

# **Report of the Principal Civil Medical Officer and Inspector-General of Hospitals / [Ceylon].**

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# MEDICAL.



## REPORT OF THE PRINCIPAL CIVIL MEDICAL OFFICER AND INSPECTOR-GENERAL OF HOSPITALS FOR 1905.

I HAVE the honour to submit for the information of Government the Administration Report of the Medical Department for the year 1905 with the usual statistical tables.

### SECTION I.—POPULATION; BIRTH- AND DEATH-RATES.

2. The estimated population of the Island on the 31st December, 1905, was 3,950,123, exclusive of the military and shipping population. 150,785 births were registered and 108,160 deaths. The birth-rate was 38·6 per mille as against 38·5, and the death-rate 27·7 per mille as against 24·9, for the previous year, calculated on the estimated population at the middle of the year.

The increase in the estimated population for the year is due to an excess of births over deaths and to the excess of cooly arrivals from India over departures; this latter excess affects the increase in population to a greater extent than the former.

3. The birth-rate was highest in the 1st quarter, next in the 4th quarter, and lowest in the 3rd quarter of the year.

4. The average death-rate for the year to 1,000 persons living was 28·75.

5. *Infant mortality.*—The average mortality for the year of infants under one year was at the rate of 176 to 1,000 registered births. Mannar District heads the list in the 1st and 2nd quarters of the year and improves considerably in the 3rd and 4th quarters.

### SECTION II.—PUBLIC HEALTH.

6. The public health during 1905 was fair. The healthiest Provinces were the Western and the Northern. The healthiest districts were Negombo, Kalutara, Nuwara Eliya, and Chilaw.

7. *Causes of deaths.*—Under the headings "Diarrhoea and Dysentery" there were registered 22,867 deaths, "Fevers" 22,171 deaths, "Smallpox" 112 deaths, "Cholera" one death.

The first two headings in the above list are very comprehensive terms, and are likely to include under "Diarrhoea and Dysentery" all gastro-intestinal diseases with possibly some cases of enteric fever. "Fevers" include malaria, enteric, and many cases in which the chief symptom was a rise of temperature from any cause. The deaths from smallpox were unusually numerous. The one death from cholera was registered as such, but after registration the case was proved not to be Asiatic cholera, but acute diarrhoea due to some dietetic error.

Of the most important infectious diseases treated at the various hospitals, &c., the following list gives a comparative statement for this year and for 1904:—

	Cholera.		Smallpox.		Malaria.		Enteric Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1904	7	4	10	2	5,288	75	341	70
1905	..	..	440	122	7,872	126	370	96

8. *Cholera.*—In 1904 it will be seen that there were seven cases, but it must be remembered that all of these came from a vessel which brought them to the port of Colombo, and they were treated on shore. No case of this disease originated in Ceylon. In 1905 a similarly happy condition existed; there were no cases in the Island, but a vessel arrived in August from Bangkok, on which there had been eight persons attacked and three deaths. The ship was isolated and placed in strict quarantine and the sick treated on board; no further cases developed after her arrival here. Later on in the same month another ship arrived from Calcutta with a case of cholera, which was treated on board and recovered.

The freedom of this country from visitations of cholera has now happened on three occasions, viz., in 1899, in 1904, and in 1905. Before 1899 there was no record of any year free from cholera, and this satisfactory state of things can only be attributed to one cause, viz., the closing of the Northern route to cooly immigration.

9. *Smallpox.*—It is unfortunate that the record of this disease in 1905 is less favourable than for some years past. The reason of this is that smallpox was very bad at all the Indian ports, in Burma, and in the Persian Gulf. The first cases of this disease in Ceylon and many subsequent centres of infection could be traced definitely to arrivals from India and other infected countries. The difficulty of keeping this disease out of the Island arises from its long period of incubation (eighteen days), for it is obvious that it is impossible to segregate for that period the several hundreds of immigrants who arrive in Ceylon daily, and we can therefore only place in quarantine those arrivals whom we know to have come from an infected area. The others are examined for satisfactory marks of vaccination, and if the arrival is for Colombo and unvaccinated the operation is performed on him before he leaves the Breakwater dépôt. In the case of estate coolies, they are vaccinated (when necessary) before they leave the Ragama Camp.

Smallpox was introduced into Kotahena, Colombo, early in April, and spread to various parts of the city; 39 patients were admitted into the Infectious Diseases Hospital. A second outbreak occurred in Messenger street in September, in which eight persons were attacked, but from these centres several foci of infection sprang up in widely located parts of the Island, notably in the Southern Province, where the first case occurred in June at Matara, which was successfully concealed for some time in a loft over a small native eating-house in a thickly populated part of the town. On discovery the case was promptly removed, but too late to prevent spread of the disease, for the infected house had been the resort of many inhabitants of Matara and of the surrounding villages, and in a few days cases were reported from the Tangalla and other districts. Every precaution was taken to deal effectually with this outbreak, a house-to-house inspection of Matara town was made, vaccination was vigorously carried out, and sanitation and disinfection attended to. Temporary hospitals for the sick and segregation camps for the contacts were quickly erected, and the medical staff and subordinates increased in numbers.

The outbreak was always under control, and at no time could it be dignified by the appellation "epidemic," yet it had the annoying character of appearing at different centres, and as soon as one outbreak was suppressed another appeared somewhere else. The districts affected were Deniyaya, Matara, Tangalla, and Galle. The total number of cases in the Southern Province was 239, of which 151 were discharged cured, 78 died, and there were 10 remaining at the end of the year. The Acting Colonial Surgeon (Dr. Keegel) was very energetic and handled the matter in a masterly way, aided very materially by the valuable help and personal exertions of Mr. G. Cookson, C.C.S.

In the Central Province smallpox broke out on 12 estates; in each case the infection was brought from India. In all 63 persons suffered from the disease, among whom there were 12 deaths.

In the Eastern Province, at Trincomalee, 30 cases with 3 deaths occurred. The disease was introduced by a trader from India; the outbreak was not discovered until 7 persons were found in hiding convalescing from the disease; prompt measures in the way of house-to-house inspection, the isolation of the sick, segregation of contacts, and free vaccination soon ended the outbreak.

In the Province of Uva there were 19 cases, all on estates, and in every case the infection could be traced to India. There were 5 deaths.

Smallpox was introduced into the Northern Province on three occasions; in one instance the infection was traced to Akyab, and in the other two to India; there were 7 cases in all.

In the Western Province, in addition to those cases already mentioned which occurred in Colombo, others occurred at Kadawata, Kaduwela, and Negombo, 21 in all, 15 of which occurred at Bandara-gama. There were two cases among arrivals treated at the Ragama Camp.

Three cases (one doubtful) occurred among newly arrived estate coolies in the North-Western and Sabaragamuwa Provinces.

10. *Malarial fever.*—As mentioned in previous reports, the Island of Ceylon may be roughly divided into two halves, the western and the eastern, for the purpose of discussing the incidence of malarial fevers.

The western half includes the following Provinces:—Part of the Southern Province, the Western, the North-Western, Sabaragamuwa, the Central, North-Central, and part of the Northern.

The eastern half includes part of the Southern, the Eastern, Uva, and part of the Northern Provinces. This division represents the districts affected by the south-west and north-east monsoons as regards the amount of rainfall; the western half receives most rain with the south-west monsoon, the eastern half has its greatest amount of rain during the north-east monsoon.

In the western half of the Island the North-Western Province contributed the largest number of cases of malaria, viz., 122,642, the Western came next with 69,390, then Sabaragamuwa with 35,192. Severe outbreaks occurred along the banks of the Kelani river after it had been in flood and in parts of the North-Western and Sabaragamuwa Provinces, to meet which special officers were appointed to distribute quinine to those suffering from the disease.

In the neighbourhood of Colombo there was an absence of the severe outbreaks recorded in 1904, and Colombo itself and Mahara jail were comparatively free. At Mahara and Mutwal jails doses of quinine were given to the prisoners on two successive days and repeated every eighth day just prior to and during the fever season. The same prophylactic line of treatment, at the suggestion of His Excellency the Governor, was carried out at Nikaweratiya in the North-Western Province, and in all three instances with very satisfactory results.

This disease was more prevalent in 1905 than in the year previous; in the North-Western and Sabaragamuwa Provinces the cases in 1905 were double those of 1904.

In the Central Province malaria was present throughout the year, but never in epidemic form. It is more prevalent after the two monsoon rains.

In the North-Central Province it was present during the whole year, but worse after the north-east monsoon.

In the Northern Province it was common all through the year and more prevalent from November to March.

In the dry zone of the Island, represented by the Eastern and Uva Provinces with parts of the Southern and Northern, malaria was prevalent during the last and the 1st quarters of 1905. The total number of cases treated in the Eastern Province was 59,602; 11,382 occurred at Eraur. In the Province of Uva the largest number of cases treated at any one place (Badulla) was 3,059.

Quinine was widely distributed by headmen, vaccinators, and apothecaries, and could also be obtained at some of the rural post offices and at all dispensaries and hospitals. The value of quinine or those suffering from malaria is well recognized by the native population.

The General Manager, Ceylon Government Railway, has issued instructions to his subordinates doing duty in malarious districts, especially to those serving on the new railway to the North, regarding measures to be adopted to lessen the probability of contracting malaria; these measures include drainage in the vicinity of dwellings, improved sanitation of the home and its surroundings, the kerosining of water areas, protection against mosquitoes, and the taking of quinine in a systematic manner during the fever season.

11. *Enteric fever.*—In the Colombo hospitals and jails 232 cases of enteric fever were treated, of which 56 died, giving a mortality rate of 24.1 per cent., which is high. The number of cases this year is less than in the two previous years, but the death-rate has considerably advanced. There can be little

doubt that the energy displayed by the officers of the Health Department of the Colombo Municipality has been serviceable in reducing this disease locally. The cases are now notified early, and stringent measures are taken to rectify insanitary surroundings and to disinfect premises in which the disease occurs, to close cesspits and polluted wells, and to keep the dairies under strict supervision. There were only three cases of enteric fever in the Colombo jails, which is eloquent testimony to the good sanitary condition of those institutions.

In the Central Province 32 cases of this disease were treated in the Kandy Hospital, 26 of which were infected in Kandy; 17 cases occurred at Wattegama, where there was a small epidemic traced to polluted water; 10 cases were treated at the Nuwara Eliya Hospital, 5 of which were contracted locally.

The total number of enteric cases treated at all the hospitals was 370, of which 96 died, giving a mortality rate of 25.94 per cent.

I am in agreement with Dr. H. M. Fernando, who says in his report that most of the cases of this disease among the poor can be traced to the use of impure water from surface wells and to the habit of bathing in polluted streams and drinking the water during the process. The prevailing cause of the disease among the better situated classes is in all probability due to either milk or to the infection of food by flies.

#### Other Diseases.

12. *Dysentery*.—At the various Government hospitals 2,914 cases of dysentery were treated, with 805 deaths. The largest number of cases occurred in the Western Province; then came the Central, Sabaragamuwa, Uva, and North-Western Provinces; the smallest number was reported from the Eastern Province. The total number treated and the deaths were more than in 1904.

In the jails for the whole Island there were 722 cases admitted for this disease with 27 deaths, a death-rate of 3.73 per cent. In the Colombo District the jails contributed 301 cases, as against 374 cases last year. Cholera belts or flannel shirts were issued to prisoners exposed to rain and wind.

13. *Chickenpox*.—This disease is always present in various localities of Ceylon, but owing to its very low mortality it is more an inconvenience than a danger to the public health. Every precaution as far as possible is taken to prevent the spread of this disease, but, owing to its prevalence and to the large numbers who are constantly suffering from it, effective isolation is impossible.

14. *Measles*.—The number of persons attacked by this disease was very small. It did not assume alarming proportions in any district.

15. *Leprosy*.—There was a total of 328 cases of leprosy remaining at the Hendala Asylum on 1st January, 1905, and 165 cases were admitted during the year, giving a total of 493 treated during the year; of these, 102 were discharged and 74 died. At Kalmunai 47 cases were treated, 24 of whom were discharged, and there were 3 deaths. As in former years, the largest number of admissions came from the Western Province (Colombo District); cases also came from the Southern, Central, Eastern, Northern, North-Western, and North-Central Provinces, and from Uva and Sabaragamuwa. From the Kalmunai and Batticaloa Districts, Eastern Province, 128 cases were reported. It is impossible to give an accurate estimate as to the total number of lepers in the Island, for there are many who are never reported at all, and others who are re-admitted into the Hendala Asylum after temporary discharge, and who are counted twice as admissions. It is sufficient here to state that I am convinced the accommodation in the Island is totally inadequate, and that if the Leper Ordinance is to be properly worked a very considerable increase in the amount of accommodation is necessary. In my report for last year I pointed out that at Hendala a large ward would be required for females, and that three new wards would be necessary for males. A vote for one new ward of fifty beds has been sanctioned. The question has to be decided whether the leper accommodation should be increased in the Eastern Province to meet the requirements of that district, where leprosy is prevalent, and thus establish a second large leper institution, or to increase the accommodation already asked for at Hendala. In favour of the latter is the fact that it would be less expensive to conduct this establishment greatly enlarged than to establish a similar institution in the Eastern Province. Against this is the difficulty of the transport of lepers from the Eastern Province to Colombo and the objection the lepers of the Eastern Province have to be removed so far from their homes as Hendala entails. Some cases were reported to Government, who were directed to be isolated in their own homes where this was practicable; others, in the non-contagious stage, are visited periodically by a Government Medical Officer. The hopes raised by Dr. Rost's serum treatment for leprosy in 1904 have not been realized. Although the few cases treated here seemed to be benefited, the experiment could not be prolonged, as the Indian Government condemned the treatment after an exhaustive inquiry and stopped the supply of the serum.

16. *Anchylostomiasis*.—The number of cases of this disease treated at the Government hospitals has increased during the year under review by 867. In 1904 the number of admissions was 1,937; this year it is 2,804. Originally this disease was confined to Malabar coolies on estates, who bring the disease from India. It is therefore being constantly introduced with the batches of coolies who arrive daily. It is reported by most of the Medical Officers doing duty among the natives of the Island (who live on the confines of estates) that the disease is spreading among them. It is a matter of impossibility to check the spread so long as the conservancy arrangements regarding the disposal of sewage and in many cases the water supply of the estates remain as they are, and even if improved sanitary methods were introduced I fear the coolies, who are ignorant and naturally careless in their habits, would not adopt them. There are three means by which this intestinal worm disease could be combated, viz. :—

- (a) Improved disposal of excreta and the prevention of re-infection.
- (b) Pure water for drinking purposes.
- (c) The segregation of all cases in hospital until all worms and ova have been discharged from the body.

To carry out these methods in their entirety is impracticable. Still some benefit might follow a scheme which would have these ends in view.

The death-rate from this disease in 1905 to cases of the disease treated was 18.40 per cent. I do not think that this death-rate accurately represents the mortality from this disease, for many cases are returned as being due to malarial cachexia which really are due to anchylostomiasis. Under this heading should be mentioned that the Leishan-Donovan bodies have been demonstrated in Ceylon, and that many cases of anchylostomiasis and of so-called malarial cachexia are very likely cases of kala-azar.

17. *Diphtheria*.—It is important to mention that only one case of this disease was admitted into hospital during the year. It used to be said that this disease was not known in India and Ceylon, but there was no doubt about the correctness of the diagnosis in the case that happened, as it was confirmed by bacteriological observation and experiment. There were no deaths registered in the Island as due to diphtheria.

18. *Parangi*.—There were 3,535 cases of this disease treated, with 25 deaths, being 34 cases and 5 deaths over the number for 1904. The order in which the number of cases occurred by Provinces is the following. The North-Western Province is an easy first; then come Uva, Eastern, Sabaragamuwa, Central, North-Central, Southern, Northern, and Western Provinces. It will be noted that the disease is more life where the necessities of life are most difficult to obtain. As remarked in my report for last year, the increase in the number of cases is not in proportion to the increase of the population, and the ratio of those affected to the whole population is becoming less every year.

The Director of the Bacteriological Institute gives a history in his report (attached) of observations made from time to time by various workers, and describes *Spirochaetes*, which he has found to be very constant in the tissues of persons suffering from this disease; one of these *spirochaetes* is not to be distinguished morphologically from that which has lately been associated with syphilis by Schaudinn, and that observer, who has examined Dr. Castellani's preparations, admits it, although Mesnil, who is a great authority on the subject, sees some slight differences between Schaudinn's *spirochaete* and Castellani's. The fact remains however that Castellani's discovery is a valuable one and may eventually throw some light on the etiology of the disease.

19. *Phthisis*.—The total number of cases noted in 1905 was 1,037, which gives an incidence of 1 in 3,600 of the total population. For purposes of comparison I give the following particulars:—

1904.		Incidence in Sex.	
<i>Incidence in Race.</i>		Sinhalese	.. { 1 case in 2,813 males 1 case in 4,517 females
Sinhalese	.. 1 case in 3,800 persons	Tamils	.. { 1 case in 4,212 males 1 case in 10,748 females
Tamils	.. 1 case in 3,200 persons	Burghers	.. { 1 case in 551 males 1 case in 1,530 females
Burghers	.. 1 case in 431 persons	<i>Incidence as regards Age.</i>	
<i>Incidence in Sex.</i>		Sinhalese	.. From 26 to 30 years
Sinhalese	.. { 1 case in 2,900 males 1 case in 5,100 females	Tamils	.. From 30 to 40 years
Tamils	.. { 1 case in 2,600 males 1 case in 4,600 females	Burghers	.. There is but little evidence of age influence
Burghers	.. { 1 case in 429 males 1 case in 432 females	<i>Distribution by Provinces.</i>	
<i>Incidence as regards Age.</i>		Western	.. 1 case in 2,700 persons
Sinhalese	.. From 25 to 30 years	Central	.. 1 case in 5,100 persons
Tamils	.. From 26 to 30 years	Northern	.. 1 case in 3,300 persons
Burghers	.. From 26 to 45 years	Southern	.. 1 case in 6,300 persons
1905.		Eastern	.. 1 case in 8,700 persons
<i>Incidence in Race.</i>		North-Western	.. 1 case in 4,200 persons
Sinhalese	.. 1 case in 3,495	North-Central	.. 1 case in 3,200 persons
Tamils	.. 1 case in 5,233	Uva	.. 1 case in 2,800 persons
Burghers	.. 1 case in 813	Sabaragamuwa	.. 1 case in 3,600 persons

20. *Cancer*.—I regret that owing to the absence of reliable figures under this heading I am compelled to omit remarks on this subject.

#### Comparative Statement of Principal Diseases for the last Five Years.

<i>Cholera.</i>				<i>Enteric Fever.</i>			
Year.		Cases.	Deaths.	Year.		Cases.	Deaths.
1901	..	152	97	1901	..	292	74
1902	..	179	116	1902	..	243	63
1903	..	46	23	1903	..	358	71
1904	..	7	4	1904	..	341	70
1905	..	—	—	1905	..	370	96
<i>Smallpox.</i>				<i>Leprosy.</i>			
1901	..	390	75	1901	..	518	56
1902	..	146	35	1902	..	483	48
1903	..	29	5	1903	..	526	92
1904	..	10	2	1904	..	532	68
1905	..	440	122	1905	..	577	68
<i>Chickenpox.</i>				<i>Anchylostomiasis.</i>			
1901	..	1,762	6	1901	..	1,691	326
1902	..	2,293	3	1902	..	1,609	257
1903	..	1,862	4	1903	..	1,775	272
1904	..	3,224	1	1904	..	1,937	286
1905	..	4,426	1	1905	..	2,804	516
<i>Measles.</i>				<i>Parangi.</i>			
1901	..	44	—	1901	..	3,117	12
1902	..	196	2	1902	..	3,434	10
1903	..	20	—	1903	..	3,254	10
1904	..	83	—	1904	..	3,501	16
1905	..	59	2	1905	..	3,535	25
<i>Dysentery.</i>				<i>Malarial Fever.</i>			
1901	..	4,177	1,543	1901	..	5,665	89
1902	..	3,017	999	1902	..	6,513	115
1903	..	2,384	658	1903	..	4,766	108
1904	..	2,111	478	1904	..	5,288	75
1905	..	2,914	805	1905	..	7,872	126

21. *Vaccination*.—During the year 171,739 subjects were vaccinated; 154,090 were primary vaccinations and 17,649 re-vaccinations. Of the former, 128,755 were successful and 15,426 unsuccessful, and in 9,909 subjects the result of the operation was not known, as they failed to present themselves for examination on the appointed days. The percentage of successful cases to total inspected was 89·31. Of the re-vaccinations, 8,080 were successful and 4,899 unsuccessful, and the result was not known in 4,670 cases, as the subjects failed to present themselves for inspection. The percentage of successful cases to total inspected was 62·25. Glycerinated calf lymph was supplied in sufficient quantities to all parts of the Island from the Central Calf Vaccine Depot at Colombo.

The following table gives figures for 1904 and 1905 for comparison :—

Table.

Table showing the Primary and Re-vaccination in the Island during 1904 and 1905.

Primary Vaccination :—		1904.	1905.
Number vaccinated	..	139,706	154,090
Successful	..	118,884	128,755
Unsuccessful	..	12,946	15,426
Unknown	..	7,876	9,909
Re-vaccination :—			
Number vaccinated	..	5,392	17,649
Successful	..	3,446	8,080
Unsuccessful	..	1,138	4,899
Unknown	..	808	4,670
Primary vaccination :—			
Percentage of successful to total inspected	..	90·17	89·31
Re-vaccination :—			
Percentage of successful to total inspected	..	75·66	62·25

[For Statement see next page.]

22. *Precautions against the introduction of plague*.—The same precautions as have been in vogue for many years past against the introduction of plague were continued. The Plague Committee held its fortnightly meetings. The aim of the Committee is to prevent the introduction of plague among the general community, and at the same time to hamper the merchants and the travelling public as little as possible with unnecessary and vexatious quarantine rules. This object was attained during the year. No case of plague was brought to the Island, but eleven vessels on which there were cases of illness which were suspicious of this disease were kept in strict quarantine. The M. M. ss. "Ville de la Ciotat" arrived on the 25th November from Freemantle with an epidemic of plague among the rats on board. Four cases of plague among the crew had been landed at Freemantle nine days previously. No passengers or cargo were allowed to land; the mails were disinfected by the Clayton disinfector, but the Commander refused to use this apparatus for the disinfection of the ship, and put to sea. Cases of pneumonia arriving on a ship from a port infected with plague are watched with particular care.

During the year the Clayton sulphur dioxide disinfecting machine was used several times with good results. The crusade against rats in Colombo has been continued.

23. *The Lunatic Asylum*.—The only Lunatic Asylum for the whole Island is in Colombo; it is divided into the Asylum proper and the House of Observation. For some years past this institution has been overcrowded, and the time has now arrived when the overcrowding is really serious. From time to time schemes of a temporary nature to meet the overcrowding have been proposed, and towards the end of 1905 the building of overseers' quarters outside the Asylum was commenced; when these are finished the Assistant Medical Officers will occupy the entrance block, which now lodges the overseers, which in turn will make available the rooms now occupied by the Medical Officers for the sleeping accommodation of some seventy quiet patients, but the time for temporary relief is past, and some very material increase in accommodation will have to be faced and carried through. The total number of patients treated in the Asylum during 1905 was 708. The daily average number of patients was 560·39, and the daily average shows an increase for males of 19·57 and for females an increase of 24·47.

In the House of Observation 151 persons were admitted, which with 8 remaining from the previous year give a total of 159. But as the Asylum and the House of Observation are one building the figures must be taken together to gauge the strain that is put on the Superintendent to find room for the persons sent to him. It must be remembered that the Superintendent cannot turn people away, as might be done in the time of overcrowding at an ordinary hospital; he is bound to find accommodation. The nominal accommodation is for 378 patients only, yet, with attendants and coolies who sleep in the dormitories, 400 male persons had to be lodged in a building estimated to contain 225; and 240 female persons in one whose capacity is estimated at 153.

To admissions the recovery rate was for males 24·1 per cent., and for females 22·03. The deaths were 66 in number, or 9·32 per cent. of the total number treated; one-sixth of the total deaths were the result of some tubercular affection. The males suffered from this disease more than the females, which is significant when it is remembered that the male sleeping accommodation is so inadequate. There was one escape; he was brought back. There were no fatal injuries, and only one case of attempted suicide; this patient tried to hang herself, but was promptly discovered and resuscitated.

The water supply to the Asylum is insufficient. It is sometimes difficult to obtain water from the pipes supplied to the upper floors owing to want of pressure in the mains. This is not only a great inconvenience, but a source of danger in the event of fire.

The industrial department continues to be a valuable adjunct in the working of this institution.

### SECTION III.—METEOROLOGICAL CONDITION AND ITS RELATIONSHIP TO DISEASE.

24. For the purpose of this report it has been thought advisable to roughly divide the Island into eastern and western halves. The eastern half is that portion chiefly affected by the north-east monsoon; the western half is that portion mostly influenced by the south-west monsoon.

Table showing the Number of Persons Vaccinated in the Island during 1904 and 1905.

	Primary Vaccination.						Re-vaccination.										
	Total Number of Cases vaccinated.	Number of Cases seen after Vaccination.			Percentage of Successful to Cases seen.	If in the Number of Cases absent and therefore unseen the Ratio be taken as in the Cases seen :	Total Number of Cases vaccinated.	Number of Cases seen after Vaccination.			Percentage of Successful to Cases seen.	If in the Number of Cases absent and therefore unseen the Ratio be taken as in the Cases seen :	Total Number of Successful Cases vaccinated.				
		Successful.	Unsuccessful.	Total.				Successful.	Unsuccessful.	Total.							
<b>1904.</b>																	
Government Vaccinators	107,662	92,500	8,770	101,270	91.33	5,491	901	6,392	979,991	5,043	3,241	994	4,235	519	289	808	3,760
Medical Officers in Dispensaries	16,194	12,755	2,857	15,612	81.69	458	124	582	13,213	—	—	—	—	—	—	—	—
On Estates	15,850	13,629	1,319	14,948	91.17	822	80	902	14,451	349	295	114	349	—	—	—	199
Total	139,706	118,884	12,946	131,830	90.17	6,771	1,105	7,876	125,655	5,392	3,446	1,108	4,584	519	289	808	3,959
<b>1905.</b>																	
Government Vaccinators	116,711	98,438	10,604	109,042	90.27	6,924	745	7,669	105,362	13,982	6,401	3,217	9,618	2,872	1,442	4,314	9,273
Medical Officers in Dispensaries	15,781	12,292	2,788	15,080	81.51	572	129	701	12,864	115	6	103	109	—	—	6	—
On Estates	21,598	18,925	2,034	20,959	89.85	1,383	156	1,539	19,408	3,602	1,673	1,579	3,252	181	169	350	1,854
Total	154,090	128,755	15,426	144,181	89.31	8,879	1,030	9,909	137,634	17,649	8,080	4,899	12,979	3,053	1,611	4,670	11,133

As in previous years, malaria is seen to follow the rule that it is more rife during and immediately after the rains, so that the cases of this disease are more numerous than the eastern half of the Island from October, reaching the maximum in January. In the western half malaria is more evident from the end of May to July, reaching the maximum in June. Dysentery and affections of the bowels and pulmonary complaints are most frequent during December, January, and February, when the chilly north-east wind is blowing.

#### SECTION IV.—GENERAL SANITARY CONDITION OF THE COLONY AND OF THE CHIEF TOWNS.

25. The general sanitary condition of the Island remains in much the same condition as last year. The same methods of disposal of dust and faecal matter exist, but the tendency is towards sanitary improvements in the towns and villages throughout the Island, but the work is of necessity slow owing to the cost. The following is a list of the chief towns with a description of their present sanitary condition :—

26. *Colombo*.—The water supply has been considerably improved by a duplication of the main pipe from Labugama and by the erection of another reservoir on an elevated site in Colombo.

The collection of night soil and its disposal is unsatisfactory from a sanitary standpoint; it is carried out as perfectly as this system can be, but the transport of night soil in carts through miles of streets is objectionable, and the burial of the night soil, polluting large areas of ground immediately outside the town, is to be condemned. But these means must continue until the water carriage system is completed. Good progress has been made with the work in connection with the Mansergh Scheme for sewers, pumping stations, and the ultimate treatment of sewage bacteriologically, but it will be some years before this scheme is in working order.

There is serious overcrowding in many parts of the town. The scavenging is well done, but the rubbish should be burnt in a destructor, and not distributed over grass fields. More watering of roads and streets is desirable, particularly during the dry months of the year.

The Municipality of Colombo recognize the necessity of erecting a proper Infectious Diseases Hospital, and measures are now under consideration for the establishment of such an institution.

Cesspits are being gradually closed, and polluted wells are filled up. Wells in general cannot be closed until the town water is more widely distributed. The surface drainage in many parts of the town is defective.

27. *Kandy*.—No very marked improvement in the sanitation of this town has been carried out during the year. The conservancy arrangements are on the dry-earth principle with carriage through the streets and burial. The drainage of the town is most defective; some years ago surveys were made for a new system of drainage, but as far as I know nothing has come of it. Some of the more thickly inhabited parts of the town are most insanitary and overcrowded. I refer especially to back courts behind the principal streets. The scavenging of the town seems to be carried out fairly satisfactorily. The water supply is of fair quality, but during the dry months of the year it is insufficient in quantity.

28. *Galle*.—The sanitary condition of this town is very defective. The water supply and drainage are bad. The question of a new source of water has occupied the attention of the Municipality for some years, and it has not advanced. Improvement in the conservancy system was taken in hand, and more houses, especially in the crowded parts of the town, were included in its working. The Health Department of the Municipality was reorganized.

29. *Badulla*.—This town is well situated for a proper drainage scheme; at present the drainage is defective. The conservancy arrangements are on the dry-earth principle with burial of the night soil. The town is well scavenged and is well kept. The water supply is defective owing to its insufficiency in amount.

30. *Ratnapura*.—The drainage of this town has been improved during the year. The town is well kept. The water supply is of good quality, but is at times insufficient in quantity.

31. *Kurunegala*.—The Medical Officer reports that the sanitation of this town has received a good deal of attention during 1905, and that some improvements have been effected. The drainage is defective. The water supply is not satisfactory, but is receiving the attention of the Local Board.

32. *Anuradhapura*.—The sanitary condition of this town is satisfactory. It is well drained. The scavenging and conservancy of night soil are carried out to the satisfaction of the Medical Officer. The water supply is of good quality and abundant.

33. *Jaffna*.—This is the only town in the Northern Province in which some system of sanitation is carried out, and this is very inadequate. There should be a Local Board or a Municipality created in such an important centre. There is practically no drainage; no water. The houses of the poor are small and ill-ventilated; high cadjan fences screen most of the habitations from every breeze. There are not enough public latrines. Pools of stagnant water abound, and malarial visitations are annual.

34. *Batticaloa*.—The sanitary condition of this town is unsatisfactory. The drainage is very imperfect, and the scavenging is not well done. The water supply, which is procured from wells, is sufficient in quantity, but it is brackish in some of the wells. There is much room for sanitary improvements at Batticaloa.

#### SECTION V.—GENERAL.

35. *Medico-legal duties*.—During the year 1905, 190 reports were completed, and in connection with them several hundred analyses were made.

There were 151 judicial cases, 80 of which were concerned with stains on various articles; in one case as many as twenty productions were sent. There were eight cases of arsenic poisoning, one of strychnine, one of strychnine and arsenic, one of atropine, one of corrosive sublimate mixed with tartar emetic. Opium was detected in four cases, ganja in one, alcohol in one, and morphine in one. In non-legal cases analyses were made of quinine (three) and four estimations of alcohol. Twenty-four samples were examined in connection with the Petroleum Ordinance, and forty-one specimens of water were analyzed. There were also a number of miscellaneous substances sent in for report, such as samples of wood, drugs, milk, coffee, &c.

In at least eight legal cases the Public Analyst has come across some poisonous substances, which at present cannot be certainly identified. They can easily be obtained from certain of the poisonous plants of Ceylon, but until these poisons are fully examined, there can be no certain method of identifying them when used for criminal purposes.

A synopsis of the analyses for the year in a tabular form is annexed herewith :—

Synopsis of the Analyses for 1905.

		Cases.
Judicial	80	Mammalian blood detected in .. 55
		Seminal stains in .. 1
		No blood or seminal stains .. 24
		Arsenic detected in .. 8
		Strychnine in .. 1
	151	Strychnine and arsenic in .. 1
		Atropine in .. 1
		Mercuric chloride and tartar
		emetic in .. 1
		Opium in .. 4
		Ganja in .. 1
		Alcohol in .. 1
		Morphine in .. 1
		Nil or unidentified in .. 52
	151	
	Kerosine .. .. .	21
	Liquid fuel .. .. .	3
	Water, spirits, quinine, and miscellaneous ..	48
Total ..		223

*Administrative Hospitals, Asylums, and Dispensaries.*

36. The Government medical institutions are, as a rule, well built, either of stone or of brick, and contain large airy wards with plenty of cubic space and superficial area. The general type of hospital is an administration block in front with wards running at right angles to it connected by covered corridors. The buildings consist of a ground floor only, and they occupy a good deal of space. The roofs are of red tiles, and the floors of cement concrete. The beds are of wood with cane bottoms or of iron with copper spring mattresses; bedside tables are provided, and the fittings and equipment are serviceable, and in some of the institutions fairly up to date. The hospitals have been kept in good repair, and structural improvements have been carried out as far as votes will permit.

A new hospital at Dikoya, built of stone on the most recent plans, has been completed and occupied; it takes the place of an old timber and mud wall building. This new hospital has accommodation for 85 patients. It is complete with quarters for the Medical Officers, nurses, attendants, an administration block, and operating room, &c.

The Victoria Memorial Eye Hospital was opened in August by Lady Ashmore in the unavoidable absence of Her Excellency Lady Blake. The building is Hindu-Saracenic in design; it occupies a commanding position, and has accommodation for 42 patients. The Out-patient Department known as the Grenier Memorial has been transferred from Regent street to the Victoria Memorial building. This hospital is the latest built in Ceylon, and is fitted throughout with the most recent sanitary improvements in regard to drainage, ventilation, electric apparatus, and equipment.

Many of the older hospitals have been fitted with operation rooms which in many instances did not formerly exist, and these rooms have been equipped with modern aseptic furniture and instruments. High power microscopes have been issued to all hospitals; and old latrines have been renovated and supplied with Doulton earthenware squatting plates. The water supply in many institutions has been improved, and the general sanitary condition of all these institutions has been maintained or improved. The building of a new hospital at Dolosbage was commenced, and a temporary iron structure lined with wood was erected in the place of the hospital at Maskeliya, which was destroyed by a landslide.

There is a great need for a modern Infectious Diseases Hospital in Colombo. The present establishment consists of a series of cadjan huts, which have been yearly patched up since they were originally erected over twenty years ago. Their only advantage is that for sanitary reasons, when necessary, they can be destroyed by fire without much loss of money, for it is quite impossible to disinfect them, and their rough interior walls are most unsuitable for infectious wards from a hygienic point of view. The Municipal Council of Colombo has resolved to build an Infectious Diseases Hospital.

37. *Native attendants.*—Male and female ward attendants are employed in the hospitals, who work under the directions of the nurses; they perform their duties fairly satisfactorily, but it would be well if a better class of attendant could be induced to take up the work, which is only possible with a substantial increase of pay.

38. *Nursing in Ceylon hospitals.*—The nursing in the Ceylon hospitals is not entirely satisfactory. Some of the outstation hospitals have no nurses; other hospitals are under-nursed.

The nursing staff consists of—

- 9 European qualified Matrons and Sisters.
- 24 European Roman Catholic Sisters (untrained).
- 28 Matrons (trained locally).
- 27 Nurses (trained locally).
- 16 Pupils in training.

Five of the European qualified Sisters are employed in the paying section of the General Hospital, Colombo. One is the Matron of the Lady Havelock Hospital, and the Matron at Badulla is a European. The Roman Catholic Sisters perform nursing duties in the general wards of the Colombo Hospital and at Kurunegala. Three fully qualified European Sisters are employed at the Kandy Hospital.

Two nursing schools for the training of young women exist at the Lady Havelock Hospital and at the Kandy Hospital. The length of the course is two years, after which a certificate of proficiency is given to those who pass a satisfactory examination. A new nursing home for pupil nurses was completed at Kandy during the year, in which there is accommodation for 15 pupils. A new scheme of pay and allowances for locally trained nurses has been asked for in the votes for 1906. It is anticipated that if more liberal terms were offered a better class of candidate will be induced to take up nursing as a calling. At present the pay is not sufficient to attract applicants well enough educated for the nursing profession.

39. The total number of in-patients treated at all hospitals and asylums for the year was 68,321, of whom 6,697 died, which gives a death-rate of 9.80 per cent. of the hospital population.

40. At the Government dispensaries 1,222,790 new cases were treated; the number of individual visits paid to the Government dispensaries were 1,849,544.

41. The Estate dispensaries are established by many of the planters, who supply the building and the apothecary, the Ceylon Government giving the drugs free.

42. During the year 1905 65 hospitals and asylums were in operation. There were 424 Government dispensaries and 142 Estate dispensaries.

43. *Surgical operations.*—At the various hospitals throughout the Island 2,497 operations were performed, with 88 deaths.

The following is a summary of the operative work :—

Amputations :—	Cases.	Deaths.		Cases.	Deaths.
Upper extremities	97	.. 2	Trephining of skull	37	.. 10
Lower extremities	48	.. 8	Lithotomy, suprapubic	7	.. —
Operations for cataract	50	.. —	Laparotomy	.. 43	.. 10
Iridectomy	13	.. —	Ovariectomy	.. 21	.. 3
Radical cure for hernia	61	.. —	Hysterectomy	.. 25	.. 2
Radical cure for hydrocele	102	.. —	Eye operations	.. 44	.. —
Hepatic abscess	53	.. 13	Other operations	.. 1,894	.. 40

44. *General Hospital, Colombo.*—The total number of patients treated at this institution during the year was 13,044 with 1,234 deaths, against 13,657 cases and 958 deaths in the previous year. Of the total treated, 445 remained from the previous year and 12,599 were new admissions, 11,327 were discharged, and there remained 483 under treatment at the end of the year. The daily average sick was 510.40, and the percentage of deaths to total treated was 9.46. The institution consists of twenty-five wards and eight solitary rooms, and the number of beds is 425.

The new administration block was occupied during the year. It is a handsome structure consisting of ground and first floors. On the ground floor is the Out-patient Department containing large waiting-room, dressing rooms for men and women, latrines, and a room for the prescribing Medical Officer. A dispensary is also in connection with it. On the same floor is a room for the nurse on duty and rooms for the visiting staff and for the students (male and female); there is an electrical room fitted with a good X ray apparatus, a coroner's room, and offices for the Superintendent and his clerks. The upper floor is divided into two portions; each is complete in itself with sitting, dining, and bedrooms, separate staircases, kitchens, and bathrooms for the resident staff and European Sisters of the paying section of the hospital.

45. *Paying section, General Hospital, Colombo.*—This consists of Planters' (4 wards with 4 beds), Anthonisz (2 wards with 2 beds), Passengers' (8 wards with 8 beds), Seamen's (3 wards with 26 beds), Clerical (1 ward with 2 beds), and Cargills' (2 wards with 2 beds). The total number of patients treated in these wards during 1905 was 511 with 34 deaths, against 575 cases and 56 deaths in 1904. Of the total treated, 25 remained from the previous year and 486 were new admissions, 456 were discharged, 34 died, and there remained 21 under treatment at the end of the year. The daily average sick was 27.04 against 28.54 in 1904, and the percentage of deaths to total treated was 6.65 against 9.5 in 1904. Government has decided to convert the present Planters' Ward into a set of association wards for those who cannot pay the higher charges; one of these wards will be for Post Office employes, and will be known as "The Skinner Memorial Ward." A new block of buildings with ground and first floors will be erected at right angles to the present Passengers' Wards which will be known as the Planters' and Munro Wards; the latter is a memorial ward for which a legacy was left to Government. An operating room will be made in this new block for the paying section of the hospital.

46. *The Lunatic Asylum, Colombo.*—Please see remarks under Section II.

47. *Houses of Observation for suspected lunatics.*—There were four institutions of this nature, at Colombo, Kandy, Galle, and Jaffna, and into them were admitted for observation 255 patients, which with 9 remaining from the previous year made a total of 264, of whom 96 were transferred to the Asylum at Colombo, 140 were discharged, 2 died, and 26 remained at the end of the year.

48. *Leper Asylum, Hendala.*—Please see remarks under Section II.

49. *De Soysa Lying-in Home.*—The total number of patients treated at this institution during the year was 877, against 776 in 1904. Of these, 848 were discharged cured, 13 died, and 16 were remaining under treatment at the end of the year. The daily average sick was 18.99. The percentage of deaths to total treated was 1.48 against 1.3 in 1904. The popularity of the institution is steadily increasing, especially with the Mohammedan patients, whose admission is increasing year by year. The number of admissions from this race was 24.

In the Lying-in Home 22 pupil midwives received training in 1905, of whom 14 obtained certificates after passing a satisfactory examination. A scheme to train selected pupils from all Provinces has been adopted, and it is hoped that it will supply a long-felt want by the speedy introduction of European midwifery into the villages. Ten pupils were trained and sent out during the year. 156 obstetric operations were performed during the year.

50. *Lady Havelock Hospital.*—In this institution 1,030 in-patients were treated. The mortality rate was 6.99 per cent. The daily average sick was 32.2. Of the total 1,030 patients, 301 were children. There were 93 operations performed, of which 64 were major operations. Of the operated cases 3 died. There were 4 abdominal sections and 4 osteotomies.

The number of enteric cases treated was less than last year, and the mortality rate for this disease was 23·7 per cent. There were more admissions for dysentery and malaria than during 1904.

There were 20 paying patients, of whom 11 were Europeans, 6 Burghers, and 3 Sinhalese.

The number of attendances at the Female Outdoor Dispensary was 22,679. There were 6,060 children, 2,464 being boys and 3,596 girls. The premises were considerably altered and improved, making more room for the dispensary and waiting-room.

51. *Police Hospital, Colombo*.—594 patients were treated in the Police Hospital, of whom 2 died. The daily average sick was 7·35.

52. *Grenier Eye, Ear, and Throat Infirmary*.—At this institution 9,295 cases were treated during the year, against 7,824 in the previous year. The contributions of a purely voluntary nature amounted to Rs. 200·48.

In August, 1905, this Infirmary was merged into the Victoria Memorial Eye Hospital, of which institution it forms the Out-patient Department. It has a handsome entrance in Ward Place, and consists of a waiting-room, dispensary, Surgeon's room, dark room, retinoscopy room, and an operating room. It is furnished with the most modern equipment and apparatus, and is well ventilated by electric fans and supplied with electric light.

53. *Branch Hospitals*.—Colombo and Galle are provided with a special hospital for the treatment of women suffering from venereal diseases. The total number of new cases admitted was 354 as against 307 in 1904, which with 15 remaining from the previous year make a total of 369. Of these, 349 were discharged, 3 died, and 17 remained at the end of the year. Of the 369 females treated in the two Branch Hospitals, 17 were for primary syphilis, 93 for secondary syphilis, 84 for tertiary syphilis, 4 for inherited syphilis, 148 for gonorrhœa, 1 for bubo (gonorrhœal), and 22 for other diseases. The patients seek voluntary admission.

54. *Jail Hospitals and sick prisoners*.—The number of prisoners admitted to different jails in the Island was 14,493. The average daily strength of prisoners was 2,864·64. The number treated in the Jail Hospitals during the year was 4,887, against 5,099 in the previous year. The total deaths numbered 95, against 70 in 1904.

Return of Diseases in Jail Hospitals for 1905.

Hospitals.	Dysentery.		Diarrhœa.		Malarial Fever.		Enteric Fever.		Other Fevers.		Injuries.		Leprosy.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Welikada ...	12	—	11	—	7	—	—	—	—	—	1	—	—	—
Mahara ...	168	—	140	—	342	1	2	1	1	—	44	—	—	—
Negombo ...	27	—	107	11	34	1	—	—	14	—	2	—	—	—
Borelia ...	289	25	414	5	111	—	3	1	26	—	47	—	—	—
Kandy ...	149	1	130	1	204	—	11	1	24	—	18	—	—	—
Nuwara Eliya	6	—	13	—	2	—	—	—	—	—	—	—	—	—
Jaffna ...	13	—	9	—	10	—	—	—	1	—	5	—	—	—
Galle ...	18	—	31	—	9	—	—	—	3	—	7	—	—	—
Matara ...	13	—	14	—	10	—	—	—	—	—	3	—	—	—
Tangalla ...	8	—	8	—	3	—	—	—	1	—	3	—	—	—
Batticaloa ...	2	1	8	—	6	—	—	—	1	—	1	—	—	—
Kurunegala ...	12	—	15	—	6	—	—	—	1	—	2	—	—	—
Anuradhapura	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Badulla ...	3	—	5	1	1	—	—	—	—	—	—	—	—	—
Ratnapura ...	2	—	21	—	7	—	—	—	—	—	5	—	—	—
Kegalla ...	—	—	2	—	2	—	—	—	—	—	3	—	—	—
Total ...	722	27	928	18	755	2	16	3	72	—	141	—	—	—
Percentage of deaths	3·73		1·93		·26		18·75		—		—		—	

The following table gives the number of admissions, number of deaths, average strength, death-rate to admission to hospitals, and to average strength for the past four years :—

Year.	Admission to Hospitals.	Number of Deaths.	Average Strength of Prisoners.	Death-rate to Admissions.	Death-rate per 1,000 of Average Strength.
1902 ..	5,363 ..	117 ..	2,656·40 ..	2·18 ..	44·05 ..
1903 ..	4,396 ..	73 ..	2,784·00 ..	1·66 ..	26·21 ..
1904 ..	5,099 ..	70 ..	2,821·21 ..	1·37 ..	24·81 ..
1905 ..	4,887 ..	95 ..	2,864·64 ..	1·94 ..	23·16 ..

55. *Kanatta Infectious Diseases Hospital*.—At this institution 28 cases of infectious diseases remained from the previous year and 887 were admissions, making a total of 915, as against 740 in 1904. Of these, 870 were discharged cured, 25 died, and 20 remained. The death-rate was 2·73 per cent., against 2·82 per cent. in 1904. The most serious disease treated in this institution was smallpox. 57 cases of this disease were treated with 19 deaths, a mortality rate of 33·33 per cent.

56. The following two institutions are not entirely supported by, but receive a large subsidy from, the Government :—

(1) *The Friend-in-Need Society's Hospital at Jaffna*.—The Friend-in-Need Society's Hospital at Jaffna received 1,894 patients, which with 76 remaining from the previous year made a total of 1,970. Of these, 1,865 were discharged, 62 died, and 43 patients remained at the end of the year. At the outdoor dispensary of this institution 7,463 persons were treated during the year; these paid 14,519 visits.

(2) *The Victoria Home for Incurables, Colombo.*—At this institution 50 cases remained at the end of the last year, which with the 21 cases admitted during the year made a total of 71. Of these, 10 died and 4 were discharged; 57 patients remained at the end of the year.

57. *Bacteriological Institute.*—The total number of specimens examined bacteriologically during the year was 1,753, and the amount recovered by fees was Rs. 406. Special investigations were made in leukemia, hæmatozoa, trypanosomes, filaria, diphtheria, acute contagious ophthalmia, parangi, and tropical skin diseases. The water supply of Colombo is examined bacteriologically once in three months.

58. *Total deaths.*—The total deaths numbered 6,697 against 4,801 in 1904, showing an increase of 1,896. A table showing the death-rate per cent. in the various hospitals and asylums in the Island for the year as compared with the last year is annexed. For the purpose of comparison the death-rate among the mixed races and Malabars have been shown separately:—

Hospitals.	Mixed Races.		Malabars.		Total.	
	1904.	1905.	1904.	1905.	1904.	1905.
Civil ..	5.81 ..	7.12 ..	12.93 ..	14.89 ..	7.28 ..	8.72 ..
Field ..	3.14 ..	4.12 ..	9.37 ..	11.7 ..	3.54 ..	4.87 ..
Immigrant ..	3.75 ..	5.36 ..	9.7 ..	10.17 ..	4.96 ..	6.39 ..
District ..	4.65 ..	4.69 ..	17.52 ..	19.98 ..	12.35 ..	14.36 ..
Asylums ..	7.90 ..	9.73 ..	9.09 ..	8.84 ..	8.06 ..	9.6 ..
Total ..	5.67 ..	6.6 ..	15.18 ..	17.34 ..	8.01 ..	9.92 ..

The percentage of deaths to cases treated in the Civil Hospitals showed a slight increase among the mixed races and the Malabars. In the Immigrant Hospitals the increase among the mixed races and the Malabars was slight. In the District Hospitals there was a slight increase among the mixed races and among the Malabars. Taking all the hospitals and asylums together, there was a slight increase in deaths among the mixed races and among the Malabars. The percentage of deaths to total treated was 9.92, against 8.01 in 1904.

59. *Hospital accommodation.*—This was generally sufficient; occasionally some overcrowding took place, especially at Buttala, Neboda, Dikoya, and at the Lunatic and Leper Asylums, for the extension of which steps have been taken to increase the accommodation at most of these institutions.

60. *The water supply.*—With the exception of the following institutions: Matale, Mannar, Galle, Chilaw, Nikaweratiya, Balangoda, Trincomalee—was reported to be good, pure, wholesome, and abundant. Water for drinking purposes is, as a rule, filtered before use. Water supply schemes for Nanu-oya, Balangoda, Tillicoultry, and Bandarawela are under consideration.

61. *Bathrooms.*—All hospitals are provided with separate bathrooms for males and females and furnished with tubs, which are filled with hot or cold water according to the requirements of the patients. Patients who can help themselves, however, prefer to bathe in streams, where there are such adjoining a hospital.

62. *Drains.*—There are no covered drains. The drains are all surface ones for carrying away ward washings and storm water.

63. *Sewage.*—The conservancy of the latrines is entirely on the dry-earth system; the excreta is removed daily and buried or incinerated at some distance from the hospitals. Doulton's earthenware squatting plates have been introduced into most of the hospitals.

64. *Inspection.*—The hospitals were all inspected either by me or the Colonial Surgeons of the respective Provinces. The number of these visits of inspection and the official designation of the visitors will be found given in the return of each institution. The books were produced when called for, and were generally found complete and made up to the date of examination. The reports of inspection by the Colonial Surgeons as well as those by me were forwarded to Government when necessary.

65. *Food supply.*—The provisions for the various hospitals were supplied by purveyors on contract approved by Government. The system works satisfactorily. The Medical Officers in charge of the respective hospitals examine the food before it is served out to the patients, and reject such articles as do not come up to contract samples; contractors offering inferior articles are fined.

66. *Dispensaries.*—Five hundred and four dispensaries, including branch institutions and visiting stations, were in operation. Of these, 316 were Civil, 46 District, and 142 Estate. They are distributed as follows:—In the Western Province 34, Central 63, Northern 46, Southern 41, Eastern 41, North-Western 38, North-Central 37, Province of Uva 31, and Province of Sabaragamuwa 31, and on Estates 142. In the Civil and District Dispensaries there were treated 1,222,790 persons who paid 1,849,544 visits, against 948,386 persons who paid 1,454,367 visits in 1904.

67. *Port duties and immigration.*—The number of vessels which arrived at the port of Colombo was 3,250 against 3,218 in 1904, 2,800 being steamers and 450 native craft. Six vessels were in strict quarantine for smallpox, two for cholera, eleven for suspected plague, and a British transport which arrived in November with three cases of scarlet fever. The sick in all cases were isolated and the contacts segregated.

A new disinfecting station has been established at the root of the Breakwater, where an Equifex high pressure steam disinfecting machine has been erected. There are washing-rooms for clerks and for first and second class saloon passengers.

The number of persons disinfected at the old station, Kochchikade, during the year was 70,949.

The number of native passengers who arrived in Colombo during 1905 was 80,321 traders and 138,371 estate coolies; out of these totals, 16,394 who had no marks of vaccination were vaccinated.

#### *Pearl Fishery.*

68. *Medical staff.*—The fishing lasted from 20th February until the 21st April, but the Medical Officers were at their posts on the 9th of February. Dr. F. G. Spittel was the chief Medical Officer at the Fishery Camp, assisted by one Medical Officer and four apothecaries.

There were two Medical Officers at Paumben, who inspected all passengers embarking for the camp, for infectious disease.

69. *Water*.—The water for the inhabitants of the camp was obtained from tanks ; its quality was not good. Officials used water from a well ; no ill-effects followed the use of the water, which as a general rule was boiled before being taken.

70. *Sanitation*.—The sanitary condition of the camp was satisfactory. 100 coolies and 12 overseers worked under the supervision of the Sanitary Officer.

71. *General health*.—The number of patients treated at the hospital and dispensary was larger than on previous occasions, but on the whole the health of the inhabitants was good. The estimated population was 40,000.

With the exception of 5 cases of chickenpox, there were no cases of infectious disease. There were a good many admissions into hospital for malarial diseases and dysentery. There were 23 deaths in the camp out of hospital.

72. *Hospitals*.—There was a hospital of 58 beds for general diseases, two Infectious Diseases Hospitals, and an observation ward. The food was of good quality, and the water was boiled and filtered through a Pasteur filter.

73. *Latrines*.—The night soil was collected twice daily and buried.

74. *Equipment*.—The equipment was of good quality supplied by the Government Stores, and an ample supply of medicines and surgical apparatus was supplied by the Medical Stores.

75. *Numbers treated*.—198 patients were admitted to hospital, of whom 33 died and 165 were discharged. The average daily sick was 23.77. The prevailing diseases were malaria, dysentery, and pneumonia. Two cases of fractured skull were treated ; one recovered and one died.

76. *Outdoor dispensary*.—1,539 patients were treated at the outdoor dispensary.

77. *Ragama Camp*.—The number of coolies, passengers, and others who passed through the camp during 1905 was 141,823, against 60,171 in 1904. 2,693 were quarantined. 10,696 coolies who had no marks of vaccination were vaccinated. The hospital of the camp admitted 16 patients during the year, of which 2 were suffering from confluent smallpox, 5 with chickenpox, 1 with dysentery, 1 with convulsions, 1 with abscess, 1 sprain, 1 malarial fever, and 3 for childbirth. 683 cases were treated at the dispensary attached to the camp.

The sanitation of the camp was satisfactory, the water supply of good quality and in sufficient quantity. The night soil was incinerated.

78. *Medical College*.—The College contains lecture halls, students' library, laboratories for chemical physiology, biology, and pathology, dissecting room, offices, photographic rooms, a museum and Colonial Medical Library, and a separate building for lady students, containing sitting-room, lavatory, and special dissecting room.

Dr. A. J. Chalmers, M.D., D.P.H., F.R.C.S., the Registrar, was absent on leave for the greater part of the year, and Dr. Paul, M.D., F.R.C.S., acted for him. Dr. H. B. Mylvaganam, F.R.C.S., L.R.C.P., was appointed Lecturer in Anatomy *vice* Dr. Paul.

The new lecture rooms at the Technical College for chemistry and physics were used by the medical students, and a new building was erected in the College compound for the Public Analyst, in which are an experimental physiological laboratory, a students' common room, and lavatories for the College.

During the year 10 new medical students, 12 apothecary students, and 1 casual student entered the College. There were 97 medical, 24 apothecary, and 2 casual students at the end of the year. The total fees amounted to Rs. 15,321.50.

79. *Post-graduate lectures*.—For the third year in succession a course of instruction lasting a fortnight was held in Colombo for Medical Officers at outstations to familiarize themselves with the most recent advances made in medicine, surgery, and bacteriology. 11 Medical Officers attended. These courses are much appreciated.

80. *Civil Medical Stores*.—Dr. Owen Johnson was in charge of this institution as Superintendent for a part of the year, being relieved by Dr. Van Rooyen. Mr. A. D. Cotton is the Chief Storekeeper. The cost of the drugs, chemicals, and instruments received from England amounted to Rs. 151,473.96, from India Rs. 496.89. The cost of articles purchased from the Government Stores and the local market for the preparation of drugs in the Medical Stores came to Rs. 15,134.38, while the cost of repairing surgical instruments amounted to Rs. 56.90, and that of transport and postage to Rs. 3,978.86, extra service, petty expenses, and contingencies to Rs. 330, the sale of medicines to Government Departments and others Rs. 2,870.59, and sale of medicines to planters Rs. 2,092.20. The sale of unserviceable articles realized Rs. 119.70, and the value of the surgical instruments lost and paid for by the officers of the Department amounted to Rs. 413.13.

81. *Medical legislation*.—During the year two very important measures affecting the medical profession in Ceylon were passed in the Legislative Council, viz. :—

(a) An Ordinance for the registration of Medical Practitioners.

(b) An Ordinance for the incorporation of the Ceylon Medical College.

82. *Strength of the Medical Department*.—The strength of the Medical Department was as follows :—1 Principal Civil Medical Officer and Inspector-General of Hospitals, 1 Assistant Principal Civil Medical Officer, 1 Registrar of the Medical College, 1 Director, De Soysa Bacteriological Institute, 1 Professor of Chemistry and Public Analyst, 7 Colonial Surgeons, 1 Superintendent of the Lunatic Asylum, 1 Surgeon in charge of the General Hospital at Colombo, 3 Medical Women, 23 Assistant Colonial Surgeons, 26 Deputy Assistant Colonial Surgeons, 58 Sub-Assistant Colonial Surgeons, 19 Probationer Sub-Assistant Colonial Surgeons, 6 Health Officers, 240 Apothecaries, 1 Chief Medical Storekeeper, 1 Chief Inspector of Vaccination, 7 Inspectors of Vaccination, and 111 Vaccinators.

83. *Changes in the Department*.—The changes were the appointment of Dr. Mylvaganam, F.R.C.S. (England), as Lecturer in Anatomy ; Dr. Paul, M.D., F.R.C.S. (England), as Third Surgeon, General Hospital ; and the deaths of Drs. G. J. Woutersz, Port Surgeon ; W. E. Rudd, Colonial Surgeon, Jaffna ; and E. W. de Kretser, Judicial Medical Officer, Galle.

84. *Expenditure.*—The expenditure of the Department, exclusive of hospitals worked under the Medical Aid Ordinance, amounted to Rs. 1,449,264-90, including exchange compensation, against Rs. 1,366,990-76 in the previous year. Under Personal Emoluments and Allowances the expenditure was Rs. 387,683, including exchange compensation, against Rs. 339,186-07. The expenditure under Other Charges was Rs. 1,050,442-90, against Rs. 1,010,827-71 last year; under Harbour Service Rs. 800, against Rs. 800 in 1904; and under the vote for Plague Precautions Rs. 10,339, against Rs. 16,176-98 in the previous year. The receipts on account of paying patients in hospitals amounted to Rs. 48,017-08, against Rs. 47,351-14 in 1904. The collections at the Civil Outdoor Dispensaries were Rs. 23,626-03, against Rs. 20,351-53 last year. The cost of medicines issued to the Estates Branch of the Department amounted to Rs. 113,918-27, against Rs. 112,562-30 in 1904; while the sale of medicines and superfluous articles, Medical College fees, &c., amounted to Rs. 73,977-40, against Rs. 59,609-41 last year. Deducting the receipts under the heads above specified from the expenditure, the nett expenditure was Rs. 1,187,897-43, against Rs. 1,127,116-38 in 1904.

The following statement shows the expenditure and receipts as compared with 1904 :—

<i>Expenditure.</i>	1904.		1905.		Increase.	
	Rs.	c.	Rs.	c.	Rs.	c.
Personal Emoluments ..	314,173	67	362,172	23	47,998	56
Personal Allowances ..	25,012	40	25,510	77	498	37
Total—Rs.	339,186	7	387,683	0	48,496	93
Other Charges ..	75,964	75	86,530	30	10,565	55
Hospitals and Dispensaries ..	732,754	93	782,201	68	49,446	75
General ..	202,108	3	181,710	92	—	—
Total—Rs.	1,010,827	71	1,050,442	90	60,012	30
Harbour Service ..	800	0	800	0	—	—
Plague Precautions ..	16,176	98	10,339	0	—	—
Grand Total—Rs.	1,366,990	76	1,449,264	90	82,274	14
<i>Receipts.</i>						
Amount received from paying patients in hospitals ..	47,351	14	48,017	8	666	66
Collections at Dispensaries ..	20,351	53	25,454	72	4,103	19
Cost of medicines issued to Estates Branch institutions	112,562	30	113,918	27	1,355	97
Sales of medicines and superfluous articles, College fees, and Bills of Health ..	59,609	41	73,977	40	14,367	99
Total—Rs.	239,874	38	261,367	47	20,493	81
Nett Expenditure—Rs.	1,127,116	38	1,187,897	43	60,781	5

#### ESTATES BRANCH.

85. During the year 1905 there were 1,792 estates scheduled to 33 districts and 29 sub-districts, with 20 District Hospitals and 29 Dispensaries and 13 Civil Hospitals and Dispensaries.

The following are the districts and sub-districts, with the number of estates scheduled to each :—Avisawella District 42, sub-district Hanwella 10, sub-district Bandaragama 11, sub-district Ragama 1, sub-district Parakaduwa 7; Kalutara District 42, sub-district Horawella 6; Kandy District 66, sub-district Galagedara 10, sub-district Kadugannawa 19, sub-district Hanguanketa 4; Elkaduwa District 20, sub-district Wattagama 31; Kellebokka District 38; Dikoya District 60, sub-district Bogawantalawa 28, sub-district Watawala 37; Maskeliya District 66; Gampola District 58, sub-district Pussellawa 32; Lindula District 54, sub-district Agrapatana 43; Dimbula District 49; Matale District 92, sub-district Rattota 34, sub-district Gammaduwa 20; Teldeniya District 28, sub-district Rangalla 28; Deltota District 43; Nuwara Eliya District 36, sub-district Nanu-oya 18; Maturata District 26; Ramboda District 32; Uda Pussellawa District 30, sub-district Mulhalkele 3; Nawalapitiya District 61, sub-district Dolosbage 30; Kotmale District 17; Morawak Korale District 26; Balapitiya District 17; Elpitiya District 1; Udugama District 17; Badulla District 50, sub-district Namunukula 24, sub-district Passara 10; Lunugala District 14, sub-district Madulsima 29; Monaragala District 11; Haputale District 17, sub-district Bandarawela 8, sub-district Haldummulla 23, sub-district Koslanda 27; Kurunegala District 52, sub-district Rambukkana 5; Ratnapura District 27; Balangoda District 41; Rakwana District 24; Kegalla District 30; Karawanella District 68, sub-district Kitulgala 19, sub-district Aranayaka 13, sub-district Bulatkohupitiya 5.

To attend to the medical wants of the above the following were employed :—Deputy Assistant Colonial Surgeons 15, Sub-Assistant Colonial Surgeons 10, and Apothecaries 28.

During 1905 there were 12,410 estate labourers treated in the District Hospitals and Civil constituted District Hospitals, against 8,299 in 1904. Of these, 1,430 died, a death-rate of 17-23 per cent. Of the mixed races, 19,848 were treated, of whom 2,385 died, a death-rate of 11-17 per cent.

In the Civil Hospitals worked partly as District Hospitals the death-rate of estate labourers was 15-86 per cent., whilst in the District Hospitals it was 20-40 per cent. The highest death-rate (27-01) among the estate labourers occurred in the District Hospital at Karawanella, and the lowest (7-14 per cent.) in the Civil District Hospital at Mulhalkele. The admissions into the former were 781, into the latter 14.

The total number of days the estate labourers stayed in hospital was 297,973, an average of 24 days. Of these, 220,165 were paid for by the estates, the rest being charged to the fund. The total number of days mixed races stayed in District and Civil Hospitals was 376,148, an average of 11 days.

The total number of estate labourers treated at the outdoor dispensaries was 35,659. The total number of estate labourers treated on estates was 12,841.

The total number of births reported from estates was 11,903, of which 6,036 were males, 5,586 were females, and 281 were still-births.

The number of deaths reported from estates was 9,404, of whom 4,723 were males, 4,665 were females, and in 16 cases the sex was not stated.

The expenditure under the Medical Aid Ordinance amounted to Rs. 576,043.53, including exchange compensation, and receipts to Rs. 407,426.36 derived from the following sources:—Export duty Rs. 159,488.68, hospital charges for treatment of coolies Rs. 66,194.20, recovered for visits paid to estates Rs. 23,843.50, sale of unserviceable and superfluous articles Rs. 200.95, medicines sold to superintendents of estates Rs. 2,090.60, medicines sold in bulk to superintendents of estates and prescriptions compounded Rs. 15,201.59, dispensary collections Rs. 1,828.19, cost of maintenance, medicine, and funeral expenses of other than estate labourers Rs. 136,442.22, recoveries for maintenance of others Rs. 2,136.43. The nett expenditure was Rs. 168,617.17. One hundred and forty-two dispensaries are now established in the planting districts. The gross expenditure was—

	Rs.	c.
Civil Branch .. .. .	1,449,264	90
Estates Branch .. .. .	576,043	53
Total—Rs.	2,025,308	43

and the nett expenditure was—

	Rs.	c.
Civil Branch .. .. .	1,187,897	43
Estates Branch .. .. .	168,617	17
Total—Rs.	1,356,514	60

A PERRY, M.D., D.P.H.,  
Principal Civil Medical Officer  
and Inspector-General of Hospitals

Colombo, May 31, 1906

(1) REPORT of J. Craib, M.D. (Aberd.), Colonial Surgeon, Western Province.

I BEG to submit my annual report for the year under review, and to state that the general health of the Province has been fairly satisfactory. There has been no outbreak of any serious epidemic, except that during the second quarter of the year malaria prevailed to a certain extent in villages inundated by the rains in April. There were no cases of cholera, but there were small outbreaks of chickenpox and dysentery.

*Population.*

2. The estimated population as per figures obtained from the Registrar-General is as follows:—

Population	{ 1904 .. .. .	966,555
	{ 1905 .. .. .	979,259
Births registered	{ 1904 .. .. .	32,735
	{ 1905 .. .. .	36,002
Deaths registered	{ 1904 .. .. .	19,529
	{ 1905 .. .. .	23,296
Birth-rate per 1,000	{ 1904 .. .. .	33.87
	{ 1905 .. .. .	36.90
Death-rate per 1,000	{ 1904 .. .. .	20.20
	{ 1905 .. .. .	23.90

*Prevalence of Sickness.*

3. The prevailing diseases were malarial fevers and their sequelæ, diseases of the digestive system, rheumatic affections, diseases of the respiratory system, ulcers, and other skin diseases, but I regret to say that malarial fevers were more prevalent this year than during the year 1904.

4. *Malaria.*—This disease prevailed to a large extent during the second quarter of the year in the villages inundated by the overflow of the Kelani-ganga and Maha-oya, necessitating the appointment of two extra apothecaries and three vaccinators, who itinerated from village to village along the banks of the Kelani-ganga and Maha-oya distributing quinine powders daily to all who required treatment. The epidemic continued during the months of May, June, and July and then subsided.

The largest number of cases treated was at Hanwella 7,567, then at Avisawella 5,274, Minuwangoda 4,260, Mirigama 4,080, Henaratgoda 3,456, Veyangoda 3,287, Ja-ela 3,226, Neboda hospital and dispensary 2,841, and Mutwal 2,780 against 6,238 in 1904. Total number of cases treated at all the institutions, 69,390.

5. *Dysentery and diarrhœa* prevailed more or less throughout the year, but never at any time assumed an epidemic form.

6. *Anchylostomiasis* is very much on the increase; it was at first confined to estate labourers, being constantly introduced from the coast of India. It is now found amongst the villagers, especially those who work on tea estates, and it contributes largely to the death-rate of estate hospitals.

7. *Parangi.*—This disease prevails to a certain extent in the Province, especially in the Kalutara and Negombo divisions, but it is not on the increase. Most of the cases are of a mild type and amenable to treatment and diet. I am of opinion that the disease is becoming less prevalent every year.

8. *Leprosy.*—During the year 49 cases were admitted into the Asylum. Four cases were registered because they were not in the contagious stage of the disease.

9. *Rheumatic affections, skin diseases, and ulcers* were reported from all the stations.

*Relative Mortality.*

10. *First quarter.*—The death-rate for the first quarter of the year was 20.3, as against the average, viz., 21.7, and a little higher than the corresponding quarter of the previous year, which was 20.0. The

healthiest division of the Province was the Negombo District, which only showed a death-rate of 17.0 during the quarter, being a fall of 2.9 per 1,000 from the average 19.9. In the Kalutara and Colombo Districts the reduction in the death-rate amounted to only about 1 per thousand. The infantile mortality of the Province was in the proportion of 105 per thousand births registered, and was the lowest amongst the Provinces of the Island. Negombo and Kalutara Districts each recorded an infantile mortality of 103, and Colombo District 107, during the quarter. The principal diseases which contributed to this death-rate were malarial fevers, dysentery, and diarrhoea.

11. *Second quarter.*—There was a marked increase in the death-rate during this quarter, the death-rate being 22.5 per thousand, against an average of 18.8. Of the three districts, Colombo and Negombo showed a deterioration in health, while the Kalutara District showed a slight improvement. The death-rate in the Colombo District rose to 24.2 from the average of 19.0, and was the least healthy of the three districts. The death-rate in the Negombo District was 21.4, against the average 17.4. The Kalutara District ranks this quarter as the healthiest district, not only in the Province but also in the Island, the death-rate being 19.4, as against the average 19.5. The infantile death-rate of the Kalutara District was the lowest in the Island, being 98 per thousand. The principal diseases which contributed to the death-rate were, as usual, fever, dysentery, and diarrhoea; 1,358 deaths were registered from fevers alone and 870 deaths from dysentery and diarrhoea.

12. *Third quarter.*—The death-rate for this quarter was 19.4, as against an average of 18.9. The Colombo District showed a death-rate of 20.7 as against an average of 19.1, and was solely responsible for the increase of the death-rate for the Province. The other two districts, viz., Kalutara with a death-rate of 18.4 and Negombo with 16.5, both showing improved health as compared with their respective averages by 19.7 and 17. The infantile mortality for Negombo District was 106 per thousand, being the lowest in the Island. Malarial fevers, diarrhoea, and dysentery were the principal causes of death; 1,012 deaths were registered from dysentery and diarrhoea and 1,011 from malarial fevers.

13. *Fourth quarter.*—Having no reliable data to go upon, I am unable to give any reliable information, but I am inclined to believe that the death-rate during this quarter was lower than during any of the previous three quarters of the year.

*Meteorological Conditions and their Effects on Public Health.*

14. Malarial fevers always follow the onset of the rains, and during the dry seasons dysentery, rheumatic affections, and respiratory diseases generally prevail.

*Particular Diseases.*

15. *Cholera.*—The Province was free from cholera during the year.

16. *Smallpox.*—There were 56 cases admitted into the Infectious Diseases Hospital, Kanatta: of these, 9 were sent by the Port Surgeon from steamers. In the month of April last there was a slight outbreak at Kotahena. The disease then spread to other parts of the town, and 47 cases were admitted into the Infectious Diseases Hospital. From the town it spread to other parts of the Province, viz., Kadawatta, where there were 2 cases, Kaduwela 2 cases, Negombo 2 cases, and Bandaragama 15 cases. All these cases were traced to Kotahena. There were also 2 cases at Ragama Camp. These occurred amongst immigrants from the Coast, and were treated at the Talagalla hospital.

17. *Chickenpox.*—There were 1,216 cases reported from various parts of the Province, and about half of the cases were treated in their own houses. 613 were admitted into Kanatta and treated there.

18. Return of reported cases of smallpox, modified smallpox, and chickenpox that occurred in the Western Province in 1905:—

Hospital or Station.	Total treated.								Chickenpox.	Total.	Total died.							
	Smallpox.				Modified Smallpox.						Smallpox.				Modified Smallpox.			
	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.			Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.
Infectious Diseases Hospital, Kanatta ...	40	9	31	—	16	—	16	—	613	669	19	7	12	—	—	—	—	120
Horana District ...	8	1	7	—	7	—	7	—	41	56	1	1	—	—	—	—	—	1
Talagalla Hospital, Ragama ...	2	—	2	—	—	—	—	—	5	7	1	—	1	—	—	—	—	1
Ragama ...	2	—	2	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—
Kadawatta ...	1	1	—	—	1	—	1	—	42	44	—	—	—	—	—	—	—	—
Negombo ...	1	1	—	—	1	—	1	—	12	14	—	—	—	—	—	—	—	—
Kaduwela ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—
Aturugiriya ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—
Kelaniya ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Panadure ...	—	—	—	—	—	—	—	—	72	72	—	—	—	—	—	—	—	—
Kalutara ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
Beruwala ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—
Ja-ela ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—
Minuwangoda ...	—	—	—	—	—	—	—	—	28	28	—	—	—	—	—	—	—	—
Moratuwa ...	—	—	—	—	—	—	—	—	39	39	—	—	—	—	—	—	—	—
Mirigama ...	—	—	—	—	—	—	—	—	61	61	—	—	—	—	—	—	—	—
Veyangoda ...	—	—	—	—	—	—	—	—	103	103	—	—	—	—	—	—	—	—
Henaratgoda ...	—	—	—	—	—	—	—	—	119	119	—	—	—	—	—	—	—	—
Hanwella ...	—	—	—	—	—	—	—	—	13	13	—	—	—	—	—	—	—	—
Neboda ...	—	—	—	—	—	—	—	—	17	17	—	—	—	—	—	—	—	—
Leper Asylum, Hendsla ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—
Borella Convict Hospital ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—

19. *Measles and mumps* prevailed to some extent in the town of Colombo and in the vicinity.

20. *Enteric fever*.—This disease prevailed throughout the year, and the majority of the cases treated in the General Hospital and Lady Havelock Hospital were from within the Municipal limits, but a few cases were reported from outside. In the General Hospital 164 cases (of these 27 were paying patients) were treated with 41 deaths, and in the Lady Havelock Hospital 38 cases with 9 deaths, against 196 in the General Hospital with 33 deaths and 50 with 16 deaths in the Lady Havelock Hospital last year. In the Panadure hospital 10 cases were treated with two deaths, and a few cases were reported from the adjoining villages. In the Negombo hospital 4 cases were treated with 3 deaths; all these cases were admitted from the town. The Medical Officer of Kalutara reports a small outbreak of enteric in Kotukurumalle and Nabumulle villages. He states that the disease was imported from Kandy and it was some time before he could stamp it out. In all 26 cases were treated in the hospital, with 13 deaths. There were also a few cases reported from a village adjoining Moratuwa. The cause of the majority of cases was due to polluted wells and milk.

21. *Diphtheria*.—There was only one case reported during the year, and it was admitted into the Infectious Diseases Hospital from Dehiwala. It recovered under the serum treatment.

#### *General Sanitary Condition of the Province.*

22. The general sanitary condition of the Province remains much the same as last year. In many places there are no attempts made at sanitation, especially in the small towns and villages; pools of filthy stagnant water are to be found almost everywhere, and more so in the densely populated parts of the Province.

23. The water supply is chiefly obtained from wells, which are in many cases unprotected from pollution, from vegetable and organic matters, as well as human excrement, which is always seen in close proximity to the wells. Drainage is also very defective, especially in the maritime districts, where the country is very flat and low-lying.

24. *Colombo*.—This town is annually increasing, and it is kept in as sanitary a condition as existing arrangements will permit. The scavenging arrangements are the same as have been for years past. Cesspits are being gradually filled up and closed. Many parts of the town are overcrowded, and the drainage very defective. The scavenging of the town is very defective; all the road sweepings and town refuse are generally deposited upon the grass fields in the neighbourhood of the town, which is a harbour for flies, which in my opinion carry infection and may be the cause of many of the cases of enteric which occur in the town. I would strongly recommend that the refuse, &c., be destroyed by incinerators. The water supply of the town is now sufficient and good; the main has been duplicated and a new reservoir built.

25. *Panadure*.—The Medical Officer reports that there has been no improvement made since my last report. Drainage and water supply still defective.

26. *Kalutara*.—Slight improvements are annually being carried out in this town, but the sanitary condition is far from being satisfactory. Latrine accommodation is insufficient and the water supply defective.

27. *Negombo*.—Drainage defective as the town is low-lying. The water supply is very defective; water has to be carted from wells situated outside the town limits, but a scheme for supplying this important town with water is under consideration. Some parts of the town are overcrowded.

28. *Avisawella*.—The Medical Officer reports that the sanitation of this town is far from satisfactory. The drainage and water supply are defective. There are no public latrines.

29. *Minuwangoda*.—This small town has a Sanitary Board which is doing good work. Surface drains are being extended, public latrines erected, and existing wells are being protected from surface pollution.

30. *Moratuwa*.—Nothing has been done to improve the sanitary condition of this town. The town is much overcrowded, drainage very defective, and stagnant pools abound in the centre of the town. There are no public latrines, and no scavenging is carried out. The water supply is defective, and many of the wells still remain unprotected from surface pollution. The town in many places is overcrowded.

#### *Hospitals.*

31. *General Hospital, Colombo*.—The total number admitted into the pauper section of this institution during the year was 12,533, against 13,082 in 1904. Of the total treated, 12,114 were new admissions. There has therefore been a slight decrease in the number treated. The total number of deaths was 1,200, that is, 9.57 per cent. against 6.8 in 1904. The greatest mortality was amongst Malabars, viz., 13.97 per cent. as against 8.89 per cent. amongst patients of other races. The daily average sick during the year was 510.40 for pauper and paying section, against 479.64 in 1904. Throughout the whole of the year there has been a great deal of overcrowding, especially in the lower wards, where the destitute find admission. The majority of these consist of cases picked up by the police and sent to the hospital. The female surgical ward was generally overcrowded, and I would again beg to suggest that an extra ward of, say, ten beds should be built for gynaecological cases; a ward of this kind is urgently required as well as a trained nurse for gynaecological cases. The latrines are all on the dry-earth system, and were kept as clean as they possibly could be, but they all should be fitted with Doulton earthenware squatting plates. This institution has a Thresh's disinfectant, which was in daily use and kept in working order by the Public Works Department. During the year under review the new administration block was completed and occupied in April. This building consists of offices, dispensary, waiting-room, &c., and on the upper floor there are quarters for the House Officers and for the European nurses employed in the paying section.

32. The paying section of the hospital consists of forty-two beds, and during the year 511 cases were treated, against 575 in 1904. Of the total number treated, 23 died, being a death-rate of 5.4 against 9.5 in 1904. The accommodation on this side of the hospital is inadequate, but a new set of wards will

be commenced shortly. The clerical staff is in my opinion quite inadequate; an extra clerk and assistant to the steward is very much required, as well as a gatekeeper for the paying section and hall porters for the administration block.

33. *De Soysa Lying-in Home*.—The total number of patients treated at this institution was 877, as against 776 in 1904 and 813 in 1903. Of the total treated, 848 were discharged cured, 13 died, and 16 remained at the end of the year. The percentage of deaths to total treated was 1·48, as against 1·30 in 1904 and 2·07 in 1903. There were 24 Moor women treated during the year, against 28 in 1904. The accommodation at this institution is insufficient. Four new labour wards are urgently wanted, as well as quarters for the matron and a room for septic cases.

34. *Lady Havelock Hospital*.—The total number of patients treated during the year was 1,030, as against 1,159 in 1904. The daily average sick was 32·22 as against 31·23 in 1904, and the percentage of deaths to total treated was 6·99 as against 6·98 in 1904 and 9·76 in 1903. There was a marked falling off of enteric cases treated at this institution compared with the previous year. Thirty-eight cases were treated with 9 deaths, as against 51 with 16 deaths in 1904. There were 93 operations performed, of which 64 were major; one died from shock after the operation, one from tetanus, and one from puerperal septicæmia.

35. *Police Hospital, Colombo*.—594 cases were treated at this hospital during the year with 2 deaths, as against 839 with 1 death in 1904. The daily average sick was 7·35, as against 11·87 in 1904.

36. *Grenier Eye, Ear, and Throat Infirmary*.—At this institution 9,295 cases were treated during the year, as against 7,824 last year. The Victoria Memorial Eye Institution was completed during the year, and will soon be handed over to the Medical Department and occupied. The collections at this institution amounted to Rs. 200·48.

37. *Branch Hospital, Borella*.—258 patients were treated at this institution, as against 190 the previous year. The daily average sick was 13·11 with a death-rate of ·77. Of the 258 treated, 80 were for secondary syphilis, 76 for tertiary syphilis, 4 for inherited syphilis, and 86 for gonorrhœa.

38. *Panadure hospital*.—During the year 717 patients were treated. Of these, 693 were new admissions, against 804 last year. The daily average sick was 28·75, as against 24·90 last year. The death-rate was 11·43, against 10·30 in 1904. The female side was generally overcrowded, and an extra ward for females, as well as operating room and quarters for the apothecary, are urgently needed.

39. *Kalutara hospital*.—The total treated during the year was 1,157, as against 952 last year. The daily average sick was 40·50, against 36·91 last year. The death-rate was 8·76, against 7·56 the previous year. A new dispensary with apothecary's quarters and operating room are required at this institution. At the outdoor dispensary attached to this hospital 12,225 patients sought treatment, paying in all 25,269 visits; the amount collected was Rs. 791·26.

40. *Negombo hospital*.—There remained over from last year under treatment 29 patients, and 876 were admitted, making a total of 905 under treatment, as against 832 last year. During the year the daily average sick was 27·92 with a death-rate of 7·40, as against 8·29 last year. The roof of the old part of this hospital underwent extensive alterations and improvements during the year. The accommodation at this hospital is quite sufficient for the requirements of the district.

41. *Avisawella hospital*.—1,419 patients were treated at this hospital, as against 1,185 the previous year; 1,085 were discharged, 257 died, and 77 remained over. The daily average sick was 80·30, as against 71·24 the previous year, and the percentage of deaths to total treated was 18·11 as against 12·82 last year. There was no overcrowding, and the hospital is in an excellent state of repair. The dispensary requires to be enlarged, and a house for the dead cart is urgently required. 14,151 patients were treated at the outdoor dispensary during the year, and they paid in all 25,639 visits.

42. *Neboda hospital*.—1,265 cases were treated during the year, as against 794 last year. The daily average sick was 57·63 and the death-rate was 20·39, as against 43·08 and 18·01 last year. All the wards were more or less overcrowded throughout the year, but a new ward was taken in hand and will soon be completed, when another ward with the administration block will be commenced and I hope completed before 1906 is over.

43. *Lepor Asylum, Hendala*.—There remained at the commencement of the year 328 lepers, and during the year 165 were admitted, viz., 145 males and 20 females. The total treated during the year was 493, and of these 102 were discharged, 74 died, and 317 remained over. The largest number resident in the Asylum on any one day was 330 and the lowest 319. The daily average sick was males 250·23, females 71·25. Total 322·02, as against 305·06 last year. Of the 165 admissions, 91 were new admissions and 74 re-admissions; of the former, 22 were of the tubercular, 32 of the anæsthetic, and 37 of the mixed form of leprosy. The Western Province contributed the largest number of new admissions, viz., 49, Southern Province 22, Central Province 5, Sabaragamuwa Province 3, North-Central and North-Western Provinces 1 each, and South India 9. Of those discharged, 14 were allowed home isolation, 13 temporary leave by Government, and 65 absconded, of whom 19 are still at large. There were 74 deaths, the percentage to total treated being 15·01, as against 13·06 last year. The female side of the institution was very much overcrowded, but a ward of fifty beds has been sanctioned, as well as four cells for refractory inmates.

44. *Kanatta Infectious Diseases Hospital*.—During the year 915 cases were treated, and of these 28 remained from the previous year, 875 were discharged, 25 died, and 20 remained at end of year under treatment. The daily average sick was 37·26, and the death-rate was 5·50 as against 2·82 last year. Of the total treated, 631 were for chickenpox, 168 for measles, 57 for smallpox, 28 for mumps, 12 under observation for smallpox, 5 for whooping cough, 1 for diphtheria, 1 under observation for diphtheria, 1 under observation for pneumonia from plague-infected port, and 11 under observation for fever from plague-infected ports. Of the cases which proved fatal, 19 were from smallpox, 1 from measles, 1 from chickenpox, 3 from whooping cough, and 1 from pneumonia. This institution consists of a number of temporary cadjan buildings, all more or less in a ruinous condition, and it is high time that an Infectious Diseases Hospital of a permanent nature was built.

*Jails.*

45. The general health of the convict prison was not so satisfactory as in the previous year. The admissions into hospital were less than last year, and this is owing to the epidemic of malarial fever at Mahara during 1904 having abated at the end of the year, and since then the jails have been comparatively free from malaria. Whether this is due to the prophylactic treatment with quinine adopted at Mahara and Mutwal jails throughout the year time will tell.

46. The daily average sick for all the jails was 104.75, as against 97.73 in 1904 and 96.65 in 1903.

47. The death-rate for the year under review was much higher than last year. The death-rate to total strength of jails was 3.62, as against 2.33 in 1904 and 3.90 in 1903. The percentage of deaths to total treated was 1.95, as against 1.22 in 1904 and 2.10 in 1903. The average daily strength of the jails was 1,629.30, as against 1,630.51 in 1904 and 1,612.37 in 1903. During the year there were 698 cases of malaria treated with 3 deaths, against 1,198 with 7 deaths in 1904 and 654 with 7 deaths in 1903. There was a marked increase in the number of dysentery cases treated as compared with the previous year, and a slight increase in the number of diarrhoea cases, which were 563 with 5 deaths, as against 558 with 5 deaths in 1904. 457 dysentery cases were treated with 27 deaths, 37 cases of pneumonia with 17 deaths, 280 cases of eye diseases with no deaths, 85 injuries with no deaths, and 850 cases of other diseases with 13 deaths. The greatest number of dysentery and diarrhoea cases were admitted from Welikada jail, viz., 156 dysentery and 195 diarrhoea cases. The next greatest number was from Mutwal, viz., dysentery 56, diarrhoea 175. From Hulftsdorp jail 21 cases of dysentery were admitted and were generally of a very acute type and 8 cases of diarrhoea. In Mahara jail there were 48 cases of dysentery and 31 cases of diarrhoea. The health of Mahara jail throughout the year was exceptionally good. There was a marked increase in the number of eye diseases treated this year as compared with the previous years, and the majority of the cases were sent from Mutwal jail; nearly all the cases were conjunctivitis. There were only three cases of enteric fever during the year; two cases occurred at Mahara jail and one at Welikada; one case proved fatal. During the previous year there were 17 cases with 3 deaths. The cause in all these cases could not be traced. 165 prisoners were treated in the Infectious Hospital during the year, mumps contributing 155 of the above, chicken-pox 7, and measles 3.

48. There were only three cases of acute serious diarrhoea treated, and all the cases came from Welikada. There was not a single case at Mutwal.

*Latrines.*—All the latrines are now supplied with Doulton earthenware squatting plates, which are a great improvement on the old insanitary seats. Disinfection can now be effectually carried out.

49. The water supply of all the jails with the exception of Mahara is the town supply; it is pure and wholesome, and the supply sufficient. The water at Mahara jail is obtained from a well and is boiled before drinking. There was slight overcrowding at Welikada throughout the year, but not to any great extent. No structural alterations have taken place at any of the jails, but a great many of the drains have been improved upon. All the kitchens have recently been supplied with portable boilers, which are a great improvement, and the kitchens have all been reconstructed.

50. *Night soil.*—Both Welikada and Mahara jails have incinerators in which the night soil is destroyed, and they were kept in good working order throughout the year. The night soil at Hulftsdorp is taken away by the Municipality, and the night soil of the Borella hospital is taken by cart to Welikada and there destroyed.

*The Port of Colombo.*

51. During the year under review 2,800 steamers and 450 native sailing craft called at this port; of these, 2,531 were granted free pratique, 702 having arrived from infected ports were allowed to work as healthy in quarantine, 17 vessels were kept in strict quarantine for infectious or suspected infectious diseases. No cases of plague were imported during the year, but 11 were kept in strict quarantine for cholera during the year. On 11th August a tramp from Bangkok called at the port with an epidemic of cholera on board; there had been 8 attacks with 3 deaths before arrival. The vessel was sent to an isolated berth, the sick segregated and treated on board. The vessel was then thoroughly disinfected. There were no fresh attacks or deaths after arrival. Another case was found on board a vessel from Calcutta. The steamer was isolated and the case recovered. Six vessels were kept in strict quarantine for smallpox. In all cases the sick were removed to the Kanatta Infectious Diseases Hospital, the crews vaccinated and re-vaccinated, and vessels disinfected with the Clayton apparatus; all clothing and bedding, &c., disinfected by Thresh's disinfection at Kochchikade. Two of Thresh's disinfectors were in use.

52. On the 29th November the British transport "Dunera" arrived with three cases of scarlet fever on board. The vessel was quarantined pending the removal of the sick to a segregation camp erected by the Military authorities. The Military draft for Ceylon was removed to Diyatalawa by special train and disinfection of steamer carried out.

53. A new disinfecting station with an Equifex disinfecter has been erected at the root of the Breakwater, which will prove a great improvement and will be more convenient and accessible. The number of persons, including passengers, tally clerks, coolies, &c., who underwent personal disinfection during the year were—

Tally clerks .. .. .	6,032	Coal coolies .. .. .	19,256
Cargo coolies .. .. .	39,231	Passengers .. .. .	6,430

54. 50,321 traders arrived in Colombo during the year and 138,371 estate labourers. During the year 16,324 persons were vaccinated immediately on arrival.

*Ragama Camp.*

55. During the year 141,823 coolies, passengers, and others passed through the camp, as against 60,171 last year. Of this number, 2,693 were quarantined, viz., 148 were from plague-infected areas, 916 were either cholera contacts or from cholera-infected areas, and 1,629 were either smallpox contacts or from smallpox-infected areas. Of the total number of coolies who passed through the camp, 10,696 were found unvaccinated, and they were all vaccinated shortly after their arrival in camp.

56. The infectious diseases hospital for this camp is situated at Talagalla, about half a mile away, and has been practically rebuilt and is now of a permanent nature. During the year 16 patients were treated in this hospital, viz., 2 for confluent smallpox (one proved fatal), 5 for chickenpox, 1 for dysentery, 1 for infantile convulsions, 1 for abscess, 1 for sprain, 1 for malarial fever, and 3 for partus. 683 cases were treated at the outdoor dispensary attached to the camp.

57. The sanitary condition of the camp throughout the year was satisfactory; the drainage system of the camp is satisfactory. Water supply good. Night soil collected twice a day and incinerated. The camp has a Thresh's disinfectant, which is in working order.

#### Vaccination.

58. The total number vaccinated during the year was 41,064 primary and 6,733 re-vaccinations. Of the primary vaccinations, 37,735 were successful, 1,631 unsuccessful, 1,698 absent. Of the re-vaccinated, 4,044 were successful, 1,664 unsuccessful, 1,025 absent at inspections. The percentage of successful cases was 95.85 primary, 70.84 re-vaccinations. Twenty-nine vaccinators were employed during the year; out of these, eighteen were village vaccinators, two estate vaccinators, one calf vaccinator at the Calf Depot, Kanatta, and eight for the town of Colombo.

59. Calf vaccination was carried on almost daily at the depot at Kanatta. During the year 468 calves were vaccinated, from which 33,059 tubes of glycerinated paste was made and distributed weekly amongst the vaccinators in the Island. The total cost of the institution for the whole year was Rs. 6,638.34, and the amount realized by the sale of calves and lymph was Rs. 1,468.

#### (2) REPORT of G. P. Schokman, M.B., C.M. (Aberd.), Colonial Surgeon, Central and North-Central Provinces.

##### CENTRAL PROVINCE.

The estimated population is as follows:—

Population	{ 1904 .. 641,168	Birth-rate per 1,000	{ 1904 .. 36.7
	{ 1905 .. 648,270		{ 1905 .. 36.2
Births registered	{ 1904 .. 23,577	Death-rate per 1,000	{ 1904 .. 23.5
	{ 1905 .. 23,432		{ 1905 .. 26.3
Deaths registered	{ 1904 .. 15,082		
	{ 1905 .. 17,016		

2. Owing to the large number of new arrivals from the Coast to the estates of the Province there has been an increase in the number of admissions into the different District Hospitals, as also a corresponding increase in the death-rate of these institutions. The general health, however, has been good.

#### Prevailing Diseases.

3. The most prevalent diseases are malarial fevers, diseases of the digestive and respiratory systems, and rheumatic affections.

*Malarial fever* prevailed to some extent, but it did not assume an epidemic form even in the districts where the disease is endemic. This disease prevails chiefly after the burst of the monsoons.

*Diarrhoea and dysentery* are most prevalent during the wet seasons, and occur chiefly among the estate labourers. They are attributable to climatic changes, impure water, and unwholesome food. They did not at any time assume an epidemic form.

*Parangi* appears to be dying out. It occurs to a slight extent in parts adjacent to the North-Central Province.

*Respiratory diseases and rheumatic affections*, though not absolutely confined to any particular districts, were mainly seen in the higher districts, where the changes of temperature were most marked.

*Anchylostomiasis* still prevails to a great extent among the Malabars, and is responsible for a large percentage of deaths among the estate population. It is being constantly imported by new arrivals from the Coast, and the disease is propagated by the pollution of soil and water with faecal matter. Some of the villagers who work and reside on estates have also contracted the disease.

#### Relative Mortality in the Different Seasons.

4. I am unable to furnish any statement under this heading owing to the absence of the necessary data.

#### Meteorological Conditions and their Effects on Public Health.

5. During the two last quarters of the year, which were wet and chilly, respiratory, intestinal, and arthritic affections prevailed to a great extent. Malarial fevers were most prevalent shortly after the wet seasons.

#### Particular Diseases.

6. *Smallpox*.—There were several outbreaks of this disease during the year, and the infection was in every case traced to new arrivals from the Coast. The disease occurred on twelve estates, viz., Columbia estate in Deltota, Ratwatta, Weeragama, and Lauragalla in Matale, Onoogal-oya and Dewatagas in Kotmale, Moneragalla and Edward Hill in Pussellawa, Mariawatta in Gampola, Coldstream Group in Watawala, Darrawala in Dikoya, and Luckyland estate in Uda Pussellawa. One contact from Mariawatta escaped and developed the disease at Ramboda, where he was discovered and isolated. At Nanu-oya a railway porter was found with confluent smallpox. This man is supposed to have caught the infection in cleaning out a railway carriage in which a gang of infected coolies from the Coast travelled. The first case for the year was reported in the middle of March, and the Province was free from the disease by the end of September. Altogether a total of 63 persons were affected with 12 deaths. 820 contacts were isolated and quarantined. The usual precautions were adopted in every case. One constable who was on duty on Onoogal-oya estate developed a confluent attack of the disease and was treated in the Infectious Diseases Hospital at Nawalapitiya.

The superintendent of an estate took upon himself the responsibility of discharging the contacts before the expiry of the period of quarantine. He was prosecuted and fined Rs. 25. The contact from Mariawatta (Gampola), who developed the disease at Ramboda, was on recovery prosecuted and sentenced to imprisonment with hard labour for a period of six weeks.

*Chickenpox* prevailed in every district and station of the Province. 23,109 cases were reported, and of this number no less than 1,502 were from the town of Kandy. Two deaths were reported from Watawala, the victims being infants.

*Leprosy*.—Twenty lepers were inspected and reported on during the year. Sixteen of these were in the contagious stage. Seven of these were admitted into the Asylum at Hendala, four were returned to the Coast, one absconded, and the rest are awaiting admission. Out of the four in the non-contagious state, one died, two were admitted into the Asylum at Hendala, and one awaits admission.

*Enteric fever*.—Thirty-two cases of enteric fever were treated in the Kandy Hospital, and of these 26 contracted the disease in the town of Kandy. At Nuwara Eliya ten cases were treated; five were contracted locally. The rest were cases from outside. Two cases occurred at Nanu-oya and were sent to the Nuwara Eliya hospital for treatment. At Wattegama an outbreak occurred in October. There were 17 cases with 4 deaths.

*Cholera*.—There were no cases of cholera during the year.

#### Sanitation.

7. *Kandy*.—Although some improvements have been effected in the general sanitary condition of the town, there is yet a great deal of room for further improvement. The drainage remains the same as last year. The water supply is abundant and wholesome; conservancy has improved by the closure of several cesspits, but a considerable number still remains to be abated. It would be an improvement if all the night soil were incinerated instead of being buried, as such large deposits must sooner or later affect the general health of the neighbourhood. Enteric fever appears to be endemic. Thirty-two cases were treated in the hospital, twenty-six arising from local causes, and from the return furnished by the Health Department it does not appear to have been confined to any particular locality. The scavenging of the town was satisfactorily done.

*Matale*.—The sanitary condition of the town has been improved and the drainage extended. Scavenging and conservancy were properly attended to. Water supply is good, but insufficient for a population of 4,500. The storage capacity of the reservoir is 7,000 gallons. Another reservoir of the same capacity should be constructed. Two cases of enteric were reported during the year from the Convent School. One of these proved fatal.

*Nawalapitiya*.—There is a town water supply which is sufficient and wholesome. The drainage improvements to the slaughter-house and exposure shed, recommended in my last report, were carried out. Latrine accommodation is insufficient. Bakeries were clean and well kept. A mutton stall and vegetable market were built during the year. The two swamps situated between the Gampola-Kotmale and Ambagamuwa streets should be drained or filled up.

*Gampola*.—The most noteworthy improvement was the introduction of a water service for the town, but the supply of water is insufficient. General sanitary condition is good.

*Pussellawa*.—No improvements were effected during the year. Drainage of bazaars requires extension. Latrine accommodation, water supply, bakeries, and butcheries satisfactory.

*Hatton*.—More drains are required. A water supply for the town is very desirable. Latrines sufficient. Scavenging satisfactory. Butcheries, bakeries, and drains clean and tidy.

*Dikoya*.—Drainage satisfactory. Latrines sufficient and clean. Water supply bad.

*Norwood*.—New drains were constructed during the year. Water supply satisfactory. Latrine accommodation sufficient. Scavenging well done.

*Maskeliya*.—Water supply good. Drainage good, but the drains at the backs of the houses should be cemented. Streets swept and kept clean.

*Bogawantalawa*.—Water supply is plentiful, but liable to contamination. The bazaars at Kotiyagala, Tientsin, and Campion are well kept. Scavenging done daily. Latrine accommodation sufficient.

*Dimbula*.—Bazaars kept clean. The drains require cementing. There are no public latrines; two at least should be erected.

*Lindula*.—Sanitary state of the bazaars good. Drainage defective; the drains in the backs of the houses in Lindula and Tillicoultry require cementing. A scheme for supplying water to Talawakele has been sanctioned, and the work will be taken in hand this year. Some steps should be taken to improve the water supply to Lindula and Tillicoultry.

*Agrapatana*.—Sanitary state good. Water supply plentiful, but liable to contamination. Paved drains and Horbury latrines are required for the bazaars situated at Glenlyon, Agraovah, and Diyagama.

*Nanu-oya*.—Water supply and drainage very unsatisfactory. The supply of water is impure. Latrines sufficient and are kept clean.

*Nuwara Eliya*.—This town is under a special Board of Improvement, which employs its own Sanitary Officer. The water supply is pure and ample. The drainage of the back streets of the old town is still very defective. The latrines are insufficient, and the grounds which surround the latrines at the back of the native quarters of the town should be acquired by the Board in order to prevent its being utilized as vegetable gardens. Five cases of enteric fever arising from local causes occurred in the town. Most of the cases were in the old town.

*Uda Pussellawa*.—Sanitary state satisfactory. Water supply plentiful, but of doubtful quality. Markets clean.

*Kandapola*.—Drains are badly required for the bazaars.

*Deltota*.—Scavenging, water supply, and drainage good. There are no latrines.

*Teldeniya*.—Sanitary condition unsatisfactory. Drainage and public latrines required. A scheme for a water supply has been sanctioned.

*Madulkele*.—There are no surface drains. No latrines. Water supply ample. Scavenging well done. Water supply at Hulu-ganga ample. Two Horbury latrines are very necessary, as there is a large gathering on Sunday market. Slaughter-house kept clean, and latrines satisfactory.

*Pundalu-oya*.—No improvements effected during the year. Water supply, latrines, and scavenging satisfactory.

*Wattegama*.—This is the most insanitary town. A water supply for this town has been sanctioned, and the drainage will also be attended to. An additional latrine will soon be erected.

*Katugastota*.—The people drink river water and use it for cooking. A public well is now being sunk. Drainage bad. Latrine accommodation insufficient, there being only one latrine for the populous town.

*Kadugannawa*.—Water supply good. Two latrines are required; there are none at present. Drainage bad.

*Galagedara*.—Water obtained from two wells. Drainage bad. A public latrine and slaughter-house required.

*Padiyapellela*.—There are two public latrines, which are well kept. Butcheries, bakeries, and bazaars kept clean. Scavenging properly done. Drainage requires attention. Water supply plentiful.

*Dambulla*.—Sanitary condition of bazaars satisfactory. Drains required to be built. One public latrine at least is required.

#### *Jails.*

8. There are three prisons in the Province, two at Kandy and one at Nuwara Eliya. Of the former, one is a remand prison.

*Bogambra*.—The general health of the prison was not so good as the previous year in consequence of the continued prevalence of mumps, chickenpox, and eye affections. The usual diseases were prevalent, viz., malarial fevers, diarrhoea and dysentery, and eye affections. Malarial fevers were particularly noticeable in the last quarter of the year, when the weather was very changeable. This is accounted for by the fact that prisoners from malarial and other districts are transferred here to undergo their penal stage, and the variable temperature seems to have affected those susceptible to the disease.

Eleven cases of enteric fever were treated during the year. Three of these were in the cases of unconvicted prisoners who developed the disease soon after admission into the Old Jail. The rest were prisoners who had been in the jail for two or three months before they showed symptoms of the disease. In these cases the source of infection could not be traced. The sanitary arrangements of the prison are perfect and the water supply pure. Milk is always boiled before distribution to the sick in the wards.

1,048 prisoners were admitted to the sick list; of these, 9 died: 2 from pneumonia, 1 diarrhoea, 1 dysentery, 1 enteric fever, 1 general debility, and 3 other diseases. The daily average sick was 27·68, percentage of deaths to total treated ·84, percentage to strength ·27. There was no overcrowding. Twenty-four males and six females were kept under observation as lunatics. Twelve of the former and three of the latter were transferred to the Lunatic Asylum.

*Nuwara Eliya*.—Thirty-one sick were treated during the year. One case proved fatal from erysipelas of the head and face, originating from a boil on the lower lip. The rest of the cases treated were of dysentery and acute diarrhoea.

#### *Vaccination.*

9. Vaccination was carried out in this Province by nineteen permanent vaccinators and one temporary hand. Owing to the constant arrival of new coolies from the Coast to the estates, it is desirable these should be visited by the respective vaccinators more frequently than is done at present, and this cannot be done without increasing the number of vaccinators. At least eight additional men are required.

A glance at the returns, which give in detail the operations performed by the Medical Officers, apothecaries, and vaccinators, will show that the numbers vaccinated this year compare very favourably with those of the previous year. There has been an increase of 4,797 in the total number vaccinated this year as compared with that of the previous year. There has also been an increase of 4,082 successful operations this year. The increase in the number of re-vaccinations this year as compared with that of the previous year is 1,019, and the number of successful re-vaccinations shows an increase of 430.

No calf vaccination was done in this Province during the year, but an adequate supply of glycerinated calf lymph was obtained almost daily from Colombo. At the early part of the year there were a few complaints regarding the quality of the lymph supplied, but the supplies received subsequently yielded excellent results. Arm-to-arm vaccination was done extensively, and whenever there were opportunities for collecting human lymph the supply of calf lymph was supplemented by means of human lymph stored in capillary tubes.

282 vaccination defaulters were prosecuted during the year; of these, 90 were discharged for various reasons, 22 were warned, and 170 were fined. The fines amounted to Rs. 124·70.

Fifty complaints were made to the Hon. the Government Agent against headmen who failed to perform their vaccination duties in accordance with the terms of the Ordinance, and of the number thus reported two were dismissed from office, seven were warned, and the rest discharged.

#### NORTH-CENTRAL PROVINCE.

The estimated population of this Province was at the end of the year 79,011, an increase of 39 in the number ascertained by the Census of 1901. The number of births was 3,448 and of deaths 3,814, an increase of deaths over births by 366. The death-rate therefore was 48·27 per mile and the birth-rate 43·63.

The population of the town of Anuradhapura is computed at 4,831, an increase of 200 over the year 1901.

#### *Public Health.*

The general health of the Province was good. There were no epidemics of malarial fever. Two small outbreaks of measles occurred in the villages of Yakalla and Kekirawa. The Province enjoyed entire immunity from cholera and smallpox. Only two cases of chickenpox were reported.

#### *Prevailing Diseases.*

The most common diseases are malarial fever and its sequelæ, parangi, diarrhoea, and dysentery.

*Malarial fevers* were prevalent more or less throughout the year, but chiefly during and after the outburst of the north-east monsoon rains, but it never assumed an epidemic form. Cases of enlarged spleen (pot-belly), which were very common some years back, are seldom met with at present.

*Parangi* still prevails to some extent in the Province, but appears to be dying out. 6,167 cases were treated during the year. It is most prevalent, and the worst cases are seen in the Kelagam palata.

*Diarrhoea and dysentery* were much more prevalent this year owing to the influx of coolies working on the railway extensions and large irrigation works.

*Anchylostomiasis* is not prevalent in this Province.

*Leprosy*.—No lepers were reported.

*Meteorological Conditions and Effects on Public Health.*

The rainfall during the year was very small (39·56). Last year it was 53·05 and the year previous 61·29. The highest rainfall during the year was in the month of November. The most sickly months are during the north-east rains, viz., November to January, and the healthiest from April to September, which are the dry months of the year. During and immediately after the rains malarial fever, which is endemic, increases in severity and numbers and is frequently attended with disorders of the digestive and respiratory systems.

*Relative Mortality.*

Judging from the prevalence of sickness, I am inclined to think that the mortality is highest during the first and last quarters of the year.

*Sanitary Condition of the Towns.*

There is only one town in this Province, viz., Anuradhapura, the sanitary condition of which is satisfactory. The town is well drained and the scavenging and conservancy properly attended to. For the use of the residents there are five permanent latrines, and during the pilgrimages two more are added. The water supply is good and abundant, and is obtained from the tanks in town; one tank is specially reserved for drinking purposes. Water is also drawn from wells, which run dry during periods of prolonged drought.

*Hospitals and Dispensaries.*

There are only two hospitals, one civil, at Anuradhapura, the other immigrant, at Mihintale. Besides there are eleven central dispensaries and twenty-five visiting stations.

*Anuradhapura.*—2,102 patients were treated during the year with 184 deaths, a percentage of 8·75. In 1904 1,547 were treated with a death percentage of 5·16. Regarding the 184 deaths in hospitals, the Medical Officer observes: "A large number of patients were brought into hospital in a weak and debilitated condition, having been ill for a long time, and when little or nothing could have been done for them with the most careful nursing and treatment, so that it cannot be surprising that nearly half the number died within five days of admission; that is, 17 died on the day of admission, 22 on the second day, 17 on the third day, 22 on the fourth day, and 14 on the fifth day."

Regarding the increased admissions into hospital (2,102) compared with that of last year (1,494), an increase of 608, the Medical Officer remarks: "It is difficult to account for the large increase in the number of cases treated during the year as compared with that of the previous year. The increase has not been sudden or confined to one or two months of the year, but noticeable in ten out of the twelve months of the year—more marked in the earlier than in the latter months. There has not been any unusual outbreak of any disease amongst the settled inhabitants of the district. I am therefore compelled to the conclusion that the increased number of patients treated in the hospital must be due to the large number of pilgrims, beggars, and others resorting to the town during the first ten months of the year owing to facilities for travelling afforded by the railway." With these observations I agree, but would add that the large labour force employed on the irrigation works as well as on the railways contributed in no small measure to swell the admissions.

The average sick in this hospital has considerably increased since the opening of the railway, and consequently the railway wards have been taken over by the Department.

*Mihintale.*—There were 494 admissions with 43 deaths. The chief diseases treated were malarial fevers, dysentery, and parangi. The total number treated at the dispensaries was 84,706, and of this number 35,588 were cases of malarial fever and its sequelæ.

*Jails.*

There is one prison at Anuradhapura. Three hundred and twenty-two prisoners were confined therein. There were only two sick, one case of malarial fever and one of conjunctivitis.

*Vaccination.*

Five village vaccinators were employed in this Province, where work was supervised by an Inspector. The villagers being widely scattered and sparsely populated, the numbers vaccinated were small. The total number vaccinated was 3,732; of these, 90 were done at the dispensaries. The successful cases were 3,268, a percentage of 89. The state of vaccination is satisfactory.

Eleven complaints against headmen were made to the Government Agent for failure to comply with the terms of the Vaccination Ordinance. Two headmen were dismissed and one fined.

## (3) REPORT of F. G. Spittel, L.R.C.P. (Edin.), &amp;c., Colonial Surgeon, Northern Province.

*Population, Births, and Deaths.*

THE estimated population of the three districts of the Province for the year is 354,792. The number of births registered was 13,497 and deaths 9,412. The birth-rate per 1,000 was 38·04 and the death-rate 26·52.

The table below, furnished by the Provincial Registrar, shows the particulars for each of the three districts of the Province:—

		Jaffna.	Mannar.	Mullaitivu.
Population	{ 1904	311,153	24,435	15,089
	{ 1905	315,807	24,037	14,948
Births	{ 1904	10,892	991	678
	{ 1905	12,155	722	620
Deaths	{ 1904	11,117	1,021	597
	{ 1905	7,501	1,150	761
Birth-rate per 1,000	{ 1904	35·00	40·55	44·93
	{ 1905	38·48	30·03	41·54
Death-rate per 1,000	{ 1904	31·72	41·78	39·63
	{ 1905	23·75	47·84	50·90

From the above table it will be seen that the population of the Province has increased by 4,111 over that of the year 1904. Jaffna District shows an increase of 4,654, Mannar a decrease of 398, and Mullaittivu a decrease of 141.

The number of births in the Province exceeded that of the previous year by 936. While in the Jaffna District it was exceeded by 1,263, in the Mannar and Mullaittivu Districts the number of births was 269 and 58 respectively less than during the previous year.

The number of deaths registered shows a marked decrease, being 9,411 against 12,735, or 3,324 deaths less than in the previous year. The Jaffna District shows a great decrease of deaths, viz., 3,616, while the deaths registered in the Mannar and Mullaittivu Districts show an increase of 129 and 163 respectively.

The high death-rate of the Mannar District is very probably due to the registration in this district of many deaths of persons at the Pearl Fishery Camp, Marichchukkaddi, who came there from India and other parts of Ceylon.

#### *Prevalence of Sickness.*

The health of the Province has been on the whole satisfactory. The diseases most prevalent were malarial diseases, diarrhoea, dysentery, respiratory diseases, and cutaneous affections.

*Malarial diseases.*—Malarial fever is endemic in the Province, and prevailed more or less throughout the year. It prevails to a great extent after the north-east monsoon rains, from November till March. All types of the disease occurred, the most prevalent being the tertian and quotidian. The disease prevailed to such an extent towards the beginning of the first and the last quarters of the year as to necessitate the employment of additional officers on this particular duty. In all the hospitals, dispensaries, and visiting stations were treated 47,595 cases.

*Diarrhoea and dysentery.*—These diseases prevailed chiefly during the wet season, and are attributable to the sudden changes of temperature, unwholesome food, and impure water. The total number of cases treated was 3,843.

*Respiratory diseases* also prevailed, mostly during the wet season. The chief of these, pneumonia, was reported from nearly all the stations, and the number treated was 290.

*Ulcers and other cutaneous diseases* were reported from all stations, and scabies as usual prevailed to a great extent, especially at Jaffna and Point Pedro.

#### *Particular Diseases.*

*Smallpox* was imported from India on three occasions. It was imported into Kayts on two occasions, and once into the village Sarliapity, which is situated two miles away from the town of Jaffna. On the first occasion a man who arrived from Akyab on the 4th February suffering from the disease was removed to Fort Halmanheil. The vessel in which he came had a crew of 15; all these were placed in quarantine, and the vessel was disinfected. The patient was discharged cured on the 9th March, and no other cases occurred.

On the second occasion the tindal of a vessel that arrived from Nagapatam on the 21st September was found to be suffering from confluent smallpox.

Five cases of smallpox occurred in the village Sarliapity. All these patients contracted the disease from a man of Nallur, who visited India and suffered from the disease a few days after his return. The hut occupied by them was burnt down, all the contacts were placed in quarantine under police supervision, and vaccination and re-vaccination were vigorously carried out in the infected and neighbouring villages.

*Chickenpox* was reported from time to time from several centres. In all there were only 43 cases.

*Measles.*—Four cases of this disease were reported.

*Cancer.*—There was only one case, which was reported from Mannar.

*Veneral diseases.*—727 cases were reported from thirty-two stations. The largest number of cases (230) were reported from Point Pedro.

*Parangi.*—879 cases of this disease were treated in twenty of the stations. The largest numbers (180, 151, 149, and 118) were treated at Mankulam, Mannar road, Vavuniya, Nedunkerni, and Mullaittivu respectively.

*Anchylostomiasis* is not prevalent in this Province. Only five cases were reported.

*Cholera.*—Not a single case of cholera occurred in any part of the Province.

#### *Relative Mortality of the different Seasons.*

The seasons in this Province are practically two, the wet and the dry. The rainy season begins with the setting in of the north-east monsoon in October and continues till December. The rainfall during this short period is generally very heavy. With the setting in of the south-west monsoon in May there is generally some rain, after which the hot season begins and lasts till about the end of September. During the months December, January, and February there is a heavy fall of dew, and it is during this period that malarial fever prevails to a great extent and the largest number of chest affections occur. The first quarter is generally the unhealthiest period of the year, and the mortality is the highest then. The second quarter comes next. The third quarter is usually the healthiest, and the mortality begins to rise in the fourth quarter.

#### *General Sanitary Condition of the Province.*

The sanitary condition of all the towns of the Province is unsatisfactory. Jaffna is the only town in which some system of sanitation is carried out, but even here there is no proper system of drainage. The houses of the poorer classes are small and ill-ventilated. Most of the habitations of the natives are surrounded by high fences, shutting out both light and air. In many of the houses there are filthy cesspits, and the compounds are overgrown with weeds. That part of the town near the seabeach in Karaiyur is most insanitary. Although there are two public latrines in the locality, the waste land by the roadside is made the receptacle for human excrement and rubbish.

There are many low-lying portions of land in different parts of the town in which vegetation is thick and overgrown, and pools of stagnant water are to be seen during and for some time after the rainy season. These pools are the breeding-places of the anopheles mosquito. There are a few public

latrines, but they are insufficient for so populous a town. There is neither a Local Board nor a Municipality, and I do not think it will be possible to improve the sanitary condition of the town till one or the other is established.

*Water supply.*—This is very unsatisfactory. There are numerous wells in the town, but with the exception of a few, which supply water of a fairly good quality, the water of the others is hard, brackish, and unfit for drinking or cooking. In Mannar water of good quality can only be obtained from the wells at Totakadu, a village situated about  $1\frac{1}{2}$  mile away from town. Most of the people use the water of tanks, which is more or less polluted.

The water supply of Mullaitivu is ample, but the quality of the water is unsatisfactory. Water for all purposes is generally obtained from wells, which are not protected by walls.

In Vavuniya water for all purposes is generally obtained from tanks. There are a few wells, which run dry two or three months after the rainy season.

#### *Vaccination.*

The vaccination staff of the Province consists of one Inspector and seven vaccinators. The number vaccinated by them during the year was 6,298. Vaccination was also carried on once a week by the Medical Officers and apothecaries in charge of dispensaries, and the number of persons operated upon by them was 3,204, so that the total number vaccinated in the Province was 9,502. Of this number, 7,951 were successful, 1,268 unsuccessful, and the result was not known in 383. 1,301 persons were re-vaccinated, of which 140 were successful, 169 unsuccessful, and the result was not known in 992. The percentage of successful to total vaccinated at the dispensaries was 81.53, and the percentage of successful to the total number vaccinated by the vaccinators was 88.71.

#### *Hospitals.*

Besides the Friend-in-Need Society's Hospital in the town of Jaffna, there are five hospitals in the Province.

*Point Pedro hospital.*—The number of patients admitted during the year was 616, and the daily average sick 26.28. There were 14 deaths. The male ward of this hospital was overcrowded on 125 days. The prevailing diseases were malarial fevers, dysentery, diarrhoea, and respiratory diseases.

*Mannar hospital.*—During the year 383 patients were admitted, and there were 23 deaths; daily average sick was 12.55. There was no overcrowding at any time.

*Mantota hospital.*—The number of admissions into this hospital was 394 and the daily average sick 15.76. There were 25 deaths. The prevailing diseases were malarial fevers, pneumonia, dysentery, and diarrhoea. Thirteen cases of parangi were treated in this hospital. The Medical Officer reports that all the patients came from the Wannai district.

*Mullaitivu hospital.*—458 patients were treated during the year, of which 14 proved fatal, showing a mortality of 3.05 per cent. The daily average sick was 27.67. The accommodation was ample, and there was no overcrowding of any of the wards at any time. The prevailing diseases were malarial fevers, malarial cachexia, rheumatic affections, and ulcers. There were 51 admissions for parangi; most of these patients were from the village Puthukudyirupu, where the disease prevails to some extent. The diseases that caused the mortality were chiefly malarial cachexia, dysentery, and diarrhoea.

*Vavuniya hospital.*—The total number of cases treated was 678 and the daily average sick 21.75. There were 49 deaths, and the percentage of deaths to total treated was 7.22. About eighteen of the cases that proved fatal were in a moribund condition on admission, and expired within twenty-four hours. The prevailing diseases were malarial fevers, diarrhoea, dysentery, pneumonia, and parangi.

*Friend-in-Need Society's Hospital.*—A Committee manages this institution, and it is maintained by the contributions of the Committee members and others, but chiefly by an annual Government grant of Rs. 8,000. It is under contemplation to give over the establishment entirely to Government. The total number of patients treated during the year was 1,762, of which 1,663 were discharged, 60 died, and 39 remained at the end of the year. The daily average sick was 52.11 and the death-rate 3.04 per cent. The very low death-rate of this institution is, I think, in a great measure due to the removal from hospital of many patients by their relatives when they are found to go on from bad to worse and are not likely to recover.

At the outdoor dispensary attached to this hospital 7,463 patients were treated, and the total number of visits was 14,519. The chief diseases treated were malarial fevers, malarial cachexia, rheumatism, scabies, round worms, bronchitis, dysentery, and dyspepsia.

#### *Dispensaries.*

There are thirty dispensaries and twelve visiting stations besides the dispensaries attached to the above-mentioned hospitals. At the dispensaries in connection with hospitals 20,240 patients were treated, and the number of visits was 29,727. The total amount collected, chiefly voluntary contributions, was Rs. 1,321.32. The total number treated at all the other dispensaries and visiting stations was 68,998, and the total number of visits 105,953. The money collected at these dispensaries, chiefly voluntary contributions, amounted to Rs. 1,617.

#### *Jail and Jail Hospital.*

The number of prisoners confined in the Jaffna jail during the year was of males convicted 497, unconvicted 290; females convicted 7, unconvicted 3. The largest number confined in the jail on any one day was 122, and the average daily strength was 100.65. The health of the prisoners has been very satisfactory, and there has been no overcrowding at any time. The number treated in hospital was 71 and the average daily sick 2.04. There was only one death, a case of phthisis in a prisoner who was sent as a convalescent. The diseases that caused the largest number of admissions were dysentery, diarrhoea, and malarial fevers.

The Medical Officer in charge of the jail, Dr. Ludovici, is of opinion that malarial fevers were never contracted in the jail and "always occurred in prisoners who had had malaria before, and which was undoubtedly latent in their systems."

## (4) REPORT of H. Keegel, L.R.C.P. (Edin.), Colonial Surgeon (Acting), Southern Province.

I WAS in charge of the Province during the whole of the year.

*Return of Population.*

Estimated population of Southern Province for 1905 ..	603,270
Number of births registered in 1905 ..	27,690
Number of deaths registered in 1905 ..	15,658
Birth-rate per mille ..	45.8
Death-rate per mille ..	25.9

*Public Health.*

The *Public Health* was up to the middle of June exceptionally satisfactory. The annual recrudescence of malarial fever, which is coincident with the rainy seasons, and which marks the earlier and closing months of the year, was not of a severe character, and subsided by the end of April. Cases of chickenpox of a sporadic character were occasionally reported from various parts of the Province.

*Smallpox*, however, was introduced in June into the Matara District, the first case occurring in Matara town, having been brought in by a refugee from Colombo, who was successfully concealed in the loft of a small native confectionery boutique in the heart of the town, when it was detected by private information. The case was promptly removed and all the necessary precautions taken, but it was too late. The premises which gave shelter to the patient had been the resort of native residents both of Matara town and of the interior, who came into the town during the period of concealment, and in a few days Kotuwagoda on the Tangalla road was the scene of an outbreak which assumed serious proportions. Cases were also reported from the interior villages, but as regards Matara the infection was successfully localized, and with the exception of a case which occurred in another Moorish quarter on the opposite bank of the river, viz., at Kadaweediya, and a few stragglers suffering from the disease, who went to the Civil Hospital for admission, and who were promptly segregated, the outbreak was quite under control. In a few instances concealment was attempted and carried out till a late stage of the disease, but this was met by a well organized system of house-to-house visitation which ensured the daily examination of the inmates of every house in every infected locality, and which put an end to any chances of further concealment. Removal into hospital and segregation of contacts was strictly carried out, and disinfection and destruction of all infected material which did not admit of chemical disinfection was enforced. Brown's Hill furnished an ideal site for a hospital and camp, and a Medical Officer was placed in charge. Vaccination was rigorously enforced, and also re-vaccination. The early detection of cases and the prompt segregation of sick and contacts enabled the authorities to get the outbreak quickly under control, but this took some months.

The infection was however carried into the Tangalla District, where it spread from that populous centre of trade Belliatta bazaar into the adjoining villages, the cause of such propagation being without doubt concealment. A hospital was run up on the rifle range at Pollamaruwa near Tangalla, as also a camp for contacts. These had to undergo considerable extension later, as admissions increased. A special Medical Officer was told off to attend the sick and administer the hospital, an apothecary was appointed, the hospital was furnished with a sufficiency of servants, and its general working placed in charge of the Medical Officer of Tangalla. I paid frequent visits to it and satisfied myself of its working. The outbreak never at any time assumed an epidemic character, that is, it kept appearing at different centres as fast as each new centre was dealt with effectually. I cannot account for this surreptitious conveyance of infection to various different and distant centres, except by believing in the deficient supervision of the rural headmen, who were doubtless terrified to a great extent by the nature of the disease, but I feel bound to admit that they did their best under the circumstances, which were so trying. The regular police employed for the purpose of guarding infected places, or patients who could not be removed into hospital, did their work well; and the Medical Officers, I feel gratified to add, brought to bear on a duty, so involved with risk and danger, a devotion which no words of mine can adequately characterize, but which maintain the best traditions of the Medical Department. I owe my acknowledgments to Mr. G. Cookson, C.C.S., the Assistant Government Agent of Matara, for assistance rendered at great personal risk both in the removal of cases from Moorish quarters, where resistance was threatened, and for the warm personal interest he took in the erection, equipment, and provisioning of the large hospital and camp for contacts which the exigencies of the situation rendered necessary at Matara; to Mr. J. Conroy, late Assistant Government Agent of Hambantota; and to Mr. Jayawardana, the Mudaliyar of the Giruwa Pattu West, who rendered the officers of this Department great service in carrying out measures in the face of organized opposition in the Tangalla District. The disease continued to prevail in a sporadic manner with occasional recrudescences till the end of the year, but it was fairly, at all times, under control. Twice it reappeared in the Matara District, on both occasions having been imported from Tangalla, but the infection was at once stamped out.

One case occurred in the Municipality of Galle. The patient was detected on the tenth day of the disease, but though he was located in a very crowded locality, next to a much frequented Hindu temple, and in close proximity to the prison, no further case took place. The result of the prosecution of the guilty parties in this concealment was a fine of Rs. 30. A few imported cases from Matara and Tangalla occurred in villages on the Galle-Weligama road, but the infection was speedily stamped out in every instance.

The number of cases reported and the results from the first appearance of the disease till the end of the year is tabulated in the following statement, which shows the mortality in each district:—

District.	Reported.	Discharged.	Died.	Remaining on December 31, 1905.
Deniyaya ..	2	2	—	—
Matara ..	82	61	21	—
Tangalla ..	144	80	54	10
Galle ..	11	8	3	—
Total ..	239	151	78	10

*Sanitary Condition.*

The sanitary state of the town of Galle received my best attention. The improvement of the conservancy system taken on hand last year was continued, and populous portions of the suburbs were brought under the regulations. At the request of the Municipal Council I submitted a very detailed report on the working of its Health Department, which led to its reorganization. I have no doubt that under the present system much good will be done. The question of the water supply has not advanced owing to the unsatisfactory results obtained by the gauging of the stream from which it is proposed to draw the supply.

*Matara.*—This town is fairly clean notwithstanding the radical defects of its drainage and the deficiency of its water supply, which is a precarious one in prolonged droughts, as it is almost entirely derived from a few wells at some distance from the town. The want of a hospital for infectious diseases is greatly felt, but the matter is engaging the attention of the Local Board.

*Tangalla.*—I am of opinion that the sooner this populous town is brought under the operation of a Sanitary Board the better it would be for its public health. It is at present without any control to speak of, except what the police can afford to give. Its scavenging staff is represented by a couple of sweeping coolies. There is no proper drainage, no public latrines, the markets are in an undesirable state, and the roads are in want of attention. The water supply is most defective, and cannot but affect the health of the public prejudicially.

*Hambantota.*—The Civil Hospital is still located in the old buildings which have been so often condemned. I do not think it is likely that this town will be provided with a new hospital in the near future. The town is itself sinking fast into a ruinous condition: the small tenements of which it almost wholly consists are fast decaying, and the owners are too poor to restore them; there is squalor and poverty all round, and nothing like sanitation; cesspits not cleaned for years about, and there are no latrines for the public; the drinking water is of deficient quality, and during droughts bad; it is derived entirely from wells sunk in the sand hills; there is no regulation with regard to bakeries or markets. I beg to press this matter as one deserving of serious consideration.

*Ambalangoda.*—This village, which is under the control of the Small Towns Sanitary Ordinance, has improved as regards its scavenging, lighting, and police supervision, but it is rapidly getting overcrowded, and its small tenements require looking after, road parallels require to be opened out to ensure better ventilation, public latrines should be established to obviate the nuisances on the beach, and in the private gardens, which teem with noisome vegetation, the drains require to be laid out and repaired and properly regulated, cemeteries opened to prevent promiscuous interments in the vicinity of wells from which drinking water is drawn. The water supply of Ambalangoda is also a matter requiring early attention.

*Hospitals.*

*Galle.*—Civil Hospital: This institution continued to maintain its efficiency during the year. It was kept in good order, and all necessary repairs received prompt attention. The operating room was completed and equipped with surgical appliances. It now meets all the requirements of the station.

Outdoor dispensary, Kaluwella: This institution worked satisfactorily, and a marked increase in the numbers treated was recorded.

The hospital for females at Kaluwella is worked as a branch of the Mahamodara hospital, and was an useful adjunct for the reception and treatment of a certain class of patients whom it is undesirable to admit into the wards of the General Hospital. The accommodation is for twelve patients. 111 cases were admitted in 1905, as against 117 in 1904.

Jail hospital: The jail was very healthy, and no death was recorded during the year. The house of observation for lunatics was occupied almost daily throughout the year. Nineteen persons pronounced to be of unsound mind were transferred to the Asylum, 25 were discharged, and 9 remained at the end of the year.

Infectious diseases hospitals, Galle: Thirty patients were treated at the Dadalla hospital during the year, one of whom was suffering from smallpox, the case being one admitted from the town. The hospital is by no means a suitable one, and is insufficient for the requirements of this Municipality. The Southern Plague Hospital at Buona Vista and the Bathfield House Segregation Camp are exclusively reserved by the Plague Committee for cases of plague and contacts brought to the Island, and during the year the latter was renovated and placed in a very good state of repair.

*Balapitiya.*—Both hospital and dispensary are working efficiently. The completion of the Victoria Jubilee Dispensary relieved the pressure for space in the hospital, and the outdoor patients are better accommodated now. The dispensary is largely availed of by the public, and is increasing in usefulness. The following are the figures:—

	1905.	1904.
First visits .. .. .	9,103	8,747
Subsequent visits .. .. .	23,591	22,300

The boundary wall in front, the gate, and the lamp, the gift of D. M. Wickremeratne, Muhandiram, have enhanced the appearance of the place; the wall (also a private donation) on the south side is nearing completion; that on the northern side will be taken in hand soon. These latter will conduce to the better discipline of the hospital. A ward with eight beds, on a duly approved plan, will be begun shortly at the north-eastern angle of the grounds, and this will supply a great need.

*Matara.*—This hospital had every necessary improvement and repair effected during the year. An operating room was added by the conversion of a disused ward, but this requires to be brought up to date. The drainage is still a matter of difficulty, and this, with the erection of a boundary wall to enclose the whole premises, awaits attention. The Medical Officer now lives about a mile away. The administration of this hospital could be more satisfactorily carried out if his residence was in closer proximity to his charge.

*Tangalla.*—The new hospital has after much delay been completed to permit of a partial occupation at the end of the year. Its drainage is defective, as the latrine washings run into the side drains of the public street on its northern side. The hospital is well equipped, and the outdoor dispensary which is worked in connection with it is resorted to largely.

*Deniyaya.*—One case of smallpox occurred at Beverley estate and another at Halpantenne estate during the year. The steps taken were successful in stamping out the disease. The infection was brought in by immigrant coolies from India. There were 94 admissions into hospital for anchylostomiasis with 23 deaths, and the Medical Officer reports favourably on the treatment with thymol followed by iron. The sanitary condition of Deniyaya is by no means satisfactory, the native quarters requiring much attention. The hospital is popular. The death-rate last year however was 16·55 per cent., but this is not a matter of surprise considering the class of patients admitted.

*Hambantota.*—I have referred to this hospital in an earlier part of this report. It is an obsolete building condemned long ago as unfit for the purposes of a hospital. The provision of a proper hospital cannot longer be postponed.

#### *Outdoor Dispensaries.*

I have much pleasure in stating that the outdoor dispensaries in the Province have shown, without a single exception, a very decided improvement, both in the numbers seeking relief and in the collections. I am very satisfied with the interest the officers in charge have taken in their work. A new dispensary was arranged for Kosgoda, the building for its establishment being given by the Constable Arachchi of Kosgoda free of rent till the new building, which is to include a residence for the apothecary, is erected by him and gifted to the Government. Two visiting stations in connection with Wiraketiya will be opened early in 1906, and arrangements are matured for the opening of two new dispensaries at Podalla and Akrimmana, two thickly populous villages in the Galle District, the necessary buildings in each case being furnished by the Village Committees. I trust that with the assistance of these bodies the extension of the dispensary system will be furthered.

The following is a statement of the outdoor institutions in this Province at the end of 1905 :—

Dispensaries attached to hospitals .. .. .	6
Central dispensaries in charge of Apothecaries and District Medical Officers .. .. .	16
Branch dispensaries visited .. .. .	17
Itinerating stations .. .. .	2

The total number treated in all the outdoor dispensaries in the Province during the year was 124,810, as against 92,037 in 1904; the total number of visits in 1905 was 231,902, as against 196,823 in 1904.

#### *The Port of Galle.*

The arrivals at this port during 1905 showed a decrease of 36 steamers and an increase of 14 sailing craft as compared with 1904. 112 of these were from infected ports, and were dealt with in terms of the quarantine regulations.

Four cases of chickenpox were landed during the year and sent to hospital. Some cases of beri-beri in an arrival from East London were also sent to hospital.

The disinfecting apparatus at Trinity House worked satisfactorily. A sum of Rs. 381·25 was recovered for disinfection of linen and credited to revenue. 7,842 cargo coolies underwent personal disinfection, as also 129 deck passengers. 137 cargo lighters were fumigated for the destruction of rats. One hundred bills of health realized Rs. 1,050, which amount went to credit of revenue.

#### *Vaccination.*

Vaccination was carried on very energetically during the year in view of the prevalence of smallpox in the Province. The numbers vaccinated for the year are as follows :—

	1904.	1905.
Primary vaccinations .. .. .	22,631	34,191
Successful .. .. .	19,307	26,123
Failed .. .. .	2,450	5,207
Absent .. .. .	865	2,861
Re-vaccinations .. .. .	—	4,287
{ Total .. .. .	—	1,296
{ Successful .. .. .	—	1,200
{ Failed .. .. .	—	—

Prosecutions were in every instance where the Government Agent reported wilful neglect instituted against defaulters and fines were imposed.

I cannot conclude without paying a tribute to the officers of the Vaccine Department, who worked throughout the outbreak with devotion and energy.

#### (5) REPORT of H. A. Moraes, L.R.C.P. (Edin.), &c., Colonial Surgeon, Eastern Province.

##### *Population, Births, and Deaths.*

THE population of the Province on the 31st December, 1905, was 183,237, being a decrease of 1,267 over that of the previous year. The decrease is in the Batticaloa District, the population of which was 153,522, against 154,789 for the previous year. The population of the Trincomalee District remained stationary, viz., 29,715.

2. The total number of births registered was 7,446, and of deaths 8,544. In the Batticaloa District the births were 6,247 and deaths 7,514; and in the Trincomalee District births 1,199 and deaths 1,030. The deaths exceeded the births by 1,098; in the Batticaloa District by 1,267. In the Trincomalee District the births exceeded the deaths by 169.

3. The total number of births shows a decrease of 982, and the total number of deaths an increase of 3,055, on the previous year. The birth-rate for 1,000 of the population was 40·63 and the death-rate 46·62. The birth-rate shows a decrease of 5·04, and the death-rate an increase of 16·87, on the previous year. In the Batticaloa District the birth-rate was 40·75 and death-rate 48·29; and in the Trincomalee District the birth-rate 40·34 and death-rate 34·66.

##### *Prevailing Diseases.*

4. The diseases most prevalent were malarial fevers and their sequelæ, parangi, ulcers and other skin diseases, rheumatic affections, and diseases of the respiratory and digestive systems.

5. *Malarial diseases.*—Malarial fevers are most prevalent during the wet season, from the beginning of the last to the end of the first quarter, but they also prevail more or less all through the year. Malaria prevailed to a greater extent than the previous year, the total number treated being 59,602, against 27,592 for the previous year. It broke out in an epidemic form in several places, but was at its worst at Katankuddy, a thickly populated Moorish village about three miles from Batticaloa, where the mortality from this cause was high. It prevailed here from April to July immediately after the heavy rains in April. The Medical Officer of Batticaloa was sent to treat cases three times a week, and a vaccinator was deputed to distribute quinine powders. About the same time the disease prevailed to a great extent in Batticaloa town. At Valaichenai it prevailed to a large extent from January to July, and a vaccinator was sent to assist the apothecary. At Oluwil and Palammunai it prevailed in January and February. It prevailed to a very much larger extent in the Batticaloa than the Trincomalee District. Of all diseases treated in the hospitals and at the dispensaries, viz., 108,188, no less than 59,602, or more than half, were cases of malarial fever. The rate per 1,000 of the estimated population who suffered from this disease was 325.27. The largest numbers were treated at the following stations, viz., Eraur 11,382, Kattankudy 9,951, Valaichenai 8,355, Kalmunai 6,485, Batticaloa 5,026, and Nindoor 3,625.

6. *Parangi.*—This disease comes next in order of prevalence. It has been reported from every station in the Province, and all nationalities of the native population are affected by it, though it is chiefly confined to the poorer classes. The disease is kept going by bad food, impure water, and the insanitary habits of the people. The total number of cases treated at the various institutions was 5,711, which is 216 less than the previous year, and as the number for the previous year was less than that for the preceding one, the disease appears to be gradually on the decline.

7. *Ulcers and other skin diseases.*—These were reported from all the stations, and 3,229 cases of ulcer and 4,324 cases of other skin diseases were treated.

8. *Rheumatic affections* were also reported from all the stations, and 2,749 cases were treated.

9. *Diseases of the digestive system.*—The principal of these, dysentery and diarrhœa, prevailed generally, but did not assume an epidemic form. 2,680 cases of dysentery and 1,389 cases of diarrhœa were treated.

10. *Malarial cachexia* was reported from all the stations and 4,414 cases were treated.

11. *Leprosy.*—This disease is very prevalent in the Kalmunai district, and many cases were also reported from the Batticaloa District. The Trincomalee District is practically free from it. The total number of cases reported was 128, which is nineteen more than the previous year. Of these, 90 are in the Kalmunai district, 34 in the Batticaloa District, and 4 in the Trincomalee District. Of this total, 26 are in the early stage and 102 in the contagious stage of the disease. Forty-seven were treated in the leper wards of the Kalmunai hospital and 7 at the outdoor dispensaries—3 at Batticaloa and 4 at Padirippu. Eleven lepers are awaiting admission into the Hendala Asylum.

#### *Relative Mortality in Different Seasons.*

12. There are practically two seasons, the wet and the dry. The former begins with the setting in of the rains in October and continues till January, after when the nights are dewy and chilly and the days begin to get warm. This is the unhealthiest season of the year, when malarial fevers and chest and bowel complaints are most prevalent, and the mortality is high. The dry season begins in May and lasts till September and is the healthiest time of the year. During the year under review, however, owing to heavy rains in April, malarial fevers prevailed to a large extent in April, May, June, and July, and the mortality was high in these months. In the Batticaloa District the mortality in April was 749, in May 995, in June 1,035, and in July 683.

#### *Meteorological Conditions and their Effect on Public Health.*

13. The climate of the Eastern Province is generally hot and dry. The monsoon rains during the latter part of the year reduce the temperature to some extent, but the public health suffers owing to the outbreaks of fever. The rainfall during this time is generally very heavy, and the country is often flooded in several parts. On the whole the rainfall during the year was less than the previous year.

#### *Remarks on Particular Diseases.*

14. *Smallpox.*—This disease made its appearance in Trincomalee town in October, but no information was received regarding the outbreak till the middle of November owing to the cases being concealed. Seven cases were discovered in two days, and all but one of these were convalescent. From this date to the end of the year there were 30 cases with 3 deaths. The source of the infection could not be conclusively traced, but there is strong presumptive evidence that it was brought from India by a resident trader who had returned from there about the time the first cases occurred. Every precaution was taken to prevent the spread of the disease.

15. *Chickenpox* appeared at Batticaloa, Kalmunai, Trincomalee, and Katankuddy, and 34 cases in all were treated.

*Enteric fever.*—One case was treated in the Trincomalee hospital and 4 at their homes. The Medical Officer of this station says he treated several others which were undoubtedly cases of enteric, and he believes the disease is more prevalent than is thought.

*Consumption.*—Twelve cases were reported, 9 at Batticaloa, 2 at Trincomalee, and 1 at Kalmunai.

*Cancer.*—Five cases were reported, 4 at Trincomalee and 1 at Kalmunai.

#### *General Sanitary Condition of the Province.*

16. The general sanitary condition of the Province is not very satisfactory. Owing to the nature of the land there are extensive low-lying lands which during the rains are transformed into swamps and marshes. Many large villages, such as Katankuddy, Nindoor, Karankoditivu, Eravur, Valaichenai, Muttur, &c., which are thickly populated by Moors, are in a most insanitary state. The houses are crowded together, are ill-ventilated, and the compounds are used as open latrines.

17. The sanitary condition of Batticaloa is fairly satisfactory, but there is much room for improvement. The drainage is very imperfect and the scavenging requires improvement. The water supply, which is drawn from wells, is ample, but the water in some places is brackish.

18. The sanitary condition of the native part of the town of Trincomalee is very unsatisfactory. The majority of the native houses have no latrines, the males using the seabeach or waste grounds in different parts of the town and the females a small part of the compounds of their houses. The most urgent wants are: (1) water supply; (2) public latrines; (3) filling up all cesspits and introducing dry-earth closets; and (4) improved drainage. The water supply is drawn from wells in the compounds of the houses. It is generally hard and brackish and in the dry season is scarce. The wells and cesspits are in close proximity.

#### *Vaccination.*

19. Vaccination was carried on throughout the year. The staff consists of an Inspector and ten vaccinators. Two Moorish and one female vaccinator carry on vaccination almost exclusively among the Moorish community. The work of the vaccinators was regularly inspected by the Inspector, and on a few occasions by me. The town and outdoor vaccination was frequently inspected by me. Vaccination was also carried on by the Medical Officers and apothecaries at their respective stations. An extra vaccinator was employed at Trincomalee during the outbreak of smallpox, and the female vaccinator was also sent there to carry on vaccination among the Moorish women.

20. During the year 8,407 subjects were vaccinated. Of these, 7,202 were primary vaccinations and 1,205 re-vaccinations. The re-vaccinations were all in Trincomalee during the outbreak of smallpox. Of the primary vaccinations, 3,784 were males and 3,418 females; and of these 2,336 were infants, 4,612 and 254 adults. Of the primary vaccinations, 5,175 were successful, 1,879 unsuccessful, and 148 unknown; and of the re-vaccinations, 603 were successful, 292 unsuccessful, and 310 unknown.

21. The number of primary vaccinations by the vaccinators was 5,701, and at the outdoor dispensaries 1,501. The percentage of successful primary vaccinations to the total inspected by the vaccinators was 74.4, and by the apothecaries and Medical Officers at the outdoor dispensaries 69.42.

22. The number of prosecutions under the Vaccination Ordinance was 82. Of these, 58 were convicted, 1 acquitted, 4 withdrawn or struck off, and 19 were pending at the end of the year. The amount of fines inflicted was Rs. 49.10.

#### *Other Observations.*

24. There are two jails in the Province, one at Trincomalee and the other at Batticaloa. The one at Trincomalee is a mere lock-up. Two sick prisoners were treated there. At the Batticaloa jail hospital 24 prisoners were treated with 1 death. The daily average sick in hospital was 62. The principal diseases were malarial fevers, diarrhoea, and dysentery. The general health and sanitary condition of the jail was satisfactory.

25. *Hospitals and dispensaries.*—There are in the Province three civil, one field, and one leper hospital, and twelve permanent and nine visiting dispensaries. Three of the permanent dispensaries are for irrigation coolies. All these dispensaries are doing good work and are increasing in popularity and getting to be more appreciated by the people, as is shown by the very large attendance during the year. The number treated at the various dispensaries and visiting stations was 106,251, against 66,258 last year. The number treated in the hospitals was 1,937.

26. A permanent dispensary is required at Tirukovil, and one at Katankuddy.

27. At the port of Trincomalee there were 358 arrivals; of these, 60 were steamers and 298 native vessels. One steamer and 3 native vessels were quarantined. At the port of Batticaloa the arrivals were 211, and of these 38 were steamers and 173 native vessels. There were no vessels quarantined, and there were no prosecutions for breach of quarantine regulations.

#### (6) REPORT of E. de Livera, M.B., C.M. (Glas.), Colonial Surgeon, North-Western and Sabaragamuwa Provinces.

THE population of the North-Western Province at the end of the year 1905 was 379,141, showing an increase of 9,742 over the population at the end of the previous year. There were 17,131 births and 13,290 deaths. The birth-rate per mille was 45.18 and the death-rate 35.05, as against a birth-rate of 45.85 and a death-rate of 27.29 in the previous year. As in former years, the death-rate was highest in the Puttalam District, being 49.46, and lowest in the Chilaw District, being 23.9. It was 36.7 in the Kurunegala District.

2. The population in the Province of Sabaragamuwa at the end of 1905 was 324,984, there being an increase over that in the previous year by 4,485. There were 14,628 births and 10,140 deaths. The birth-rate per mille was 45.01 and the death-rate 31.20, as against a birth-rate of 43.32 and a death-rate of 26.63 in the previous year. The death-rate was higher in the Ratnapura District than in the Kegalla District, being 26.29 in the latter and 39.51 in the former.

#### *Prevalence of Sickness.*

3. The death-rate for the year under review compares unfavourably with that of any of the years since 1900 in both the North-Western Province and the Province of Sabaragamuwa, and the general health in 1905 cannot therefore be considered satisfactory. This must be in a great measure due to the increased prevalence of malarial fever and the consequent increase in the number of cases of other diseases that occurred.

4. Both the Provinces have however been practically free from severe epidemics of infectious diseases.

5. No cases of *Cholera* occurred in either of the Provinces.

6. Two cases of *Smallpox*, of which one proved fatal, occurred in the Karawanella district, on two estates, among new arrivals from India, and both were detected before the infection could spread.

One case of smallpox—a doubtful one—was reported from Todduwa in the Marawila district, but the source of the infection could not be traced. This case was promptly isolated, and steps were taken to prevent the spread of the infection.

7. Thirty-one cases of *Chickenpox* were reported from the North-Western Province and 338 cases from the Province of Sabaragamuwa.

8. Fifty-nine cases of *Measles* were reported from the North-Western Province and 61 from the Province of Sabaragamuwa.

9. The District Medical Officer, Karawanella, reports that in April and May 5 cases of *Acute Diarrhoea* occurred on Dunedin and Degalassa estates, of which 4 proved fatal, and that a threatened outbreak of *Dysentery* also appeared in the District in October, 12 cases having occurred with 5 deaths. Nine cases of dysentery of an epidemic nature were reported from Ratnapura.

10. There were 7,034 cases of all diseases treated in the seven hospitals of the North-Western Province, as against 5,076 cases in the previous year; and 7,545 cases were treated in the six hospitals of the Province of Sabaragamuwa, as against 5,472 in 1904.

11. The number of cases treated at the dispensaries and itinerating stations of the North-Western Province during 1905 was 247,652, as against 144,150 in the previous year, showing an excess of nearly 50 per cent. In the Province of Sabaragamuwa too the number treated was much larger than that treated in the previous year, the numbers being 96,528 in 1905 and 74,948 in 1904.

12. It will thus be seen that the proportion of cases treated both in the hospitals and at the outdoor dispensaries in both the Provinces was much larger in the year under review than in the preceding year.

13. The number of estate labourers treated in the district hospitals of the Province of Sabaragamuwa was 957 and at the district dispensaries 4,936, the proportion of estate labourers to the total treated being nearly 1 to 8 in the hospitals and 1 to 18 in the dispensaries.

#### *Remarks on Particular Diseases.*

14. *Malarial fever*.—This disease as usual was more or less prevalent throughout the year, but there were two severe outbreaks in both Provinces, the first commencing about the end of April, following the heavy rainfall in March and April and lasting till August, and the other beginning in November, after the October rains, and being continued over December. There were 122,642 cases of malarial fever treated in the North-Western Province during 1905, as against 56,139 treated during the preceding year; and in the Province of Sabaragamuwa the number treated during 1905 was 35,192, while in 1904 the number treated was 16,564, the number treated in both the Provinces being double that treated in the previous year. The proportion of malarial fever cases to the total of all diseases treated was nearly 1 to 3. The stations where the largest numbers were treated were Dandugamuwa (13,223), Wariyapola (12,846), Nikaweratiya (11,866), Anamaduwa (9,336), Kurunegala (6,830), and Narammala (5,760) in the North-Western Province, and Karawanella (3,719), Ratnapura (2,860), Balangoda (2,789), Kolonna (2,630), and Godakawela (2,583) in the Province of Sabaragamuwa. Itinerating Medical Officers had to be appointed to visit villages and treat the sick in the Kurunegala and Chilaw Districts in the North-Western Province, and in the Karawanella district in the Province of Sabaragamuwa, and quinine powders were also sent to the headmen for distribution.

15. An experiment was tried at Nikaweratiya, at the direction of His Excellency the Governor, by giving all the residents in the village quinine as a prophylactic against malaria. Each adult was given 10 grains of quinine for two successive days every week, and children half the dose, and infants still less. The experiment commenced at the beginning of November and was to last three months, and so far it has been remarkably successful. The total number of persons treated at the end of December was 232, and they paid 1,122 visits. Of this number, 227 were regularly getting fever before treatment, and during treatment only 36 of them got fever, that is, 15.51 per cent., though this was the season of the year during which malarial fever was usually most prevalent; while 140 cases of fever occurred among unprotected residents, consisting chiefly of boutique-keepers (usually a better-fed class than the ordinary villagers), who number 210, showing a percentage of 66. More than half the cases were cases of enlarged spleen, otherwise the results obtained would have been still more remarkable. The experiment was conducted by the Medical Officer, Dr. Ariyaratne, and the Hon. Mr. S. N. W. Hulugalle, Ratamahatmaya, rendered great help in inducing villagers to visit the hospital regularly for the purpose of the experiment.

16. *Parangi*.—The number of cases of parangi treated in the North-Western Province was 16,997 as against 16,608 treated during the previous year, and the number treated in the Province of Sabaragamuwa was 1,651 as against 1,564 treated during 1904. The slight excess in the number is very likely due to the increased prevalence of malarial fever during the year, as attacks of fever cause the symptoms of the disease to get so aggravated as to drive the sufferers to seek treatment in hospitals and at the dispensaries in increased numbers.

17. *Diarrhoea and dysentery*.—There has been an excess in the numbers treated of these diseases over the numbers treated in the preceding year.

18. *Leprosy*.—There were only 8 cases reported of this disease, and nearly all from the Province of Sabaragamuwa.

19. *Phthisis pulmonalis*.—There were 95 cases treated in the hospitals of each Province, as against 99 treated in the hospitals of the North-Western Province and 84 in those of the Province of Sabaragamuwa during the preceding year.

20. *Cancer*.—Ten cases were returned from the hospitals of the North-Western Province and 11 from those of the Province of Sabaragamuwa.

21. *Anchylostomiasis*.—107 cases were treated at Kurunegala, 253 at Karawanella, 120 at Balangoda, 38 at Kegalla, and 3 at Ratnapura. There is a slight diminution in the numbers treated as compared with the previous year.

22. *Pneumonia*.—In the Kurunegala hospital there were 73 cases treated with 33 deaths, and in Puttalam 7 cases with 2 deaths. In the district hospitals of the Province of Sabaragamuwa there were 58 cases treated with 26 deaths.

23. *Enteric fever*.—Two cases were treated in the Kurunegala hospital as against 6 in the preceding year, and none in the other hospitals of the North-Western Province; 14 in the hospitals of the Province of Sabaragamuwa, as against 9 in 1904. The mortality was about 19 per cent.

#### *Meteorological Conditions and their Effects on Public Health.*

24. The average rainfall in the chief stations of the North-Western Province during the year was about 58 inches and in the Province of Sabaragamuwa about 131 inches. It was highest in the North-Western Province during the fourth quarter, and in the Province of Sabaragamuwa during the second quarter. Other diseases except those connected with malaria cannot be directly traced to meteorological conditions.

#### *Sanitary Conditions of Chief Towns.*

25. *Kurunegala*.—The Medical Officer states:—"Sanitation has been receiving a good deal of attention; there is however much room for improvement in the direction of drainage. The water supply of the town is under the consideration of the Local Board."

26. *Puttalam*.—The swamps surrounding the town require to be filled up or drained, which is a difficult matter owing to the flatness of the country. The Moorish quarter of the town is overcrowded and insanitary.

27. *Chilaw*.—The drainage is said to be far from satisfactory. There is too much overcrowding in some parts of the town, especially the fishers' quarters. The present cemeteries should be closed and a new General Cemetery opened at a distance from the town, and steps should be taken to have the shallow wells in the tobacco gardens closed.

28. *Ratnapura*.—Water supply appears to be insufficient. The drains in the town have been improved.

29. *Kegalla*.—Drains defective and conservancy arrangements unsatisfactory. The public wells are also insufficient.

30. *Balangoda*.—General sanitary condition of the town still unsatisfactory, there being no proper drains. More public wells are required.

31. *Rakwana*.—Two new wells have been sunk by the Sanitary Board. There is only one public latrine, which is insufficient.

32. *Karawanella*.—Water supply good and abundant. Public latrines are required at Karawanella and Ruanwella.

#### *Jails.*

33. The number of patients treated in the jail hospital at Kurunegala was 52, and the number treated in the jail hospital, Chilaw, 1, with no deaths. In the jail hospital at Ratnapura 38 patients were treated and in that at Kegalla 15. There were no deaths in either.

#### *Vaccination.*

34. The number vaccinated in the North-Western Province was 11,088 with 9,608 successful vaccinations, as against 12,194 successful vaccinations in 1904. The percentage of successful to total inspected was 98.51, and the number vaccinated in the Province of Sabaragamuwa was 12,961, with 10,717 successful vaccinations, as against 10,174 successful vaccinations in 1904. The percentage of successful to total inspected was 89.50.

The increased prevalence of fever was the cause of the numbers vaccinated being less than in the preceding year. Six vaccinators were employed in the former Province and ten in the latter, including four estate vaccinators. A female vaccinator has also been working in both the Provinces, carrying on work chiefly among the Moorish residents. Glycerinated vaccine paste has been chiefly used in vaccinating, but the results from it have not always been satisfactory as regards the number of successful cases.

#### *Port Duties.*

35. 339 vessels were inspected at Kalpitiya, as against 283 in the previous year. The vessels were mostly from Mannar, Jaffna, and Negombo.

#### *Other Observations.*

36. I would again, as in last year, point out the necessity of opening a field hospital at Pellebedda, between Godakawela and Embilipitiya, in the Province of Sabaragamuwa, for the treatment of parangi cases, and the reopening of the Anamaduwa hospital, between Puttalam and Nikaweratiya, in the North-Western Province, as well as of the opening of a branch dispensary at Nawagattagama, about eight miles from Anamaduwa, as recommended by the Commission appointed to report on the prevalence of parangi in Demalahatpattu.

#### (7) REPORT of F. Oorloff, M.B., C.M. (Aberd.), Colonial Surgeon, Province of Uva.

THE means within the reach of the people for obtaining treatment for sickness consisted, as in the previous year, of 6 hospitals, 18 dispensaries, and 12 itinerating stations.

The following dispensaries and hospital are required to provide a complete scheme for the wants of the Province: (1) branch dispensaries at the following villages: Ridimaliyadda, Katabowa, Bogahakumbura, Ekiriya, and Bubula; (2) a hospital at Muppane.

#### *Population: Birth- and Death-rates.*

The population of the Province estimated for the middle of the year was 191,643. This gives an increase of 972 over the population estimated for the middle of 1904. 7,443 births and 6,969 deaths were registered. The birth-rate was 38.9 per thousand as against 42.3, and the death-rate 36.3 per thousand as against 33.2, in the previous year.

*Public Health.*

The general health of the Province has on the whole been good. As in the previous year, the diseases most prevalent were malaria, dysentery, respiratory affections, rheumatism, and parangi.

*Malarial fever.*—This disease was most prevalent during the north-east monsoon. In no place did it assume an epidemic character, and the cases that occurred readily yielded to treatment. The largest number of cases, viz., 3,059, was treated in Badulla, in the hospital and dispensary.

*Dysentery.*—This disease was at its height during the north-east monsoon, when malaria was most prevalent. The villages in which it occurred were promptly visited by the apothecaries of the respective districts. The direct mortality from it was not very high, and it did not assume an epidemic form.

*Respiratory diseases and rheumatism.*—These diseases, as in previous years, were mostly prevalent during the first and last quarters of the year.

*Parangi.*—This scourge, as previously stated, exists to a great extent among the poor in the following places in the Province, viz., Medagama, Bintenna, Tanamalwila, Badulawela, Buttala, Mupanne, and Wedikumbura. Its prevalence is no doubt due to the want of wholesome food and water and segregation.

*Relative Mortality in the Different Seasons.*

As in previous years, the death-rate was highest during the last quarter and in January, which was coincident with the rise in malaria and dysentery. Malaria and dysentery were the two diseases that chiefly helped to swell the number of cases and the mortality.

*Meteorological Conditions and their Relationship to Diseases.*

The rainfall was heaviest during the prevalence of the north-east monsoon. The dry season corresponds with the south-west monsoon, which lasts from April to September. During the wet months malaria, dysentery, respiratory affections, and rheumatism were at their height, and during the dry months the diseases which chiefly prevailed were parangi, skin affections, sore-eyes, and chickenpox.

*Particular Diseases.*

*Smallpox.*—There were nineteen cases of this disease among estate labourers, viz., two in Koslanda, eleven in Madulsima, and six in Namunukula. In every instance the disease was imported from India. Five cases proved fatal. Of this number, two cases were not under European treatment, as they were concealed.

*Chickenpox.*—127 cases were reported from eleven stations.

*Measles.*—Twenty-six cases were reported from one station.

*Acute diarrhoea.*—Three cases of this disease occurred in Badulla, one in Bandarawela, and two in Bibile. The district apothecary of Welimada reported that seven cases had occurred at Maspana, of which one proved fatal. All the cases that occurred in Badulla, Bandarawela, and Bibile proved fatal.

*General Sanitary Condition of the Province.*

There is room for improvement in the general sanitary condition of the Province.

*Badulla.*—The water supply of the town is insufficient, and several families are put to much inconvenience from the want of a water service in their houses. The drainage is defective. Public latrine accommodation is deficient. The scavenging was satisfactorily done.

*Bandarawela.*—A good water supply is badly needed. The scavenging was satisfactorily done. The condition of the back premises of the bazaar houses remains unsatisfactory for want of drains, light, and ventilation.

*Haputale.*—The water supply is good and sufficient. The scavenging was satisfactorily done. There is room for improvement in the drainage.

*Haldummulla.*—The water supply is pretty good. The drainage is defective. Public latrine accommodation is much needed.

*Koslanda.*—The water supply is pretty good. The drainage is defective. Public latrine accommodation is wanting.

*Passara.*—A good water service is much needed. The sanitation was well looked after. Public latrine accommodation is also much needed.

*Lunugala.*—The sanitary condition is unsatisfactory. The drainage is bad; concrete drains should be constructed to prevent the stagnation of water, which at present occurs in the existing earth drains. The cattle sheds in the bazaar should be removed. The stream which supplies the town is liable to pollution. Another great need is a public latrine. I suggest that Lunugala be brought under the operation of the Small Towns Sanitary Ordinance.

*Welimada.*—The water supply and drainage are bad.

*Vaccination.*

Six vaccinators (four district and two estate) were employed during the year. In addition to this the Medical Officers and apothecaries carried on vaccination at the outdoor dispensaries. The work of the vaccinators was regularly inspected by the Inspector of Vaccination, and the vaccination at the outdoor dispensary, Badulla, was regularly inspected by the Colonial Surgeon.

The following table shows the number of persons vaccinated, with results during 1904 and 1905 :—

Primary Vaccination.		1904.	1905.
Number vaccinated	..	6,059	7,223
Number successful	..	5,477	5,853
Number unsuccessful	..	273	703
Number unknown	..	309	667
Percentage of successful to total inspected	..	95.25	89.27

## Re-vaccination.

	1905.
Number vaccinated .. .. .	1,574
Number successful .. .. .	552
Number unsuccessful .. .. .	773
Number unknown .. .. .	249
Percentage of successful to total inspected .. .. .	41.66

*Prosecutions under the Vaccination Ordinance.*

There were 93 prosecutions, against 112 in the previous year. The results of the prosecutions were as follows. Twenty-two convictions with fines amounting to Rs. 16, forty-three acquittals, four cases were withdrawn, and twenty-four cases were pending at the end of the year; the fines inflicted by the Government Agent on 154 defaulters amounted to Rs. 77.50.

## THE INCIDENCE OF PHTHISIS IN CEYLON.

Compiled by ALBERT J. CHALMERS, M.D., F.R.C.S., D.P.H.

I.—*Total number of cases.*—The total number of cases was 1,037, which is an incidence of 1 in 3,600 of the total population of the Colony in 1905.

II.—*The racial incidence.*—The racial incidence is as follows:—

Sinhalese .. .. .	700	Arabs .. .. .	2
Malabars .. .. .	169	Kaffirs .. .. .	1
Tamils .. .. .	99	Hindu .. .. .	1
Burghers .. .. .	30		
Moors .. .. .	24		
Malays .. .. .	8	Total .. .. .	1,037
Europeans .. .. .	3		

Further consideration is again considered under—

- (1) Incidence in Sinhalese.
- (2) Do. Tamils.
- (3) Do. Burghers.

(1) *Incidence in Sinhalese.*—(a) Population: The incidence of the total population of Sinhalese is 1 in 3,495.

(b) Sex: The relationship to sex is seen in Table I. The incidence in male Sinhalese is 1 in 2,813, while in the female Sinhalese it is 1 in 4,517.

(c) Age: The relationship to age is shown in Table II., and it is seen that the largest number of cases occur between the ages 26–30 in both sexes.

(2) *Incidence in Tamils.*—This is restricted to Tamils born in Ceylon, no distinction being possible between the real Tamils of Ceylon and the children of Indian Tamil coolies born in Ceylon.

(a) Population: The incidence is 1 in 5,233.

(b) Sex: The incidence in males is 1 in 4,212; in females it is 1 in 10,748.

(c) Age: In Table II. it is seen that the age of the largest number of cases is between 30 and 40 years.

(3) *Incidence in Burghers.*—The incidence is as follows:—

- (a) Population: 1 in 813.
- (b) Sex: Males 1 in 551; females 1 in 1,530.
- (c) Age: There is but little evidence of age influence.

III.—*Geographical distribution.*—The average of three years shows the geographical distribution as follows:—

Province.		Province.	
Western .. .. .	365	North-Western .. .. .	86
Central .. .. .	131	Uva .. .. .	69
Northern .. .. .	105	North-Central .. .. .	25
Sabaragamuwa .. .. .	95	Eastern .. .. .	21
Southern .. .. .	94		

The average rate per unit of population is about—

Province.		Province.	
Western .. .. .	1 in 2,700	North-Western .. .. .	1 in 4,200
Central .. .. .	1 in 5,100	Uva .. .. .	1 in 2,800
Northern .. .. .	1 in 3,300	North-Central .. .. .	1 in 3,200
Sabaragamuwa .. .. .	1 in 3,600	Eastern .. .. .	1 in 8,700
Southern .. .. .	1 in 6,300		

## (1) Racial Comparison.

Year.	Sinhalese.	Tamils.	Burghers.
1903 ..	447 ..	162 ..	30 ..
1904 ..	647 ..	172 ..	56 ..
1905 ..	700 ..	98 ..	30 ..
Total ..	1,794	432	116
Average ..	598 ..	143 ..	38 ..

Therefore there was 1 Burgher case for every 3 Tamil and 15 Sinhalese cases.

## (2) Rate per Population.

Year.	Sinhalese.	Tamils.	Burghers.
1903 ..	1 in 5,300 ..	1 in 3,400 ..	1 in 800 ..
1904 ..	1 in 3,800 ..	1 in 3,200 ..	1 in 400 ..
1905 ..	1 in 3,500 ..	1 in 5,200 ..	1 in 800 ..
Average ..	1 in 4,200 ..	1 in 3,900 ..	1 in 666 ..

There were about seven times the amount of consumption in Burghers as in Sinhalese, and six times as in Tamils.

## (3) Sex in the Races.

Year.	Sinhalese.	Tamils.	Burghers.
1903 ..	1 female to 1.9 males ..	1 female to 2.4 males ..	1 female to 1.1 male ..
1904 ..	1 female to 1.9 males ..	1 female to 2 males ..	1 female to 1 male ..
1905 ..	1 female to 1.8 males ..	1 female to 2.7 males ..	1 female to 2.7 males ..
Average ..	1 female to 1.9 males ..	1 female to 2.3 males ..	1 female to 1.5 males ..

Average of the three races is nearly 1 female to 2 males.

Remarks.—As before remarked, phthisis falls most severely on the Burghers.

Race and Age Table showing the Distribution in the Sexes.

	Eng-lish.	Sinha-lese.	Tamils.	Moors.	Burgh-ers.	Mala-bars.	Malays	Kaffirs.	Hin-dus.	Arabs.	Total.	Grand Total.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
0—5 ...	—	—	—	—	—	—	—	—	—	—	—	—
6—10 ...	—	2 2	—	—	1 —	2 1	—	—	—	—	5 3	8
11—15 ...	—	7 9	2 2	1 —	— 2	4 1	—	—	—	—	14 14	28
16—20 ...	—	38 32	6 1	3 —	— 17	4 —	1 —	—	—	—	63 38	101
21—25 ...	—	1 44	44 6	4 2	5 2	9 3	—	—	—	—	66 54	120
26—30 ...	—	92 58	10 6	7 —	4 2	32 14	3 —	—	—	—	145 83	228
31—35 ...	1 —	49 23	9 6	3 —	3 1	14 9	—	1 —	1 —	1 —	82 39	121
36—40 ...	—	79 32	15 4	3 —	1 —	12 8	1 —	—	1 —	—	113 44	157
41—45 ...	—	29 11	7 2	2 —	—	7 3	—	—	—	—	45 16	61
46—50 ...	1 —	42 23	5 1	1 —	5 —	10 3	1 1	—	—	—	65 28	93
51—60 ...	—	62 7	8 —	1 —	3 1	9 2	1 —	—	—	—	84 10	94
61—70 ...	—	5 2	4 —	—	—	4 —	—	—	—	—	13 2	15
71—80 ...	—	5 2	1 —	—	—	1 —	—	—	—	—	7 2	9
81—90 ...	—	—	—	1 —	—	—	—	—	—	—	1 —	1
91 and over ...	—	1 —	—	—	—	—	—	—	—	—	1 —	1
	2 1	455 245	73 26	24 —	22 8	121 48	3 5	1 —	2 —	1 —	704 333	1,037
	3	700	99	24	30	169	8	1	2	1	1,037	1,037

Province.	Eng-lish.	Sinha-lese.	Tamils.	Moors.	Burgh-ers.	Mala-bars.	Malays	Kaffirs.	Hindus.	Arabs.	Total.	Grand Total.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Western ...	2 —	193 130	17 9	11 —	14 4	38 13	— 5	1 —	2 —	1 —	279 161	440
Central ...	— 1	45 34	3 —	2 —	2 1	32 9	2 —	—	—	—	86 45	131
Northern ...	—	1 2	42 16	—	1 —	1 1	—	—	—	—	45 19	64
Southern ...	—	64 33	—	5 —	3 2	6 4	—	—	—	—	78 39	117
Eastern ...	—	2 1	7 —	2 —	2 1	1 —	—	—	—	—	14 2	16
North-Western ...	—	50 11	1 1	—	—	9 4	—	—	—	—	60 16	76
North-Central ...	—	12 4	2 —	—	—	6 —	1 —	—	—	—	21 4	25
Sabaragamuwa ...	—	45 16	1 —	1 —	—	17 10	—	—	—	—	64 26	90
Uva ...	—	43 14	—	3 —	—	11 7	—	—	—	—	57 21	78
	2 1	455 245	73 26	24 —	22 8	121 48	3 5	1 —	2 —	1 —	704 333	1,037
Total ...	3	700	99	24	30	169	8	1	2	1	1,037	1,037

## REPORT on the General Hospital, Colombo, by T. F. Garvin, M.B., C.M.

## (1) THE GENERAL HOSPITAL.

## (A) Administrative.

*The professional staff.*—The office of Second Surgeon vacated by Mr. Thomasz, F.R.C.S.E., on the 13th April was filled by Dr. Paul, M.D., F.R.C.S., and Dr. Pestonjee succeeded Dr. Wm. C. Peris as Third Physician. Dr. Brohier acted as Third Physician for a short time.

The resident staff consisted of the full complement of five qualified officers.

The work on the surgical side of the hospital continued to be very onerous. The Second Surgeon and I have done our best, but we both feel the want of assistance, and are glad to hear that it is in contemplation to concede the request made in my last year's report and appoint a Third Surgeon.

On the medical side also the work has greatly increased, and large numbers have been admitted.

The number of operations done during the year was 1,183, as against 1,300 in 1904. A large number of minor operations are not included.

*Nursing.*—The nursing staff of the General Hospital consisted of the Lady Superintendent and eighteen nurses, fourteen for day duty and four for night. They all belong to a Roman Catholic Sisterhood. I would again tender my testimony to the energy and devotion to duty displayed by the nursing staff. The need of a special nurse for gynaecological work is still greatly felt.

The attendants—male and female—are unsatisfactory. They are very much underpaid, and in consequence a good class of men and women cannot be secured. I have strongly recommended an increase all round of 15 per cent. on the present salaries, or as an alternative the granting to each of the day attendants of a midday meal, so as to ensure their remaining on duty throughout the day. This recommendation has not yet received the sanction of Government, but I hope that it will not be lost sight of.

During the year an extra female attendant was allowed for the children's ward, as it was deemed inexpedient to continue the prevailing practice of admitting the mothers with the children, the extra attendant being intended to render such assistance as the mothers were supposed and expected to give.

An extra medical attendant was appointed to the male medical ward No. 2 on the representation of the First Physician.

I would earnestly request that the servants be supplied with uniforms. This is very necessary for a variety of reasons, and the attendants are too ill-paid to clothe themselves in clean and suitable garments.

*Steward's Department.*—The work in this Department has increased very greatly with the extension of the hospital.

*The Dispensing Department.*—A third dispenser is urgently required, especially since the transfer of the outdoor dispensary to the hospital.

*Disinfection.*—The Tresh's disinfectant has been in constant use, and has answered all requirements admirably. It was periodically overhauled by an officer of the Public Works Department and kept in perfect working order. The expenditure on fuel amounted to Rs. 328-50.

*Disposal of night soil.*—This service was entrusted as before to the Health Department of the Municipality and was carried out in a satisfactory way. The cost was Rs. 552.

It is in contemplation to supply the hospital with an incinerator for the combustion of all night soil, garbage, &c. This is an excellent idea, and if successful should prove a great advance.

*Washing of hospital linen.*—There was a recurrence of the usual difficulty in arranging for this service, and the dhoby entrusted with the work, considering all things, gave a fair amount of satisfaction. A steam laundry worked on the premises would be a great boon, and I hope this suggestion will bear fruit in the near future. The washing of the hospital linen, including that of the paying section and the operating room, cost Rs. 1,920.

*Expenditure.*—The sanctioned vote for diets for the year was Rs. 63,300 and the expenditure was Rs. 63,524-40. The total cost per head per day for diets alone was 26-99 cents, for extras 5-34 cents, for stimulants 2-09 cents, and the total cost was 34-42 cents.

*Revenue.*—The total revenue during the year was as follows:—

	Rs.	c.
From paying patients .. .. .	736	90
From casualty cases .. .. .	121	50
Unclaimed money of patients who died .. .. .	95	47

Total—Rs. 953 87

*Residential buildings.*—The quarters for the nurses are satisfactory. The older portions of the building are constantly needing minor repairs. Quarters for the locally trained nurses employed in the paying section are under contemplation. A residence for the officer in charge of the hospital close to or within the precincts of the hospital is for a variety of reasons very desirable.

The new administration block was completed during the year, and it was handed over in April. It forms a handsome and imposing structure, and contains, besides the outdoor dispensary, offices, &c., on the ground floor, residences on the upper floor for the House Officers and for the European nurses employed in the paying section.

Now that a suitable administration building has been furnished, I hope the suggestion already made, that the whole hospital be rebuilt ward by ward on modern lines, will be given consideration. If upper floors are furnished, the inadequacy of the present accommodation will be removed.

*Overcrowding.*—There has been a great deal of overcrowding, particularly in the lower wards, to which the destitute and debilitated find admission. These consists of the large number of cases picked up by the police cart along the waysides and brought in—cases more in need of food than medicine. It would greatly relieve the congestion of the hospital wards if some means could be adopted to house these cases outside the town and feed and tend them there.

I would draw attention to the fact that in the new administration block there are no porters. I think it very necessary that there should be a day as well as a night porter. There have been repeated complaints of letters addressed to the hospital going astray and of patients not being able to get relief, and I have repeatedly found people wandering about the wards in quest of medical aid, or in an aimless fashion, or from mere curiosity, and this has been due to the want of some person in authority at the entrance to attend to these people and help them.

(B) *Professional.*

*Admissions to hospital.*—During the year under review the number of patients treated in the pauper section was 12,533, of which 12,114 were new admissions. In 1904 the figures were 13,082 and 12,680. There has thus been a decrease in the numbers.

The daily average sick was 510.40. In 1904 the number was 479.64.

The total number of deaths in the pauper section was 1,200, i.e., 9.57 per cent. of those treated.

The mortality among Malabars was 13.97 per cent., as against 8.89 per cent. amongst patients of other races.

*Report of my Work as First Surgeon.*

During the year I performed 560 operations. I subjoin a list of these. There were twenty deaths, i.e., a mortality of 3.5 per cent.

Herniotomy for the radical cure of hernia was done no less than forty-eight times. In some cases the operation followed on the relief of strangulation.

Twenty-eight hydroceles were operated on. In twenty-three introversion of the sac or Pratt's operation was performed. In two cases the sac was injected with a solution of perchloride of mercury.

Hæmatocele: Ten cases came under observation, and were treated surgically.

Supra-pubic lithotomy was performed three times with complete success, and the bladder was opened through the perineum on two occasions for the relief of retention of urine consequent on bad strictures and once by the supra-pubic route for a case of villus papilloma of the bladder.

Gynæcological operations: The list of operations show three cases of abdominal hysterectomy for uterine myomata. This is the first time this operation was done in Ceylon. Two of these cases recovered. The third, in which a myoma 26½ lb. in weight was extirpated, died of shock.

The operation of hysteropexy was done once, in a case in which a prolapse of the anterior vaginal wall and a cystocele rendered the patient unfit to carry on her work.

Hepatic abscess: Twenty-two cases were operated on during the year, and of these eight died. All the deaths occurred in cases which came under treatment when greatly debilitated by coexistent dysentery or diarrhoea. The bulk of the deaths occurred among French soldiers from Saigon, who were being sent back invalided to France, and in these the abscesses were generally large and deep-seated, or multiple and almost invariably complicated with dysentery.

Abdominal surgery: The operation of gastrostomy was performed successfully by Frank's method as a palliative measure for cancer of the œsophagus. Laparotomy was done in three cases, once in a patient who was brought in an almost moribund state with symptoms of intestinal obstruction, caused, as I ascertained on the autopsy, by acute hæmorrhagic pancreatitis, with extensive fat necrosis. The two other cases in which laparotomy was performed were intestinal obstruction and suppurative peritonitis, both of which proved fatal. Resection of bowel for volvulus, with end to end anastomosis, was done in one case with complete success. The operation of appendicectomy was done five times during the year, and in all cases was completely successful. These constitute the first five cases performed in the Island, so far as I am aware. Operations for division of the bowel, in penetrating wounds of the abdomen, and for the repair of fæcal fistulæ were also done with success.

Trephining for depressed fracture of the skull, generally the result of homicidal violence, was performed in seven cases. Two of these died from extensive injury involving the base of the skull, and from great laceration of the brain substance.

Amputations and disarticulations of limbs: There were thirty-two such operations, and all were successful.

Reduction of dislocations: There were five cases, four of the hip and one of the elbow.

*Deaths after operation.*—These numbered twenty, and were as follows:—

Suppurating parovarian cyst	..	..	..	1
Suppurating fibro-myoma	..	..	..	1
Myoma of uterus (26½ lb.)	..	..	..	1
Sarcoma of abdomen	..	..	..	1
Large ovarian tumour with adhesions	..	..	..	1
Acute hæmorrhagic pancreatitis	..	..	..	1
Ectopic gestation	..	..	..	1
Intestinal obstruction	..	..	..	1
Strangulated hernia with gangrene of bowel	..	..	..	1
Hepatic abscess	..	..	..	8
Cerebral abscess	..	..	..	1
Depressed fracture of skull	..	..	..	2

The following is the list of operations performed:—

Herniotomy—	(a) strangulated, oblique inguinal	{ Fergusson's	..	8
		{ Bassini's	..	11
		{ Fergusson's	..	8
	(b) for radical cure	{ Bassini's	..	15
		{ Kocher's	..	4
	(c) strangulated umbilical	..	..	1
	(d) ventral	..	..	1
Total				48
Hydrocele—	(a) Pratt's operation	..	..	23
	(b) injection of mercuric chloride	..	..	5
Total				28
Hæmatocele—	(a) orchectomy	..	..	8
	(b) incision and drainage	..	..	2
Total				10

Pyocoele, orchectomy ..	9
Varicocele, Bennett's operation ..	2
Suppurative phlebitis of cord, orchiectomy for ..	3
Repair of ruptured urethra ..	1
Supra-pubic lithotomy ..	3
Perineal cystotomy ..	2
Supra-pubic cystotomy ..	1
Catheterization under chloroform ..	14
Circumcision—(a) for phimosis ..	42
(b) for paraphimosis ..	8
Total ..	50
Excision of papilloma of penis ..	2
Amputation of penis ..	10
Hæmorrhoids, excision of ..	12
Fissure of anus, division of ..	2
Fistula in ano, division of ..	4
Colotomy for imperforate anus ..	2
Gynaecological operations :—	
(1) Perineorrhaphy ..	2
(2) Colpoclesis ..	2
(3) Hysteropexy ..	1
(4) Salpingo-oophorectomy ..	1
(5) Removal of polypus uteri ..	1
(6) Hysterectomy, abdominal ..	3
(7) Ovarian tumours ..	7
(8) Ovarian sarcoma ..	1
(9) Ectopic gestation ..	1
(10) Abdominal myomectomy ..	2
(11) Repair of vesico-vaginal fistula ..	1
(12) Curetting of uterus ..	8
(13) Repair of cervix uteri ..	1
Excision of carbuncle ..	13
Incision and drainage of abscesses ..	51
Hepatic abscess ..	22
Mastoid abscess ..	1
Cerebral abscess ..	1
Trephining for depressed fracture of skull ..	7
Resection of ribs ..	5
Excision of lymphangiectasis ..	2
Sequestrotomy ..	25
Sinus, division and scraping ..	18
Osteotomy, linear ..	2
Extraction of teeth ..	1
Excision of half of lower jaw ..	2
Incision and drainage of hæmatoma ..	1
Laparotomy—(a) for acute hæmorrhagic pancreatitis ..	1
(b) for intestinal obstruction ..	1
(c) for suppurative peritonitis ..	1
Resection of bowel ..	1
Repair of bowel ..	2
Operation for spina bifida ..	1
Amputation of tonsils ..	3
Excision of glands—(a) neck ..	2
(b) axilla ..	4
(c) groin ..	55
Amputations of limbs—(a) fingers ..	17
(b) forearm ..	4
(c) arm ..	2
(d) leg ..	3
(e) thigh ..	1
Amputation of breast ..	2
Amputation of scrotum ..	4
Disarticulations—(a) at metacarpo-phalangeal joint ..	3
(b) at wrist joint ..	1
(c) at shoulder joint ..	1
Tracheotomy ..	1
Gastrostomy ..	1
Appendicectomy ..	5
Plastic operation for repair of faecal fistula ..	4
Excision of varicose veins ..	2
Suturing of wounds ..	8
Ligature of arteries ..	2
Repair of injured thoracic duct ..	1
Empyema ..	4
Paracentesis thoracis ..	3
Reduction of dislocations—(a) hip ..	4
(b) elbow ..	1
Removal of tumours—(a) non-malignant ..	9
(b) malignant ..	2
(c) cysts ..	10
Excision of keloid ..	4
Enucleation of eye-ball ..	1
Removal of Mule's globe from orbital cavity ..	1
Removal of foreign bodies ..	3

## (2) THE PAYING SECTION, GENERAL HOSPITAL.

The accommodation in the paying section will require extension in the near future.

*Statistics.*—The total number treated during 1905 was 511, and of this number 28 died. The percentage of deaths to the total treated was 5.4. There were 246 medical and 265 surgical cases.

*Staff.*—The professional staff consisted as before of Dr. H. M. Fernando as Physician and myself as Surgeon.

The total number of cases operated on in the paying section was 103, of whom 9 died.

*Nursing.*—At the beginning of the year the staff consisted of Matron Towell and four Sisters. This staff of nurses was frequently found to be insufficient when large numbers of serious cases filled the wards. The locally trained nurses rendered very valuable assistance.

The clerk and steward of the paying section has performed his very responsible and onerous duties to my entire satisfaction. An assistant steward is very necessary, as within the last few years the work has increased enormously.

*Revenue and expenditure.*—The total income during the year amount to Rs. 38,267.14 and the expenditure Rs. 27,820.28.

*Improvements required.*—(1) Electric lights and fans in each room; (2) better beds; (3) a store-room; (4) a mortuary; (5) a single large central gate with a gatekeeper's lodge; (6) day and night gatekeepers.

*Report of H. Marcus Fernando, M.D., B.Sc. (Lond.), First Physician.*

Of the important diseases treated in the pauper section of the hospital during 1905 there were:—

*Enteric fever.*—164 cases with 41 deaths.

*Malarial fever.*—1,406 cases with 39 deaths.

*Dysentery.*—576 cases with 23 deaths.

*Anchylostomiasis.*—755 cases with 91 deaths.

*Pneumonia.*—239 cases with 89 deaths.

2. In the male medical wards No. 2 and 3 (thirty-two beds), which are under my immediate care, and where I have kept a record of the important cases on a uniform system for several years, 946 cases received treatment with 42 deaths. Of these cases, enteric fever numbered 58 with 11 deaths; dysentery 47 with 1 death, which occurred in a case of the chronic form of the disease in a patient who had been neglected for a considerable period; anchylostomiasis 60 cases with no death; and pneumonia 44 cases with 11 deaths.

3. The cases of enteric fever do not show any marked increase. In fact it may be stated that unless some important and far-reaching sanitary measures are undertaken the number of cases which received treatment in 1905 may be looked upon as a normal average. Of these cases at least 50 per cent. come from the outskirts of Colombo, from the villages surrounding the town uncontrolled by any sanitary authority, where surface wells and enteric fever go together. Of late years a considerable amount of discussion has gone on with reference to the dissemination of this disease through dust and flies, but from my experience in Colombo and its neighbourhood I am firmly convinced that whilst flies and dust may account for a small percentage of the cases, polluted water from surface wells used for drinking, and more especially for bathing purposes, is the chief cause of enteric amongst the poorer classes; whilst amongst the well to do, especially amongst the European community in Colombo, infected milk, which is often consumed unboiled with tea, is solely responsible. The milk supply of the town is extremely unsatisfactory. Unregistered dairies occur everywhere which use surface wells in parts of the town where the soil is practically saturated with sewerage. On the other hand a great deal of the town's supply of milk comes from the surrounding villages where enteric is always prevalent.

4. The cases of malarial fever, numbering 1,406 for the year, are really relapses amongst the malarial inhabitants of the town. Unlike in 1904, there was no outbreak in the city itself. These cases are chiefly confined to the coolies who come over from Cochin to work in the Colombo mills and factories and other residents of the town who have contracted the disease elsewhere.

5. *Dysentery.*—During the latter part of this year a considerable outcry was raised in the daily papers about a serious prevalence of this disease in Bambalapitiya in an epidemic form. The number treated in this hospital during 1905 amounted to 576, as against 412 for 1904 and 505 for 1903. These figures do not disclose any serious or abnormal increase. It was further contended by several correspondents that the Bambalapitiya epidemic was due to an increase in flies which were bred in the night soil dépôt at Narahepitiya, but against this theory it must be mentioned that the prevalence of dysentery was not limited to Bambalapitiya, but was quite widespread, and a larger number of cases were admitted into this hospital from Maradana and other wards than from Bambalapitiya.

6. *Anchylostomiasis.*—The numbers treated in Colombo keep on increasing annually. 755 patients suffering from this disease received treatment for the year, as against 734 in the previous year. Almost all these cases come from low-lying and swampy villages outside Colombo, such as the area drained by the Dehiwala flood outlet, the vast tract of low-lying seaboard stretching between Hendala and Kelaniya and extending as far as Negombo. The death-rate (99 for 755 patients) is still very high, due to the fact that these unfortunate patients seek hospital relief when their constitution is completely wrecked. That 60 patients received treatment in my wards without a single death shows conclusively that medical relief if timely administered is attended with excellent results in this disease.

7. During the year there has been a considerable amount of overcrowding in certain sections of the hospital. Whilst the wards dealing with acute disease seem to be sufficient for the requirements of the town, the diarrhoea block, both male and female, continue overcrowded. In 1901 to remedy such a state of affairs, which became intolerable, ninety beds were provided in a temporary building. This addition to the hospital was only sufficient to last the increasing demand for such cases for only three or four years, as now the overcrowding has again attained intolerable limits. During the year eighty to a hundred patients daily had to be provided bedding on the floor. The class of patients who crowd these wards consist mainly of aged imbeciles, coolies worn out with chronic ailments, and incurables—just the class that is provided by Poor Law infirmaries in England. In the absence of such institutions

provided by local rates these unfortunate patients flock to Colombo from all parts of the Island. They are utterly unsuited for a hospital which is especially worked to deal with acute disorders. The only solution in dealing with the problem of overcrowding is to provide elsewhere, outside the gravets, a special institution run on the lines of a Poor Law infirmary or home for incurables. In the vacant Boer Camp at Ragama good accommodation for such an institution already exists, and it is hoped that during this year a refuge for these helpless people will be provided there and thus relieve the Colombo hospital from the present overcrowding, which interferes with its sanitary condition as well as its efficiency.

8. The nursing of the medical wards of the pauper section is under the control of the Rev. Mother Superior and ward Sisters. Their staff has recently been strengthened with an addition of six Sisters. With this additional staff the nursing is highly satisfactory. The Sisters have shown the same devotion to their work during the year which has always characterized their work. Their knowledge of the vernacular languages and the great local experience which some of the senior Sisters have gained by working continuously in the same group of wards for several years enhance greatly the value of their services. On the other hand the staff of attendants is both defective in number and in efficiency to be satisfactory. A larger staff of night attendants is urgently required, and a better class of attendant can only be secured by improving their emoluments at least up to the level which an intelligent domestic servant can command in Colombo.

9. In the paying wards 246 medical cases received treatment in 1905, as against 289 in the previous year. There were 22 deaths. Enteric fever cases numbered 27 with 5 deaths. Considerable improvement in the nursing of these wards has taken place with the introduction of the present staff of Matron and four Sisters, which is borne out by the fact that the popularity of these wards has greatly increased.

10. The provision supply of the paying wards and of the pauper section was far from satisfactory. In the paying wards the quality of milk occasionally, and fish and chicken constantly, was unsatisfactory. The mutton and beef supplied were so bad that hardly a single patient is put on such provisions. I submit that in catering for the paying wards provision should be made for obtaining Australian lamb and mutton from the Cold Storage Installation.

*Report of Allan de Saram, M.B., C.M. (Aberd.), Second Physician.*

DURING the year under review I had, as in the previous year, five wards under my charge, i.e., No. 1. medical phthisis, the two upper wards in the lower block, and the female medical, and from the 21st August to 9th October four other medical wards to look after pending the appointment of a Third Physician.

The type of cases admitted into these wards—except the phthisis ward—were more or less of an acute nature, and necessitated very active treatment and constant attention on the part of the House Physician and myself.

The cases treated were enteric fever, pneumonia, malarial fever, dysentery, and anchylostomiasis. During the months of August, September, October, and November a large number of cases of dysentery were admitted from Colombo and the neighbouring villages, as well as a number of malarial cases from a village near the 9th milepost on the Colombo-Ratnapura road near the Tile Works.

The phthisis cases on the male side continue to be treated in a separate ward, but no provision has yet been made for the females, who are still treated with the others in the general ward.

There has been no decrease in the number of cases of anchylostomiasis treated.

Overcrowding existed to a great extent, which entailed additional labour on the nursing staff.

*Report of R. Pestonjee, L.R.C.P. (Lond.), M.R.C.S. (Eng.), Third Physician.*

I ASSUMED duties as Third Physician of the General Hospital, Colombo, on the 16th October, 1905, and the wards under my charge were the two lower male diarrhoea wards and the female diarrhoea ward with the isolated wards in connection with them.

During the year under review 2,140 males and 753 females were admitted into these wards. There were 372 deaths among the male and 183 among the female patients, the total percentage of mortality being 19.18. This high rate of mortality is due entirely to the class of patients and the condition in which they are brought into hospital. The majority of these are of the destitute class picked up in the streets and brought by the police, or who seek admission of their own accord when they find themselves perfectly helpless. A great many of them have died within twenty-four hours of admission.

The total number of beds assigned to the above wards is 76, but the daily average sick throughout the year has been 110.98, that is, 33 patients more than the accommodation available, with the result that the patients are placed on the verandahs round the wards exposed to all weathers.

I am of opinion that this overcrowding is bound to increase in the near future, and it is very necessary to draw the attention of the proper authorities to relieve this congestion in the hospital by housing elsewhere the pauper class of patients who seek admission into hospital not because they are really ill but being forced by starvation.

The nursing of the patients by the Sisters is very satisfactory, but the ward attendants require constant supervision to keep them up to the mark.

*Report of S. C. Paul, F.R.C.S. (Eng.), M.D., Second Surgeon.*

I TOOK charge of the Second Surgeon's wards on the 13th of April on the departure of Dr. H. G. Thomasz on leave to Europe.

During the year 623 major operations were performed with 22 deaths. The more important operations that were performed by me during the year are as follows.

*Herniotomy.*—I performed thirty operations for the radical cure of inguinal hernia. Of these, six were performed according to Bassini's method. In the remaining twenty-four cases I employed the method known as Ferguson's.

Of the individual cases, one deserves mention; it was a case of a large hernia in which there were 6 feet of small intestine and the cœcum. It took an hour and three-quarters to reduce the contents into the abdominal cavity. The patient made a good recovery.

*Hydrocele.*—Forty-six cases of this affection were operated upon by my modification of Pratt's operation.

*Hæmatocele.*—Out of eleven cases, orchectomy was performed in six cases owing to the disorganization of the testis. The remaining cases were treated either by excision of the sac or extroversion.

*Hæmorrhoids.*—Of fifteen cases, twelve were treated by the usual ligature and excision, and in three cases I employed Whitehead's method with very satisfactory results.

*Abscess of the liver.*—Of eight cases two died, and in both these the liver was riddled with numerous pyæmic abscesses. All the cases were treated by excision of a rib.

*Urethral stricture.*—Of eight cases of impassable urethral strictures, seven were operated on by Cock's perineal section, and in one Wheelhouse's operation was performed.

*Harelip.*—Four cases, of which one was a case of double harelip.

*Vesical calculus.*—Supra-pubic lithotomy was employed in all the three cases, with very good results.

*Epithelioma of the penis.*—Twelve cases; in three Pearce Gould's total excision was employed.

*Ovariectomy.*—Ten cases were operated on, and all were successful.

*Laparotomy.*—Nine cases; of these four were for rupture of the viscera; two cases died, one from extensive laceration of the liver, and another from septic pneumonia following a penetrating wound of the chest; two cases were for intestinal obstruction, due to obstruction by bands. Both cases did well. Two cases were done for septic peritonitis, of which one recovered and one died. One case for malignant growth of the ovary; the tumour was adherent to the structures in the pelvic cavity and the operation had to be abandoned.

*Tracheotomy.*—Three cases, all for malignant growths of the larynx.

*Cystic goitre.*—One case; this was a very large tumour, the capsule of which was undergoing inflammatory changes.

*Hysteropexy* was performed in three cases for prolapse.

*Hysterectomy.*—Abdominal hysterectomy, one case for fibroid which did well; and vaginal hysterectomy, one case for cancer of the cervix.

*Cholecystotomy.*—One case for a large pouch of the gall bladder. As the common bile duct was sclerosed, I had to perform a cholecystenterostomy in this case.

*Freyer's operation for enlarged prostate* was performed in one case. The patient was 65 years old; he regained complete control over his bladder.

*Iliac colotomy* was performed in four cases with one death.

*Excision of tongue.*—One case.

*Trephining.*—Nine cases with three deaths.

*Removal of the superior maxilla.*—Three cases; all did well.

*Removal of the inferior maxilla.*—Three cases; in one case the entire inferior maxilla had to be removed.

*Arthrectomy* for tuberculosis disease of the knee, one case.

*Wards.*—The wards are clean and fairly well looked after by the attendants. I cannot get the attendants to wear a decent uniform when they are on duty. The excuse offered is that they cannot afford to dress neatly.

Small sterilizers are badly wanted in each of the wards. Simple disinfection of the dressing instruments in carbolic lotion is not always satisfactory. A water service should also be laid for the supply of hot and cold sterilized water, with suitable basins. Each ward should also possess sterilizing kettles for dressings. At present the method of dressing cases is unsatisfactory.

I append herewith a list of operations performed by me during the year:—

*Herniotomy:—*

Bassini	..	..	..	6
Fergusson	..	..	..	24

*Hydrocele:—*

Injection with solution of mercury	..	..	..	9
Extroversion of sac	..	..	..	46

*Hæmatocele:—*

Extroversion	..	..	..	2
Excision of tunica	..	..	..	3
Orchectomy	..	..	..	6
Removal of breast for cancer	..	..	..	2

*Hæmorrhoids:—*

Ligature and excision	..	..	..	12
Whitehead's	..	..	..	3

*Excision of rib:—*

Empyæma	..	..	..	7
Liver abscess	..	..	..	8
Caries	..	..	..	7

*Stricture:—*

Dilatation	..	..	..	10
Cock's	..	..	..	7
Wheelhouse's	..	..	..	1
Harelip	..	..	..	4

*Amputation of penis:—*

Of body	..	..	..	9
Pearce Gould's	..	..	..	3

Cystotomy :—				
Supra-pubic	..	..	..	3
Perineal	..	..	..	2
Operation of varicose veins	..	..	..	2
Trephining	..	..	..	9
Amputation :—				
Finger	..	..	..	13
Arm	..	..	..	4
Forearm	..	..	..	2
Leg	..	..	..	3
Thigh	..	..	..	6
Foot	..	..	..	5
Toes	..	..	..	5
Perineorrhaphy	..	..	..	3
Ovariectomy	..	..	..	10
Laparotomy :—				
Rupture of viscera	..	..	..	4
Intestinal obstruction	..	..	..	2
Peritonitis	..	..	..	2
Tumour	..	..	..	1
Tracheotomy	..	..	..	3
Imperforate anus	..	..	..	1
Varicocele (Bennett's operation)	..	..	..	6
Iliac colotomy	..	..	..	4
Hysteropexy	..	..	..	3
Removal of cystic goitre	..	..	..	1
Repair of fistule :—				
Vesico-vaginal	..	..	..	3
Recto-vaginal	..	..	..	1
Hysterectomy :—				
Vaginal	..	..	..	1
Abdominal	..	..	..	1
Excision of tongue (Whitehead's)	..	..	..	1
Cholecystotomy	..	..	..	1
Cholecystenterostomy	..	..	..	1
Prostatectomy (Freyer)	..	..	..	1
Removal of nasal polypi	..	..	..	5
Removal of aural polypi	..	..	..	2
Extraction of teeth	..	..	..	1
Sequestrotomy	..	..	..	22
Incision and drainage of abscess	..	..	..	85
Circumcision	..	..	..	44
Removal of glands	..	..	..	48
Tonsillectomy	..	..	..	14
Operation for scrotal elephantiasis	..	..	..	5
Operation for labial elephantiasis	..	..	..	1
Scraping of sinuses	..	..	..	28
Excision of cysts	..	..	..	19
Curetting of adenoids	..	..	..	4
Curetting for endometritis	..	..	..	5
Setting of fractures	..	..	..	5
Setting of dislocations	..	..	..	2
Removal of non-malignant growths	..	..	..	15
Removal of malignant growths	..	..	..	5
Removal of maxilla	..	..	..	3
Removal of mandible	..	..	..	3
Scraping of ulcers	..	..	..	16
Removal of foreign bodies	..	..	..	5
Arthrectomy	..	..	..	1
Cauterization of nostrils	..	..	..	6
Suturing of wounds	..	..	..	6

(9) REPORT of W. H. de Silva, M.B., F.R.C.S.E., Surgeon in charge, Grenier Memorial Eye, Ear, and Throat Infirmary, Victoria Memorial Eye Hospital.

*Staff.*—In April Dr. H. G. Thomasz left the Island temporarily, and his place as Surgeon to the Throat Department is being filled by Dr. S. C. Paul.

Miss Moreira, who was apothecary for five years, left this in December, and her place is taken by Miss Siebel from the Lady Havelock Hospital.

The Out-patient Department (Grenier Memorial) was shifted to the present building in the Victoria Memorial Hospital in August of last year.

*Outdoor patients.*—Number of outdoor patients treated during the year 9,295, as against 7,848 in 1904, showing an increase of 1,447 for the year.

The patients have been distributed as follows :—

Eye cases	..	..	..	8,854
Ear cases	..	..	..	246
Throat cases	..	..	..	195

Total .. 9,295

*Diseases treated during the year include—*

Abrasion	1	Hyperæmia of iris	5
Abscess of lid	22	Do. with degeneration	1
Abscess, lachrymal	55	Hypertrophy of lachrymal gland	2
Anisometropia	1	Hypermetropia	132
Adenocoele	1	Do. with presbyopia	31
Astigmatism, hm.	8	Insect sting	1
Do. myopic	13	Injury to lid	12
Do. compound	7	Do. to eye	19
Do. compound and hm.	1	Irido cyclitis	3
Asthenopia, muscular	1	Iritis	58
Atrophy, optic	23	Do. traumatic	2
Blepharospasm	1	Do. rheumatic	10
Burn of cornea	1	Do. rheumatic, chronic	6
Do. with lime	3	Do. syphilitic	1
Do. with sulphuric acid	1	Do. leprotic	3
Do. of eye	2	Keratitis	22
Do. of conjunctiva	1	Do. diffusa	1
Blepharitis	62	Do. superficial	23
Do. ulcerosa	28	Do. traumatic	3
Do. squamosa	3	Do. ulcerosa	168
Coloboma iridis	3	Do. phlyctenular	42
Cyst of lachrymal gland	1	Do. interstitial	8
Do. of caruncle	1	Do. striata	1
Do. of cornea	1	Do. punctate	3
Do. Meibomian	37	Do. leprotic	1
Do. of ocular conjunctiva	1	Leucoma	72
Do. of lid	3	Do. adherent	9
Contusion of lid	5	Lithiasis of conjunctiva	1
Do. of eye	1	Macula cornea	15
Contusio bulbi	2	Micotic disease of cornea	1
Cataract	250	Microphthalmos	4
Do. congenital	2	Micro cornea	1
Do. cortical	1	Myopia	43
Do. traumatic	7	Do. with presbyopia	1
Do. incipient	1	Muscae volitans	8
Do. anterior polar	3	Nebula of cornea	2
Do. posterior polar	4	Neuralgia of eye	3
Do. with leucoma	1	Nyctalopia	1
Do. (glaucoma)	4	Œdema of lid	2
Do. diabetic	2	Optic neuritis	11
Do. lamellar	1	Opaque nerve fibres	1
Choked disc	1	Oclusio pupilli	5
Chemosis conjunctiva	1	Obstruction, lachrymal	11
Cancer of caruncle	1	Obscuration of vitreous	8
Choroiditis	4	Ophthalmia neonatorum	13
Conjunctival hæmorrhage	11	Do. gonorrhœal	6
Conjunctivitis	371	Do. catarrhal, acute	408
Do. phlyctenular	104	Do. catarrhal, chronic	27
Do. acute catarrhal	77	Do. granular	11
Do. granular	17	Do. sympathetic	2
Do. follicular	23	Ophthalmoplegia externa	1
Do. lymphatic	1	Paralysis, facial	8
Do. traumatic	4	Panophthalmitis	27
Do. chronic catarrhal	9	Pfinguecula	6
Dacryo cystitis	8	Presbyopia	113
Degeneration of cataract	1	Polypoid of lid	3
Do. of leucoma	1	Polypoid growth	8
Distichiasis	1	Pannus	1
Detachment of retina	2	Pterygium	48
Disease, fungoid, of cornea	6	Phthisis bulbi	22
Dislocation of lens	4	Scleritis	5
Eczema of lids	2	Do. with uveitis	1
Epiphora	2	Strabismus	3
Episcleritis	1	Do. divergent	1
Exophthalmic goitre	1	Staphyloma	12
Fistula lachrymalis	1	Do. anterior	14
Foreign body in cornea	99	Do. globular	1
Do. in eye	13	Do. ciliary	9
Do. in conjunctiva	2	Do. scleral	1
Glaucoma, chronic	8	Synechia, anterior	5
Do. sub-acute	2	Do. posterior	9
Do. secondary	3	Do. ring	2
Glio sarcoma	1	Trachoma	31
Growth of caruncle, polypoid	1	Tinea tarsi	1
Do. of lid	2	Xerosis of conjunctiva	15
Do. in eye	1	Zanthelasma	2
Do. malignant	2	Nose and throat cases	98
Gerontoxon	1	Ear cases	160
Herpes ophthalmia	2		
Hernia iris	8		
Hordeolum	6		
		Total	3,203

## Operations (Outdoor Patients).

Abscess of lid	..	3	Hordeolum, incision for	..	1
Do. lachrymal	..	4	Iritis, for	..	1
Cyst, Meibomian	..	24	Keratitis ulcer (cauterization)	..	5
Do. of caruncle	..	2	Obstruction, lachrymal (probing)	..	38
Cauterization of cornea	..	1	Polypus of lid	..	2
Dacryocystitis	..	2	Wound, lacerated, of lid	..	1
Excision of iris	..	1	Do. contused, of lid	..	2
Foreign body in cornea	..	10			
Do. in conjunctiva	..	1			
Growth of caruncle	..	3			
Do. of lid	..	8			
			Total	..	109

*Collections.*—The collections for the Eye, Ear, and Throat Departments have amounted to Rs. 200.48.

*Indoor patients.*—Number treated in 1905, 629; in 1904, 464.

## Operations (Indoor Patients.)

Cataract (extraction)	..	28	Needling of lens	..	12
Cyst, Meibomian	..	1	Needling of capsule	..	1
Do. conjunctiva	..	1	Panophthalmus, scraping of cornea	..	2
Do. below eye	..	1	Pterygium	..	7
Enucleation of eye-ball	..	6	Polypus of lid (excised)	..	1
Epithelioma	..	1	Staphyloma (abscision)	..	3
Iridectomy	..	10	Removal of lachrymal sac	..	1
Keratitis ulcerosa, cauterization	..	3	Ulcer of lid	..	1

## (10) REPORT of J. B. Spence, M.A., M.B., Medical Superintendent, Lunatic Asylum, Colombo.

*A. Asylum.*—At the beginning of the year 537 patients (345 males, 192 females) remained under treatment. During 1905 171 persons (112 males, 59 females) were admitted. The total number treated was therefore 708 (457 males, 251 females).

The number discharged during the year was 71 (50 males, 21 females).

Sixty-six patients (50 males, 16 females) died during 1905.

The number remaining at the end of the year was 571 (357 males, 214 females), an increase of 34 (12 males, 22 females) during its course.

The average daily number of patients was 560.39 (males 352.55, females 207.83), an increase of 44.05 (increase in males 19.57, in females 24.47). The total increase is fully 50 per cent. greater than that of the previous year; in the female division it is nearly double.

The largest number resident on any one day was 577; the largest number of males simultaneously resident was 361, and of females 216. This is an increase of 10 in the maximum number of males, of 22 in that of females, over the corresponding numbers for 1904.

The smallest number of males resident at one time was 344, of females 192, and of both together 536. These figures occurred very early in the year, and the numbers have gone on increasing throughout its course.

*B. House of Observation.*—Eight patients (5 males, 3 females) remained at the end of 1904. During 1905 151 persons (110 males, 41 females) were admitted. The total number treated was thus 159 (115 males, 44 females). Of these, 74 (43 males, 31 females) were transferred to the Asylum, and 75 (65 males, 10 females) were discharged without passing into the Asylum.

One patient (a male) died.

The number remaining at the end of the year was therefore 9 (6 males, 3 females).

The average daily number in the House of Observation was 10.09 (average for males 6.99, for females 3.10).

The maximum number of males resident at one time was 13, of females 8, of both together 21 (the maxima chanced to coincide); while the minima were male 1, female 0, both together 3.

From a legal point of view the Asylum and House of Observation are quite distinct, but so far as buildings and management are concerned they are united, and it may be convenient to record the numbers for the two combined. The following table shows these numbers:—

		Males.	Females.	Total.
Remained	..	350	195	545
Admitted	..	185	69	254
Total treated	..	535	264	799
Discharged	..	121	31	152
Died	..	51	16	67
Remaining	..	363	217	580

The numbers given are those of different persons treated, or at least of distinct admissions and discharges. In a few instances a patient was sent to the House of Observation more than once during the year, an interval being interposed between his discharge and his re-admission; in such cases the person is counted more than once, but this is not done where the discharge and re-admission are merely technical, as is often the case in the House of Observation.

The average daily number of patients in the whole institution was 570.48 (average for males 359.54, for females 210.93).

The greatest numbers simultaneously resident were males 366, females 223, both together 584. The increments as compared with last year's numbers were males 6, females 27, both together 29.

The smallest numbers resident at one time were males 347, females 195, together 544. These numbers represent an increase of 26 in the case of males, of 20 in the case of females, and of 44 when both are taken together, over the numbers for 1904.

During the quinquennium 1901–1905 the maximum number of males resident at one time has risen from 318 to 366, that of females from 191 to 223. In the same period the average daily number of males has increased from 309·23 to 359·54, that of females from 177·66 to 210·93, and the total average from 486·89 to 570·48. The average yearly increase in males for the period is about 10, but the increase last year was about 20; in the case of females the average is about 6½, while last year's increase was about 25. Some years ago I remarked in my report on the very small proportion of lunatics under care in Ceylon as compared with the proportion prevailing in the United Kingdom. I am far from supposing that the proportion of the insane to the general population is anything like as great in Ceylon as it is in Great Britain, but the real discrepancy is probably not as great as the apparent one, and if so it seems likely that as communications improve and the old order passes away the number of insane persons retained at home will gradually diminish, and the number in the Asylum correspondingly increase, and therefore I think it would be unwise to regard the rapid increase of recent years as being likely to be merely temporary.

*Admissions (Asylum).*—The total number of admissions (171) was the highest on record, the previous maximum being 165 in 1902; both the male and the female admissions exceeded those of any former year. The proportion of serious cases was large: among the number there were 8 cases of epileptic insanity and 2 of general paralysis of the insane (both males), 100 cases (59 males and 41 females) were classed under "mania," 39 (28 males 11 females) under melancholia, and so many as 19 (13 males and 6 females) as "not insane." This appears to point to some abuse of the legal procedure for the confinement of persons as insane.

The ratio of admissions of insane persons to asylums in England and Wales in 1903 was 6·66 per 10,000 of the general population; in 1902 it was 6·93. Taking 6·8 as an approximate mean of these figures, and estimating the population of Ceylon at 3,800,000 (an under-estimate I believe), the admissions here at that ratio would be about 2,600 instead of 171.

*Discharges (Asylum).*—Of the 71 cases (50 males, 21 females) discharged, 40 (27 males and 13 females) were "recovered," 12 (8 males and 4 females) were "relieved," and 19 (15 males and 4 females) were "not improved." The latter number is unduly high in consequence of the excessive proportion of "not insane" cases admitted; several of these had been in the Asylum at some former time, and to them the rule "once insane, always insane" had apparently been applied.

Calculated on the number of admissions the recovery rate was 24·10 per cent. for males, 22·03 per cent. for females, and 23·39 per cent. for both together. This is unprecedentedly low, the previous lowest aggregate rate being 25·17 per cent. in 1895, while the average percentage for the previous seventeen years was 45·49. As in the case elsewhere, the recovery rate here has varied in the most eccentric way, the extremes being 81·41 per cent. in 1896 and 23·39 per cent. in 1905. The overcrowded state of the wards has probably influenced the result to some extent, but the character of the cases admitted has, I think, been a more important factor.

A table showing the periods of residence of those discharged recovered is annexed to this report. Five were discharged within three months; 19 within six months; 11 had been here more than a year. Two of these were criminal patients who were discharged at the expiry of their terms of imprisonment after being here for many years; in them the process of amelioration had been very slow, and it did not appear advisable to have them removed back to jail; on the other hand their mental condition seemed to justify their discharge, and the result tends to confirm this opinion, as they have both been absent for some months and I have heard no more of them.

I have already submitted a table showing the forms of mental disorder in those who were discharged, and I have to ask that it may be regarded as an annexure to this report.

*Deaths (Asylum).*—The death-rate (50 males, 16 females, total 66) was high. Calculated on the total number treated the rate per cent. was 9·32 (10·94 per cent. for males and 6·37 per cent. for females). Calculated on the average daily number resident, the percentage was 11·77 (14·18 per cent. for males and 7·69 per cent. for females).

The number of deaths due solely or chiefly to tubercular disease was 11 (all males), i.e., exactly one-sixth of the total number. In three more cases tubercular disease had contributed to the fatal result, and probably some of the cases of intestinal ulceration not classed under this head had a tubercular origin. It is significant that the mortality from this cause was confined to the male division, in which the evil effects of overcrowding have been most felt.

There were three deaths from general paralysis of the insane, and sixteen others resulted solely or chiefly from some other form of brain disease. In ten other cases degenerative changes in the brain were present and were contributory causes of death.

Heart disease was the chief cause of death in six cases, and a contributory cause in seven more.

Dysentery and other intestinal diseases led to 19 deaths, and in six other cases were combined with other causes. Liver affections were present in nine cases, but constituted the chief cause of death in only one case.

Six deaths were due to old age.

I annex a table showing the causes of death and the probable ages of the persons who died. In this country trustworthy information regarding the age of a patient is very seldom obtainable, and the ages given are generally conjectural. The number given in the table exceeds the actual number of deaths, because when more than one cause seemed to have been operative the case is entered under each disease. Column 1 is reserved for the chief factor in each case, however, and the sum of the cases entered in that column is the total number of deaths; the secondary causes are entered in column 2.

*Admissions (House of Observation).*—244 cases (167 males and 77 females) and 151 persons (110 males and 41 females) were admitted to the House of Observation in 1905; three males out of the 151 account for seven admissions owing to their having been admitted more than once at different periods of the year. For technical reasons a case in the House of Observation has to be discharged at the expiry of the period of remand, and has to be reckoned again on returning to that institution, though his absence may have extended only to an hour or two, hence the discrepancy between the number of cases and that of persons.

Out of the 159 patients under treatment in the House of Observation only 74 (43 males and 31 females) passed into the Asylum. One patient (a male) died, and 9 (6 males, 3 females) were left at

the end of the year. Consequently there were 75 persons (65 males and 10 females) who were discharged as not insane, or at least as not requiring Asylum treatment. This supplies another illustration of the fact, on which I have commented before, that some judicial officers betray a somewhat unreasonable readiness to accept suggestions as to the insanity of persons brought before them, and to remand such persons to the House of Observation, although the evidence of mental aberration may be of a very meagre description. Neither the Lunacy Ordinance nor the Criminal Procedure Code appear to me to contemplate the habitual relegation to the House of Observation of cases in which there is only a suggestion of insanity, and there are obvious objections to the adoption of such a cause—objections which are intensified in existing circumstances, in which the person remanded has to go to an institution already greatly overcrowded with really insane people. In passing I may allude also to the unnecessary labour thus imposed on the medical staff here; each case involves careful examination and the attendance of a Medical Officer at court, it may be at a great distance, and thus much time is wasted. I do not suggest that in all the 75 cases I have referred to a remand to the House of Observation was unnecessary, but I think it was so in a considerable proportion of them.

*General administration: Escapes.*—One patient, a prisoner sent here from Welikada jail, succeeded in effecting his escape and in remaining away for about three weeks. In my opinion he was not insane, but was merely a malingerer who had shammed insanity in order to obtain a transfer to the Asylum, from which he believed he could escape more easily than from jail. The circumstances of his escape pointed to collusion on the part of his attendant, who was consequently dismissed. Special instructions had been given to the attendants who were in charge of this prisoner, as I believed from the first that he intended to attempt to escape, and it was clear the attendant referred to had disobeyed orders, whatever may have been his reason for doing so. He had been here for a long time and his previous record was good. The fugitive managed to make his way to the neighbourhood of his home, and his friends appear to have assisted to conceal him there.

*Suicidal attempts.*—No case of suicide occurred, but at least one serious attempt was made by a female patient who had not previously betrayed strong suicidal tendencies. During the night she succeeded in passing unobserved from the dormitory in which she was, although a night attendant was on duty there, and hanged herself by her cloth attached to the cross bar of a window railing in the verandah. She was observed in time however, was promptly cut down, and resuscitated without difficulty and sustained no real injury.

Several other patients displayed suicidal inclinations and were the subjects of special precautions.

*Accommodation.*—In previous reports I have repeatedly commented on the deficiency of house room for the patients here, and last year I dwelt specially on this. I need not repeat these remarks; I shall only say that as there were 43 more patients to be provided for at the end of the year than there were at the beginning, while the space available remained the same, the deficiency has waxed more and more serious. The necessity for ample space in the treatment of the insane is becoming clearer, and is more fully recognized by authorities on the subject day by day. The estimated accommodation here for males (patients and attendants together) is for about 225, and for females for about 153, while about 400 males and 240 females have now to be provided for, and the number is steadily increasing. Any one familiar with Asylum administration, or with the administration of any large institution in which there are many sick people, will perceive how greatly such a condition of affairs must militate against the prospects of the occupants, and how much it must add to the difficulty of management, how serious a risk it really involves.

A country, like an individual, has of course a perfect right to decide for itself how much (if anything) it will expend upon charity, and upon the forms of insurance represented by jails, asylums, &c., but it appears inconsistent to compel people by law to go to a place in which there is no room for them, and if further expenditure on lunacy is not conveniently practicable at present, the alternative would appear to be a suspension of the lunacy law for the time being, or at any rate a restriction of its field of operation.

Much misapprehension seems still to exist in the public mind regarding the comparative weight of the burden of lunacy in Ceylon. Some years ago I tried to demonstrate how relatively light the burden was, but so far as I know my efforts achieved nothing. I am even less sanguine now than I was then, but I think it may be worth while to point out once more how advantageously the taxpayer of Ceylon is situated in this respect as compared with his fellows elsewhere. Let us take Ireland, which is not a great deal larger than Ceylon, with a population of only about half a million more, and which is said to be comparatively poor. At the close of 1903 there were 22,794 insane patients under care in Ireland, of whom I believe about 21,660 were supported by the rates. I have not the figures for later years, but if the former rate of increase were maintained the number of rate-paid patients must now be nearly 23,000. Deducting one-seventh as representing approximately the difference of population of Ireland and Ceylon, the proportional number for this Island would be in round numbers about 20,000, instead of 565 (patients who pay all or nearly all the cost of their maintenance are not included), i.e., about thirty-five times as many. But this is not all. The total cost of maintenance of this Asylum in 1905 was approximately Rs. 96,000, an average of about 46 cents per patient per day. I believe the nett average cost of maintenance of a rate-paid lunatic in Ireland for a year may fairly be taken as about £24, though this is probably under rather than over the real amount. Consequently the cost per head here is less than half the cost in Ireland, and the taxpayer is in respect of expenditure on maintenance of lunatics about seventy times as well off in Ceylon as he is in Ireland. The expenditure on the insane in Ireland in 1903-1904 was over £547,000 for an average of 17,930, i.e., apparently for patients in district asylums alone, apart from those in workhouses, &c. Deducting one-seventh for the difference in population, the proportional sum for Ceylon would be about £469,000, or the equivalent in rupees of over Rs. 7,000,000.

The contrast in the case of England and Scotland is slightly, but only slightly, less startling.

I trust I shall not be misunderstood as criticizing the scale of expenditure on lunacy in Ceylon; my only object is to make it clear that in comparison with other countries Ceylon is not heavily burdened so far as lunacy is concerned. Unfortunately I have not sufficiently detailed information to enable me to institute a comparison between Ceylon and other tropical countries, but so far as I know such a comparison would show an advantage on her side, though not so great an advantage as in the case of Ireland.

Towards the end of the year operations were begun which will ultimately have the effect of increasing slightly the dormitory accommodation for quiet, easily managed male patients. New houses for the overseers are being built, but some considerable time must elapse before the increased accommodation indirectly rendered available will be ready for occupation, and even then only a minor part of the existing difficulty will be removed. By far the most serious problem just now is the disposal of excited patients, both male and female, for whom the accommodation is quite insufficient; the space acquired through the operations I have referred to will not help us at all in this respect, nor will it extend the grounds, which are far too small for the number of patients now here. Even for the number nominally provided for, the buildings, ground space, and arrangements generally were on a rather restricted scale; they are all very inadequate for a population about 70 per cent. greater.

*Expenditure; Maintenance.*—The amounts voted under the headings "Diets and Extras," "Contingencies," and "Wages" were exceeded, while there were savings on the votes for "Equipment" and "Funerals." The increase in the Asylum population partly accounts for the excess under the first three heads, but in the case of "Diets and Extras," in respect of which the greatest excess occurred, the original vote was insufficient, being Rs. 6,175 less than the actual expenditure under that head in 1904, when the number of patients was considerably less. As the diets are fixed as regards quantity, and the articles have to be obtained at contract prices, the expenditure is practically governed by the number to be provided for.

*Changes in the staff.*—A second Assistant Medical Officer, long greatly needed, was appointed in January, 1905, the appointment being conferred on Mr. R. C. Aldons, Licentiate of the Ceylon Medical College.

In August Mr. K. J. de Silva, who had been stationed here since January, 1900, and had discharged the duties of Assistant Medical Officer with much ability and success, was transferred to an outstation, and Mr J. Homer, L.M.C., was appointed in his place. He resigned in November, and after an interval of about three weeks a lady, Miss C. F. Vandort, L.M.S., was appointed temporarily as Assistant Medical Officer (second).

In the course of the year Mr. S. V. Francis was appointed, on trial, to the overseership, which had been vacant for a considerable time.

*Nurses.*—The usual staff of nurses here is two, but one of the appointments was vacant till September and was filled by the appointment of Nurse N. C. Wittebron.

*Attendants.*—Two male attendants were dismissed, one for a breach of discipline, the other for his conduct in connection with the escape referred to elsewhere in this report. Three female attendants were dismissed, two for breaches of discipline and one for maltreatment of a patient (burning her hand with hot water; the patient was not seriously injured). Four male and three female attendants resigned; of these, two males and two females had been here only a short time, and did not find the work congenial.

I have again to bear testimony to the excellent work done by the attendants generally, and specially to that done by a few of them in very trying circumstances. The overcrowding of the wards adds greatly to the difficulty of their task in many cases.

In conclusion I desire to record my sense of obligation to you and to the Official Visitors for the kindness and support you and they have always extended to me.

I annex a tabular statement of the funds at credit of the Industrial Department, which continues to be a great help in the working of the institution.

[ For Tables 1 and 2 see next page.]

3.—Table showing the Length of Residence of those discharged recovered and of those who died during 1905 in the Asylum.

*Discharged recovered.*

	Under 3 months.	From 3 to 6 months.	From 6 to 9 months.	From 9 to 12 months.	From 1 year to 2 years.	From 2 to 3 years.	From 3 to 4 years.	From 4 to 5 years.	From 5 to 10 years.	From 10 to 15 years.	From 15 to 20 years.	Total.
Males ...	4	10	1	3	4	1	1	1	—	1	1	27
Females ...	1	4	6	—	1	—	1	—	—	—	—	13
Total ...	5	14	7	3	5	1	2	1	—	1	1	40

*Died.*

	Under 3 months.	From 3 to 6 months.	From 6 to 9 months.	From 9 to 12 months.	From 1 year to 2 years.	From 2 to 3 years.	From 3 to 4 years.	From 4 to 5 years.	From 5 to 10 years.	From 10 to 15 years.	From 15 to 20 years.	Total.
Males ...	5	5	3	5	6	5	2	5	8	2	4	50
Females ...	1	1	1	2	4	3	—	—	3	1	—	16
Total ...	6	6	4	7	10	8	2	5	11	3	4	66

Mental Disorder.	Remained.		Admitted.		Total treated.				Discharged.						Died.		Remaining.		Remaining re-classified.										
									Recovered.		Relieved.		Not improved.							Total.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.													
	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.												
Mania	151	82	233	59	41	100	210	123	333	20	12	32	5	—	5	—	25	12	37	22	7	29	163	104	267	103	68	171	
Melancholia	115	64	179	28	11	39	143	75	218	7	1	8	3	1	4	1	11	2	13	18	7	25	114	66	180	72	39	111	
Dementia	53	32	85	1	—	1	54	32	86	—	—	—	—	—	—	—	—	—	—	3	1	4	51	31	82	152	95	247	
Idiocy and imbecility	4	7	11	1	—	1	5	7	12	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	5	9	4	3	
General paralysis	1	—	1	2	—	2	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	7	
Epileptic insanity	14	7	21	7	1	8	21	8	29	—	—	—	—	1	1	—	—	1	1	3	1	4	18	6	24	20	7	27	
Alternating insanity	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	1	
Stupor	—	—	—	1	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1	
Not insane	6	—	6	13	6	19	19	6	25	—	—	—	—	—	—	—	14	4	18	—	—	—	5	2	7	4	2	6	
Total	345	192	537	112	59	171	457	251	708	27	13	40	8	4	12	15	4	19	50	21	71	50	16	337	214	571	357	214	571

2.—Table showing the Causes of Death and the Ages of those who Died in the Asylum and House of Observation in 1905.

	Under 20.		20—30.		30—40.		40—50.		50—60.		60—70.		70 and over.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
General paralysis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other brain diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Heart disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chronic pneumonic phthisis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other lung diseases (not tubercular)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tubercular diseases of intestine, &c.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery and intestinal diseases (not tubercular)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liver disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kidney diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Old age	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

\* Includes one male in the House of Observation.

## 4.—Statement of Account of the Industrial Department, Lunatic Asylum, for 1905.

Balance on 31st December, 1904 :—		Rs. c.	Rs. c.
Cost of 4 per cent. Inscribed Stock (Rs. 8,480)	..	8,629 85	
Do. do. (Rs. 4,000)	..	4,400 0	
			13,029 85
Fixed deposit, Hong Kong and Shanghai Bank	..	—	2,106 21
Current account, Hong Kong and Shanghai Bank	..	4,186 81	
Cash in hand	..	63 55	
			4,250 36
			19,386 42
Receipts in 1905 :—		Rs. c.	Rs. c.
Interest on current account, Hong Kong and Shanghai Bank	..	75 5	
Interest on fixed deposit, Hong Kong and Shanghai Bank	..	84 24	
Dividend on Government Stock	..	499 20	
Sale of produce, &c.	..	1,179 5	
			1,837 54
Expenditure in 1905 :—			
General current expenditure	..	1,448 85	
Balance profit	..	—	388 69
			19,775 11
		Total Funds—Rs.	19,775 11
Invested as follows :—		Rs. c.	Rs. c.
In 4 per cent. Ceylon Government Stock	..	8,629 85	
Do. do.	..	4,400 0	
			13,029 85
Fixed deposit, Hong Kong and Shanghai Bank	..	—	3,000 0
Current account, Hong Kong and Shanghai Bank	..	3,681 30	
Cash in hand	..	63 96	
			3,745 26
		Total—Rs.	19,775 11

## (11) REPORT of W. H. Meier, L.M.S. (Ceylon), Medical Superintendent, Leper Asylum, Hendala.

## 1.—Statistics.

THE general statistics for the year are as follows :—

	Males.	Females.	Total
Remained on 1st January, 1905	256	72	328
Admitted during the year	145	20	165
Total treated..	401	92	493
Discharged	94	8	102
Died	62	12	74
Remained on 31st December, 1905	245	72	317

The total number admitted was 165, 10 in excess of the previous year. The largest number resident was 330, the lowest 319, and the daily average males 250.23, females 71.79, total 322.02. The average amount of cubic space was 994.77 cubic feet; the superficial area 64.39 square feet. The number of beds available for males 278, females 54, total 332. The female wards continued to be overcrowded. The male wards had sufficient accommodation for admissions without overcrowding. The extension of the female section of the Asylum by the inclusion of No. 1 ward is under consideration, and is in view of its present overcrowded state a pressing necessity.

*Admissions.*—The number admitted was 165 (145 males and 20 females), being 10 in excess of the previous year; 91 were new admissions and 74 re-admissions. Of the former, 22 were of the tubercular, 32 of the anæsthetic, and 37 of the mixed form of leprosy. The Western Province, including Colombo and Colombo District, contributed the largest number of new admissions, viz., 49, Southern Province 22, Central Province 5, Province of Uva 1, Province of Sabaragamuwa 3, North-Central and North-Western Provinces 1 each, and South India 9. Of the admissions, the number of new cases was 14 less than the previous year, the duration of the disease previous to admission being from six months to fifteen years. Although the Leper Ordinance has been in operation since 1902, the number of new admissions has not sensibly increased; but there is every reason to infer that a great many cases are still unreported and at large, especially in the town of Colombo. More police and Municipal supervision is necessary for the detection and removal of lepers to the Asylum, especially of vagrant lepers in the advanced stage of the disease, who are seen begging about the streets, frequenting bazaars, and using public conveyances, and are a menace to public health.

*Discharges.*—One hundred and two were discharged, 14 of whom were allowed home isolation, 13 were granted temporary leave sanctioned by Government, and 65 absconded, of whom 19 are still at large. There are no effective means of preventing patients from absconding, the Asylum having an open river frontage and a low wall easily surmounted.

The only punishment for absconding is stoppage of their betel supply for three months and refusal of leave. Five Malabar immigrants who were desirous of returning to India were discharged and sent to their homes at the expense of Government. Five others were discharged under special circumstances by authority of Government.

*Deaths.*—There were 74 deaths during the year, the percentage to total treated being 15.01, an increase on the death-rate of 1.95, the mortality being chiefly due to causes already referred to in my previous annual reports. Some of the older inmates, who had been in the Asylum since 1886, succumbed during the year in the advanced stage of the disease.

The treatment of leprosy with Dr. Rost's "leprolin" was discontinued, the supply being exhausted and the continuance of the manufacture and distribution of the serum withheld at the instance of the Government of India till further experiments were made with it at Kasauli to establish its reliability and therapeutical value in the treatment of the disease. It has since been ascertained that the serum did not admit of the expectations formed by Dr. Rost.

### 2.—Administration.

There were no changes in the administration of the Asylum; the staff remained the same as in the previous year, and continued to do their work efficiently. In view, however, of the further extension of the institution and the increasing number of patients admitted under the Leper Ordinance entailing more work and supervision, I would venture to suggest the necessity of appointing an Assistant to the Superintendent to help him in the work and administration of such an extensive and important institution. The Asylum, which has been considerably extended since I had charge for nearly a quarter of a century, compares favourably with similar institutions in other Colonies, and is considered as the largest in the East, "by far the best maintained," and "as one of the model charities in the world."

### 3.—Buildings.

There were no structural additions to the Asylum during the year. A new ward of fifty beds and four cells for the confinement of refractory inmates were sanctioned, and will be completed during the ensuing year.

### 4.—Water Supply, &c.

The water supply, dietary, and sanitation were in every respect satisfactory.

The Christmas gratuity to the patients from Government at 50 cents each, a handkerchief each, and camboys to the females were distributed on Christmas Eve.

### GARDEN FUND.

The receipts from garden produce, Government allowance, and expenditure on betel, &c, during the year were as follows:—

	Rs.	c.	Rs.	c.
Balance on January 1, 1905 .. ..			2,257	32
Receipts from garden during the year .. ..	1,173	49		
Government allowance .. ..	881	49		
			2,054	98
			4,312	30
Expenditure on betel, &c. .. ..			1,767	38
			2,544	92
Deposited in Bank of Madras .. ..			2,000	0
			544	92
Balance in hand—Rs.				

I take this opportunity of thanking the public for their benefactions to the patients of the Asylum, and the editors of the Colombo papers for their daily issues contributed to the Asylum Library during the year.

### (12.) REPORT of Alice de Boer, L.R.C.P. (Edin.), Medical Officer in charge of Lady Havelock Hospital for Women and Children.

Mrs. Fysh, Medical Officer, Lady Havelock Hospital, went on leave on 13th October, 1905, and I assumed duties as Acting Medical Officer on that date.

The total number of patients treated during the year was 1,030, showing a decrease of 129. But the average daily sick was higher than last year, being 32.22 as compared with 31.83. Of this, 301 were children up to twelve years of age.

The number of paying patients was slightly increased, being 20 as against 18 in 1904. Of these 11 were Europeans, 6 Burghers, and 3 Sinhalese.

There were 142 cases of diseases peculiar to women.

There were 60 cases of dysentery with 5 deaths; last year there were 46 cases with 5 deaths.

Out of 38 cases of enteric fever there were 9 deaths, as compared with 51 cases in 1904 with 16 deaths.

There was a marked increase in the number of cases of malarial fever during May and June.

The total death-rate was 6.99. It was 6.98 in 1904 and 9.76 in 1903.

There were 93 operations performed. Of these, 64 were major. There were three deaths. One was that of an infant with imperforate anus, who died of shock shortly after the operation; the second was that of a child with tetanus due to a septic wound; the third was a case of retained placenta with puerperal septicæmia.

There were four laparatomies, two for ectopic gestation, one for pyo-salpinx, and one for appendicitis. All made good recoveries. The operation for appendicitis was the second performed in this institution, the first having been done in May, 1898.

There were four osteotomies, two for bow-leg and two for knock-knee, which proved very successful.

*Nursing staff and Training School.*—Since August the nursing staff has been complete, viz., matron, assistant matron, two charge nurses, and six pupil nurses.

On 16th August Miss Newman took up duties as assistant matron, and Nurse Anderson, who had been doing the work, resumed her post as senior charge nurse.

Three candidates have been accepted during the year. Two have been appointed pupil nurses and are doing well. The other candidate, whose work was not satisfactory, resigned. Two pupil nurses were sent here from the Civil Hospital, Kandy. In March, 1905, four pupil nurses presented themselves for examination; one, a Sinhalese nurse, failed to gain a certificate.

There has been some sickness among the nurses. Three had to go on sick leave.

(13) REPORT of M. Sinnetamby, M.D. (Brux.), F.R.C.S.E., Medical Superintendent,  
De Soysa Lying-in Home.

THE total number of patients treated during the year was 877, as against 776 in 1904. Of the total number treated, 830 were discharged cured, 9 were removed by relatives, 9 transferred to the General Hospital for treatment of intercurrent diseases, 13 died, and 16 were remaining at the end of the year. The percentage of deaths to total treated was 1.48, as against 1.30 in 1904. Of the 13 deaths recorded, 5 were due to accident of childbirth, 3 to puerperal causes, and 5 to non-puerperal causes (*vide* table below):—

Table I.

Accidents of childbirth	{	Puerperal eclampsia	..	..	2
		Toxæmia of pregnancy	..	..	1
		Pulmonary embolism	..	..	1
		Retained placenta	..	..	1
Puerperal causes	..	Puerperal sepsis	..	..	3
Non-puerperal causes	{	Dochmii duodenale	..	..	3
		Meningitis	..	..	1
		Pneumonia	..	..	1
Total					13

The cases of puerperal eclampsia, retained placenta, and dochmii duodenale that proved fatal were admitted in a moribund state.

2. Four cases of eclampsia were admitted during the year, of which two proved fatal; of these, one case presented symptoms more or less resembling those of acute yellow atrophy with marked jaundice and leucine and tyrocine in the urine. Induction of labour probably contributed to the favourable termination of the case. Three cases of placenta prævia were admitted, one of which (a case of central placenta prævia) proved fatal from puerperal sepsis, contracted before admission to the institution.

3. Of the 860 admissions, 809 were admitted before delivery, 18 after delivery, and 20 before commencement of labour.

4. Subjoined I give in tabular form the classifications of obstetric cases:—

Table II.—Classification of Obstetric Cases.

Class.	Division.	Subdivision.	Number admitted.
I.—Natural	Purely natural	Occipito anterior ..	580
		Occipito posterior ..	17
			597
II.—Difficult	Tedious	Natural powers over twenty-four hours	
	Laborious	Forceps (face) ..	2
		Forceps (head) ..	84
		Version, podalic ..	3
		Symphiotomy ..	1
		Craniotomy ..	2
		Cæsarian section ..	1
			93
	Inverted	Breech ..	26
Foot ..		2	
	Craniotomy after-coming head ..	2	
III.—Preternatural	Transverse	Arm (Cæsarian section) ..	1
		Arm (version) ..	2
		Elbow (version) ..	1
	Compound	Head and hand ..	4
		Face and hand ..	1
		Head and foot ..	1
	Plural births	Twins ..	15
		Triplets ..	1
	Hæmorrhage	Accidental (7) ..	
Placenta prævia (3) ..			
Post-partum (3) ..			
Retained placenta	Simple retention (4) ..		
	Morbid adhesion (3) ..		
	Eclampsia (4) ..		
Descent of funis	With head ..	1	
	With breech ..		
	With foot ..		
IV.—Complex	Puerperal convulsion		
	Retained placenta		
	Puerperal convulsion		
	Descent of funis		

Class.	Division.	Subdivision.	Number admitted.
V.—Abortion	{ Disease of chorion	Hydatiform mole ..	1
	{ Disease of Decidua	Carneous mole ..	2
		Macerated fœtus ..	23
VI.—Not classified	Not classified	Delivery before arrival ..	18
		Spurious ..	86
			877

Table III.—Classification of Diseases complicating Pregnancy at the time of Delivery.

General diseases	{ Anchylostomiasis	..	11
	{ Dysentery ..	..	8
	{ Syphilis, secondary	..	1
	{ Fever, malaria	..	1
	{ Tubercular disease of the uterus	..	1
	{ Eclampsia ..	..	4
	{ Asthma ..	..	1
	{ Anæmia ..	..	1
	{ Rheumatism	..	1
	{ Pneumonia ..	..	1
	{ Toxæmia of pregnancy	..	1
Nervous system ..	{ Epilepsy ..	..	1
Circulatory system ..	{ Morbus cordis	..	2
Digestive system ..	{ Diarrhoea ..	..	12
Total			46

Table IV.—Mortality Table.

Mothers	{ Recovered ..	..	864
	{ Died ..	..	13
Children	{ Born alive ..	..	600
	{ Born dead ..	..	55

Table V.—Obstetric Operations.

			{ Brow ..	2
			{ Head ..	63
Forceps	..	{ Complex	Twins ..	2
		{ Preternatural compound	Head and hand ..	1
			{ Placenta prævia ..	3
			{ Transverse ..	8
Version, podalic	..	{ Complex	Face ..	2
		{ Difficult	Small head ..	8
		{ Premature births	Flat pelvis ..	3
		{ Difficult	Transverse ..	1
Decapitation	..	{ Preternatural	After-coming head ..	2
			{ Large head ..	2
Craneotomy	..	{ Difficult	Ovarian tumour ..	1
Ovariectomy	..	{ Difficult	Removal of placenta and ovum ..	4
Evacuation of uterus	..	Abortion	Placenta prævia ..	3
Acceleration of labour			Puerperal eclampsia ..	1
by water bag		{ Complex	Premature rupture of membranes ..	3
Laparotomy and re-				
moval of ruptured				
tube		{ Preternatural	Ruptured extra uterine gestation ..	1
Harelip	..	—	Infant ..	1
Cæsarian section	..	Difficult	Achondroplastic dwarf	1
Cæsarian section	with			
supra-vaginal hys-		{ Difficult	Transverse birth ..	1
terectomy				
Symphisiotomy	..	Difficult	Flat pelvis ..	1
Curetting	..	Incomplete abortion	Removal of placenta	20
Trachelorrhaphy	..	Difficult	Rupture of cervix ..	8
Perineorrhaphy	..	Difficult	Rupture of perineum	14
</				

Table VI.—Presentation and Position classified.

Presentation	Position.	Variety.		
Vertex	{ Left (first)	{ Accipito anterior ..	..	481
		{ do. posterior ..	..	11
	{ Right (second)	{ do. anterior ..	..	180
		{ do. posterior ..	..	5
				677

Presentation.	Position.	Variety.					
Brow	{ Left (first)	{ Occipito	anterior	..	..	—	
			do. posterior	..	..	1	
	{ Right (second)	{ do.	anterior	..	..	—	
			do. posterior	..	..	—	
Breech	{ Left (first)	{ Sacro	anterior	..	..	34	
			do. posterior	..	..	—	
	{ Right (second)	{ do.	anterior	..	..	4	
			do. posterior	..	..	—	
Footling	{ Left (first)	{ do.	anterior	..	..	2	
			do. posterior	..	..	—	
	{ Right (second)	{ do.	anterior	..	..	1	
			do. posterior	..	..	—	
Face	{ Left (first)	{ Mento	anterior	..	..	—	
			do. posterior	..	..	3	
	{ Right (second)	{ do.	anterior	..	..	—	
			do. posterior	..	..	—	
Transverse	{ Left (first)	{ Dorso	anterior	..	..	3	
			do. posterior	..	..	4	
	{ Right (second)	{ do.	anterior	..	..	—	
			do. posterior	..	..	—	
Not classified	{ Delivered before arrival	{ ..	..	..	..	18	
			Spurious	..	..	..	143
						161	
Total ..						890	

5. Of the 156 operations performed, two cases of Cæsarian section, one case of symphysiotomy, and one case of abdominal section and removal of ruptured tube for ruptured tubal pregnancy require special mention. Of the two cases of Cæsarian section, one was for extreme rigidity of the os in a case of transverse presentation. The indication for the other was contracted pelvis in an achondroplastic dwarf.

6. Although operations for ectopic gestation (secondary abdominal and intra-ligamentary) have been performed from time to time, I do not think operations for removal of the gravid tube soon after rupture have been ere this performed in Ceylon.

7. The popularity of the institution, I am pleased to observe, is steadily increasing, especially with Mohammedan patients, who in several instances seek admission, not as a last resource by sheer necessity to escape death, but by choice.

8. The paying section is also getting more popular than before; the number of admissions during the year far exceeded the average number in previous years.

9. The Lying-in Home as a training institution is doing excellent work. The European method of conducting labour under aseptic principles, which has been hitherto denied to the poor villagers, will be gradually introduced.

10. During the year ten pupils (seven Sinhalese, three Tamils) have been trained and sent out to various Provinces. My application to increase this set of pupils to eight having received a sympathetic response, the gradual introduction of European midwifery to remote villages is now secured. The process will extend over several years, and to ensure success it is necessary to enlist the sympathy and co-operation of Government Agents and the headmen of various Provinces.

11. This institution trains also two other classes of midwives, paying and free pupils.

Table VII.

Class.		Remained from 1904.	Admitted during 1905.	Passed in 1905.	Out of those passed			
					Sinhalese.	Tamils.	Burghers	Europeans.
Paying pupils	...	2	3	4	—	—	2	2
Free pupils	...	—	1	—	—	—	—	—
Stipend pupils	...	6	10	10	7	3	—	—
Total	...	8	14	14	7	3	2	2

12. *Equipment.*—The vote allowed under this head has been inadequate to meet the growing demands of the institution. To ensure perfect asepsis the old-fashioned wooden delivery beds should be superseded by aseptic cots with either marble or glass tops.

13. *Staff.*—Although a permanent midwife has been sanctioned for 1906, yet the institution is under-staffed. An assistant matron and three permanent midwives are required for the better management of the institution.

14. *Accommodation.*—Although provision has been made for quarters for the matron and for a septic ward, yet the question of accommodation cannot be considered as satisfactorily settled. A new operating room and three or more delivery wards are urgent items requiring consideration.

15. *Instruments.*—To carry out aseptic technique to perfection various aseptic appliances are required. The wooden-handled instruments should be superseded by aseptic metal-handled instruments.

## (14) REPORT of E. R. Loos, L.M.S., Ceylon, Medical Officer in charge of the Infectious Diseases Hospital, Kanatta.

DURING the year under review the following infectious diseases were treated:—

	Treated.	Died.
Measles .. .. .	168	1
Chickenpox .. .. .	631	1
Mumps .. .. .	28	—
Smallpox .. .. .	57	19
Cholera .. .. .	—	—
Under observation for smallpox .. .. .	12	—
Whooping cough .. .. .	5	3
Diphtheria .. .. .	1	—
Under observation for diphtheria .. .. .	1	—
Under observation for pneumonia (?) plague .. .. .	1	1
From plague-infected ports with fever .. .. .	11	—
Total .. .. .	915	25

*Measles* was prevalent throughout the year, and there was one death due to broncho-pneumonia.

*Chickenpox* was prevalent throughout the year; cases were admitted throughout the town. There was one death in a debilitated subject.

*Mumps* prevailed to a less extent than in former years.

*Smallpox*.—There were 57 cases of smallpox treated during the year, one case remaining from the previous year. Nine of these cases were from ships, four of which were infected at Shanghai, two at Bombay, two at Zanzibar, one at Calcutta.

In the month of April there was an outbreak of this disease at Kotahena and it spread to other parts of the town. Thirty-nine cases were admitted into hospital. This outbreak was finally checked in July.

In the month of September there was a small outbreak in Messenger street, which spread to the village of Mulleriyawa. There were eight admissions to the hospital, and the outbreak was stamped out by the end of that month.

*Cholera*.—No cases of cholera were admitted during the year.

*Diphtheria*.—One case of diphtheria was admitted into hospital on the 17th February, a female two years old brought from Dehiwala. This case was bacteriologically examined and found to be a true case of diphtheria. The child recovered under the anti-diphtheritic serum treatment. Another child was kept under observation for diphtheria, as she had come from an infected house.

*Under observation with pneumonia*.—One case of pneumonia from plague-infected port was admitted and died. Bacteriological examination of sputum gave negative results as to plague.

*From plague-infected ports*.—Eleven cases with fever were admitted from plague-infected ports. None were plague.

## (15) REPORT of S. Hallock, L.R.C.P. (Edin.), &amp;c., Medical Officer of the Convict Establishment.

I WAS in medical charge of the Convict Establishment during the last three and a half months of the year, having relieved Dr. Johnson.

The general health of the prisoners confined in the various prisons of the Convict Establishment during the year under review was satisfactory. A study of the usual statements, which I append, will show that there has been a considerable decrease in the number of patients treated in the hospitals.

The diseases chiefly prevalent during 1905, and which caused the largest number of admissions to the hospital, were diseases of the digestive system and malarial fevers, these alone contributing 1,004 cases out of the total of 2,090 treated at the Borella Convict Hospital, and claiming a little over half the number of deaths.

I am glad to say there was no epidemic of fever this year, both at Mahara and Mutwal, as a result of the prophylactic treatment. The administration of quinine as a prophylactic measure was started at Mahara on the 18th June, 1905, and was suspended on the 29th July. This was again started on the 16th August and kept on till the end of the year. The dose was at first 7 grains daily till November, when the dose was increased to 10 grains twice a week on two consecutive days. I annex a table showing the strength and number attached.

At Mutwal the prophylactic treatment was started from November till the end of the year and of the same strength of 10 grains twice a week on two consecutive days. I annex a table showing the number administered and cases of attacks.

Lung diseases also caused a slightly larger number of admissions and accounted for 14 deaths. Larger number of cases of pneumonia and bronchitis appeared to have been admitted during the months of May and June in Welikada and during the north-east monsoon months in Mutwal. I find the months of June, July, August, October, and November were unhealthy.

It is not very satisfactory to note that a larger number were treated in the Infectious Diseases Hospital during the year. I find that not less than 156 cases were treated, against 40 during last year.

Mumps contributed 146 out of the 156 admissions. Of these, 52 were from Mutwal, 79 from Welikada, 8 from Mahara, and 7 from Hulftsdorp.

There were only 3 cases of enteric fever with 1 death, against 10 cases with 2 deaths during the previous year. Of these, 2 were from Mahara and 1 from Welikada.

A large number of eye affections came under treatment during this year. The number treated was 280, against 168 in 1904.

*Labour*.—The prisoners confined in the various prisons were put to the usual forms of labour, pingo-carrying, husk-beating treadmill, carpentry, and blacksmith work and jail service at Welikada. At Mutwal and Mahara the prisoners were engaged in work outside the prison, such as quarrying, stone-cutting, earth excavating, &c. I did not notice any injurious effects on the health of the prisoners attributable to these works.

*Accommodation.*—Welikada jail was overcrowded during the months of February, March, June, July, August, September, October, November, and December, and a large number of prisoners were regularly transferred to Kandy, Mutwal, and Mahara.

At Mutwal there was no overcrowding during the year. The daily average strength was 456·96, the accommodation available being 456.

At Mahara there was no overcrowding; the average strength was 485·79 with an accommodation of 657.

The daily average of Hulftsdorp, 101·68 with an accommodation of 129.

*Drainage.*—This is very satisfactory, as considerable improvements have been done during the past years.

*Diets.*—The food allowed to prisoners in the various classes appear to me to be sufficient, except the light labour and penal diets. I think it would be advantageous for some improvement to be effected as regards the better dieting of the light labour class of prisoners, so as to reduce the sick rate and average stay in hospital.

*Water supply.*—The hospital and all jails in Colombo draw their water supply from Labugama. At Mahara drinking water is obtained from a well. The water is good and usually boiled for drinking. Bathing is done in a shallow stream which cannot be pronounced satisfactory, though a great deal of improvement has been effected.

*Night soil.*—The night soil both at Welikada and Mahara is disposed of by incineration. At Mutwal it is cleared by Municipal carts. At Borella Convict Hospital the night soil is removed in covered buckets after disinfection for incineration at Welikada. The incinerating system has been very satisfactory.

*Borella Convict Hospital.*—There has been no addition to the hospital buildings this year. The only improvement done was fixing up of additional windows to B ward, which improved light and ventilation. The wards, grounds, and surroundings were always kept in good order and in a proper sanitary condition.

*Improvements.*—I would suggest the present cadjan wards be replaced by tiled buildings and cemented floors. Improved latrine seats to the hospital wards and increase of latrine accommodation for the S ward.

*Nursing.*—I cannot speak in favour of the present nursing arrangements; there are day and night nurses. The nursing is generally done by prison attendants, and the so-called nurses do more of guard's work than nursing. The only work they are supposed to be doing is administering medicines at prescribed hours, taking down temperatures, and keeping an account of the diets. I would suggest a matron for B and S wards or another apothecary with an assistant in charge of the nursing with a sufficient number of trained and well-behaved prisoners as attendants.

*Sick return.*—2,009 patients were admitted at the Borella Convict Hospital including the Infectious Diseases Hospital, as against 1,857 in 1904, i.e., 152 more than last year. Of these, 946 were received from Welikada, 803 from Mutwal, 205 from Mahara, 55 from Hulftsdorp. 54 cases proved fatal during the year, as against 29 during the preceding year. Of these, 54 deaths occurred at Borella Convict Hospital. Mutwal contributed 15 deaths, Welikada 33 deaths, Mahara 1, and Hulftsdorp 5.

There were 10 deaths in the jails of the Convict Establishment. Of these, 5 deaths were at Mahara, 2 at Welikada, and 3 at Mutwal. The two cases which occurred at Welikada were sudden deaths from heart disease, and the three at Mutwal were from pneumonia; these cases were so severe from the outset that there was no possibility of transferring them to the Borella Convict Hospital, as they were not in a fit state to be removed. The rapidity with which death ensued in these cases justified their detention at Mutwal.

At Mahara there is a hospital where patients are treated for seven days only.

#### *Annexures.*

#### 1.—Return of Prophylactic Treatment for Malarial in 1905.

##### *Mutwal Jail.*

Date of commencement of prophylactic treatment ..	13th Nov., 1905
Number of cases administered with quinine as a prophylactic ..	3,451
Number of cases of fever treated during the year ..	113
Number of cases of fever treated during the last year ..	267

#### 2.—Table showing the Prevalence of Malaria at the Mahara Jail during the period of Prophylactic Treatment.

Months.		Average Strength.	Number of Cases.
June	..	452·70	68
July	..	452·41	23
August	..	496·16	32
September	..	494·40	13
October	..	496·69	21
November	..	512·83	12
December	..	523·86	35

#### 3.—Table showing the Strength, Rate of Sickness, and Mortality.

	1903.	1904.	1905.
Average daily strength ..	1,612·37	1,630·51	1,629·30
Average daily sick ..	95·65	97·73	104·75
Percentage of sick to strength ..	5·99	5·99	6·42
Percentage of deaths to strength ..	3·90	2·33	3·62
Percentage of deaths to total treated ..	2·10	1·22	1·95

#### 4.—Table showing the Average Number of Days the Patients stayed in the different Hospitals of the Convict Establishment and the Average Daily Sick.

Hospital	Average Number of Days.			Average Daily Sick.		
	1903.	1904.	1905.	1903.	1904.	1905.
Borella Convict and Infectious Diseases	9·79	9·66	11·24	75·97	70·82	88·28
Mahara	6·26	5·23	5·39	19·02	25·60	15·46
Female Welikada	10·21	4·79	4·02	1·66	1·31	0·01

5.—Table showing Chief Diseases with Mortality.

Diseases.	Admissions.			Deaths.		
	1903.	1904.	1905.	1903.	1904.	1905.
Fevers ..	654	1,198	658	7	7	3
Diarrhoea ..	547	558	563	8	5	5
Dysentery ..	422	323	457	18	17	26
Diseases of the eye ..	228	168	280	—	—	—
Pneumonia ..	53	32	37	24	7	17
Injuries ..	148	99	85	—	—	—
Other diseases ..	839	1,113	850	6	8	13
Total ..	2,891	3,491	2,930	63	44	64

6.—Table showing the Admissions for Dysentery and Diarrhoea from different Jails.

Diseases.	Welikada.			Mutwal.			Mahara.			Hulftsdorp.		
	1903.	1904.	1905.	1903.	1904.	1905.	1903.	1904.	1905.	1903.	1904.	1905.
Dysentery ..	253	150	156	76	62	56	10	22	46	55	27	21
Diarrhoea ..	207	176	195	57	93	175	35	42	31	13	22	8
Total ..	460	326	351	133	155	231	45	64	77	68	49	29

7.—Table showing the Summary of Deaths.

Died within the Convict Hospital, Borella ..	..	54
Died at Mahara Jail Hospital ..	..	5
Total ..	..	59
Died at Mutwal jail ..	..	3
Died at Welikada jail ..	..	2
Total ..	..	64

## (16) REPORT of the Acting Registrar, Ceylon Medical College, S. C. Paul, M.D., F.R.C.S. (Eng.).

IN submitting the annual report of the Medical College for 1905 I have the honour to state that the improvements in connection with the teaching staff and the apparatus of the College are now almost complete.

The rules for the general working of the College referred to in the previous year have been printed and circulated among the staff.

The following changes took place in the staff during the year under review. Early in April Dr. Chalmers, the Registrar of the College, proceeded home on leave, and Dr. S. C. Paul, the Lecturer on Anatomy, is acting for him. Dr. H. G. Thomasz, the Lecturer on Clinical Surgery, having obtained leave, proceeded to England, and Dr. Paul in addition to his duties was appointed Lecturer on that subject. Dr. D. Rockwood has been appointed to act as Lecturer on Physiology until the return of Dr. Chalmers. During the latter part of the year Dr. A. Castellani, Professor of Pathology, proceeded to England on leave, and part of his College duties were attended to by Dr. Rockwood. In December last Dr. H. B. Mylvaganam, F.R.C.S., England, was appointed as Lecturer on Anatomy, relieving Dr. Paul, who was appointed as the Third Surgeon of the General Hospital.

The building for the Public Analyst, containing the experimental physiological laboratory, common room for the students, and the lavatories for the students and lecturers, is nearing completion, and will be occupied in a short time.

The Technical College laboratories for the medical students have been fitted up and will be occupied soon.

The students' library continues to get the yearly supply of new and up-to-date books.

One of our students will be taking up the Preliminary Scientific Examination of the London University.

Four of our students and several licentiates of the College proceeded during the year to England for British qualifications. The number of students at the end of 1905 is as follows:—

Medical students ..	..	97
Apothecary students ..	..	24
Casual students ..	..	2
Total ..	..	123

The number of new students entered during the year were—

Medical students ..	..	10
Apothecary students ..	..	12
Casual students ..	..	1
Total ..	..	23

There is a decrease of two medical students and five apothecary students. This decrease is due to the fact that the admissions during the year are the same as that of the previous year, whilst the number of students who passed out and who left the College owing to illness or to proceed to England were more than the admissions.

The total amount of fees collected in 1905 was Rs. 15,321.50, which is a decrease of Rs. 1,304.50 on the last year's fees, which is due to the above stated causes and owing to the completion of payment of the composition fees of a good number of students.

The only College prize not awarded was the Clinical Surgery Medal.

An additional gold medal for only a year has been presented to the College by Peter de Abrew, Esq., in memory of his sister, the late Miss Lucy de Abrew, who was one of our students. This medal was for Practical Zoology and was awarded.

The following is a statement of the number of candidates who passed the College examinations during 1905 :—

Medical Preliminary	..	..	..	9
First Professional	..	..	..	21
Second Professional	..	..	..	19
Third Professional (Part I.)	..	..	..	22
Third Professional (Part II.)	..	..	..	8

The license of the College has been conferred on the following, who passed the second part of the Third Professional Examination :—Messrs. J. T. Nagappan, R. L. Spittel, B. Fernando, J. W. E. Mendis, E. L. Raffel, Miss C. F. Vandort, Messrs. W. E. de Silva and E. C. Van Eyck.

Passes in the Apothecaries' Examinations are as follows :—

Apothecaries' Preliminary	..	..	..	7
First Apothecaries'	..	..	..	11
Second Apothecaries'	..	..	..	9

(17) REPORT of the Director, De Soysa Bacteriological Institute, Dr. Aldo Castellani, M.D., Florence.

*Introduction.*—I was on leave of absence from the 29th September, 1905, until the 4th February, 1906, during which period Dr. H. M. Fernando acted for me.

The European Assistant, Mr. E. F. A. Kemp, was invalided home in June, 1905. His place was taken by Mr. Arthur C. de Silva, who has given me complete satisfaction. The laboratory attendant, Albert Gurusinge, has done his work most satisfactorily.

2. *Bacteriological examinations carried out during the year.*—The total number of specimens submitted for examination during the year was 1,752, as against 1,628 during the previous year.

The following is a list of specimens examined :—

Blood for Widal reaction	..	..	..	989
Do. malarial parasites	..	..	..	190
Do. <i>Filaria nocturna</i> (Manson)	..	..	..	2
Do. streptococci	..	..	..	2
Do. anthrax bacillus	..	..	..	3
Bacteriological examination of vomit	..	..	..	1
Sputa for tubercle bacillus	..	..	..	334
Membrane for diphtheria bacillus	..	..	..	3
Evacuation for cholera vibrio	..	..	..	16
Other material for cholera vibrio	..	..	..	4
Water for bacteriological examination	..	..	..	10
Urine for tubercle bacillus	..	..	..	173
Secretion for gonococci	..	..	..	8
Secretion for tetanus bacillus	..	..	..	1
Discharge for streptococci	..	..	..	1
Intestine for tubercle bacillus	..	..	..	1
Discharge for tubercle bacillus	..	..	..	2
Gland for tubercle bacillus	..	..	..	2
Secretion for plague bacillus	..	..	..	3
Pleuritic fluid for tubercle bacillus	..	..	..	1
Secretion for Koch-Weekes bacillus	..	..	..	1
Lymph for anthrax bacillus	..	..	..	1
Secretion for anthrax bacillus	..	..	..	2
Scraping for anthrax bacillus	..	..	..	1
Urine for gonococci	..	..	..	1
Vaginal discharge for gonococci	..	..	..	1
Total	..	..	..	1,753

3. The following is a list of the various institutions from which specimens have been received :—

(a) Lunatic Asylum, Jawatta	..	..	..	3
(b) De Soysa Lying-in Home	..	..	..	1

*Government Civil Hospitals.*

General Hospital, including paying section	..	..	..	593
Lady Havelock Hospital	..	..	..	113
Negombo	..	..	..	1
Kalutara	..	..	..	10
Panadura	..	..	..	2
Kandy	..	..	..	72
Katugastota	..	..	..	1
Gampola	..	..	..	1
Nuwara Eliya	..	..	..	10
Matale	..	..	..	7
Galle	..	..	..	17
Balapitiya	..	..	..	3
Trincomalee	..	..	..	3

Kurunegala .. .. .	18
Anuradhapura .. .. .	2
Kegalla .. .. .	2
<i>Field or Parangi Hospital.</i>	
Alutnuwara .. .. .	1
<i>Immigrant Hospital.</i>	
Mannar .. .. .	6
<i>District Hospitals.</i>	
Dikoya .. .. .	20
Kelebokka .. .. .	1
Karawanella .. .. .	30
Rakwana .. .. .	6
Avisawella .. .. .	1
Ramboda .. .. .	189
Pussellawa .. .. .	1
Madulkele .. .. .	1
<i>Jails and Jail Hospitals.</i>	
Borella Convict Hospital .. .. .	22
Welikada .. .. .	13
Kandy .. .. .	19
Mahara .. .. .	342
<i>Government Outdoor Dispensaries.</i>	
Female Outdoor Dispensary .. .. .	38
Moratuwa .. .. .	8
Ja-ela .. .. .	1
Henaratgoda .. .. .	1
Grenier Eye, Ear, and Throat Infirmary .. .. .	2
Wattegama .. .. .	2
Colonial Surgeon, Kandy .. .. .	3
Colonial Surgeon, Uva .. .. .	1
Port Surgeon, Colombo .. .. .	3
Private Practitioners, Municipal and Local Boards .. .. .	114
Military Department .. .. .	35
Infectious Diseases Hospital .. .. .	5
Medical Officer, Kankasanturai .. .. .	2
Medical Officer, Friend-in-Need Society Hospital, Jaffna .. .. .	1
Medical Officer, Bibile .. .. .	1
Total .. .. .	1,752

The total income of the institute from fees recovered from medical practitioners, &c., amounting to Rs. 406, against Rs. 418 of the previous year, was deposited in the Bank of Madras on Government account.

4. *Bacteriological examination of the Colombo pipe water.*—The water has been examined regularly once in every three months. The maximum number of organisms per cubic centimeter was found in June, the minimum in December. Pathogenic germs were constantly absent. The principal results of the various examinations are collected in the following table:—

Date of Examination.	Number of Germs per cubic centimeter.	B. coli.	B. enteritidis sporogenes.	Germs liquefying Gelatin.
1905.				
March .. .. .	520 ..	Absent	Absent	Very few
June .. .. .	590 ..	do.	do.	do.
September .. .. .	494 ..	do.	do.	do.
December .. .. .	458 ..	do.	do.	do.

5. *Diphtheria.*—Several cases have been investigated bacteriologically with positive results. The experience of this year as well as last year clearly shows that the disease is far from being non-existent in Ceylon. Probably a certain proportion of the cases which are locally known as malignant sore-throat would turn out to be, if properly investigated, cases of diphtheria. In the tropics—according to experience—the only reliable treatment is the anti-toxic serum, provided the serum is well kept and used in the proper doses.

6. *Leukemia.*—The blood of cases of leukemia of the spleno-medullary type, as well as one case of the lymphatic type, were investigated for Lowit's parasites, with negative results. Neither the *hæmaphysalis* *leukemia magna* nor the *hæmaphysalis* *von parna* were observed.

7. *Hæmatozoa.*—Further investigations on this subject were carried out by Dr. Willey, F.R.S., and myself. Our results have been published in the Quarterly Journal of Microscopical Science (November, 1905). It will be sufficient therefore to name here briefly the new parasites of blood discovered by us.

8. *Gregariniform bodies in blood of man and birds.*—Peculiar oval bodies—which do not contain pigment—were observed in two prisoners suffering from a form of fever. Identical or very similar bodies were found in the blood of several birds.

9. *Trypanosomes.*—Several species of fish of the Colombo lake were found to harbour trypanosomes. A species found in the *Sacchobranthus fossilis* (Tr. *Sacchobranthii*, Castellani & Willey) is characterized by the centrosome being extremely close to the posterior end of the parasites.

10. *Filaria.*—Embryos of three new species have been observed: *F. Tuberosa* (Castellani & Willey) and *F. Flavescens* (Castellani & Willey) in the blood of lizards; *F. Scopsiana* (Castellani & Willey) in the blood of a bird (*Scops bakkamæna*, var. *malabarica*). The embryo of the last-named filaria is characterized by being of very large dimensions.

11. *Investigation into an outbreak of acute contagious conjunctivitis.*—Sir Allan Perry and myself have investigated a peculiar epidemic of conjunctivitis which occurred in Colombo during the months of

March and April, 1905. In all the cases examined we observed a micro-organism presenting the characters of the Koch-Weekes bacillus. It is to be noted that occasionally a strain was met with which could be grown on blood agar or any other medium.

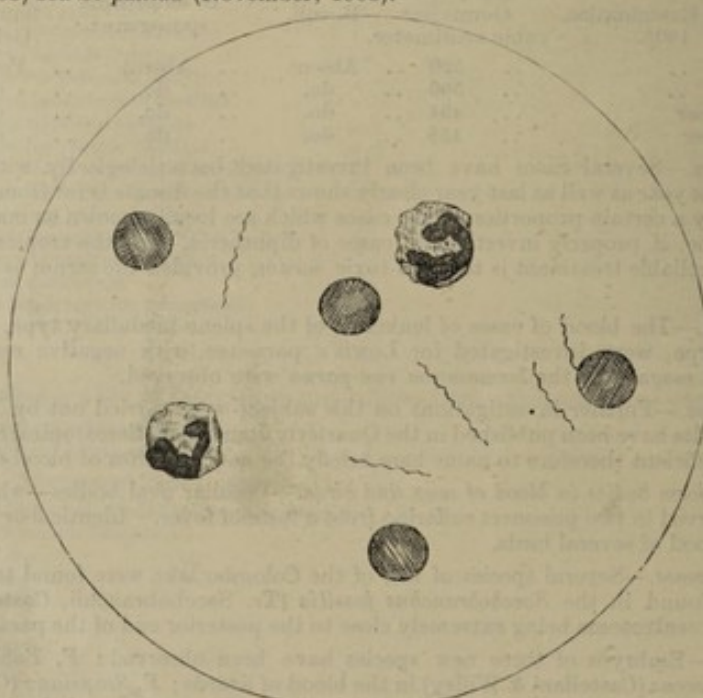
*Researches on Tropical Diseases.*

12. I was allowed to use the House of Observation as a Hospital for Tropical Diseases. It is hoped that this small hospital may in future be enlarged and equipped as a clinic for the scientific investigation and treatment of diseases proper of the tropics.

13. *Parangi*. (Yaws, Framboesia Tropica, Pian, &c.).—Various bacteria have been described in yaws. Eijkmaun found some peculiar bacilli; Parisz observed numerous micrococci. Breda described a bacillus which he called "Boubas, or Framboesia bacillus." Powell in 1896 cultivated in two cases a yeast which was present in the granulomata and also between the epithelial cells. Nicholas and Watts in 1899 found a coccus which they cultivated in pure culture. The same coccus was found once in the lymphatic glands. Inoculation into animals did not succeed. My researches have been published *in extenso* in the British Medical Journal and "Deutschen Medizinischen Wochenschrift," in which I have described the technique and staining methods to be used. I may limit myself to state here the conclusion to which I have arrived. The ulcerated lesions of parangi present all sorts of bacteria, cocci, bacilli, sarcinae. Besides these innumerable bacteria, often spirochaetes of various kinds are observed. One form is rather thick and takes up easily the stain; it is morphologically identical with the *S. refringens* of Schaudinn. Another form is thin, delicate, with waves varying in size and number, and with blunt extremities; I proposed for this variety the name of *S. obtusa*. A third form is also thin and delicate, but is tapering at both ends. I named it *S. acuminata*. The spirochaetes of the *pallida* type, as found in non-ulcerated lesions, may also be present. In non-ulcerated lesions, and sometimes also in open sores of yaws, there may be found an extremely delicate organism which morphologically, in the present state of our knowledge, I do not think can be distinguished from the *S. pallida* of Schaudinn.\* The organism takes up generally a pale reddish tint when stained by Leishman's or Giemsa's method. It is extremely thin; some individuals are, however, thicker and better stained than others, though always much thinner than any spirochaete of the *refringens* type. The extremities are often pointed, but, possibly due to the manipulation of the film, forms may be met with presenting blunt extremities, or one extremity blunt and the other pointed. In a few individuals one of the extremities may present a rather large roundish or pear-shaped expansion. The length varies from a few microns to 18 and 20 microns and even more. The number of waves varies also, but they are generally rather numerous, uniform, and of small dimensions. Sometimes a portion of the spirochaete shows numerous narrow, uniform waves, while the rest of it has no waves at all. Sometimes also two spirochaetes may be attached together or apparently twisted one on the other. Two organisms close together and nearly parallel, but united at one end as described in *Spirochaete pallida* by Schaudinn, have been seen. On the minute structure of the parasite I have not any observation of importance, but in a few individuals I have observed a few chromatoid points here and there.

In rare cases several preparations presented, besides the spirochaete, some peculiar bodies, extremely rare. Those bodies are generally oval or roundish, 5 to 8 microns in length and 4 to 6 in breadth. Sometimes they may have smaller or much larger dimensions.

In preparations stained by Leishman's method these bodies are stained slightly purplish or bluish, and contain chromatin. The chromatin may be collected at one point near one of the extremities, or scattered at several points. Whether these bodies have anything to do with a developmental stage of the spirochaete I cannot yet say. For the spirochaete of the *pallida* type I have suggested the name *Spirochaete pertenuis* (June, 1905) seu *S. pallida* (November, 1905).



*Spirochaete pertenuis* seu *pallidula*.

\* Mesnil however, examining several of my preparations, has come to the conclusion that some slight morphological differences exist between the *S. pallida* of Schaudinn found in syphilis and the specimen observed by me in yaws.

14. *Is yaws syphilis*.—The theory is well known according to which parangi is simply a form of syphilis. Although this hypothesis is supported by so high an authority as J. Hutchinson, in my humble opinion the two diseases, though having many points of resemblance, are not identical. It seems to me that the study of the geographical distribution, clinical symptoms, and histo-pathology proves this. Syphilis is pandemic; yaws is localized to some parts of the tropics. In yaws, in contrast to syphilis, the primary lesion is generally extragenital, the eruption is of one type only, viz., the papule which proliferates into a papillomatous growth, the pruritus is practically a constant symptom. Yaws is not hereditary and not congenital.

15. *Treatment of yaws*.—The experiments carried out by me in the Hospital for Tropical Diseases (vide Journal of Tropical Medicine, 1st January, 1906) clearly show that the potassium iodide treatment, as recommended by Sir Allan Perry, &c., is the only reliable one, though I am prepared to admit that cases may exceptionally recover spontaneously. Potassium iodide in large doses is much more effective than mercury.

16. *Diarrhoea from flagellates*.—During the year I have observed twice a peculiar form of diarrhoea, already described by Epstein, &c., characterized by the presence of a huge number of flagellates in the stools. The protozoa found were the following: *Trichomonas*, *Cercomonas*, *Lamblia intestinalis* (Lambl.), *Entamoeba undulans* (Castellani). Intestinal irrigations of a 1 in 3,000 solution of methylene blue were very effective. The action of the methylene blue on the parasites is striking. Mixing one loopful of the stools, teeming with flagellates, with one loopful of a solution of methylene blue (1 in 1,000) and observing microscopically, the parasites are seen to take up the colour and stop almost instantly their movements, losing their ordinary shape and becoming globular without exhibiting any flagella or undulating membrane. For more particulars on these two cases of diarrhoea from flagellates, I refer the reader to my paper published in the British Medical Journal, November, 1905.

#### *Observations on some Tropical Tricophytic Diseases.*

17. According to my observations there are in Ceylon many forms of tricophytic diseases.

*Dhoby itch*.—This is a tricophytic intertrigo which generally presents the clinical signs of *Eczema marginatum* of Hebra. The fungi found belong most probably to the tricophytons, but in my opinion they are different from those found in *Tinea Circinata*. It is very probable that there are several species of dhoby itch tricophytons.

18. A rare peculiar type of dhoby itch may be observed identical probably to the tricophytic affection described by Sabouraud in Indo-China patients. The fungus cannot be grown on the usual media. I proposed for this fungus the name *Tr. Sabouraudi*.

19. *Tinea Circinata* is not rarely met with in Ceylon. In the cases examined the fungus was of the megalosporon type.

20. Mixed infections of dhoby itch and *Tinea Circinata* may occur, presenting the two fungi growing on the same patient, though on different regions of the body.

21. A case of *Tinea Irubricata* (Manson) has been observed.

22. Ringworm of the scalp is met with. In the cases I examined the fungus was a tricophyton megalosporon endothrix. So far I did not see cases due to the microsporon uoudini. The complete investigation has been published in the British Medical Journal, November, 1905.

23. *Tropical forms of Pityriasis versicolor*.—Two principal types may be distinguished, one black (*Pityriasis versicolor nigra*), one yellow (*Pityriasis versicolor flava*). The fungus found in *Pityriasis nigra* is very abundant, has a mycelium of rather large size, and very large spores which run into clusters; it grows well on maltose agar and also on ordinary agar giving rise to black colonies. I called this fungus *Microsporon Mansoni* in honour of Sir Patrick Manson. In *Pityriasis versicolor flava* of the variety which generally affects the neck and chest the fungus is rather scanty, the mycelium being thick, irregular in shape, the spores few, not very large, and rarely running into clusters. I have never been able to grow this fungus, which I named *Microsporon Tropicum* (British Medical Journal, November, 1905). In another form of *Pityriasis flava*, which is found often on the arms and legs, the fungus is easily detected, the mycelium is thin and regular in outline, the spores small, oval, numerous, often grouped in clusters. On two occasions only I have been able occasionally to grow this fungus using Sabouraud's maltose agar; subcultures however constantly failed. I named this fungus *M. Macfadyen* after Dr. Allan Macfadyen.

#### (18) REPORT of H. Bawa, F.R.C.S., (Edin.), Port Surgeon.

THE duties of Port Surgeon were carried on during the year by myself, assisted by Assistant Port Surgeons G. W. R. Fernando, M.B., C.M., and Hugh P. Joseph, L.M.S. On the 19th December Dr. Fernando was transferred to Galle. Mr. E. A. Anderson, Immigration Officer, retired on pension on the 30th September, his duties being taken up by Dr. Fitzroy Keyt, L.R.C.P. & S. (Edin.).

The disinfecting station at Kochchikade is in charge of Apothecary Mr. E. W. de Silva under my supervision.

2. The fresh ports declared infected during the year were:—Broach Port, Bangkok, Hong Kong, Madras, Mauritius, Rangoon, and Sydney.

3. The number of vessels calling at this port during the year was—

British and foreign steamers	..	..	2,800
Indian and native sailing craft	..	..	450

4. Of these, (a) 2,531 were granted free pratique; (b) 702 having arrived from infected ports were allowed to work as healthy in quarantine; (c) 17 vessels were kept in strict quarantine for infectious disease or suspected infectious disease.

5. Six vessels were kept in strict quarantine owing to the occurrence of smallpox on board on arrival. In all cases the sick were removed to the Infectious Diseases Hospital, the crew vaccinated or re-vaccinated, vessels disinfected when possible with the Clayton apparatus, all clothing and bedding disinfected at the station at Kochchikade. After these precautions shore coolies were allowed on board to work the vessels, due precautions being taken to prevent contact with the ship's crew or access to possibly infected parts of vessel.

6. Only two vessels were kept in strict quarantine for cholera during the year. On 11th August a German tramp from Bangkok called at this port with an epidemic of cholera on board. There had been eight attacks with three deaths before arrival. The vessel was kept in an isolated berth, the sick segregated and medically treated on board by myself and the Assistant Port Surgeons. Thorough disinfection was carried out by Clayton's apparatus and chemical disinfectants. There were no fresh attacks or deaths after arrival in Colombo.

7. A case of cholera was found on the ss. "Huntsman" from Calcutta on 28th August. The vessel was kept in strict quarantine and all the above precautions taken. The patient was convalescent when the vessel left port.

8. Eleven vessels were kept in strict quarantine during the year, having come from plague-infected ports with cases with symptoms suspicious of plague on board. In all these instances pratique was suspended pending further clinical observations of the sick. In no instance did the suspect prove to be suffering from plague, and the exact nature of the case being diagnosed the vessel was allowed pratique, or allowed to work as healthy under instructions from the Plague Committee. The M.M. ss. "Ville de la Ciotat" arrived on the 25th November from Fremantle with what was evidently an epidemic of plague among the rats on board. Four cases of plague among the crew had been removed at Fremantle nine days previously. The vessel was kept in strict quarantine, no passengers or cargo landed, the mails were disinfected by Clayton's apparatus in a lighter, previous to landing; coaling was effected by the vessel's own crew. The Commander refused disinfection by the Clayton apparatus.

9. On the 29th November the British transport "Dunera" arrived from Southampton with three cases of scarlet fever on board. The vessel was kept in strict quarantine pending removal of the sick to a segregation camp by the military authorities. The military drafts for Ceylon—299 rank and file—were removed to Diyatalawa by special train, from the foot of the Breakwater, for segregation for the required period. Disinfection was thoroughly effected.

10. A new disinfecting station fully equipped with an Equifex disinfector has been erected at the root of the Breakwater. The building is provided with separate bathing accommodation for coolies, tally clerks, and male and female saloon passengers. This station is almost complete, and will shortly be handed over by the Public Works Department. It is a great improvement on the Kochchikade station. The number of persons disinfected during the year were—

Tally clerks	..	..	..	6,032
Cargo coolies	..	..	..	39,231
Coal coolies	..	..	..	19,256
Passengers	..	..	..	6,430

11. The Immigration Depot at the root of the Breakwater worked satisfactorily. There have been no complaints as to the quantity or quality of diet supplied by the contractor.

12. The total number of native passengers arriving in Colombo during 1905 was—

Traders	..	..	..	80,321
Estate coolies	..	..	..	138,371

13. Vaccination of deck passengers from the South Indian ports is effected immediately on landing at the root of the Breakwater. During the year 16,394 persons were vaccinated.

#### Revenue.

*Bills of health.*—The sum realized by the sale of bills of health for the year was Rs. 14,511, which was duly credited to revenue. Monthly returns of the recoveries were forwarded to the Principal Civil Medical Officer.

The following is a summary of the revenue from this source:—

Outstanding at end of December, 1904	..	..	18
Issued during 1905	..	..	1,465
Deduct—			
Free bills	..	..	85
Outstanding at end of December, 1905	..	..	16
			101
Total	..	..	1,382

At Rs. 10-50 each = Rs. 14,511.

*Cattle disease certificates.*—Two cattle disease certificates were issued during the year, and the sum of Rs. 21 which was realized was credited to Government.

The amount realized from the disinfection of soiled linen during 1905 was Rs. 1,227-02, which was duly credited to revenue.



Table I.—Estate Medical Aid Receipts and Expenditure in the Civil and District Hospitals during 1905.

RECEIPTS.			EXPENDITURE.		
<i>District Hospitals.</i>			<i>District Hospitals.</i>		
	Amount. Rs. c.	Total. Rs. c.		Amount. Rs. c.	Total. Rs. c.
1. Diets: paid by estates at 30 cents a day ...	49,688 80		1. Diets: for estate labourers and "others" ...	136,723 2	
2. Diets: paid by Government for "others" at 50 cents a day ...	93,828 0		2. Medicines supplied from Civil Medical Stores ...	41,086 36	
3. Funeral expenses of "others" ...	945 7		3. Funeral expenses of estate labourers and "others" ...	2,896 14	
4. (a) Medicines sold and prescriptions compounded at dispensaries ...	15,201 59		4. Salaries of District Medical Officers and allowances ...	116,137 41	
(b) Collections at dispensaries ...	1,828 19		5. Departmental expenditure ...	4,610 98	
(c) Medicines used by "others" in hospitals ...	19,431 78		6. Maintenance and repairs to buildings ...	82,769 82	
(d) Medicines used by "others" in dispensaries ...	22,237 37		7. Rents of outdoor dispensaries ...	9,568 0	
5. Paid by estates for visits ...	21,312 50		8. Transport of medicines, &c. ...	2,767 50	
6. Sale of drugs, unserviceable articles, &c., from Civil Medical Stores ...	2,291 55		9. Equipment ...	13,020 96	
7. Recoveries made for maintenance of "others" ...	2,136 43		10. Wages of attendants, &c. ...	28,263 56	
		228,901 28	11. Contingencies ...	7,287 38	
			12. Printing ...	2,518 12	
			13. Nursing service ...	6,133 8	
			14. Exchange compensation ...	2,274 11	
			15. Salaries and allowances of apothecaries ...	22,652 49	
				478,708 93	
<i>Civil Hospitals.</i>			<i>Civil Hospitals.</i>		
1. Paid by estates for labourers at 30 cents a day ...	16,505 40		1. Diets: estate labourers ...	17,921 4	
2. Paid by estates for visits ...	2,531 0		2. (a) Medicines used by estate labourers in hospitals ...	6,168 64	
		19,036 40	(b) Medicines used by estate labourers in dispensaries ...	413 1	
			3. Funeral expenses of estate labourers ...	—	24,502 69
Grand Total ...	—	247,937 68	1. Value of medicines supplied to district dispensaries ...	30,196 76	
Export Duty ...	—	159,488 68	2. Value of medicines, &c., supplied to estate dispensaries ...	42,635 15	
Deficit ...	—	168,617 17		72,831 91	
Total—Rs.	576,043 53		Total—Rs.	576,043 53	

Table II.—Statement of Expenditure under the Medical Aid Ordinance (Estates Branch) during 1905.

Names of Hospitals and Dispensaries.	Number of Patients.	Number of Days the Patients stayed in Hospital.	Other than Estate Labourers.	Number of Days in Hospital.	Provisions and other Necessaries.				Equipment.	Rent.	Funeral Expenses.	Wages of Apothecaries, Attendants, &c.	Contingencies.	Medicines supplied from the Civil Medical Stores.	Total Expenditure.	Grand Total.
					Extra Articles of Diet.											
					Diet.	Stimulants.	Other Articles.	Total Provisions.								
					Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs.
<i>District Hospitals.</i>																
Dikoya ...	713	18,024	374	7,053	8,318 31	—	112 18	8,430 49	1,525 42	—	300 0	1,580 56	532 51	2,459 56	14,828 54	
Lindula ...	839	19,730	189	2,761	12,054 91	60 38	237 19	12,352 48	1,336 68	—	340 5	1,777 57	490 60	2,581 24	18,878 62	
Kolebokka ...	401	8,316	163	2,274	3,353 90	3 23	111 56	3,468 69	580 19	—	120 0	330 77	231 75	1,124 34	8,405 74	
Uda Pussellawa ...	202	3,517	266	2,179	3,488 57	1 42	61 65	3,551 60	500 55	—	187 99	540 0	350 65	1,674 8	6,804 87	
Hapnatale ...	322	6,579	427	4,754	7,149 7	101 95	331 54	7,582 56	704 68	—	—	1,714 38	475 24	2,566 93	13,043 79	
Lenugala ...	354	8,231	333	4,318	3,897 71	—	65 96	3,963 67	389 97	—	125 0	930 6	160 74	2,364 99	7,934 37	
Karawanella ...	781	27,150	1,339	19,459	19,171 86	37 1	360 82	19,569 69	977 53	240 0	240 0	2,707 50	992 94	3,029 65	27,757 31	
Maskoliya ...	265	5,768	14	227	2,857 84	24 28	190 95	3,073 7	142 55	—	156 88	705 0	127 46	1,818 52	6,023 48	
Deltota ...	233	4,703	349	1,514	2,512 51	—	28 60	2,541 11	318 50	—	—	960 0	84 85	2,068 15	5,962 61	
Rakwana ...	459	10,126	812	98,238	6,550 21	19 79	328 99	6,898 99	622 32	—	137 50	1,258 0	281 0	2,184 83	11,382 64	
Balangoda ...	493	18,317	1,528	16,671	14,314 37	32 98	832 14	15,169 49	1,100 16	—	210 75	1,596 41	469 98	2,818 27	21,365 6	
Nawalapitiya ...	580	14,077	357	4,821	7,426 97	21 66	309 75	7,758 38	726 23	—	355 80	870 0	388 41	2,303 21	12,402 3	
Avisawella ...	930	22,627	489	6,686	8,080 69	9 59	298 53	8,388 81	975 55	480 0	165 0	1,530 0	611 98	2,270 45	14,421 79	
Noboda ...	1,191	20,358	74	682	7,201 33	27 97	45 26	7,274 56	723 57	—	156 80	1,301 52	234 83	1,880 66	11,571 94	
Teldeniya ...	231	5,331	559	4,060	3,383 70	36 65	130 67	3,551 2	397 86	—	—	1,026 0	209 30	2,308 4	7,492 22	
Deniyaya ...	231	8,219	243	2,693	4,914 35	111 60	195 41	5,221 36	434 21	150 0	150 0	900 0	267 84	1,027 29	8,000 20	
Ramboda ...	238	5,209	83	904	4,931 24	—	6 99	4,938 23	123 4	150 0	1,182 0	226 86	1,371 25	7,991 38		
Dimbola ...	373	6,275	107	1,520	5,426 25	—	121 37	5,547 62	363 15	39 12	1,200 0	336 93	1,813 55	9,300 37		
Maturata ...	189	3,727	328	4,688	5,139 75	33 85	119 6	5,292 66	525 17	—	—	790 50	449 20	1,963 38	9,020 91	
Pussellawa ...	151	3,226	201	2,154	2,104 17	—	44 37	2,148 54	286 80	—	61 25	750 0	86 29	1,467 97	4,800 85	
Civil and District Hospitals...	9,177	219,510	8,235	187,656	132,277 71	522 36	3,922 95	136,723 2	12,704 13	—	2,896 14	24,250 21	7,008 86	41,086 36	225,388 72	
	3,233	78,463	15,318	188,492	—	—	—	17,921 4	—	720 0	—	—	—	6,168 64	24,089 68	
Total	12,410	297,973	23,553	376,148	132,277 71	522 36	3,922 95	154,644 6	12,704 13	720 0	2,896 14	24,250 21	7,008 86	47,255 0	249,478 40	
<i>District Dispensaries.</i>																
Elkaduwa ...	—	—	—	—	—	—	—	—	5 75	720 0	—	120 0	7 35	1,440 19	2,293 29	
Madulsima ...	—	—	—	—	—	—	—	—	0 37	360 0	—	120 0	11 43	611 50	1,103 30	
Muppane ...	—	—	—	—	—	—	—	—	15 91	360 0	—	120 0	8 51	860 18	1,364 60	
Agrapatana ...	—	—	—	—	—	—	—	—	13 20	960 0	—	150 0	4 50	1,010 33	2,138 3	
Watawala ...	—	—	—	—	—	—	—	—	5 56	540 0	—	120 0	18 93	1,244 84	1,929 33	
Bogawantalawa ...	—	—	—	—	—	—	—	—	11 78	480 0	—	119 32	33 25	1,659 43	2,303 78	
Dolosbage ...	—	—	—	—	—	—	—	—	37 14	600 0	—	150 0	10 49	1,364 7	2,161 70	
Koelanda ...	—	—	—	—	—	—	—	—	9 30	480 0	—	120 0	7 81	841 18	1,458 29	
Haldummulla...	—	—	—	—	—	—	—	—	3 10	—	—	120 0	12 84	638 6	774 0	
Rattota ...	—	—	—	—	—	—	—	—	19 14	240 0	—	150 0	10 89	1,462 10	1,882 13	
Kotmale ...	—	—	—	—	—	—	—	—	13 50	660 0	—	120 0	16 64	1,119 18	1,929 32	
Galagedara ...	—	—	—	—	—	—	—	—	2 45	—	—	120 0	5 82	1,152 84	1,281 11	
Bandarawella ...	—	—	—	—	—	—	—	—	1 65	—	—	120 0	11 11	1,065 79	1,198 55	
Bangalla ...	—	—	—	—	—	—	—	—	6 75	—	—	120 0	4 21	1,099 71	1,229 67	
Pasara ...	—	—	—	—	—	—	—	—	5 15	360 0	—	150 0	17 53	1,012 84	1,546 52	
Gannaduwa ...	—	—	—	—	—	—	—	—	38 68	—	—	120 0	13 26	1,110 32	1,282 26	
Watagoda ...	—	—	—	—	—	—	—	—	8 6	240 0	—	144 0	10 48	702 22	1,104 76	
Aranayaka ...	—	—	—	—	—	—	—	—	11 94	420 0	—	730 3	14 68	1,253 87	2,420 52	
Udugama ...	—	—	—	—	—	—	—	—	1 64	84 0	—	120 0	6 11	2,107 59	2,319 34	
Kadugannawa ...	—	—	—	—	—	—	—	—	14 11	240 0	—	120 0	8 51	1,222 86	1,605 48	
Elpitiya ...	—	—	—	—	—	—	—	—	9 54	—	—	120 0	7 69	1,199 87	1,357 10	
Pundalu-oya ...	—	—	—	—	—	—	—	—	22 6	420 0	—	120 0	7 56	570 2	1,139 64	
Kandy ...	—	—	—	—	—	—	—	—	—	240 0	—	—	—	1,780 35	2,020 35	
Kitulgala ...	—	—	—	—	—	—	—	—	0 75	480 0	—	120 0	5 48	1,029 51	1,635 74	
Nanu-oya ...	—	—	—	—	—	—	—	—	22 35	360 0	—	150 0	8 80	584 58	1,125 73	
Namunukula ...	—	—	—	—	—	—	—	—	28 67	260 0	—	120 0	8 1	787 92	1,304 60	
Wattegama ...	—	—	—	—	—	—	—	—	7 53	264 0	—	120 0	4 85	1,265 41	1,661 79	
Bulatukobupitiya	—	—	—	—	—	—	—	—	0 75	80 0	—	120 0	1 78	—	202 53	
Estate Dispensaries	—	—	—	—	—	—	—	—	316 83	8,848 0	—	4,013 35	278 52	30,196 76	43,653 46	
	—	—	—	—	—	—	—	—	—	—	—	—	—	42,635 15	42,635 15	
Civil Dispensaries	—	—	—	—	—	—	—	—	—	—	—	—	—	413 1	413 1	
Total	—	—	—	—	—	—	—	—	316 83	8,848 0	—	4,013 35	278 52	73,244 92	86,701 62	
Grand Total	12,410	297,973	23,553	376,148	132,277 71	522 36	3,922 95	154,644 6	13,020 96	9,568 0	2,896 14	28,263 56	7,287 38	120,499 92	336,180 2	336,180 2

<i>General.</i> —Salaries and Allowances of Government Medical Officers (Personal Emoluments and Other Charges) ...				116,137 41	
Exchange Compensation ...				2,274 11	
Nursing Service ...				6,133 8	
Salaries and Allowances of Apothecaries ...				22,652 49	239,863 51
Salaries of Extra Clerks, &c. ...				4,510 88	
Maintenance and Repairs to Buildings ...				82,769 82	
Transport of Medicines and other Miscellaneous Charges ...				2,767 50	
Printing ...				2,518 12	576,043 24

Table III.—List of Drugs, &amp;c., supplied to Estate Dispensaries during the Year 1905.

Name of Estate.	District where situated.	Cost of Drugs supplied. Rs. c.	Name of Estate.	District where situated.	Cost of Drugs supplied. Rs. c.
Abbotsford, &c.	Nanu-oya	289 14	Mahadova, &c.	Lunugala	275 64
Agar's Land, &c.	Balangoda	275 44	Mahayaya	Dehiowita	39 0
Alton Group	Norwood	430 49	Medakoombra	Watagoda	573 13
Ambalamana, &c.	Deltota	448 80	Midland Group	Nawalapitiya	318 50
Attabage, &c.	Pussellawa	315 40	Mipitikanda	Yatiantota	175 0
Avington, &c.	Yatiantota	80 0	Mocha	Maskeliya	424 37
Avisawella, &c.	Avisawella	682 49	Mooloya, &c.	Kandy	485 44
Bambarabotuwa, &c.	Ratnapura	968 36	Moray, &c.	Maskeliya	199 80
Beverley, &c.	Morawak korale	480 51	Mudamana, &c.	Kitulgala	182 84
Gabragalla, &c.	Koslanda	501 89	Nahalma	Avisawella	503 8
Campion	Bogawantalawa	244 12	Needwood	Haldummulla	311 70
Chesterford	Veyangoda	495 9	Nilambe	Deltota	268 88
Clodagh	Matale	385 48	Nilfield	Dehiowita	83 0
Clunes	Dehiowita	473 41	North Matale, &c.	Matale	650 0
Cocagalla, &c.	Lunugala	180 55	Osborne, &c.	Hatton	213 84
Concordia, &c.	Nuwara Eliya	256 36	Pallegoda	Bentota	325 0
Condegalla, &c.	Ramboda	295 54	Pallekellie, &c.	Kandy	583 93
Daisy Valley	Kurunegala	92 92	Panawatta, &c.	Yatiantota	345 0
Degalessa, &c.	Karawanella	567 28	Pantiya	Neboda	550 12
Dehiowita	Dehiowita	130 0	Panilkanda	Deniyaya	207 50
Delwita	Kurunegala	400 0	Pitakanda, &c.	Kurunegala	400 0
Delta, &c.	Pussellawa	242 61	Pitakanda Group	Matale	414 49
Devalakanda	Dehiowita	250 0	Polatagama	Karawanella	279 78
Drayton, &c.	Dimbula	279 74	Queensberry, &c.	Kotmale	233 60
Duckwari	Rangalla	312 2	Ragalla, &c.	Kandapola	434 37
Dunedin	Karawanella	290 40	Rassagala, &c.	Balangoda	672 97
Dunsinane	Pundalu-oya	211 4	Rayigama	Horana	409 11
Diyagama	Agrapatana	506 28	Roeberry, &c.	Lunugala	268 20
East Holyrood	Dimbula	300 0	Rondura Group	Kitulgala	336 71
Eadella	Polgahawela	250 0	Rookwood	Hewaheta	312 12
Edarapola, &c.	Yatiantota	354 16	Sapumalkanda, &c.	Dehiowita	410 96
Eila	do.	319 20	Sarnia	Badulla	416 21
Elfindale, &c.	Watawala	356 24	Silvakanda	Deniyaya	264 65
Erracht	Dehiowita	252 47	Spring Valley, &c.	Badulla	302 52
Ganepella	Karawanella	300 60	Sunnycroft, &c.	Veyangoda	664 48
Galatura, &c.	Ratnapura	664 48	St. Leonard's, &c.	Nuwara Eliya	671 65
Gikiyanakanda	Neboda	500 0	Tangakellie	Lindula	420 26
Glassel, &c.	Dehiowita	341 40	Theresia, &c.	Bogawantalawa	205 3
Glenanore	Haputale	68 94	Troy, &c.	Karawanella	425 0
Glenlyon, &c.	Agrapatana	760 31	Udabage	Kitulgala	350 0
Goorookele	Deltota	324 65	Unugalla, &c.	Badulla	391 52
Glen Alpin, &c.	Badulla	527 76	Uva	do.	151 62
Halwatura	Panadure	550 0	Ury, &c.	Passara	419 60
Halgolla, &c.	Yatiantota	458 95	Vellai-oya, &c.	Watawala	438 92
Hauteville	Agrapatana	445 82	Venture Group	Norwood	380 15
Hayes, &c.	Morawak korale	200 0	Vogan, &c.	Neboda	276 69
Helbodde	Pussellawa	308 36	Waharaka, &c.	Kegalla	339 64
High Forest, &c.	Maturata	423 46	Warwick, &c.	Ambawela	405 69
Hope	Hewaheta	227 0	Watagoda	Watagoda	366 38
Katooloya	Madulkele	263 90	Waverly	Agrapatana	457 21
Kandaluoya	Dolosbage	309 92	We-oya, &c.	Yatiantota	312 18
Katugastota	Katugastota	120 45	Westhall, &c.	Kotmale	400 0
Kelani	Yatiantota	316 70	Weywellhena	Badulla	388 42
Kepitiyagala	Matale	68 58	Wiharagala	Haputale	199 58
Knavesmire	Kegalla	159 94	Yataderiya	Kegalla	546 99
Lavant, &c.	Karawanella	110 77	Yatawatta, &c.	Matale	497 61
Laxapana, &c.	Maskeliya	499 51	Yogama, &c.	Dehiowita	430 0
Lebanon, &c.	Madulkele	577 31	Yoxford, &c.	Watagoda	355 82
Lethenty	Hatton	553 83			
Mahaoya, &c.	Dehiowita	269 18			
					Total—Rs. 42,635 15

Table IV.—Statement showing the different Centres where Outbreaks of Cholera occurred during 1905, giving the Date and Duration of each Outbreak, the Number of Cases, and classifying them into different Races.

Nil.

Table V.—Return of Cases of Smallpox, Modified Smallpox, and Chickenpox that occurred in Ceylon during the year 1905, and which were reported to the Civil Medical Department.

Stations.	Total treated.								Total died.							
	Smallpox.				Modified Smallpox.				Smallpox.				Modified Smallpox.			
	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.
<i>Western Province.</i>																
Infectious Diseases	40	9	31	—	16	—	16	—	613	669	19	7	12	—	—	—
Hospital, Kanatta	8	1	7	—	7	—	7	—	41	56	1	1	—	—	—	—
Horana District ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Talagalla Hospital,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ragama	2	—	2	—	—	—	—	—	5	7	1	—	1	—	—	—
Ragama	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Kadawata	1	1	—	—	1	—	1	—	42	44	—	—	—	—	—	—
Negombo	1	1	—	—	1	—	1	—	12	14	—	—	—	—	—	—
Kaduwa	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—
Aturugiriya	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—
Kelaniya	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Panadura	—	—	—	—	—	—	—	—	72	72	—	—	—	—	—	—
Kalutara	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Beruwala	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—
Ja-ela	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—
Minuwangoda	—	—	—	—	—	—	—	—	28	28	—	—	—	—	—	—
Moratuwa	—	—	—	—	—	—	—	—	39	39	—	—	—	—	—	—
Mirigama	—	—	—	—	—	—	—	—	61	61	—	—	—	—	—	—
Veyangoda	—	—	—	—	—	—	—	—	103	103	—	—	—	—	—	—
Henaratgoda	—	—	—	—	—	—	—	—	119	119	—	—	—	—	—	—
Hanwella	—	—	—	—	—	—	—	—	13	13	—	—	—	—	—	—
Neboda	—	—	—	—	—	—	—	—	17	17	—	—	—	—	—	—
Leper Asylum, Hen-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
dala	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—
Borella Convict	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hospital	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—
Total ...	54	12	42	—	25	—	25	—	1,216	1,295	21	8	13	—	—	—
<i>Central Province.</i>																
Deltota	2	2	—	—	—	—	—	—	2	2	1	1	—	—	—	—
Matale	10	7	3	—	6	—	6	—	76	92	2	2	—	—	—	—
Nanu-oya	1	—	1	—	—	—	—	—	3	4	1	—	1	—	—	—
Gampola	9	2	7	—	7	—	7	—	10	26	4	2	—	—	—	—
Kotmale	4	—	4	—	—	—	—	—	7	11	1	—	1	—	—	—
Dikoya	3	—	3	—	—	—	—	—	22	25	—	—	—	—	—	—
Watawala	2	2	—	—	4	3	1	—	47	53	—	—	—	—	—	—
Pussellawa	13	4	9	—	—	—	—	—	19	32	3	2	1	—	—	—
Ramboda	1	—	1	—	—	—	—	—	15	16	—	—	—	—	—	—
Uda Pussellawa	1	—	1	—	—	—	—	—	28	29	—	—	—	—	—	—
Nawalapitiya	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—
Rattota	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—
Maturata	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—
Watagoda	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Nuwara Eliya	—	—	—	—	—	—	—	—	11	11	—	—	—	—	—	—
Hanguranketa	—	—	—	—	—	—	—	—	76	76	—	—	—	—	—	—
Kelebokka	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—
Bogawantalawa	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—
Dimbula	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—
Galagedara	—	—	—	—	—	—	—	—	10	10	—	—	—	—	—	—
Pandalu-oya	—	—	—	—	—	—	—	—	16	16	—	—	—	—	—	—
Ganmaduwa	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—
Maskeliya	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—
Nalanda	—	—	—	—	—	—	—	—	108	108	—	—	—	—	—	—
Rangalla	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—
Galawela	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—
Dolosbage	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—
Wattegama	—	—	—	—	—	—	—	—	201	201	—	—	—	—	—	—
Elkaduwa	—	—	—	—	—	—	—	—	8	8	—	—	—	—	—	—
Mausahiriya	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Kadugannawa	—	—	—	—	—	—	—	—	8	8	—	—	—	—	—	—
Teldeniya	—	—	—	—	—	—	—	—	64	64	—	—	—	—	—	—
Agrapata	—	—	—	—	—	—	—	—	20	20	—	—	—	—	—	—
Lindula	—	—	—	—	—	—	—	—	22	22	—	—	—	—	—	—
Randy	—	—	—	—	—	—	—	—	1,502	1,502	—	—	—	—	—	—
Total ...	46	17	29	—	17	3	14	—	2,349	2,412	12	7	5	—	—	—

\* T is case died before it was discovered.

Table V.—continued.

Station.	Total treated.								Total died.							
	Smallpox.			Modified Smallpox.			Chickenpox.	Total.	Smallpox.			Modified Smallpox.			Chickenpox.	Total.
	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.			Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.		
Northern Province.																
Kayts	1	—	1	—	1	—	1	—	4	6	—	—	—	—	—	—
Sariapitty (Jaffna)	2	1	1	—	3	—	3	—	—	5	2	1	1	—	—	—
Jaffna	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—
Point Pedro	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—
Delft	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Mandattivu	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—
Valvettiturai	—	—	—	—	—	—	—	—	—	12	—	—	—	—	—	—
Kangesanturai	—	—	—	—	—	—	—	—	—	7	—	—	—	—	—	—
Batticotta	—	—	—	—	—	—	—	—	—	16	—	—	—	—	—	—
Pallavarayakadu	—	—	—	—	—	—	—	—	—	8	—	—	—	—	—	—
Vavuniya	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—
Mullaitivu	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—
Mannar	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—
Total	3	1	2	—	4	—	4	—	69	76	2	1	1	—	—	2
Southern Province.																
Kotuwigoda	25	11	14	—	11	5	6	—	—	36	8	6	2	—	—	8
Civil Hospital, Matara	2	—	2	—	—	—	—	—	—	2	1	—	1	—	—	1
Smallpox Hospital, Matara	2	—	2	—	—	—	—	—	—	2	1	—	1	—	—	1
Segregation Camp, Matara	7	3	4	—	3	—	3	—	—	10	4	3	1	—	—	—
Kadewidiya, Matara	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Kanattagoda	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Hithetiya	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Nupe	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—	1
Denepitiya	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Godapitiya	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Dissagewatta	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Dondra	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Uyanwatta	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Uduwa	4	1	3	—	—	—	—	—	—	4	2	1	1	—	—	2
Kapugama	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Weeragampita	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Pilladuwa	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Dodampahala	12	2	10	—	—	—	—	—	—	12	3	—	3	—	—	3
Kottogoda	2	1	1	—	—	—	—	—	—	2	1	1	—	—	—	1
Weligama	—	—	—	—	1	—	1	—	18	19	—	—	—	—	—	—
Mulatiyana	1	1	—	—	—	—	—	—	71	72	—	—	—	—	—	—
Infectious Diseases Hospital, Galle	1	1	—	—	—	—	—	—	16	17	—	—	—	—	—	—
Kataluwa	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	1
Heenatigala	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Malalagama	1	—	1	—	3	—	3	—	—	4	—	—	—	—	—	—
Koggalla	4	2	2	—	—	—	—	—	—	4	2	—	2	—	—	2
Deniyaya	1	—	1	—	1	—	1	—	2	4	—	—	—	—	—	—
Segregation Camp, Tangalla	33	8	25	—	3	—	3	—	—	36	6	6	—	—	—	6
Madeketigoda	5	2	3	—	2	—	2	—	2	9	4	2	2	—	—	4
Beliatta	15	6	9	—	1	—	1	—	—	16	7	4	3	—	—	7
Pattiwala	4	1	3	—	—	—	—	—	—	4	3	1	2	—	—	3
Buddigama	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Kudawelikella	2	1	1	—	—	—	—	—	—	2	2	1	1	—	—	2
Beligalla	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	1
Kudabeela	2	1	1	—	—	—	—	—	—	2	1	—	1	—	—	1
Halpandeniya	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Okewala	7	1	6	—	—	—	—	—	—	7	2	1	1	—	—	2
Danketigoda	18	5	13	—	—	—	—	—	—	18	10	4	6	—	—	10
Nakulugamuwa	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Ambala	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Kahandemodara	9	2	7	—	1	—	1	—	—	10	3	—	3	—	—	3
Rekewa	2	1	1	—	—	—	—	—	—	2	—	—	—	—	—	—
Medilla	4	1	3	—	—	—	—	—	1	5	1	1	—	—	—	1
Heenakaduwa	3	1	2	—	—	—	—	—	—	3	1	—	1	—	—	1
Mawella	1	—	1	—	1	—	1	—	—	2	1	—	1	—	—	1
Omara	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	1
Camp Police Guard	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—

Table V.—continued.

Station.	Total treated.									Total died								
	Smallpox.			Modified Smallpox.						Smallpox.			Modified Smallpox.					
	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Chickenpox.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Chickenpox.
<i>Southern Province</i>																		
—contd.																		
Galmulla ...	1	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—
Gurupokuna ...	4	—	4	—	—	—	—	—	—	4	1	—	1	—	—	—	—	—
Tangalla Town ...	2	1	1	—	—	—	—	—	6	8	1	1	—	—	—	—	—	—
Palatuduwa ...	13	4	9	—	—	—	—	—	—	13	7	3	4	—	—	—	—	—
Tillawatuwana ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Pahalagoda ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Bedigama ...	2	—	2	—	—	—	—	—	—	2	1	—	1	—	—	—	—	—
Balapitiya ...	—	—	—	—	—	—	—	—	150	150	—	—	—	—	—	—	—	—
Hambantota ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—
Matara ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—
Kirama ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—
Akuressa ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
Imaduwa ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—
Kamburupitiya ...	—	—	—	—	—	—	—	—	16	16	—	—	—	—	—	—	—	—
Tbihaigoda ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—
Hakmana ...	—	—	—	—	—	—	—	—	27	27	—	—	—	—	—	—	—	—
Batapola ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—
Elpitiya ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—
Katukurunda ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—
Pallikudawa ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
Total ...	212	64	148	—	27	5	22	—	360	599	78	37	41	—	—	—	—	78
<i>Eastern Province.</i>																		
Batticaloa ...	—	—	—	—	—	—	—	—	8	8	—	—	—	—	—	—	—	—
Kalmunai ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—
Kattankudy ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—
Kokkadicholai ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—
Trincomalee Town ...	4	2	2	—	23	1	22	—	9	36	2	2	—	—	—	—	—	2
Nadunkuda ...	—	—	—	—	1	—	1	—	—	1	—	—	—	—	—	—	—	—
Kanniye ...	1	1	—	—	1	—	1	—	—	2	1	—	1	—	—	—	—	1
Total ...	5	3	2	—	25	1	24	—	34	64	3	2	1	—	—	—	—	3
<i>North-Western Province.</i>																		
Kurunegala ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—
Marawila ...	1	—	1	—	—	—	—	—	8	9	—	—	—	—	—	—	—	—
Chilaw ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Puttalam ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Dankotuwa ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Makandura ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
Total ...	1	—	1	—	—	—	—	—	31	32	—	—	—	—	—	—	—	—
<i>North-Central Province.</i>																		
Maradankadawela...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
Total ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—
<i>Province of Uva.</i>																		
Alutnuwara ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—
Badulla ...	—	—	—	—	—	—	—	—	14	14	—	—	—	—	—	—	—	—
Bandarawela ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—
Haldummulla ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—
Haputale ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—
Koslanda ...	2	—	2	—	—	—	—	—	1	3	1	—	1	—	—	—	—	1
Madulsima ...	3	2	1	—	8	1	7	—	8	19	2	2	—	2	1	1	—	4
Maspana ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—
Namunukula ...	1	—	1	—	5	—	5	—	18	24	—	—	—	—	—	—	—	—
Taldana ...	—	—	—	—	—	—	—	—	30	30	—	—	—	—	—	—	—	—
Welimada ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—
Total ...	6	2	4	—	13	1	12	—	127	146	3	2	1	—	2	1	1	5

Table V.—*contd.*

Station.	Total treated.										Total died.									
	Smallpox.					Modified Smallpox.					Smallpox.					Modified Smallpox.				
	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Chickenpox.	Total.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.	Chickenpox.	Total.
<i>Province of Sabaragamuwa.</i>																				
Karawanella ...	2	1	1	—	—	—	—	—	15	17	1	—	1	—	—	—	—	—	—	1
Kegalla ...	—	—	—	—	—	—	—	—	268	268	—	—	—	—	—	—	—	—	—	—
Ratnapura ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Kolonna ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—	—	—
Godakawela ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—	—	—
Parakaduwa ...	—	—	—	—	—	—	—	—	16	16	—	—	—	—	—	—	—	—	—	—
Bakwana ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Bulatkohupitiya ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Aranayaka ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Kitulgala ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Total ...	2	1	1	—	—	—	—	—	338	340	1	—	1	—	—	—	—	—	—	1

Table VI.—Statement showing Particulars of Vaccination in the Island during 1905.

Province.	Primary Vaccination.							Re-vaccination.				Percentage of Successful to Total inspected.	
	Age.			Results.				Results.				Primary Vaccination.	Re-vaccination.
	Infants.	Children.	Adults.	Successful.	Unsuccessful.	Unknown.	Total No. vaccinated.	Successful.	Unsuccessful.	Unknown.	Total No. vaccinated.		
Western ...	4,906	30,350	3,244	35,617	1,406	1,477	38,500	4,051	1,556	1,001	6,608	96.21	72.24
Central ...	2,568	9,407	335	9,869	1,150	1,291	12,310	97	32	115	244	89.56	75.19
Northern ...	710	5,503	85	5,368	683	247	6,298	140	169	992	1,301	88.71	45.31
Southern ...	2,279	23,793	2,758	21,995	4,162	2,673	28,830	1,192	1,106	1,778	4,076	84.08	51.87
Eastern ...	1,622	3,830	249	4,151	1,428	122	5,701	603	292	296	1,191	74.41	67.35
North-Western ...	211	9,450	89	8,694	362	694	9,750	—	—	—	—	96.01	—
North-Central ...	165	3,431	46	3,189	394	59	3,642	—	—	—	—	89.01	—
Uva ...	1,548	1,914	6	2,847	286	335	3,468	—	—	—	—	90.87	—
Sabaragamuwa ...	866	7,293	53	6,708	733	771	8,212	318	62	132	512	90.14	83.68
Total ...	14,875	94,971	6,865	98,438	10,604	7,669	116,711	6,401	3,217	4,314	13,932	90.27	66.55
Estate Vaccinators ...	3,217	11,423	6,958	18,025	2,034	1,539	21,598	1,673	1,579	350	3,602	89.85	51.44
In District Outdoor Dispensaries ...	539	1,201	136	1,495	292	89	1,876	6	103	6	115	83.65	5.51
In Civil Outdoor Dispensaries ...	3,671	9,980	254	10,797	2,496	612	13,905	—	—	—	—	81.21	—
Grand Total ...	22,302	117,575	14,213	128,755	15,426	9,909	154,090	8,080	4,899	4,670	17,649	89.31	62.25
In 1904 ...	14,990	114,540	10,176	118,884	12,946	7,876	139,706	3,446	1,138	808	5,392	90.17	75.17

Table VII.—Arrivals of Steamers, Sailing Ships, and Native Craft, with Native Traders and Immigrant Coolies, in the Port of Colombo, from January 1 to December 31, 1905.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Steamers ...	250	221	276	252	245	223	223	237	216	228	202	227	2,800
Native Craft ...	52	55	39	23	28	18	32	36	30	28	42	67	450
<i>Traders.</i>													
Men ...	6,329	5,351	4,212	4,507	5,077	5,944	6,653	5,717	7,062	6,153	4,896	6,783	68,684
Women ...	353	394	457	428	516	593	574	593	558	442	375	441	5,724
Children ...	325	276	332	289	296	435	463	379	464	348	239	395	4,241
Infants ...	79	107	135	145	146	147	170	169	202	117	112	143	1,672
Total ...	7,086	6,128	5,136	5,369	6,035	7,119	7,860	6,858	8,286	7,060	5,622	7,762	80,321
<i>Coolies.</i>													
Men ...	2,950	4,730	7,190	11,764	15,273	9,805	8,055	5,978	4,911	3,579	3,462	3,254	80,951
Women ...	966	1,598	2,621	3,958	5,682	4,402	3,067	2,255	1,747	1,113	1,058	905	29,372
Children ...	635	1,072	1,899	2,112	4,564	2,821	2,134	1,506	1,143	707	645	548	19,786
Infants ...	285	442	770	1,122	833	1,377	1,067	780	602	364	347	273	8,262
Total ...	4,836	7,842	12,480	18,956	26,352	18,405	14,323	10,519	8,403	5,763	5,512	4,980	138,371
Vessels placed in quarantine	49	55	71	69	63	56	60	53	63	65	57	60	721
Number of Cases of Small-pox sent to Hospital ...	—	1	4	2	—	2	—	—	—	—	—	—	9
Number of Cases of Small-pox isolated on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of Cases of Chicken-pox sent to Hospital ...	—	—	2	—	1	—	—	—	—	—	1	—	4
Number of Cases of Chicken-pox isolated on Board ...	—	—	1	—	—	—	—	—	—	—	—	—	1
Number of Cases of Measles sent to Hospital ...	—	—	—	—	1	—	—	—	—	—	—	—	1
Number of Cases of Measles isolated on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cholera.</i>													
Number sent to Hospital ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number died on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number remaining on Board ...	—	—	—	—	—	—	—	6	—	—	—	—	6
<i>Fees.</i>													
Dr. H. Bawa ...	Rs. 367-50	Rs. 378-0	Rs. 493-50	Rs. 404-25	Rs. 467-25	Rs. 288-75	Rs. 341-25	Rs. 456-75	Rs. 456-75	Rs. 346-50	Rs. 388-50	Rs. 267-50	Rs. 4,656-50
Dr. G. W. R. Fernando ...	Rs. 183-75	Rs. 189-0	Rs. 246-75	Rs. 202-12½	Rs. 233-62½	Rs. 144-37½	Rs. 170-62½	Rs. 228-37½	Rs. 228-37½	Rs. 173-25	Rs. 194-25	Rs. 66-87½	Rs. 2,261-37½
Dr. H. P. Joseph ...	Rs. 183-75	Rs. 189-0	Rs. 246-75	Rs. 202-12½	Rs. 233-62½	Rs. 144-37½	Rs. 170-62½	Rs. 228-37½	Rs. 228-37½	Rs. 173-25	Rs. 194-25	Rs. 133-75	Rs. 2,328-25
Dr. F. Keyt ...	—	—	—	—	—	—	—	—	—	—	—	Rs. 66-87½	Rs. 66-87½

For Tables VIII. and IX. see the Ceylon Blue Book, 1905, pages AA 37 and AA 46, Nosological Return and Return separating the Malabars into those sent in by the Police, &c.

Table X.—Return of Lepers treated in the Hospitals and Outdoor Dispensaries in the Island during 1905, excepting those treated in the Leper Asylum at Hendala and the Leper Wards at Kalmunai Hospital.

Institution.	Number treated.	Institution.	Number treated.
<i>Western Province.</i>		<i>Eastern Province.</i>	
Neboda Hospital ...	1	Outdoor Dispensary, Batticaloa ...	3
General Hospital, Colombo ...	1	Do. Paddiruppu ...	4
Kesbawa Outdoor Dispensary ...	2		7
	4		
<i>Central Province.</i>		<i>North-Western Province.</i>	
Civil Hospital, Kandy ...	2	Kurunegala Hospital ...	1
Do. Matale ...	1		
Do. Katugastota ...	1	<i>North-Central Province.</i>	
Do. Gampola ...	1	Nil.	
Do. Nuwara Eliya ...	4	<i>Province of Uva.</i>	
Do. Dambulla ...	1	Badulla Hospital ...	2
District Hospital, Dikoya ...	7	Lunugalla Hospital ...	1
Do. Dimbula ...	1		3
Do. Ramboda ...	3		
Do. Kelebokka ...	3		
Do. Teldeniya ...	1		
Do. Watawala ...	2		
	27	<i>Province of Sabaragamuwa.</i>	
<i>Northern Province.</i>		Karawanella Hospital ...	1
Outdoor Dispensary, Jaffna ...	2	Balangoda Hospital ...	5
		Kegalla Hospital ...	1
<i>Southern Province</i>		Rakwana Hospital ...	1
Outdoor Dispensary, Galle ...	8		8
		Grand Total ...	60

Table XI.—Statement of Expenditure of the several Government Hospitals, Asylums, &amp;c., for 1905.

Hospitals, &c.	Number of Patients treated.	Average Daily Sick.	Diets.	Extra Articles of Diet.		Total.	Equipment.	Funeral Expenses.	Wages and Allowances of Nurses.	Wages of Dispensers, Attendants, &c.		Contingencies.	Total.
				Other Articles.						Rs.	c.		
				Stimulants.									
I.—ASYLUMS.													
Lunatic Asylum, Jawatta	—	—	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.
Leper Asylum, Hendala	—	—	63,065 20	248 21	3,062 65	66,376 6	6,001 66	94 50	—	12,209 69	4,106 52	88,788 43	—
	—	—	39,335 45	490 61	1,512 35	41,338 41	4,132 66	95 22	—	4,851 57	3,415 31	53,833 17	—
Total	—	—	102,400 65	738 82	4,575 0	107,714 47	10,134 32	189 72	—	17,061 26	7,521 83	142,621 60	—
II.—De Soysa Lying-in Home	—	—	2,581 73	38 0	47 94	2,667 67	835 28	12 5	—	1,229 95	1,373 96	6,118 91	—
III.—CIVIL HOSPITALS.													
Colombo	—	—	51,647 47	4,551 13	7,401 6	63,599 66	4,806 24	484 0	—	15,075 63	10,681 40	94,646 93	—
Seamen's, Planters', and Passengers' Wards	—	—	9,284 64	1,131 47	6,029 61	16,445 72	2,932 32	—	—	4,395 0	4,451 23	28,224 27	—
Lady Havlock Hospital	—	—	6,494 6	189 88	1,509 75	8,193 69	1,267 0	198 90	—	3,550 38	1,991 92	15,201 89	—
Negombo	—	—	4,017 41	27 95	140 72	4,186 8	408 5	180 0	—	1,092 0	480 25	6,346 38	—
Kalutara	—	—	4,949 80	75 30	92 63	5,117 63	648 41	186 0	—	1,054 0	266 9	7,272 13	—
Panadura	—	—	2,630 23	12 40	32 98	2,675 61	340 8	159 50	—	613 25	83 89	3,872 33	—
Kandy	—	—	20,964 38	779 74	2,735 9	24,479 21	3,791 11	788 5	—	4,219 18	1,988 74	35,266 29	—
Katugastota	—	—	1,095 58	—	—	1,095 58	74 65	96 50	—	270 75	73 0	1,510 48	—
Gampola	—	—	4,867 55	34 33	455 22	5,357 10	755 93	192 0	—	987 1	306 32	7,598 36	—
Nuwara Eliya	—	—	7,781 23	111 41	496 37	8,389 1	801 86	136 51	—	1,196 0	772 19	11,295 57	—
Matale	—	—	6,573 81	50 37	1,337 80	7,961 98	1,216 82	280 86	—	1,197 11	719 25	11,376 2	—
Mulhalkele	—	—	1,354 82	—	15 20	1,370 2	14 10	15 60	—	290 65	68 65	1,759 2	—
Mullaitivu	—	—	2,500 41	—	72 97	2,573 38	261 24	30 0	—	583 50	113 35	3,561 47	—
Vavuniya	—	—	2,298 5	25 76	46 58	2,370 39	200 46	113 0	—	480 0	105 97	3,269 82	—
Point Pedro	—	—	2,993 74	7 75	98 65	3,100 14	389 15	16 50	—	528 37	162 59	4,196 75	—
Mantota	—	—	1,638 15	9 30	141 59	1,789 4	205 42	28 0	—	680 0	103 8	2,805 54	—
Galle	—	—	8,052 24	257 77	894 8	9,204 9	1,409 79	5 50	—	3,071 5	1,242 14	14,932 57	—
Balapitiya	—	—	1,757 45	17 31	74 51	1,849 27	224 1	125 0	—	425 96	128 69	2,752 93	—
Matura	—	—	3,822 41	24 63	77 22	3,924 26	595 11	87 50	—	626 0	464 24	5,697 11	—
Tangalla	—	—	697 81	19 52	89 49	806 82	393 70	234 0	—	333 0	211 25	1,978 77	—
Hambantota	—	—	1,176 43	19 56	123 86	1,319 85	133 97	69 0	—	562 50	282 13	2,367 45	—
Batticaloa	—	—	2,028 95	17 91	132 81	2,179 67	509 86	120 0	—	1,083 0	284 98	4,177 51	—
Trincomalee	—	—	1,543 79	0 76	16 54	1,561 9	254 55	72 0	—	552 0	101 56	2,541 20	—
Kalmunai	—	—	4,029 41	16 38	308 8	4,353 87	462 57	49 0	—	1,051 68	361 8	6,278 20	—
Kurunegala	—	—	10,321 30	297 73	760 57	11,379 60	1,024 16	458 45	—	1,975 0	595 16	15,432 37	—
Puttalam	—	—	2,629 41	4 50	107 72	2,741 63	282 63	174 0	—	667 50	146 44	4,012 20	—
Marawila	—	—	4,133 28	69 10	117 16	4,319 54	531 43	163 50	—	786 25	322 59	6,123 31	—
Chilaw	—	—	1,520 69	—	15 16	1,535 85	170 44	147 0	—	351 37	96 27	2,300 93	—
Anuradhapura	—	—	7,070 64	9 30	152 23	7,232 17	377 47	150 94	—	1,195 0	280 0	9,235 58	—
Badulla	—	—	10,332 40	221 72	604 89	11,159 1	2,533 12	250 0	—	2,869 30	781 58	17,093 1	—
Ratnapura	—	—	9,333 25	10 57	446 42	9,790 24	639 55	119 32	—	1,140 0	197 94	11,887 5	—
Kegalla	—	—	5,242 24	17 93	155 43	5,415 60	515 21	245 83	—	878 0	141 62	7,196 26	—
Total	—	—	204,783 3	8,011 48	24,682 29	237,476 80	28,170 41	5,376 46	—	53,280 44	28,005 59	352,309 70	—

## IV.—FIELD OR PARANGI HOSPITALS.

Dandugama ...	...	3,077 58	6 20	11 40	3,095 18	279 5	91 25	—	600 0	131 45	4,196 93
Nickoweratiya ...	...	2,775 12	18 48	199 44	2,993 4	93 25	97 0	—	468 0	91 11	3,742 40
Alintuwara ...	...	2,854 91	9 90	75 28	2,940 9	192 91	100 0	—	1,614 50	179 65	5,027 15
Medagama ...	...	2,762 71	24 3	29 1	2,815 75	277 85	100 0	—	970 0	165 71	4,330 31
Buttala ...	...	3,694 66	32 10	173 73	3,800 49	235 3	102 50	—	1,094 25	108 81	5,341 8
Kolonna ...	...	4,403 7	22 23	21 25	4,446 55	347 34	65 97	—	1,056 50	201 14	6,117 50
Godakawela ...	...	1,459 1	3 10	69 94	1,532 5	28 58	—	—	120 0	29 42	178 0
Mahaaya ...	...	20,927 6	116 4	580 5	21,623 15	1,567 86	669 58	—	735 71	147 4	2,641 51
Total	...	—	—	—	—	—	—	—	6,658 96	1,055 33	31,574 88

## V.—IMMIGRANT HOSPITALS.

Dambulla ...	...	4,062 39	171 93	67 90	4,302 22	253 39	25 51	—	570 0	178 13	5,329 25
Mannar ...	...	1,371 80	—	189 33	1,561 13	174 90	42 0	—	545 33	226 5	2,549 41
Paliyadi-irakkam ...	...	—	—	—	—	24 1	—	—	287 50	0 37	311 88
Pessalai ...	...	—	—	—	—	4 50	—	—	132 0	6 59	143 9
Mihintale ...	...	2,102 33	8 45	25 20	2,136 98	207 52	97 50	—	654 0	332 29	3,428 29
Total	...	7,536 52	180 38	283 43	8,000 33	664 32	165 1	—	2,188 83	743 43	11,761 92

VI.—Nursing Service  
 VII.—Branch Hospital, Borolla  
 VIII.—House of Observation, Galle  
 IX.—Infectious Diseases Hospital, Kanatta  
 X.—Salaries and Allowances of Apothecaries

...	...	1,239 58	1 14	14 61	1,255 33	324 17	10 45	45,006 46	344 0	164 34	45,006 46
...	...	210 1	—	0 22	210 23	21 39	—	—	569 17	160 9	2,098 29
...	...	2,208 86	45 24	616 13	2,870 23	687 38	95 85	—	1,697 0	467 6	980 88
...	...	—	—	—	—	—	—	—	81,973 86	—	5,817 52
Total	...	3,658 45	46 38	630 96	4,335 79	1,032 94	106 30	45,006 46	84,604 3	791 49	81,973 86
Grand Total	...	341,887 44	9,131 10	30,799 67	381,818 21	42,405 13	6,519 12	45,006 46	165,023 47	39,491 63	135,877 1
		—	—	—	—	—	—	—	—	—	680,264 2

Table XII.—Cost of Establishment, 1905.

	Amount. Rs. c.	Total. Rs. c.
<i>Personal Emoluments</i> ... ..	—	374,852 23
<i>Exchange Compensation</i> ... ..	—	12,830 77
<i>Allowances.</i>		
House allowance to Surgeon in charge, General Hospital ... ..	840 0	
House allowance to Medical Officer, Lady Havelock Hospital ... ..	600 0	
House allowance to Assistant Medical Storekeeper ... ..	150 0	
House allowance to Overseer of Packers, Civil Medical Stores ... ..	240 0	
		1,830 0
<i>Medical College.</i>		
Registrar, Medical College ... ..	6,378 8	
Allowances to Lecturers ... ..	10,006 34	
Clerk for College ... ..	600 0	
Librarian ... ..	240 0	
Assistant in Anatomy and Biology ... ..	360 0	
Scholarship for Female Students ... ..	—	
Pay of head servant ... ..	240 0	
Pay of carpenter and cooly ... ..	150 0	
Laboratory Assistants ... ..	2,600 0	
Servant, Medical Museum ... ..	150 0	
Attendant for female dissecting room ... ..	180 0	
		20,904 42
<i>Other Charges.</i>		
Remuneration to private medical practitioners ... ..	2,526 39	
Bookbinding, office furniture, and petty expenses ... ..	1,923 15	
Boatmen for Health Officer, Colombo ... ..	1,412 70	
Animal Vaccination, Central Depot ... ..	6,989 19	
Do. Southern Province ... ..	—	
Subscription to Colonial Medical Library ... ..	510 40	
Appliances to illustrate lectures ... ..	1,143 7	
Prize medals, Medical College ... ..	120 0	
Purchase of glass almirahs, &c., for the Medical College ... ..	156 31	
Medical College Library ... ..	510 40	
Examiners' fees (Preliminary Examination) ... ..	350 0	
Upkeep of Laboratories ... ..	1,971 93	
Stationery ... ..	2,053 2	
Rent of Colonial Surgeon's Office, Jaffna ... ..	150 0	
Do. Kurunegala ... ..	300 0	
Rent of Temple House ... ..	1,348 48	
Rent of Medical Officer's quarters, Chilaw ... ..	240 0	
Rent of Vaccine Stations, Colombo ... ..	2,055 83	
Horse allowance to Principal Civil Medical Officer ... ..	420 0	
Horse allowance to Colonial Surgeon, Western Province ... ..	420 0	
Carriage allowance to Chief Inspector of Vaccination, Western Province ... ..	420 0	
Horse allowance to Medical Officer (Police) ... ..	420 0	
The relieving of Medical Officers at solitary stations ... ..	335 60	
Extra clerical assistance for work in connection with tenders ... ..	160 0	
Travelling expenses of Medical Officers, &c., General ... ..	25,174 68	
Travelling expenses of Medical Officers, &c., in the Provinces ... ..	21,387 97	
		72,499 12
<i>Hospitals and Dispensaries</i> ... ..	—	783,498 44
<i>General.</i>		
Purchase of medicines and instruments ... ..	151,473 96	
Do. in India ... ..	496 89	
Do. in Ceylon ... ..	11,367 13	
Transport of medicines ... ..	3,978 86	
Articles for Civil Medical Stores ... ..	3,767 25	
Repairing instruments ... ..	56 90	
Contingencies ... ..	239 98	
Petty expenses ... ..	330 0	
		171,710 92
<i>Harbour Service.</i>		
Harbour service ... ..	800 0	
Plague precautions ... ..	10,339 0	
		11,139 0
<b>Total—Rs.</b>		<b>1,442,264 90</b>

