	27
Eclampsia ..	2	163	35	165	5
Placenta Praevia ..	—	42	11	42	—
Post Partum Haemorrhage ..	—	25	8	25	—
Rupture of Perineum ..	—	47	2	47	—
Abortion ..	9	430	4	439	4
Miscarriage ..	1	102	—	103	—
Pregnancy ..	180	3,575	91	3,755	157
Partus ..	136	4,333	85	4,469	151
Inflammation of Breast (Mastitis)..	9	154	3	163	7
11.—Diseases of the Bones and Organs of Locomotion—					
Diseases of Bones ..	6	220	4	226	15
Diseases of Joints ..	13	303	3	316	9
12 and 13.—Diseases of the Skin and Connective Tissue—					
Gangrene ..	22	220	91	242	10
Carbuncle ..	2	85	6	87	4
Furuncle ..	3	99	—	102	—
Ulcers ..	498	17,427	114	17,925	590
Abscess ..	124	3,407	78	3,531	147
Eczema ..	44	1,410	5	1,454	63
Pemphigus ..	3	59	1	62	3
Other Diseases of the Integument..	265	6,167	127	6,432	220
III.—Affections produced by External Causes, Poisons, &c.—					
Snake Bite ..	1	34	1	35	1
Corrosive Acids ..	—	45	8	45	4
Metallic Poisons ..	—	15	—	15	—
Vegetable Alkaloids..	—	78	7	78	—
Ptomaine Poisoning..	—	1	—	1	—
Other Acute Poisoning ..	5	206	22	211	5
IV.—Injuries—					
A.—General—					
Burns and scalds ..	36	893	109	929	46
Multiple ..	9	330	13	339	13
Exhaustion ..	—	21	—	21	—
Shock ..	—	40	22	40	—
B.—Local Injuries—					
Wounds, Incised ..	54	2,107	22	2,161	66
Wounds, Contused ..	81	3,335	11	3,416	85
Wounds, Lacerated ..	88	2,273	19	2,361	114
Abrasions ..	17	956	2	973	24
Gunshot ..	11	216	20	227	8
Fractures, Simple ..	46	1,449	32	1,495	62
Fractures, Compound ..	37	546	54	583	30
Fractures of Spine ..	1	19	6	20	3
Fractures of Skull ..	14	275	83	289	9
Sprains and Dislocations ..	8	524	—	532	4
Concussion of Brain ..	9	154	16	163	5
Compression of Brain ..	5	7	4	12	1
Injuries to Chest ..	1	17	2	18	1
Contusion ..	46	2,540	3	2,586	45
Injuries of the Abdomen ..	1	32	5	33	4
Injuries of the Pelvis..	—	6	2	6	—
Injuries to the Organs of Generation ..	1	10	—	11	—
Other Injuries not defined above ..	394	7,807	410	8,201	480

* I.e., the year previous to that for which the Return is made.

† "Total Cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

III.—Special Diseases.

Table of Cases of Yellow Fever or other Endemic Fever, Plague, Typhus, Smallpox, Scarlatina, Cholera, Enteric (or Typhoid) Fever, Erysipelas, or Pyaemia occurring amongst Patients, and also amongst Officers.

Hospital and Name of Disease.	Occurring amongst Patients.			Occurring amongst Officers.			
	Number of Cases.	In case of Patients attacked while in Hospital, state how long the person had been in Hospital before his attack, and for what Disease he was admitted.	Number of Deaths.	Resident Officers.		Non-Resident Officers.	
				Cases.	Deaths.	Cases.	Deaths.
WESTERN PROVINCE.							
Convict Hospital, Borella :—							
Enteric (or Typhoid) Fever	9	Admitted for Constipation 7 days	4	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—
Lady Havelock and Ridgeway Hospitals, Colombo :—							
Influenza ..	20	—	—	20	—	—	—
Dengue ..	3	—	—	3	—	—	—
Diphtheria ..	1	—	—	1	—	—	—
Dysentery ..	1	—	—	1	—	—	—
Police Hospital, Borella :—							
Malarial Fever ..	209	—	—	—	—	—	—
Enteric (or Typhoid) Fever	4	—	—	—	—	—	—
Erysipelas ..	3	—	—	—	—	—	—
Lady Manning Hospital, Gampaha :—							
Enteric (or Typhoid) Fever	2	—	1	—	—	—	—
Pyaemia ..	1	—	—	—	—	—	—
Kalutara Hospital :—							
Enteric (or Typhoid) Fever	20	—	6	—	—	—	—
Erysipelas ..	2	—	—	—	—	—	—
Infectious Diseases Hospital, Angoda :—							
Plague ..	7	—	6	—	—	—	—
Smallpox ..	21	—	1	—	—	—	—
Enteric (or Typhoid) Fever	53	—	8	—	—	—	—
Mahara Jail Hospital :—							
Enteric (or Typhoid) Fever	6	—	3	1	—	—	—
Moratuwa Hospital :—							
Enteric (or Typhoid) Fever	45	—	12	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—

III.—Special Diseases—*contd.*

Hospital and Name of Disease.	Occurring amongst Patients.				Occurring amongst Officers.			
	Number of Cases.	In case of Patients attacked while in Hospital, state how long the person had been in Hospital before his attack, and for what Disease he was admitted.	Number of Deaths.	Resident Officers.		Non-Resident Officers.		
				Cases.	Deaths.	Cases.	Deaths.	
CENTRAL PROVINCE.								
Agrapatana Hospital:—								
Enteric (or Typhoid) Fever	4	—	—	—	—	—	—	
Dikoya Hospital:—								
Erysipelas	1	—	—	—	—	—	—	
Dimbula (Kotagala) Hospital:—								
Pyæmia	2	—	1	—	—	—	—	
Dolasbage Hospital:—								
Erysipelas	1	—	—	—	—	—	—	
Kandy Hospital:—								
Enteric (or Typhoid) Fever	79	—	20	—	—	—	—	
Pyæmia	5	—	2	—	—	—	—	
Erysipelas	5	—	—	—	—	—	—	
Lindula Hospital:—								
Enteric (or Typhoid) Fever	11	—	3	—	—	—	—	
Madulkele Hospital:—								
Enteric (or Typhoid) Fever	3	—	1	—	—	—	—	
Matale Hospital:—								
Enteric (or Typhoid) Fever	6	—	1	—	—	—	—	
Erysipelas	3	—	—	—	—	—	—	
Maturata Hospital:—								
Enteric (or Typhoid) Fever	2	—	1	—	—	—	—	
Mulhakele Hospital:—								
Malaria and Malarial Cachexia	114	—	—	—	—	—	—	
Erysipelas	1	—	1	—	—	—	—	
Nawalapitiya Hospital:—								
Malarial Fever	163	—	—	—	—	—	—	
Enteric (or Typhoid) Fever	18	—	2	—	—	—	—	
Erysipelas	2	—	—	—	—	—	—	

III.—Special Diseases—*contd.*

Hospital and Name of Disease.	Occurring amongst Patients.			Occurring amongst Officers.			
	Number of Cases.	In case of Patients attacked <i>while in Hospital</i> , state how long the person had been in Hospital before his attack, and for what Disease he was admitted.	Number of Deaths.	Resident Officers.		Non-Resident Officers.	
				Cases.	Deaths.	Cases.	Deaths.
CENTRAL PROVINCE— <i>contd.</i>							
Pussellawa Hospital :—							
Enteric (or Typhoid) Fever	1	—	—	—	—	—	—
Ramboda Hospital :—							
Enteric (or Typhoid) Fever	15	—	2	—	—	—	—
Teldeniya Hospital :—							
Enteric (or Typhoid) Fever	1	—	—	—	—	—	—
SOUTHERN PROVINCE.							
Balapitiya Hospital :—							
Enteric (or Typhoid) Fever	2	—	1	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—
NORTHERN PROVINCE.							
Jaffna Hospital :—							
Cholera ..	15	—	14	—	—	—	—
Mannar Hospital :—							
Enteric (or Typhoid) Fever	3	—	—	—	—	—	—
Point Pedro Hospital :—							
Enteric (or Typhoid) Fever	1	—	—	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—
Talaimannar Hospital :—							
Enteric (or Typhoid) Fever	1	—	1	—	—	—	—
Erysipelas ..	2	—	1	—	—	—	—
EASTERN PROVINCE.							
Batticaloa Hospital :—							
Enteric (or Typhoid) Fever	2	—	—	—	—	—	—
Kalmunai Hospital :—							
Enteric (or Typhoid) Fever	1	—	1	—	—	—	—
Mahaoya Hospital :—							
Enteric (or Typhoid) Fever	1	—	1	—	—	—	—
Trincomalee Hospital :—							
Enteric (or Typhoid) Fever	1	—	—	—	—	—	—

III.—Special Diseases—*contd.*

Hospital and Name of Disease.	Occurring amongst Patients.			Occurring amongst Officers.			
	Number of Cases.	In case of Patients attacked while in hospital, state how long the person had been in Hospital before his attack, and for what Disease he was admitted.	Number of Deaths.	Resident Officers.		Non-Resident Officers.	
				Cases.	Deaths.	Cases.	Deaths.
NORTH-WESTERN PROVINCE.							
Kurunegala Hospital :—							
Enteric (or Typhoid) Fever	14	—	6	—	—	—	—
Erysipelas ..	2	—	—	—	—	—	—
Puttalam Hospital :—							
Plague ..	2	—	2	—	—	—	—
Enteric (or Typhoid) Fever	4	—	2	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—
Ridigama Hospital :—							
Endemic Malaria ..	427	—	15	5	—	—	—
PROVINCE OF UVA.							
Badulla Hospital :—							
Enteric (or Typhoid) Fever	24	—	5	—	—	—	—
Erysipelas ..	2	—	2	—	—	—	—
Lunugala Hospital :—							
Enteric (or Typhoid) Fever	6	—	1	2	—	—	—
Monaragala Hospital :—							
Enteric (or Typhoid) Fever	3	—	—	—	—	—	—
Pyæmia ..	1	—	1	—	—	—	—
Passara Hospital :—							
Enteric (or Typhoid) Fever	4	—	1	—	—	—	—
Erysipelas ..	2	—	—	—	—	—	—
PROVINCE OF SABARAGAMUWA.							
Aranayaka Hospital :—							
Erysipelas ..	2	—	1	—	—	—	—
Balangoda Hospital :—							
Erysipelas ..	4	—	—	—	—	—	—
Eheliyagoda Hospital :—							
Enteric (or Typhoid) Fever	15	—	4	—	—	—	—
Embilipitiya Hospital :—							
Pyæmia ..	1	—	1	—	—	—	—
Kahawatta Hospital :—							
Enteric (or Typhoid) Fever	19	—	3	—	—	—	—
Kegalla Hospital :—							
Enteric (or Typhoid) Fever	7	—	3	—	—	—	—
Kitulgala Hospital :—							
Enteric (or Typhoid) Fever	18	—	5	—	—	—	—
Pyæmia ..	1	—	1	—	—	—	—
Undugoda Hospital :—							
Enteric (or Typhoid) Fever	2	—	—	—	—	—	—
Erysipelas ..	1	—	—	—	—	—	—

IV.—Water Supply, &c.

Situation of Hospital.	Water available for each Patient every Day.	Source of Supply.	Quality of Water.	Arrangements as to Baths and Lavatories.	System of Survey.	Condition of Privies.
WESTERN PROVINCE.						
Angoda Infectious Diseases Hospitals	Unlimited ..	Reservoir ..	Good ..	A bath and separate fly-proof lavatory to each ward	Dry-earth system	Satisfactory
Awissawella .. <i>Colombo.</i>	do. ..	do. ..	do. ..	A bath and lavatory to each ward	do. ..	—
Borella Branch Hospital	do. ..	do. ..	do. ..	— ..	Water carriage system	—
Borella Police Hospital ..	do. ..	do. ..	do. ..	2 bathrooms and 2 lavatories	do. ..	Satisfactory
Borella Prison Hospital ..	do. ..	do. ..	do. ..	2 bathrooms and 2 lavatories to each ward	do. ..	do.
De Soysa Lying-in Home	do. ..	do. ..	do. ..	Baths and shower baths ..	do. ..	—
General Hospital ..	do. ..	do. ..	do. ..	Sufficient ..	do. ..	—
Lady Havelock and Lady Ridgeway Hospital	do. ..	do. ..	do. ..	10 bathrooms ..	do. ..	—
Victoria Memorial Eye Hospital	do. ..	do. ..	do. ..	— ..	do. ..	—
Gampaha Lady Manning Hospital	Sufficient ..	From wells	do. ..	Satisfactory ..	Dry-earth system	—
Hendala Leper Asylum ..	Ample ..	Reservoir, for cooking and drinking purposes	do. ..	24 bathrooms adjoining the wards	do. ..	Good
Ingiriya ..	Unlimited ..	Spring water	do. ..	6 bathrooms attached to wards	do. ..	—
Kalutara ..	do. ..	From a well	Satisfactory ..	Bathrooms attached to wards	do. ..	—
Kandana Sanatorium ..	30 to 40 gallons	do. ..	Bad ..	Baths and lavatories attached to wards	do. ..	—
Mahara (jail) ..	Unlimited ..	From Ragama	Wholesome ..	Satisfactory ..	do. ..	Satisfactory
Moratuwa ..	Sufficient ..	From a well	Slightly brackish	4 baths and 6 latrines ..	do. ..	—
Neboda ..	20 gallons (approximately)	do. ..	Good ..	4 bathrooms and 8 lavatories	do. ..	Satisfactory
Negombo ..	Sufficient ..	do. ..	do. ..	A bathroom attached to each ward	do. ..	—
Panadure ..	Unlimited ..	do. ..	Satisfactory ..	2 baths and 2 latrines ..	do. ..	Satisfactory
Pimbura ..	4 gallons (approximately)	do. ..	Unsatisfactory	Bathrooms and lavatories are connected to wards	do. ..	—
Ragama Tuberculosis Hospital	Unlimited ..	From a large well and stored in a tank	Good ..	Bathroom and lavatory in fly-proof room	do. ..	—
Watupitiwala ..	do. ..	From a well	Satisfactory ..	Baths attached to wards	do. ..	—
CENTRAL PROVINCE.						
Agrapatana ..	Unlimited ..	Natural spring water	Good ..	2 bathrooms and 2 lavatories in each ward	Dry-earth system	—
Bogawantalawa ..	do. ..	do. ..	do. ..	do. ..	do. ..	—
Dambulla ..	3 gallons ..	From a well	do. ..	Bathrooms and tubs provided in each ward	do. ..	—
Deltota ..	Unlimited ..	Natural spring water	do. ..	A bathroom near each ward	do. ..	—
Dikoya ..	do. ..	Reservoir ..	Pure ..	8 bathrooms ..	do. ..	—
Dimbula (Kotagala) ..	do. ..	Natural spring water	Good ..	A bathroom attached to each ward	do. ..	—
Dolosbage ..	do. ..	do. ..	do. ..	3 bathrooms connected to wards	do. ..	Satisfactory
Gampola ..	15 gallons (approximately)	Reservoir ..	do. ..	2 bathrooms in each ward	do. ..	—
Kandy ..	Unlimited ..	do. ..	do. ..	11 bathrooms ..	do. ..	—
Lindula ..	do. ..	Natural spring water	do. ..	A bath and lavatory in each ward	do. ..	—
Madulkele ..	do. ..	do. ..	do. ..	8 bathrooms and 12 lavatories	do. ..	—
Maakeliya ..	Sufficient ..	do. ..	Pure ..	4 bathrooms ..	do. ..	—
Matale ..	do. ..	Reservoir ..	Good ..	Baths and latrines attached to each set of wards	do. ..	—
Maturata ..	Unlimited ..	Natural spring water	do. ..	2 bathrooms to each ward	do. ..	—
Mulhalkele ..	do. ..	From irrigation channel	— ..	3 lavatories and 2 bathrooms	do. ..	—

IV.—Water Supply, &c.—*contd.*

Situation of Hospital.	Water available for each Patient every Day.	Source of Supply.	Quality of Water.	Arrangements as to Baths and Lavatories.	System of Survey.	Condition of Privies.
CENTRAL PROVINCE— <i>contd.</i>						
Nawalapitiya	Unlimited	Natural spring water	Good	A bath and lavatory in each ward	Dry-earth system	—
Nuwara Eliya	do.	Reservoir	Pure	do.	do.	—
Pussellawa	do.	Natural spring water	Good	3 bathrooms	do.	—
Ramboda	do.	do.	Unsatisfactory	6 bathrooms and 6 lavatories	do.	—
Teldeniya	Abundant in rainy season and scanty in dry season	Reservoir	Good	Bathrooms and lavatories connected to wards	do.	—
Uda Pussellawa	Unlimited	Natural spring water	do.	do.	do.	—
SOUTHERN PROVINCE.						
Balapitiya	Unlimited	From a well	Poor in quality	2 bathrooms	Dry-earth system	—
Deniyaya	do.	Natural spring water	Good	6 bathrooms and 10 latrines	do.	—
Elpitiya	14 gallons	From a well	do.	2 baths and 2 lavatories in each ward	do.	—
Galle	Unlimited	Reservoir	do.	Bathrooms and lavatories in each ward	do.	—
Hambantota	Sufficient for drinking purposes	From wells	do.	1 bathroom and 2 fly proof latrines	do.	—
Matara	Unlimited	do.	Chalky and unsatisfactory	Bathrooms attached to latrines	do.	—
Tangalla	Unlimited in rainy weather, a proportionate quantity in dry weather	do.	Slightly brackish	A bathroom and lavatory in each ward	do.	—
Tissamaharama	Unlimited for drinking purposes	do.	Poor in quality	A bathroom attached to each ward	do.	—
Udugama	Sufficient	From a well	Good	2 lavatories and 2 bathrooms for two wards and 1 each for the other wards	do.	—
Unawatuna Bathfield House Hospital	do.	do.	do.	—	do.	—
NORTHERN PROVINCE.						
Chavakachcheri	Unlimited	From a well	Good	A bath attached to each ward	Dry-earth system	—
Jaffna	do.	do.	do.	Separate bathrooms and latrines for males and females in respective wards	do.	—
Kilinochchi Mannar	10 gallons	do.	do.	—	do.	Satisfactory
	Unlimited	do.	do.	2 bathrooms and 3 lavatories	do.	—
Mantota	do.	do.	Fairly good	Bathrooms and latrines separately for males and females	do.	Satisfactory
Mullaittivu	do.	do.	do.	4 bathrooms two for each sex and 4 lavatories	do.	—
Point Pedro	do.	do.	Good	Bathrooms and latrines connected to wards	do.	—
Talaimannar	do.	do.	do.	Baths and lavatories adjoin wards	do.	—
Vavuniya	Sufficient	do.	Fairly good	2 bathrooms and 3 lavatories	do.	—
EASTERN PROVINCE.						
Batticaloa	Sufficient	From a well	Good	4 bathrooms and latrines	Dry-earth system	—
Kalmunai	Unlimited	do.	do.	A separate bathroom and latrine to each ward	do.	—
Mahaoya	Sufficient	do.	Unsatisfactory	2 bathrooms	do.	—
Mantivu Loper Asylum	Unlimited	Reservoir	Good	Latrines and bathrooms provided to each ward	do.	—
Trincomalee	do.	From a well	do.	Bathrooms and latrines connected to wards	do.	Satisfactory

IV.—Water Supply, &c.—*contd.*

Situation of Hospital.	Water available for each Patient every Day.	Source of Supply.	Quality of Water.	Arrangements as to Baths and Lavatories.	System of Survey.	Condition of Privies.
NORTH-WESTERN PROVINCE.						
Chilaw ..	Sufficient for drinking	From a well	Good ..	— ..	Dry-earth system	—
Dandagamuwa ..	Unlimited ..	do. ..	Brackish ..	3 bathrooms and 3 latrines	do. ..	—
Kurunegala ..	do. ..	do. ..	Good ..	Sufficient ..	do. ..	—
Marawila ..	do. ..	do. ..	do. ..	2 bathrooms and 2 lavatories	do. ..	—
Nikaweratiya ..	do. ..	do. ..	Unsatisfactory	Baths and 6 lavatories ..	do. ..	—
Puttalam ..	do. ..	Reservoir ..	do. ..	4 bathrooms and 8 latrines	do. ..	—
Ridigama ..	12 gallons ..	From a well	Good ..	Baths and lavatories ad-join the wards	do. ..	—
NORTH-CENTRAL PROVINCE.						
Anuradhapura ..	Unlimited ..	From wells ..	Satisfactory ..	7 lavatories and bathrooms attached to wards	Dry-earth system	—
Mihintale ..	do. ..	From a well	Very brackish	3 bathrooms and latrines attached to wards	do. ..	Clean
Ratmale ..	Sufficient ..	do. ..	Satisfactory ..	2 bathrooms and lavatories	do. ..	—
PROVINCE OF UVA.						
Alutnuwara ..	Unlimited ..	From a well	Satisfactory ..	Bathrooms and lavatories to each ward	Dry-earth system	—
Badulla ..	do. ..	From a mountain spring	Good ..	8 bathrooms and lavatories	do. ..	—
Buttala ..	do. ..	From a well	Unsatisfactory	2 sets of bathrooms and lavatories	do. ..	—
Haputale ..	do. ..	From a mountain stream	Good ..	— ..	do. ..	Satisfactory
Koslanda ..	do. ..	do. ..	do. ..	4 bathrooms and 6 latrines	do. ..	—
Lunugala ..	do. ..	do. ..	do. ..	5 bathrooms ..	do. ..	—
Medagama ..	Sufficient ..	From a well for drinking	do. ..	— ..	do. ..	Satisfactory
Monaragala ..	do. ..	— ..	do. ..	— ..	do. ..	Clean
Passara ..	Unlimited ..	From a mountain stream	do. ..	4 bathrooms ..	do. ..	—
PROVINCE OF SABARAGAMUWA.						
Aranayaka ..	Unlimited ..	From a well	Unsatisfactory	A bathroom and lavatory in each ward	Dry-earth system	—
Balangoda ..	do. ..	From a spring	Satisfactory ..	— ..	do. ..	—
Eheliyagoda ..	Sufficient ..	From wells	Unsatisfactory	— ..	do. ..	Clean
Embilipitiya ..	do. ..	do. ..	Good ..	Baths and lavatories provided	do. ..	do.
Kahawatta ..	do. ..	From a natural spring	Satisfactory ..	2 Bathrooms and latrines attached to wards	do. ..	—
Karawanella ..	Unlimited ..	From wells	do. ..	Separate bathrooms for males and females	do. ..	—
Kegalla ..	Insufficient ..	From a well	Good ..	— ..	do. ..	—
Kitulgala ..	Unlimited ..	Reservoir ..	do. ..	8 bathrooms with water service	do. ..	—
Kolonna ..	Sufficient ..	From wells	Unsatisfactory	— ..	do. ..	—
Rakwana ..	Unlimited ..	do. ..	Good ..	Bathrooms in each ward ..	do. ..	—
Ratnapura ..	Sufficient ..	Reservoir ..	do. ..	Bathrooms for males females	do. ..	—
Undugoda ..	do. ..	From a spring	Pure ..	Bathrooms with water service	do. ..	—

