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

CEYLON.

ADMINISTRATION REPORTS, 1906.

PART IV.

EDUCATION, SCIENCE, AND ART.

MEDICAL.

REPORT OF SIR ALLAN PERRY, M.D., D.P.H.,

Principal Civil Medical Officer.

MEDICAL.

REPORT OF THE PRINCIPAL CIVIL MEDICAL OFFICER AND INSPECTOR-GENERAL OF HOSPITALS FOR 1906.

I HAVE the honour to submit for the information of Government the Administration Report of the Medical Department for the year 1906 with the usual statistical tables.

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

2. The estimated population of the Island on the 31st December, 1906, was 3,984,985, exclusive of the military and shipping population. 141,847 births were registered and 136,271 deaths. The birth-rate was 37·4 per mille as against 38·7, and the death-rate 35·9 per mille as against 27·7, for the previous year, calculated on the estimated population at the middle of the year.

3. The birth-rate was highest in the first quarter, next in the fourth quarter, and lowest in the third quarter of the year.

4. The average death-rate for the year to 1,000 persons living was 35·475.

5. *Infant Mortality.*—The average mortality for the year of infants under one year was at the rate of 197 to 1,000 registered births.

SECTION II.—PUBLIC HEALTH.

Vital Statistics.

6. The public health during the year 1906 was bad. The whole Island suffered from an increased death-rate, which in some towns, *e.g.*, Colombo, was serious. The causes of this unhealthiness will be discussed further on in this report.

7. It is with great regret I have to record the deaths of the Hon. Sir Alexander Ashmore, K.C.M.G., Colonial Secretary and Lieutenant-Governor of this Colony, and of the Hon. Mr. Herbert Wace, C.M.G., who was the Acting Colonial Secretary at the time of his death.

8. The Western, which is generally the healthiest Province, fell from that position in the second and third quarters of the year, the Northern Province taking its place; but, although in the first and fourth quarters the Western Province was the healthiest, yet its death-rate was in excess of its average. The highest death-rates were recorded for the North-Central Province for the first quarter, the North-Western Province for the second and third quarters, and Province of Uva for the fourth quarter. During the first quarter all the Provinces, excepting the Central, showed a higher death-rate than the average. In the second quarter the Northern, Eastern, and North-Central were the only Provinces to show a less death-rate than the average. In the third and fourth quarters the death-rates were considerably higher than the average in every Province, and in the North-Western Province for the third quarter the death-rate was 35·6 per thousand per annum above the average.

9. The total number of deaths in Ceylon during 1906 from all causes was 136,271. The third quarter heads the list with 37,997, the fourth quarter comes next with 35,230, the second quarter takes the third place with 32,495, and the first quarter is last with 30,549.

10. 65,456 or nearly half of the total number of deaths were returned under the heading "Specific, Febrile, or Zymotic Diseases," which includes Smallpox, Chickenpox, Measles, Whooping Cough, Mumps, Diphtheria, Cerebro-Spinal Fever, Simple and Ill-defined Fever, Enteric Fever, Influenza, Cholera, Diarrhœa, Dysentery, Remittent Fever, Ague, Malarial Cachexia, Zoogenous, Venereal, and Septic Diseases.

11. "Parasitic Diseases" claimed 6,302 deaths; these include Thrush, Worms, and Dochmius Duodenalis (Anchylostomiasis).

12. There were 10,220 deaths from "Constitutional Diseases," among which are included Rheumatism, Cancer, Tabes-Mesenterica, Phthisis, and other Tubercular Diseases, Anæmia, Leprosy, Elephantiasis, Parangi.

13. 35,918 deaths were due to "Local Diseases," which include Diseases of the Nervous, Circulatory, Respiratory, Digestive, Urinary, and Integumentary Systems and Parturition.

14. 12,403 deaths were returned under "Ill-defined and not Specified Causes," and include such vague terms as Dropsy, Debility, Abscess, Tumour, Hæmorrhage, &c.

15. The diseases which caused the greatest number of deaths among "Specific, Febrile, or Zymotic Diseases" were—

Diarrhœa	25,873
Ill-defined Fevers	18,358
Enteric Fever	9,440
Dysentery	7,575
Cholera	204
Malaria (including Malarial Cachexia)	2,573

16. To my mind the above figures show very plainly that the sanitation and water supplies of the towns and villages of Ceylon are in a deplorable condition. To take Enteric Fever as a test. This disease is to all intents and purposes a waterborne disease; further, it is a *preventable* disease; yet 9,440 deaths out of a total of 136,271 deaths from all causes were due to this disease, a death-rate of 6·927 per cent. of all deaths. I am convinced that this appalling mortality from Enteric Fever is not correct, but that it is much higher. Of recent years the diagnosis of Enteric Fever has become more exact, the compulsory notification of cases in some of the larger towns is better complied with, which two factors may account for the large number of deaths registered from this disease; but there are 25,873 deaths from "Diarrhœa," 18,358 deaths from "Ill-defined Fevers," 7,575 deaths from "Dysentery," and 1,170 deaths from "Remittent Fever" and "Ague," among which diseases are included many cases of Enteric Fever not diagnosed as such.

17. Among "Parasitic Diseases," "Dochmius Duodenalis" or "Anchylostomiasis" deserves mention. 915 persons according to the Registrar-General's returns died of this disease and 1,403 died from "Malarial Cachexia." I submit that by far the largest number of these 1,403 deaths, due to the so-called Malarial Cachexia, had more to do with Anchylostomiasis than to any malarial influence. In support of my statement it will be found that the largest numbers of deaths from these two diseases occurred in the planting districts, as the following figures show :—

	No. of Deaths from—	
Western Province.	Malarial Cachexia.	Anchylostomiasis.
Kalutara District	71 ..	137
Central Province.		
Kandy, Matale, and Nuwara Eliya Districts	371 ...	466
Province of Sabaragamuwa.		
Ratnapura and Kegalla Districts ..	459 ..	168

Further, the incidence of these diseases among Sinhalese and Tamils is as under :—

	Deaths for the Year 1906 from.—	
	Malaria Cachexia.	Anchylostomiasis.
Sinhalese	189 ..	101
Tamils	1,136 ..	786

Anchylostomiasis is essentially a disease among Tamils; Malaria and its after effects are seen more especially among Sinhalese villagers in the low-country. The Tamils who died from these two diseases numbered 1,922, whereas the deaths from the same causes among Sinhalese were only 290, and the Sinhalese far outnumber the Tamils in population. The combined number of deaths from these two diseases is largest in the healthy planting districts of the Central Province, therefore I say that many of the deaths returned as Malarial Cachexia should have been shown under the head of Anchylostomiasis.

18. Anchylostomiasis is one of the *preventable* diseases. The number of coolies constantly sick from this disease is not known, but the wasted labour and expense they represent is considerable. The number of deaths from this disease is a drain on the labour force of the planting community. Suggestions have been sent by this Department to the Planters' Association as to the remedial measures to be employed to combat this disease, but so far I am not aware that anything has been done in the way of improved water supply and conservancy on estates.

19. Under "Constitutional Diseases," the most important are 4,640 deaths from all Tubercular Diseases, including Phthisis, 4,153 were from Phthisis, Cancer claimed 182 victims, Leprosy 103, and Parangi 144.

20. Of "Local Diseases," Pneumonia was the cause of death in 3,897 persons, and "Diseases and Accidents of Childbirth" 2,392.

21. It is somewhat remarkable that no deaths from Appendicitis are mentioned in the Registrar-General's Vital Statistics for the year; unless the deaths from this disease are classed under "Other and Undefined Diseases of Digestive System," it would be interesting if deaths from this cause were returned under the definite heading of Appendicitis.

22. There were 168 deaths from Snake-bite, which give a proportion of 1 death from this cause in 23,720 of the population, which is a little less than the proportion of these cases in India.

23. The causes which contributed to the ill-health of the inhabitants of Ceylon during 1906 were drought, floods, the failure of paddy crops, infectious diseases, and malaria. Rain was short during the first and second quarters of the year, and the south-west monsoon was late arriving. Malaria of a virulent type broke out in many parts of the Island in consequence of the want of rain to flush out the puddles and small collections of water in which mosquitoes breed, the want of water favoured the development of intestinal disorders owing to the presence of pollution in the meagre water supplies. The failure of paddy crops was due to the drought, and the fact that the cultivators were incapacitated from illness for work; in many districts the long drought was followed by floods after which deterioration occurred in the health of those living in the flooded neighbourhood. Cholera and Smallpox visited many districts, and in some towns Enteric Fever was rife.

Principal Diseases.

24. *Malaria.*—A widespread outbreak of Malaria occurred from April to September throughout the Island, the only Province which shows a less number of cases than during the previous year was the Northern. In some parts of the country there was scarcely an inhabitant who was not suffering from this disease, and the distress was very great. The districts which were most seriously affected were Matara, Hambantota, Veyangoda, Hanwella, the Kelani Valley, Matale, Teldeniya, Buttala, and Muppane, a large portion of the North-Western Province, and nearly the whole of the Province of Sabaragamuwa. It was noticed that in those parts of the country where large tracts of land were being cleared for the extension of rubber cultivation there the fever was most virulent and widely prevalent. In Government hospitals and dispensaries 700,541 persons were treated for Malarial Fevers, in addition to which were the cases treated at estate dispensaries, in jails, and by persons especially engaged to distribute quinine to those suffering in remote villages, and to many private individuals who undertook to distribute remedies for the sake of charity.

25. The following prophylactic measures were taken against Malaria : improvement in the sanitary surroundings of dwellings, the filling up of hollows, and better drainage. The effect of the wet seasons on malaria was anticipated by the free distribution of quinine before and during each monsoon. This was a very large undertaking, and necessitated the employment of a good many distributors of the drug. The Provinces mostly affected by the south-west monsoon rains were selected in May for the employment of quinine, viz., the Western, Sabaragamuwa, the Central, North-Western, and Southern, and in October the Northern, Eastern, North-Central, and Uva Provinces were selected for the north-east monsoon. I regret that owing to the vast extent of country involved, and that this was the first time that quinine was attempted to be so largely distributed, its accomplishment was not very perfect. The records kept by the distributors were incorrect, and in some instances no returns are available, so that it is impossible to give any figures which would be of real usefulness, but the Provincial Surgeons report " that considerable benefit was conferred on the poor and others by the free distribution of quinine."

Quinine Prophylactic in Schools.—In the middle of 1906 arrangements were made, in consultation with the Director of Public Instruction, by which school children living in very malarious places were to be given quinine on two successive days weekly. The Director of Public Instruction supplied me with lists of his schools, and I divided them into schools affected by the south-west monsoon and those affected by the north-east monsoon. The Government dispensaries situated nearest to the schools were advised to issue quinine on the schoolmasters' requisitions, and the children were regularly dosed with the drug. This scheme has been carried out, I believe very thoroughly, for it is much easier to employ a method of this kind among a community like a school, or prison, under discipline than among people who only voluntarily seek its aid. In some instances the parents objected to their children being dosed with medicine, but a little explanation generally sufficed to overcome this opposition.

In the nine Provinces of the Island quinine was administered for periods of from six weeks to four months in 133 schools to 13,098 children, and the Director of Public Instruction reports that in many places where the administration of quinine was carried out the attendance of the children was better than in former years ; on the other hand, in some districts there was no marked improvement in this respect.

26. The total amount of quinine issued from the Civil Medical Stores was 87,555 ounces, which cost Rs. 73,299.

27. *Cholera.*—The freedom from serious outbreaks of Cholera the Island has enjoyed for the last few years was not maintained in 1906. From September to December Cholera broke out in all the Provinces, excepting the North-Western. The outbreak in Uva commenced on Kumbukkan estate among some Batticaloa coolies. On the appearance of the disease a stampede occurred, and the infection was carried to the Eastern and Southern Provinces. Separate foci were introduced into the Western Province, the Central Province, the Northern Province, and Sabaragamuwa, in all of which the infection was traced to India. The cases which occurred in the North-Central Province could not be traced.

28. The earliest case happened on the 3rd September on Lanark estate, Rakwana, Sabaragamuwa. In this Province there were 55 attacked, of whom 9 died. The next outbreak commenced on the 4th September at Katugastota in the Central Province, and was traced to a Public Works Department cooly who had lately arrived from India ; in this Province there were 21 attacks, with 12 deaths. The Uva outbreak occurred on the 18th September ; there were 549 cases, with 355 deaths. On the same day a sharp outbreak occurred in a remote part of the North-Central Province, with 48 cases and 26 deaths, the cause of which could not be satisfactorily traced. Bacteriological investigation of this outbreak did not prove the presence of the Cholera germ, but as there were 48 persons attacked with 26 deaths I have little doubt the disease was Cholera.

29. On the 28th September the Eastern Province was attacked ; there were 32 cases, with 20 deaths. On the 25th October the Southern Province was infected with this disease ; there were 35 cases, with 18 deaths. At Kayts in the Northern Province two cases occurred on a native vessel from India, they both died ; the disease did not spread. In the Western Province 14 cases occurred, with 9 deaths ; here the outbreaks were frequent between July and October, but were confined to the Infectious Diseases Hospital, Welikada and Mahara Jails, and to the Cooly Camp at Ragama.

30. This Department dealt with 756 cases in all, of whom 449 died. This number of deaths does not tally with the Registrar-General's return for this disease (see paragraph 15).

31. The year under review was an unhealthy one in Southern India. Cholera and Smallpox were very prevalent, especially in the cooly recruiting districts, and although a large number of coolies who were known to have come to Ragama from villages infected with Cholera and Smallpox were placed in quarantine for the full number of days, others must have slipped through, who carried the disease with them. This could not be helped, for it is obvious that with hundreds of coolies arriving from India daily it would be impossible to quarantine all of them for the five days for Cholera and eighteen days for Smallpox, which are the incubation periods respectively ; but every precaution was carried out at Ragama by the disinfection of all coolies before sending them to estates, and by vaccinating those who showed no marks of previous vaccination or Smallpox, and by warning superintendents of estates to keep the new arrivals under observation.

32. *Smallpox.*—The year 1905 was a bad one for Smallpox, and cases lasted in the Southern Province over the end of that year. In this Province during 1906, 83 persons were under treatment, of whom 28 died ; 77 persons suffered from this disease in the Western Province, showing 19 deaths ; there were 12 cases, with 3 deaths, in the Central Province ; 54 cases, with 11 deaths, in the Northern Province ; 8 attacks, with 1 death, in the North-Western and Sabaragamuwa Provinces ; 2 cases occurred in Uva, with 1 death ; 51 cases occurred in the Eastern Province, with 6 deaths. There were no cases in the North-Central Province.

33. The Smallpox returns show the cases as "Smallpox" and "Modified Smallpox," also those with marks of vaccination and those without. In favour of the good influence of vaccination I may state that in the above figures of 241 cases of Smallpox and 46 cases of Modified Smallpox there were 69 deaths from Smallpox and none from Modified Smallpox. There were 56 unvaccinated persons among those attacked with Smallpox, and of these 56, 37 of them died. All the Modified Smallpox cases showed marks of previous vaccination.

34. *Enteric Fever.*—There was a total of 649 admissions for Enteric Fever in Government medical institutions, including jails, with 173 deaths, which gives the high death-rate of 26·65 per cent. In the

jails there were 34 admissions and 8 deaths, a death-rate of 23·5 per cent. An outbreak happened at Mutwal jail, which is interesting from a sanitary point. Several cases occurred among a party of prisoners engaged in earth cutting; no cause for the outbreak could be traced; but as the men affected were confined to the earth-cutting party, particular attention was paid to the site where these operations were in progress. It was discovered that the work was being done on a pitting ground where night soil had been buried twenty years previously. Samples of the earth were examined bacteriologically, but the bacillus of Enteric Fever could not be demonstrated satisfactorily. The fact remains that no cases cropped up after I advised that the work should be stopped.

35. There were 480 cases in the Colombo hospitals and jails with 133 deaths, a death-rate of 27·71 per cent.

36. There were 18 cases in Nuwara Eliya town, the infection in the majority of which could be traced to polluted water, but in one instance at least water cress conveyed the poison. In the Colombo hospitals there were more cases of this disease than in former years, and owing to the danger to other patients of so many cases congregated together, I made special arrangements to transfer to the Infectious Diseases Hospital all females and children suffering from this disease, which were followed by good results.

37. There is always a large amount of Enteric Fever at Moratuwa, Panadure, and along the Sea Coast Line, which is not to be wondered at when one considers the large and crowded population of these districts, and that there is no proper drainage, conservancy of night soil, nor pure water supply. Shallow wells are used, which are constantly polluted. The smaller towns and hamlets around Colombo, *e.g.*, Kotte, Berawamulla, Pamankada, Wellawatta, and Dehiwala, are impregnated with this disease, and in some of them it spread to an alarming extent. In several places a large percentage of houses were infected, and several cases of the disease occurred in each infected house.

38. The following is a comparative statement for 1905–06 of the most important infectious diseases treated in Government hospitals:—

	Cholera.		Smallpox.		Malaria.		Enteric Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1905	—	—	440	122	7,796	129	370	96
1906	756	449	287	69	11,159	206	615	165

39. *Dysentery.*—At the various Government hospitals 4,788 cases of dysentery were treated, with 1,649 deaths. The largest number of cases occurred in the Western Province, then came the Central, Sabaragamuwa, North-Western, and Uva Provinces; the smallest number was reported from the Eastern Province. The total number treated and the deaths were more than in 1905. In the jails for the whole Island there were 478 cases admitted for this disease with 22 deaths, a death-rate of 4·60 per cent. In the Colombo District the jails contributed 87 cases, as against 301 cases last year. Cholera belts or flannel shirts were issued to prisoners exposed to rain and wind.

40. The Director of the Bacteriological Institute has demonstrated that flies play a distinct *rôle* in the dissemination of this disease. He has established the following facts:—That flies fed on dysenteric stools when placed on a medium suitable for the growth of the dysenteric bacillus numerous colonies of this bacillus develop; that the intestinal contents of flies fed on dysenteric stools contain the bacillus; that a percentage of flies caught in a dysenteric ward contain the bacillus in their intestines. It is therefore obvious that if human beings were particular in preventing their food and drink from being infected with disease germs carried by flies, dysentery would be less common.

41. *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.

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

43. *Leprosy.*—There was a total of 317 cases of Leprosy remaining at the Hendala Asylum on 31st December, 1905, and 174 cases were admitted during the year, giving a total of 491 treated during the year; of these, 107 were discharged and 67 died. At Kalmunai 41 cases were treated, 17 of whom were discharged. As in former years the largest number of admissions came from the Western Province (Colombo District); cases also came from the Southern, Central, Eastern, North-Western, Uva, and Sabaragamuwa Provinces. 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. One new ward of fifty beds for males has been built, which will render available for females a ward of fifty beds formerly used for males, but this extra ward will not prove sufficient.

Dr. Meier, the Superintendent of the Leper Asylum for the last twenty-seven years, was retired on account of age. I should like to take this opportunity of placing on record the valuable work performed by Dr. Meier during that long period. This Asylum was a comparatively small institution when Dr. Meier assumed charge of it in 1879, but since then large additions have been made from time to time, and the present block of buildings form the best memorial Dr. Meier could have as to his energy, professional ability, tact, and uniform kindness to the sufferers from this disease.

44. *Anchylostomiasis.*—The number of cases of this disease treated at the Government hospitals has increased during the year under review by 396. In 1905 the number treated was 2,810; this year it is 3,206. 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. The death-rate from this disease in 1906 to cases of the disease treated was 24·26 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.

At the request of the Planters' Association the following information as to the cause and prevention of this disease was widely circulated :—

The Disease Anchylostomiasis, or Dochmius Duodenalis.

The cause of this disease, which is very prevalent in the planting districts, is a small intestinal worm ; its spread is due to want of proper sanitation. The eggs of the worms, or the recently hatched worm themselves, gain an entrance to the human subject either by the skin, or are swallowed. The disease is spread by soil or water contaminated by the excreta of persons suffering from the disease.

The measures to be enforced to check the spread of this disease fall under four heads :—

(1) The proper disposal of night soil (excreta).
(2) Protection of the legs and feet.
(3) Pure water for drinking and washing purposes.
(4) The segregation of all cases in hospital until cured.

Under the first head : it is necessary for superintendents to prohibit coolies from fouling the soil indiscriminately, and to carry out this prohibition latrines should be built on every estate, and coolies who do not make use of them should be punished. The night soil should be collected in buckets and buried daily in a part of the estate away from dwellings and water-courses.

Under the second head : means should be employed to protect the legs and feet of coolies, for the worms which are in the polluted soil find their way into the system through the skin, and are often the cause of ulcers so commonly seen on coolies' legs. A cheap form of boot worn outside putties would afford protection ; in some countries tar covered with sand is applied to the feet and legs.

Under the third head : at present water-courses and bathing places are contaminated by the surface drainage of the soil being washed into the water after rain ; means should be taken to see that this cannot happen. The water used by coolies for cleaning themselves after a call of nature should not be allowed to run into the drinking or bathing supply.

Under the fourth head : it is quite impossible to admit every cooly with Anchylostomiasis into hospital and to keep him there until cured, because the disease exists in nearly every cooly on every estate, and the hospital accommodation is insufficient for them ; but as far as possible coolies will be admitted and retained in hospital until they are cured, and will be put under a new treatment that has recently been introduced into the Island. (Medical Officers will refer to Circular Letter to Provincial Surgeons of the 27th June, 1906.)

As long as the present insanitary condition as regards disposal of sewage, &c., on estates continues, there is little encouragement for medical officers to cope with this disease, because, when cured, patients get reinfected on the estates soon after their discharge from hospital, and the whole business has to be gone through again *ad infinitum*.

The above remarks will be met by the statement that the suggestions are totally impracticable of being carried out ; the answer to which is that they are not impracticable, provided those in charge of estates will spend a little money to improve the condition of their coolies. The return for the expenditure will be a more efficient labour force.

45. *Diphtheria.*—There were 4 deaths from Diphtheria registered in the Island, 1 of which occurred in Colombo, 2 in Kegalla, and 1 at Galle. There were 3 cases admitted into Government hospitals, with 1 death.

46. *Parangi.*—There were 3,958 cases of this disease treated with 41 deaths, being 423 cases and 16 deaths over the numbers for 1905. The order in which the number of cases occurred by Provinces is the following :—The North-Western Province is an easy first, then come Eastern, Southern, Sabaragamuwa, Uva, Northern, Central, Western, and North-Central Provinces. It will be noted that the disease is more rife 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.

Dr. Castellani's "spirochæte pertenuis," which was mentioned in my report for last year as probably being the germ of Parangi, has been worked at by its discoverer throughout the year, with satisfactory results. In the light of Dr. Castellani's researches I must give up the opinion I have frequently expressed that Parangi was essentially a syphilitic affection, for he has inoculated a monkey with parangi and has found the spirochæte in the skin eruption he has further found that monkeys successfully inoculated with Parangi are not immune to syphilis, and that monkeys successfully inoculated by syphilitic poison do not become immune to Parangi. For further details I would refer to Dr. Castellani's "Report on the De Soysa Bacteriological Institute," which is attached.

47. *Phthisis.*—During this year there were fewer cases of Phthisis treated at the various medical institutions than in 1905 in the proportion of 955 to 1,037.

The following tables show race, sex, and distribution in the Provinces, and race, age, and distribuiton of the disease in the sexes :—

I.—Race and Sex Table Showing the Distribution in the Provinces for 1906.

Provinces.	Sinhalese.		Malabars.		Tamils.		Moors.		Burghers.		Malays		Europeans.		Bengali.		Not stated.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Western	169	107	63	15	21	3	11	—	11	5	1	2	—	—	1	—	1	—	278	132	410
Central and North-Central ..	63	21	58	9	11	4	1	—	1	2	1	—	1	—	—	—	—	—	136	36	172
Southern	51	38	13	1	4	—	1	—	1	1	—	—	1	—	—	—	—	—	71	40	111
Northern	2	—	4	—	33	7	—	—	2	1	—	—	2	—	—	—	—	—	43	8	51
Eastern	3	—	1	1	7	2	1	—	—	—	—	—	—	—	—	—	—	—	12	3	15
Uva	30	10	10	4	1	—	4	1	—	—	—	—	—	—	—	—	—	—	45	15	60
North-Western ...	43	9	10	3	1	—	4	—	—	1	1	—	—	—	1	—	—	—	60	13	73
Sabaragamuwa ...	22	11	17	8	—	—	4	—	—	—	—	—	1	—	—	—	—	—	44	19	63
Racial Sex Totals ...	383	196	176	41	78	16	26	1	15	10	3	2	5	—	2	—	1	—	689	266	955
Racial Total ...	579		217		94		27		25		5		5		2		1		955		955

II.—Race and Age Table showing Distribution in the Sexes for 1906.

	Sinhalese.		Malabars.		Tamils.		Moors.		Burghers.		Malays		Europeans.		Bengali.		Not stated.		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.
0— 5	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
6—10	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3
11—15	3	7	6	3	2	2	—	—	—	1	—	—	1	—	—	—	—	—	12	13	25
16—20	46	30	21	1	9	—	—	1	1	—	1	1	—	—	—	—	—	—	78	33	111
21—25	46	37	11	6	7	1	6	—	1	3	—	—	—	—	—	—	1	—	72	47	119
26—30	62	44	33	10	10	3	9	—	1	1	1	—	—	—	—	—	—	—	116	58	174
31—35	46	10	22	7	11	—	4	—	2	—	—	—	—	—	—	—	—	—	85	17	102
36—40	61	21	34	6	13	4	5	—	1	1	—	1	3	—	1	—	—	—	118	33	151
41—45	28	12	19	4	10	3	—	—	1	1	1	—	—	—	1	—	—	—	60	20	80
46—50	32	24	12	2	4	2	2	—	5	3	—	—	—	—	—	—	—	—	55	31	86
51—60	44	9	13	1	4	1	—	—	2	—	—	—	—	—	—	—	—	—	63	11	74
61—70	11	1	3	1	5	—	—	—	1	—	—	—	1	—	—	—	—	—	21	2	23
71—80	—	1	1	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	5
81—90	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
91 and over ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Racial Sex Totals ...	383	196	176	41	78	16	26	1	15	10	3	2	5	—	2	—	1	—	689	266	955
Racial Totals ...	579		217		94		27		25		5		5		2		1		955		955

48. *Cancer.*—There were 242 cases of malignant disease treated in the various Government hospitals and dispensaries throughout the Island in 1906, and were distributed among the Provinces as under :—Western 166, Southern 22, Central and North-Central 24, Uva 11, Sabaragamuwa 4, Northern 2, Eastern 3, and North-Western 10. I am sure that the above figures do not represent all cases of Cancer, therefore it would serve no useful purpose to analyse them into race, *locale*, and age incidence. The annual returns of admissions and deaths for all diseases sent in by medical officers include a total of 212 cases of Cancer and 26 deaths, but from the special return for this disease which is supposed to be submitted with every case 242 cases are shown. Medical officers are frequently reminded to carry out the orders to carefully record all cases of this disease, but it is most difficult to get them to comply. The large number of cases in the Western Province is due to the fact that the largest hospital (Colombo) in the Island receives cases not alone from Colombo, but from all parts of the Island, and to the better diagnosis made here. The number of deaths from Cancer registered by the Registrar-General was 207.

Comparative Statement of Principal Diseases for the last Five Years.

Cholera.

Year.	Cases.	Deaths.
1902	179	116
1903	46	23
1904	7	4
1905	—	—
1906	756	449

Smallpox.

1902	146	35
1903	29	5
1904	10	2
1905	440	122
1906	287	69

Chickenpox.

1902	2,293	3
1903	1,862	4
1904	3,224	1
1905	4,426	1
1906	2,677	1

Measles.

1902	196	2
1903	20	—
1904	83	—
1905	59	2
1906	55	1

Dysentery.

1902	3,017	999
1903	2,384	658
1904	2,111	478
1905	2,914	805
1906	4,788	1,649

Enteric Fever.

Year.	Cases.	Deaths.
1902	243	63
1903	358	71
1904	341	70
1905	362	94
1906	615	165

Leprosy.

1902	483	48
1903	526	92
1904	532	68
1905	632	78
1906	570	73

Anchylostomiasis.

1902	1,609	257
1903	1,775	272
1904	1,937	286
1905	2,810	517
1906	3,206	788

Parangi.

1902	3,434	10
1903	3,254	10
1904	3,501	16
1905	3,387	25
1906	3,958	41

Malarial Fever.

1902	6,513	115
1903	4,766	108
1904	5,288	75
1905	7,796	129
1906	11,159	206

49. *Vaccination.*—During the year 148,965 subjects were vaccinated : 133,196 were primary vaccinations and 15,769 re-vaccinations. Of the former, 118,534 were successful and 13,096 unsuccessful, and in 7,566 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 89·99. Of the re-vaccinations, 8,396 were successful and 2,501 unsuccessful, and the result was not known in 4,512 cases, as the subjects failed to present themselves for inspection. The percentage of successful cases to total inspected was 77.04. Glycerinated calf-lymph was supplied in sufficient quantities to all parts of the Island from the Central Calf Vaccine Depôt at Colombo.

The following table gives figures for 1905 and 1906 for comparison :—

Table showing the Primary and Re-vaccination in the Island during 1905 and 1906.

	1905.	1906.
Primary Vaccination :—		
Number vaccinated	154,090	133,196
Successful	128,755	118,534
Unsuccessful	15,426	13,096
Unknown	9,909	7,566
Re-vaccination :—		
Number vaccinated	17,649	15,769
Successful	8,080	8,396
Unsuccessful	4,899	2,501
Unknown	4,670	4,512
Primary vaccination :—		
Percentage of successful to total inspected ..	89·31	89·99
Re-vaccination :—		
Percentage of successful to total inspected ..	62·25	77·04

The total number of persons vaccinated is below that for 1905. Two reasons may be assigned for the falling off : (*a*) That there was less Smallpox during 1906, therefore there were fewer re-vaccinations and primary vaccinations ; (*b*) for a large portion of the year vaccinators were employed in distributing quinine to the people during the Malaria epidemic ; (*c*) vaccination was suspended in many parts of the Island during the malaria epidemic.

[For Statement see next page.]

50. *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.

Two plague-infected vessels arrived from Bombay : (1) The P. &. O. Dongola arrived on the 21st April ; a case of bubonic plague of three days' duration had been buried at sea the day previous. The Commander refused to take his ship to the Plague Port (Galle), on the ground that his vessel was too large to visit that port with safety, he therefore went to sea ; (2) on the 15th June the P. & O. Devanha arrived from Bombay with a case of suspicious fever of short duration on board, the ship was in strict quarantine. The following day the disease was proved to be plague, and the man died. This ship being a large one did not go to Galle, but the passengers for Ceylon were sent by special train to the Plague Camp, where they were in quarantine for ten days.

The Government requested the Plague Committee to revise the plague rules and regulations with the object of bringing them more in line with the last Paris Convention. After considerable labour the Plague Committee submitted its report, but the revised rules have not received the sanction of Government up to the time of writing.

The crusade against rats in Colombo has been rigorously continued throughout the year.

51. *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, but virtually it is a single establishment. For some years past this institution has been overcrowded. New quarters for overseers have been erected and occupied. The quarters for the Assistant Medical Officers in the main building are now being converted into wards for 70 quiet patients, and the medical staff has been moved into the entrance block, but this arrangement will only relieve the overcrowding for a time. The total number of patients treated in the Asylum during 1906 was 731. The daily average number of patients was 553·45, and the daily average shows a decrease for males of 7·02 and for females an increase of ·08. This decrease in the Asylum population is due mainly to the transfer of 36 Tamils to Madras, which was effected in pursuance of an arrangement concluded with the Indian Government that it should take over Indian natives who had become insane in this country.

In the House of Observation 172 persons were admitted, which with 9 remaining from the previous year give a total of 181. But as the Asylum and the House of Observation are one, 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, at one time during the year 678 persons had to be crushed into the space allotted to 378*. Only 19 patients were returned as having died of tubercular disease, but in 50 per cent. of the deaths from all causes tubercular infection was found. The high Asylum death-rate for 1906 may be attributed to the unhealthiness of the year and to overcrowding. The question of providing more accommodation is a very urgent one. There were no fatal injuries.

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 CONDITIONS AND THEIR RELATIONSHIP TO DISEASE.

52. Of all meteorological conditions, the rainfall has the greatest influence on the health of the people. Drought means hardship, agricultural pursuits are hindered, food gets scarce, wells run dry ; with insufficient food and water low in the wells, bowel complaints are common ; with insufficient rain (not absolute drought), the breeding-places of mosquitoes are not washed out, mosquitoes therefore are left undisturbed, and they multiply out of all proportion, a large amount of malaria is the result. Too much rain spells ruin for many crops, food is consequently scarce and the people get chills, which bring out latent malaria.

* To admissions the recovery rate was for males 31·13 per cent. and for females 44·44. The deaths were 92 in number, or 12·58 per cent. of the total number treated.

Table showing the Number of Persons Vaccinated in the Island during 1905 and 1906.

	Primary Vaccination.									Re-vaccination.								
	Total Number of Cases vaccinated.	Number of Cases seen after Vaccination.			Percentage of Successful to Total 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 in Total of Cases vaccinated.	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 in Total of Cases vaccinated.
		Successful.	Unsuccessful.	Total.		Successful.	Unsuccessful.	Total.			Successful.	Unsuccessful.	Total.		Successful.	Unsuccessful.	Total.	
1905.																		
Government Vaccinators ...	116,711	98,438	10,604	109,042	90·27	6,924	745	7,669	105,392	13,932	6,401	3,217	9,618	66·55	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	5·51	—	—	6	6
On Estates	21,598	18,025	2,034	20,059	89·85	1,383	156	1,539	19,408	3,602	1,673	1,579	3,252	51·44	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	62·25	3,053	1,611	4,670	11,133
1906.																		
Government Vaccinators ...	105,293	90,548	8,886	99,434	91·06	5,365	494	5,859	95,913	8,626	5,725	1,610	7,335	78·05	1,008	283	1,291	6,733
Medical Officers in Dispensaries ...	16,121	13,040	2,550	15,590	83·64	445	86	531	13,485	5,355	1,708	479	2,187	78·09	2,475	693	3,168	4,183
On Estates	11,782	14,936	1,660	16,596	89·99	1,485	175	1,660	16,421	1,428	963	412	1,375	70·03	37	16	53	1,000
Total ...	133,196	118,524	13,096	131,620	90·05	7,295	755	8,050	125,819	15,409	8,396	2,501	10,897	77·04	3,520	992	4,512	11,916

The meteorological history of 1906 proves the above remarks to be correct. There was an unusually long drought in the first and second quarters of the year, during which a large amount of disease existed (fevers and bowel complaints). This drought was followed by floods, with their attendant disabilities; however, there is a compensation to the damage caused to personal health and property by floods in that the towns get washed and scoured. The good effect of the washing out of Colombo in 1906 was most marked by the improved sick and death-rates, which were before the rains phenomenally high.

I regret that the Meteorological Annual Report of the Surveyor-General for 1906 is not available yet, but he has been good enough to supply me with a map showing the distribution of rain in Ceylon during last year. The wettest districts, that is, those with 150 inches or more, were in the Western, North-Western, parts of the Central, Southern, and Sabaragamuwa Provinces; these districts had the most sickness. The comparative dry areas, *i.e.*, under 50 inches, were the western half of the Northern Province and the north-east portion of the Southern Province and of the Eastern Province south of Kalmunai.

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

53. The general sanitary condition of the Island remains in much the same condition as last year. The same methods of disposal of dust and fæcal matter exist, but the tendency is towards sanitary improvements in the towns and villages throughout the Island, although 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 :—

54. *Colombo.*—The water supply has been considerably improved since the duplication of the main pipe from Labugama and the erection of another reservoir on an elevated site in Colombo, but in the higher parts of the city and in houses of two storeys the pressure is insufficient.

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. More watering of roads and streets is desirable, particularly during the dry months of the year.

The Municipality of Colombo recognizes 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.

Colombo suffered severely from the unhealthiness of 1906, the sick and death-rates reached alarming figures. There were 14,585 deaths, being 3,958 deaths in excess of the average, which was for the former eight years 10,627. The death-rate per 1,000 was 26·75, the average death-rate being 20·22.

The deaths from Dysentery of a few prominent residents in the middle of the year produced signs of panic in the Local Press, and the anxiety of the citizens was increased by a prolonged discussion on the cause of this disease in epidemic form. The faulty management of the night soil burying depôt and the agency of flies was, I believe, eventually blamed for the outbreak. On a careful analysis of the prevalence of Dysentery in Colombo, it is seen that this disease was not confined to localities which might have been influenced by their nearness to the night soil depôt, the disease was prevalent all over the city, and in the villages outside Municipal limits.

"It is well known that Dysentery is more prevalent after hot seasons, and that it attacks those who are debilitated by malaria and influenza, and when we review the meteorological and unhealthy conditions of 1906, we find all of them were favourable to produce an outbreak of this disease. In dealing with the high death-rate of Colombo, sanitary experts should not overlook the fact that the high price of food stuffs, especially rice, with the consequent diminution of the food supply of the masses, famine in Southern India, and the prevalence of fever in the Maritime Provinces, may all contribute to an increase of ill-health and a high mortality, independent of sanitary evils in the town itself." (Dr. H. M. Fernando's report attached.)

As proof that the insanitary condition of Colombo was not the only cause of the bad health of its inhabitants, I would mention that the death-rate has been down to its normal figures for some time, and the want of sanitary improvements continues. These cannot be commenced on any large scale until the Mansergh Scheme of drainage is completed in its entirety.

His Excellency the Governor appointed Dr. A. J. Chalmers to report on the condition of the city from a sanitary point of view and on the increased death-rate, and the publication of this report is looked forward to with interest.

55. *Kandy.*—No 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 resulted from them. 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 is carried out fairly satisfactorily. The water supply is of fair quality, but during the dry months of the year it is insufficient in quantity, and in July the reservoir became dry, and the inhabitants were compelled to use the water from the lake for domestic purposes.

56. *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 re-organized, but the Provincial Surgeon reports he experienced much opposition on the part of some members of the Municipal Council.

57. *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.

58. *Ratnapura.*—The sanitary condition of this town has been maintained during the year. The town is well kept. The water supply is of good quality, but is at times insufficient in quantity.

59. *Kurunegala.*—The Medical Officer reports that the sanitation of this town has received attention during 1906, and that some improvements have been effected. The drainage is defective. The water supply is most unsatisfactory.

60. *Anuradhapura.*—The sanitary condition of this town is satisfactory. 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.

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

62. *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 ; it is brackish in some of the wells. There is much room for sanitary improvements at Batticaloa.

Section V.—General.

63. *Medico-legal Duties.*—During the year 1906, 224 reports were completed, and in connection with them several hundred analyses were made. There were 170 judicial cases, for which 366 substances were examined. Among the poisons were Atropine 5 cases, Arsenic 4, Aconite 3, Aconite and Arsenic 1, Gloriosa Superba 2, Cerbera Odollan 6, Oleander 1, Opium 10. There was a case of suicide from eating dynamite. The number of blood stains, &c., examined was 138. 93 samples were sent from H. M. Customs. 50 samples of water, 14 of milk, 2 of tea, and 3 of butter.

Synopsis of the Analyses for 1906.

				Cases.
Total analyses, 334 Fees collected, Rs. 399	Judicial 161	57..	Mammalian blood detected in..	39
			Spermatozōn ..	1
			No blood or semen ..	17
		104..	Atropine	5
			Arsenic	4
			Aconite	3
			Aconite and Arsenic ..	1
			Gloriosa Superba ..	2
			Cerbera Odollam ..	6
			Oleander	1
			Opium	10
			Nitroglycein	1
			Degitalis	1
			Antimony	1
			Ganja	1
			Prussic Acid	1
			Santonine	1
			Salicylic Acid.. ..	1
			Alloes and Iron ..	1
			Kerosine Oil in water ..	1
			Lead	1
			Iron, Alum, and Magnesium ..	1
			Bismuth and Morphine ..	1
			Brucine and Strychnine ..	2
			Mercury	2
			Common Salt	1
			No poison	55
				161
	Kerosine oil			75
	Liquid fuel, &c.			8
	Water samples			50
	Milk samples			14
	Tea samples			2
	Butter samples			3
	Spirits samples			2
	Scents samples			3
	Ghee samples			2
	Canvas samples			2
	Salt at Puttalam			1
	Mineral waters			1
	Arrack			9
	Russian bitter			1
				173
	For His Majesty's Customs, Government Stores, Government Hospitals, Local Boards, and the Railway Department—Grand Total ..			334

Administrative Hospitals, Asylums, and Dispensaries.

64. 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 Dolosbage is under construction. An old building in Colombo, formerly known as the "House of Observation," has been renovated, latrines and bathrooms added, and a mortuary. It is now known as "The Clinic for Tropical Diseases," and is in affiliation with the Bacteriological Institute, and in charge of Dr. Castellani. It was opened on the 1st October, and contains fifteen beds. This "clinic" is for the scientific study of, and research work connected with, Diseases of the Tropics. The amount of work performed during the three months the hospital has been open is fully described in Dr. Castellani's report, which is attached.

In addition to the great benefit to Tropical Medical Science this institution is likely to bestow is the fact that within its walls over a dozen cases of typical tropical disease can be seen and studied by medical visitors to this Island. It also supplies a want felt by students wishing to do research work in tropical medicine in the Tropics.

Another new institution established during this year is the Pauper Hospital at Ragama. The necessity for this arose from the overcrowded state of the General Hospital, Colombo, which at times has been overcrowded to the extent of 300 patients above its capacity. Many of these patients were suffering from chronic incurable complaints, old age, and starvation. Ragama is situated 8 miles from Colombo by railway. The pauper hospital is a former cooly camp converted into its present use. The sheds are of corrugated iron with cement floors. At present 150 beds are in use, but it is easy to make additions if the necessity should arise. Four religious nursing sisters are employed, and the medical officer in charge is the same officer who is in charge of the Cooly Depôt. This institution has already fulfilled its object, viz., the relief of the overcrowding at the General Hospital, Colombo. It was opened early in November, and for the two months 233 patients have been received.

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 Disease Hospital, for which the Government will provide a portion of the cost.

65. *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.

66. *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—

14 European qualified Matrons and Sisters.	27 Matrons (trained locally).
31 European Roman Catholic Sisters (untrained).	33 Nurses (trained locally).
	22 Pupils in training.

Nine 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 Matrons at Badulla and at the Victoria Memorial Eye Hospital are Europeans. The Roman Catholic Sisters perform nursing duties in the general wards of the Colombo Hospital and at Kurunegala. Four 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 an examination. There is accommodation for 22 pupil nurses in training. A new scheme of pay and allowances for locally trained nurses has been sanctioned. It was anticipated that if more liberal terms were offered a better class of candidate would be induced to take up nursing as a calling; this anticipation has been realized.

67. The total number of in-patients treated at all hospitals and asylums for the year was 86,339, of whom 11,366 died, which gives a death-rate of 13·16 per cent. of the hospital population.

68. At the Government dispensaries 1,444,799 new cases were treated; the number of individual visits paid to the Government dispensaries was 2,127,647.

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

70. During the year 1906, 68 hospitals and asylums were in operation. There were 359 Government dispensaries and 143 estate dispensaries.

71. *Surgical Operations.*—At the various hospitals throughout the Island 2,692 operations were performed, with 131 deaths.

The following is a summary of the operative work, and it does not include minor operations:—

	Cases.	Deaths.
Amputations:—		
Upper extremities	78	1
Lower extremities	46	3
Radical cure for hernia	76	2
Radical cure for hydrocele	115	—
Hepatic abscess	42	17
Trephining of skull	46	11
Lithotomy, supra pubic	7	2
Laparatomy	31	15
Ovariotomy	16	2
Hysterectomy	4	1
Eye operations	365	—
Other operations	1,866	77

72. *General Hospital, Colombo.*—The total number of patients treated at this institution during the year was 17,115 with 2,044 deaths, against 13,044 cases and 1,234 deaths in the previous year. Of the total treated, 483 remained from the previous year and 16,632 were new admissions, 14,621 were discharged, and there remained 450 under treatment at the end of the year. The daily average sick was 632·31, and the percentage of deaths to total treated was 11·94. The institution consists of twenty-five wards and eight solitary rooms, and the number of beds is 425.

Although the number of nurses for day duty was increased last year, it is still found that more are needed, and four extra night nurses should be employed. The ward attendants are too few, and they are insufficiently paid. Ten extra ward attendants are required.

The hospital requires to be rebuilt; it is old and insanitary. The operating room is a relic of the preantiseptic period. In this single room three operating surgeons have to work. It is full of corners and rough surfaces, and a gallery in tiers for students. Anything more out of keeping with the requirements of modern surgery can hardly be imagined. Plans and estimates were made last year for converting this room into two operating rooms, a sterilizing room, and an anæsthetizing room at a cost of some Rs. 9,000 It is hoped that these improvements will be carried out early in 1908. The kitchen is inadequate, insanitary, and unsuitable.

73. *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 1906 was 630 with 75 deaths, against 511 cases and 34 deaths in 1905. Of the total treated, 21 remained from the previous year and 609 were new admissions; 532 were discharged, 75 died, and there remained 23 under treatment at the end of the year. The daily average sick was 30·55 against 27·04 in 1905, and the percentage of deaths to total treated was 11·90 against 6·65 in 1905. 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 employés, and will be known as "The Skinner Memorial Ward." A new block of buildings with ground and first floors has been erected at right angles to the present Passengers' Ward, and will be known as the Planters' and Munro Ward; 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.

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

75. *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 253 patients, which with 24 remaining from the previous year made a total of 277, of whom 101 were transferred to the Asylum at Colombo, 151 were discharged, 5 died, and 20 remained at the end of the year.

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

77. *De Soysa Lying-in Home.*—The total number of patients treated at this institution during the year was 933, against 877 in 1905. Of these 893 were discharged cured, 20 died, and 20 were remaining under treatment at the end of the year. The daily average sick was 21·35. The percentage of deaths to total treated was 2·14, against 1·48 in 1905. 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 25, as against 24 in 1905.

In the Lying-in Home 30 pupil midwives received training in 1906, of whom 16 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. 16 pupils were trained and sent out during the year. 122 obstetric operations were performed during the year.

78. *Lady Havelock Hospital.*—In this institution 933 in-patients were treated. The mortality rate was 2·14 per cent. The daily average sick was 21·35. Of the total 933 patients, 348 were children. There were 86 operations performed. Of the operated cases 4 died.

The number of attendances at the Female Outdoor Dispensary was 26,061. There were 6,300 children, 2,524 being boys and 3,776 girls.

79. *The Victoria Memorial Eye Hospital and Grenier Outdoor Infirmary.*—Patients were first admitted into this institution on 2nd April, 1906. There are 6 beds for paying patients and 38 free beds. 28 paying patients availed themselves of the benefits of this institution, and contributed Rs. 1,800·19 to revenue. 507 persons were treated in the free wards.

At the Grenier Outdoor Infirmary 12,554 patients were treated, who voluntarily contributed Rs. 389·10, which has been placed to the credit of revenue. This institution meets a long-felt want, and is a fitting memorial to the late Queen Victoria, not only in usefulness, but in its architectural beauty.

80. *Police Hospital, Colombo.*—753 patients were treated in the Police Hospital, of whom 3 died. The daily average sick was 8·95.

81. *Branch Hospitals.*—Colombo and Galle are provided with special hospitals for the treatment of women suffering from venereal disease. The total number of new cases admitted was 399 as against 354 in 1905, which with 19 remaining from the previous year make a total of 418. Of these, 395 were discharged, 23 remained at the end of the year. Of the 418 females treated in the two Branch Hospitals, 7 were for primary syphilis, 113 for secondary syphilis, 71 for tertiary syphilis, 4 for inherited syphilis, 206 for gonorrhœa, 1 for bubo (gonorrhœal), and 16 for other diseases. The patients seek voluntary admission.

82. *Jail Hospitals and sick prisoners.*—The number of prisoners admitted to the different jails in the Island was 16,505. The average daily strength of prisoners was 3,153·26. The number treated in the jail hospitals during the year was 4,776, against 4,887 in the previous year. The total deaths numbered 110, against 95 in 1905.

Return of Diseases in Jail Hospitals for 1906.

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 ...	10	—	6	—	8	—	—	—	—	—	—	—	—	—
Mahara ...	90	—	33	—	483	3	10	3	25	—	16	—	—	—
Negombo ..	29	1	91	9	67	1	—	—	—	—	197	9	—	—
Borella ...	77	14	139	10	189	3	16	5	28	—	41	—	—	—
Kandy ...	188	6	141	—	268	—	8	—	41	—	30	—	—	—
Nuwara Eliya	4	—	15	—	2	—	—	—	—	—	1	—	—	—
Jaffna ...	8	—	13	—	16	—	—	—	—	—	2	—	—	—
Galle ...	10	—	28	1	14	1	—	—	—	—	4	—	—	—
Matara ...	12	—	7	—	9	—	—	—	—	—	—	—	—	—
Tangalla ...	27	—	16	1	2	—	—	—	—	—	2	—	—	—
Batticaloa ...	2	—	1	1	1	—	—	—	—	—	—	—	—	—
Kurunegala ...	—	—	2	—	2	—	—	—	—	—	—	—	—	—
Anuradhapura	9	1	4	—	4	—	—	—	—	—	1	—	—	—
Badulla ...	—	—	1	—	3	—	—	—	—	—	1	—	—	—
Ratnapura ...	6	—	11	—	1	—	—	—	—	—	—	—	—	—
Kegalla ...	6	—	11	—	15	—	—	—	—	—	—	—	—	—
Total ...	478	22	519	22	1,084	8	34	8	94	—	295	9	—	—
Percentage of deaths	4·60		4·24		·74		23·53		—		3·05		—	

The following table gives the number of admissions, number of deaths, average strength, death-rate to admission to jail hospitals, and to average strength for the past five 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 ..	33·16
1906 ..	4,776 ..	110 ..	3,153·26 ..	2·30 ..	34·88

83. *Kanatta Infectious Diseases Hospital.*—At this institution 20 cases of infectious diseases remained from the previous year and 622 were admissions, making a total of 642, as against 915 in 1905. Of these, 592 were discharged cured, 25 died, and 25 remained. The death-rate was 5·02 per cent., against 2·73 per cent. in 1905. The most serious disease treated in this institution was smallpox. 77 cases of this disease were treated, with 19 deaths—a mortality rate of 24·67 per cent.

Provision has been made during the year of two wards for European patients, with latrines, bath-rooms, and kitchen; and accommodation has been provided for a limited number of Europeans who have been in contact with infectious disease, and who require segregation.

84. 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 1,553 patients, which with 39 remaining from the previous year made a total of 1,592. Of these, 1,475 were discharged, 58 died, and 59 patients remained at the end of the year. At the outdoor dispensary of this institution 6,793 persons were treated during the year; these paid 12,967 visits.

(2) *The Victoria Home for Incurables, Colombo.*—At this institution 57 cases remained at the end of the last year, which with the 23 cases admitted during the year made a total of 80. Of these, 11 died and 7 were discharged; 62 patients remained at the end of the year.

85. *Bacteriological Institute.*—The total number of specimens examined bacteriologically during the year was 1,720, and the amount recovered by fees was Rs. 587. 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.

86. *Total Deaths.*—The total deaths numbered 11,366 against 6,697 in 1905, showing an increase of 4,669. 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.	
	1905.	1906.	1905.	1906.	1905.	1906.
Civil ..	7·12 ..	7·93 ..	14·89 ..	19·85 ..	8·72 ..	11·18
Field ..	4·12 ..	5·37 ..	11·7 ..	15·61 ..	4·87 ..	7·0
Immigrant ..	5·36 ..	5·47 ..	10·17 ..	9·41 ..	6·39 ..	6·47
District ..	4·69 ..	6·77 ..	19·98 ..	25·92 ..	14·36 ..	21·08
Asylums ..	9·73 ..	10·20 ..	8·84 ..	11·53 ..	9·06 ..	10·38
	6·06	7·60	17·34	22·42	9·92	13·16

The percentage of deaths to cases treated in the Civil Hospitals showed a marked increase among the mixed races and the Malabars.

87. *Hospital Accommodation.*—This was generally sufficient. Overcrowding took place in some of the hospitals of the planting districts, particularly in those receiving patients from new clearings. Temporary extra wards were erected at Panadure, Kegalla, Ratnapura, Lunugala, Teldeniya, Matale, Karawanella.

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

89. *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, when there are such adjoining a hospital.

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

91. *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.

92. *Inspection.*—The hospitals were all inspected either by me or the Provincial 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 Provincial Surgeons as well as those by me were forwarded to Government when necessary.

93. *Food Supply.*—The provisions for the various hospitals were supplied by purveyors on contract approved by Government. This 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.

94. *Dispensaries.*—502 dispensaries, including branch institutions and visiting stations, were in operation. Of these, 313 were Civil, 46 District, and 143 Estate. They are distributed as follows:—In the Western Province 37, Central 61, Northern 46, Southern 42, Eastern 35, North-Western 40, North-Central 38, Province of Uva 29, and Province of Sabaragamuwa 31, and on Estates 143. In the Civil and District Dispensaries there were treated 1,444,799 persons who paid 2,127,647 visits, against 1,222,790 persons who paid 1,849,544 visits in 1905.

95. *Port Duties and Immigration.*—The number of vessels which arrived at the port of Colombo was 3,341 against 3,250 in 1905, 2,857 being steamers and 484 native craft. 22 vessels were in strict quarantine for smallpox, 3 for cholera, 9 for suspected plague. 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; but this site is now required for works in connection with the Breakwater, and a new disinfecting station has to be made. The number of persons disinfected at the old station, Kochchikade, during the year was 23,690.

The number of native passengers who arrived in Colombo during 1906 was 71,107 traders and 88,930 estate coolies; out of these totals, 17,766 who had no marks of vaccination were vaccinated.

Pearl Fishery.

96. *Medical Staff.*—The fishery lasted from 10th February until the 9th April. 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, for infectious disease, all passengers embarking for the camp.

97. *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.

98. *Sanitation.*—The sanitary condition of the camp was satisfactory. About 120 coolies and several overseers worked under the supervision of the Sanitary Officer.

99. *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. There were 6 cases of Smallpox, of whom 4 died; 1,412 cases of Malaria; 63 of Dysentery. The deaths numbered 23.

100. *Hospitals.*—There was a hospital 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.

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

102. *Equipment.*—The equipment was of good quality, with an ample supply of medicines and surgical apparatus.

103. *Numbers treated.*—245 patients were admitted to hospital, of whom 23 died and 222 were discharged. The average daily sick was 35·44. The prevailing diseases were malaria, dysentery, and pneumonia.

104. *Outdoor Dispensary.*—1,808 patients were treated at the outdoor dispensary.

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105. *Ragama Camp.*—The number of coolies, passengers, and others who passed through the camp during 1906 was 88,167, against 141,823 in 1905. 8,716 coolies who had no marks of vaccination were vaccinated. Eighteen patients during the year were admitted to the camp hospital, of which nine were suffering from Cholera, 3 with Chickenpox, 1 with Dysentery, and 1 Malarial Fever. There were 8 deaths. The sanitation of the camp was satisfactory, the water supply of good quality and in sufficient quantity. The night soil was incinerated.

106. *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 during the earlier 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. Dr. Burgess, D.Sc., was appointed Professor of Chemistry, and Mr. Templeton, M.A., B.Sc., Professor of Physics.

During the year 23 new medical students and 13 apothecary students entered the College. There were 103 medical and 31 apothecary students at the end of the year. The total fees amounted to Rs. 18,491·25.

107. *Post-graduate Lectures.*—For the fourth 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. Eleven medical officers attended. These courses are much appreciated.

108. *Civil Medical Stores.*—Dr. Van Rooyen was in charge of this institution as Superintendent for the year. Mr. A. D. Cotton is the Chief Storekeeper. The cost of the drugs, chemicals, and instruments received amounted to Rs. 243,418·24, the cost of transport and postage to Rs. 4,732·28, extra service, petty expenses, and contingencies to Rs. 366; the sale of medicines to Government Departments and others Rs. 4,162·26; and sale of medicines to planters Rs. 2,388·39. The sale of unserviceable articles realized Rs. 285·62, and the value of the surgical instruments lost and paid for by the officers of the Department amounted to Rs. 232·71.

109. *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, 1 Professor of Physics, 1 Public Analyst, 9 Provincial Surgeons, 1 Superintendent of the Lunatic Asylum, 1 Surgeon in Charge of the General Hospital at Colombo, 3 Medical Women, 29 Medical Officers 1st Grade, 36 Medical Officers 2nd Grade, 55 Medical Officers 3rd Grade, 6 Health Officers, 236 Apothecaries, 1 Chief Medical Storekeeper, 1 Chief Inspector of Vaccination, 7 Inspectors of Vaccination, and 108 Vaccinators.

110. *Changes in the Department.*—The changes were the appointment of Dr. Mylvaganam, F.R.C.S. (England), as Lecturer in Anatomy, and later as Acting Third Surgeon, General Hospital. Provincial Surgeons H. A. Moraes and E. de Livera retired. Medical Officers 1st Grade Dr. W. H. Meier and Dr. H. G. Thomasz retired and Dr. A. B. Santiago died, Dr. P. Kotalawala resigned, Dr. H. C. Seneviratne dismissed. Medical Officer 3rd Grade Dr. C. F. Ephraims retired. Mr. W. S. Templeton, M.A., B.Sc., F.C.S., appointed Professor of Physics, and Dr. C. H. Burgess, D.Sc., Professor of Chemistry, Ceylon Medical College.

111. *Expenditure.*—The expenditure of the Department, exclusive of hospitals worked under the Medical Aid Ordinance, amounted to Rs. 1,653,087·20, including exchange compensation, against Rs. 1,449,264·90 in the previous year. Under Personal Emoluments and Allowances the expenditure was Rs. 562,475·99, including exchange compensation, against Rs. 387,683. The expenditure under Other Charges was Rs. 1,060,364·77, against Rs. 1,050,442·90 last year; under Harbour Service Rs. 360, against Rs. 800 in 1905; and under the vote for Plague Precautions Rs. 5,662·77, against Rs. 10,339 in the previous year. The receipts on account of paying patients in hospitals amounted to Rs. 52,215·83, against Rs. 48,017·08 in 1905. The collections at the Civil Outdoor Dispensaries were Rs. 23,716·88, against Rs. 25,454·72 last year. The cost of medicines issued to the Estate Branch of the Department amounted to Rs. 150,280·83, against Rs. 113,918·27 in 1905; while the sale of medicines and superfluous articles, Medical College fees, &c., amounted to Rs. 89,129·18, against Rs. 73,977·40 last year. Deducting the receipts under the heads above specified from the expenditure, the nett expenditure was Rs. 1,337,744·48 against Rs. 1,187,897·43 in 1905.

The following statement shows the expenditure and receipts as compared with 1905:—

	1905.	1906.	Increase.
Expenditure.	Rs. c.	Rs. c.	Rs. c.
Personal Emoluments ..	362,172 23	584,869 66	222,697 43
Personal Allowances ..	25,510 77	1,830 0	—
Total ..	387,683 0	586,699 66	222,697 43
Other Charges ..	86,530 30	97,208 11	10,677 81
Hospital and Dispensaries ..	782,201 68	707,425 75	—
General	181,710 92	255,730 91	74,019 99
Total ..	1,050,442 90	1,060,364 77	84,697 80
Harbour Service ..	800 0	360 0	—
Plague Precautions ..	10,339 0	5,662 77	—
Grand Total ..	1,449,264 90	1,653,087 20	203,822 30
Receipts.			
Amount received from Paying Patients in Hospitals ..	48,017 8	52,215 83	4,198 75
Collections at Dispensaries ..	25,454 72	23,716 88	—
Cost of Medicines issued to Estates Branch Institutions	113,918 27	150,280 83	39,362 56
Sale of Medicines and Superfluous Articles, College Fees, and Bills of Health ..	73,977 40	89,129 18	15,151 78
Total ..	261,367 47	315,342 72	58,713 9
Nett Expenditure ..	1,187,897 43	1,337,744 48	149,847 5

ESTATES BRANCH.

112. During the year 1906 there were 1,864 estates scheduled to 33 districts and 30 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 46, sub-district Hanwella 11, sub-district Bandaragama 11, sub-district Ragama 1, sub-district Parakaduwa 11; Kalutara District 45, sub-district Horawala 7; Kandy District

67, sub-district Galagedara 11, sub-district Kadugannawa 19, sub-district Hanguranketa 5; Elkaduwa District 20, sub-district Wattegama 34; Kellebokka District 39; Dikoya District 62, sub-district Bogawantalawa 27, sub-district Watawala 39; Maskeliya District 66; Gampola District 58, sub-district Pussellawa 35; Lindula District 54, sub-district Agrapatana 43; Dimbula District 52; Matale District 94; sub-district Rattota 33, sub-district Gammaduwa 20; Teldeniya District 31, sub-district Rangalla 28; Deltota District 43; Nuwara Eliya District 36, sub-district Nanu-oya 19; Maturata District 26; Ramboda District 31; Uda Pussellawa District 30, sub-district Mulhalkele 3; Nawalapitiya District 61, sub-district Dolosbage 31; Kotmale District 19; Morawak Korale District 26; Balapitiya District 17; Elpitiya District 2; Udugama District 17; Badulla District 54, sub-district Namunukula 25, sub-district Passara 10; Lunugala District 15, sub-district Madulsima 29; Monaragala District 14; Haputale District 19, sub-district Bandarawela 8, sub-district Haldummulla 23, sub-district Koslanda 27; Kurunegala District 55, sub-district Rambukkana 5; Ratnapura District 28; Balangoda District 42; Rakwana District 25; Kegalla District 37; Karawanella District 70; sub-district Kitulgala 20, sub-district Aranayaka 13, sub-district Bulatkohupitiya 5, sub-district Nelundeniya 3.

To attend to the medical wants of the above the following were employed :—Medical Officers 2nd Grade 15, Medical Officers 3rd Grade 10, and Apothecaries 28.

During 1906 there were 18,427 estate labourers treated in the District Hospitals and Civil constituted District Hospitals, against 12,410 in 1905. Of these, 4,468 died, a death-rate of 24·24 per cent. Of the mixed races, 20,174 were treated, of whom 4,416 died, a death-rate of 20·38 per cent.

In the Civil Hospitals worked partly as District Hospitals the death-rate of estate labourers was 21·17 per cent., whilst in the District Hospitals it was 25·75 per cent. The highest death-rate (41·72) among the estate labourers occurred in the District Hospital at Karawanella, and the lowest (3·63 per cent.) in the Civil District Hospital at Kalutara. The admissions into the former were 1,402, into the latter 55.

The total number of days the estate labourers stayed in hospital was 474,100, an average of 25 days. Of these, 340,364 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 344,328, an average of 17 days.

The total number of estate labourers treated at the outdoor dispensaries was 43,753. The total number of estate labourers treated on estates was 17,157.

The total number of births reported from estates was 13,227, of which 6,693 were males, 6,393 were females, and 41 were still-births.

The number of deaths reported from estates was 14,313, of whom 7,284 were males, 7,026 were females, and in 3 cases the sex was not stated.

The expenditure under the Medical Aid Ordinance amounted to Rs. 631,207·57, including exchange compensation, (*vide* Table II. in Appendix), and the receipts to Rs. 397,800·83, derived from the following sources :—Export duty Rs. 158,389·03, hospital charges for treatment of coolies Rs. 88,837·10, recovered for visits paid to estates Rs. 27,120, sale of unserviceable and superfluous articles Rs. 188·70, medicines sold to superintendents of estates Rs. 2,388·41, medicines sold in bulk to superintendents of estates and prescriptions compounded Rs. 21,281·56, dispensary collections Rs. 2,324·41, cost of maintenance, medicine, and funeral expenses of other than estate labourers Rs. 94,881·37, recoveries for maintenance of others Rs. 2,390·25. The nett expenditure was Rs. 233,406·74. 143 dispensaries are now established in the planting districts. The gross expenditure was—

	Rs.	c.
Civil Branch	1,653,087	20
Estates Branch	631,207	57
Total ..	2,284,294	77

and the nett expenditure was—

Civil Branch	1,337,744	48
Estates Branch	233,406	74
Total ..	1,571,151	22

113. A supplementary report on the measures taken to eradicate Malarial Fever will be found as an Appendix to this report.

114. I regret the the Provincial Surgeon of the Eastern Province (lately retired) has failed to submit a proper report on that Province.

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

Colombo, June 14, 1907.

APPENDIX.

MEASURES TAKEN TO ERADICATE MALARIAL FEVER IN CEYLON.

With reference to the Right Hon. the Secretary of States' Circular Despatch of June 6, 1906, I have the honour to report that malarial fevers, although of a mild character, are very widely distributed throughout the whole of Ceylon ; and this is not surprising when the character of the country is studied.

2. The high hills to the south of the middle of the Island attract a good deal of rain, in some places the rainfall is over 200 inches a year, and it may be said that on the west or east sides of these hills rain is more or less continuous for six months, that is, during the monsoons—the south-west monsoon brings the rain to the west side of the Island and north-east monsoon to the east side.

3. This large rainfall finds its way eventually to the sea, but after heavy falls the rivers overflow their banks and flood large areas of the surrounding country. The flat country of Ceylon is intersected near the coast with many canals and extensive lagoons; the cultivation of "paddy" under irrigation is largely carried on, and every favourable condition exists for the breeding of mosquitoes.

4. Without an enormous expenditure of money it would be impossible to deal with these watery areas, so as to reduce even in a small degree their danger as breeding places for mosquitoes ; therefore nothing has been done by legislation or by public works towards the realization of that object.

The principal means to mitigate attacks of malarial fever among the inhabitants has been by education, sanitation, and the free distribution of quinine as a prophylactic.

5. *Education.*—Reprints in the vernacular of Sir Patrick Manson's diagrammatic pamphlet showing the *rôle* played by the mosquito in spreading malaria have been made and have been widely distributed to kachcheries, resthouses, and places of resort, in which they are exhibited in prominent positions.

A few popular lectures on the subject have been delivered in some of the larger towns. For the last four years a dozen medical officers of this Department have been through a short special course of instruction on malaria, lasting a fortnight, at the Ceylon Medical College.

For the last two years several native schoolmasters have been through a course of instruction on elementary hygiene with special reference to malaria, lasting three weeks, at the Ceylon Medical College.

Special pamphlets have been distributed to officers of the Irrigation and Survey Departments and to employés on the Railway serving in malarious districts, and for the latter the General Manager of the Ceylon Railways has made stringent regulations on this subject, and in Colombo the Medical Officer of Health, Dr. W. Marshall Philip, has widely distributed a leaflet in three languages dealing with malaria and enteric fever.

6. *Sanitation.*—The tendency for many years has been towards improved sanitation in Ceylon, the progress is necessarily slow owing to the large expenditure of money required, which can never be obtained in sufficient amount. Improvements in the towns and villages is being carried out by the building of drains, filling up of hollows, the cutting down of trees and brushwood near dwellings, and by improved water supplies.

Medical officers in charge of districts have been directed to see that all rubbish is regularly burnt, that empty tins, coconut shells, and other articles likely to contain water are destroyed.

In Colombo a good deal has been done by the Medical Officer of Health towards eradicating malaria by the filling up of hollows in which water collected, and by the spraying of oil on the larger collections of water and by making the inhabitants keep their compounds clean.

7. *The Prophylactic Quinine Treatment.*—The most important measure undertaken by this Government was the free distribution of quinine as a prophylactic agent.

This was first introduced in the year 1904 among prisoners at Mahara Jail, about seven miles from Colombo. A dose of 10 grains of quinine was administered to each prisoner on two successive days in each week, the results being encouraging, the experiment was tried in 1905 in a series of villages with a known malarial reputation in the North-Western Province. The population of this district was 466, of whom 232 took the quinine regularly and 234 did not do so. Cases of malarial fever occurred in the proportion of 15·51 per cent. in the protected subjects, and in the proportion of 65 per cent. in the unprotected. The year 1906 was one of the worst years for illness on record in Ceylon, and malaria was pandemic.

Orders were issued for the free distribution of quinine as a preventive of malaria over a wide area during the prevalence of the south-west and north-east monsoons, and for this purpose distributors were employed to issue the drug to the inhabitants, each distributor had an area to visit which took him a week at a time. He stayed at each place two consecutive days, and dosed those people whom he could persuade to take the remedy; but the native, although willing enough to take medicine when actually suffering from fever, cannot understand the use of taking it as a preventive when he is well. I am of the opinion that this distribution of quinine was very imperfectly carried out, the distributors were not men of education and they kept no records; it is true they disposed of a large amount of the drug, but whether it went to the people for whom it was intended is an open question. In all probability it was in many cases sold to those actually suffering from the disease.

The following summary is submitted of the Provinces, districts, number of villages, population, number of distributors, and number of inhabitants, to whom quinine was issued :—

Prophylactic Treatment of Quinine during 1906.

Province.	Name of District.	No. of Villages visited.	Population.	No. of Distributors.	No. to whom Quinine was issued.
Sabaragamuwa ..	Ratnapura and Kegalla ..	195	.. 59,519	.. 24	.. 4,011
Southern ..	Hambantota and Matara ..	45	.. 245,692	.. 7	.. 5,674
North-Central ..	Anuradhapura ..	17	.. 14,214	.. 1	.. 9,358
Central ..	Matale, &c. ..	209	.. 39,807	.. 9	.. 10,730
Western ..	Negombo ..	126	.. 62,027	.. 10	.. 5,910
North-Western ..	Kurunegala ..	214	.. 8,691	.. —*	.. 6,749
Eastern, Northern, and Uva ..	— ..	—	.. —	.. —	.. —
	Total ..	806	.. 429,950	.. 51	.. 42,432

* Headmen.

It is impossible to come to any conclusion as to the effect that this distribution had, for the year was the worst for malaria within memory, and there are no statistics to show how many of those developed fever who were supposed to have taken quinine, or the number of those who did not take the prophylactic and who contracted the disease.

8. The amount of quinine expended throughout Ceylon in 1906 was 87,555 ounces, and the cost, not including the wages of the distributors, was Rs. 73,299.

9. More satisfactory results were obtained in the distribution of quinine among school children by schoolmasters. The Director of Public Instruction supplied me with lists of his schools, and I divided them into schools affected by the south-west monsoon and those affected by the north-east monsoon. The Government dispensaries situated nearest to the schools were advised to issue quinine on the schoolmaster's requisitions, and the children were regularly dosed with the drug on two succeeding days weekly. This scheme has been carried out, I believe, very thoroughly, for it is much easier to employ a method of this kind among a community like a school or prison under discipline than among people who only voluntarily seek its aid. In some instances the parents objected to their children being dosed with medicine, but a little explanation generally sufficed to overcome this opposition.

10. In the nine Provinces of the Island quinine was administered for periods of from six weeks to four months in 133 schools to 13,098 children, and the Director of Public Instruction reports that in many places where the administration of quinine was carried out the attendance of the children was better than in former years. On the other hand, in some districts there was no marked improvement in this respect.

11. It is evident that this prophylactic measure is quite successful in protecting a class of persons under discipline—*e.g.*, prisoners in jails and school children—but its use is doubtful when introduced among an unwilling native population who only take it voluntarily, and my belief is that greater good would result in spending the money on the drainage of swamps, oiling of large collections of water, the filling up of hollows, and the obliteration of borrow-pits along the lines of railway than in expenditure on quinine. In other words, it would be more profitable to attack the mosquito than the plasmodium.

I am in favour of the free distribution of quinine to persons under discipline and also to those more intelligent natives who seek the remedy at the various Government dispensaries, but I look with suspicion on the employment of ignorant distributors.

12. The Director of the Royal Botanic Gardens, on my suggestion, has given me a list of water-bearing plants, which during wet weather collect water in which mosquitoes breed :—

Bamboo stumps (worst of all perhaps)
Ravenala (traveller's tree)
Amomum
Heliconia brasiliensis and many other scitamineæ (plants of plantain and ginger families)
Nepenthes (pitcher plant)
Bilbergias, Karatas, Bromelias, Æchmea } Bromeliaceæ (pot and border plants)
Pandanus (screw pine)
Caraguata
Dracæna Hookeriana and others
Spadices and leaf-sheaths of certain palms.

and it would be well if there were legislation to prohibit these plants from being grown in the neighbourhood of dwellings. The Director has also kindly undertaken as an experiment the treatment of growing paddy under the influence of petroleum, to see if the presence of the latter affects the paddy in a harmful manner, for if it is proved that petroleum has no bad effect, paddy fields, which are a fruitful source of malaria-breeding mosquitoes, might be treated with petroleum and thus be rendered innocuous to the people who live in their neighbourhood. The results of this experiment are not yet available.

A. P.

PROVINCIAL REPORTS, &c.

REPORT of J Craib, M.D., Provincial 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 was far from satisfactory. There was no outbreak of any serious epidemic, except that during the second and third quarters of the year malaria prevailed to a great extent in the villages that were inundated during the rains in May and September. There were a few cases of cholera and small outbreaks of chickenpox and dysentery.

Population.

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

Population	1905	979,259	Birth-rate per 1,000	1905	36·90
	1906	983,669		1906	33·80
Births registered	1905	36,002	Death-rate per 1,000	1905	23·90
	1906	33,258		1906	29·30
Deaths registered	1905	23,296			
	1906	28,848			

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 skin diseases, and of these malarial fevers were prevalent, resembling the year 1905 in that respect.

4. *Malaria.*—This disease prevailed to a large extent during a portion of the year in the villages inundated by the overflow of the Kelani-ganga and Maha-oya, necessitating the employment of apothecaries and vaccinators who itinerated from village to village distributing quinine powders. The epidemic continued during the months of May, June, July, August, and September. The largest number of cases treated was at Hanwella 17,381, then at Minuwangoda 11,290, then at Mirigama 9,717, then at Veyangoda 8,365, then at Henaratgoda 7,376, then at Halpe 6,838. Total number of cases treated at all the institutions was 97,998, as against 69,390 in 1905.

5. *Dysentery and Diarrhœa* prevailed 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 who came 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 this 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.

8. *Leprosy.*—During the year 176 cases were admitted into the Leper Asylum at Hendala.

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 24·0 per thousand, as against the average 21·5. Each district experienced worse health than usual. The rate of mortality in the Colombo District 23·6 was 2 per thousand in excess of the average 21·6. The Negombo District, which was the healthiest among all the districts of the Island, this quarter showed a death-rate of 22·5 per thousand, an increase of 3 per thousand on the average 19·5. The Colombo District showed the lowest infantile mortality among the districts of the Island, viz., 108 deaths per 1,000 births registered. The chief causes which contributed to this death-rate were malarial fevers, dysentery, and diarrhœa.

11. *Second Quarter.*—There was a marked increase in the death-rate, which was 26·4 per thousand, against an average of 19·3 Every district of the Province experienced worse health than usual. The rate of mortality in the Colombo District 28·3 was 8·7 per thousand in excess of the average 19·6. The Negombo District showed a death-rate of 26·3 per thousand, and the Kalutara District, the healthiest in the Island for the quarter under report, 22·2 per thousand, as against their respective averages 17·9 and 19·4. The infantile mortality of the Province, viz., 145 deaths per thousand registered, was the lowest in the Island. The principal diseases which contributed to the death-rate were fever, dysentery, and diarrhœa.

12. *Third Quarter.*—This Province, which ranked as the first in point of general health during the first quarter of the year, fell to the second place during the second quarter, and has fallen further during the quarter under review to the fourth place. The death-rate 28·5 per thousand showed a rise of 9·6 on the average 18·9 Every district in the Province experienced worse health than usual. Fevers, diarrhœa, and dysentery were the principal causes of death.

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

Metereological 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 not free from this disease. There were 14 cases, with 9 deaths. Two were admitted to the Infectious Diseases Hospital, Kanatta, the first from the ss. Purnea and the other from the Maradana mosque, the subject being a recent arrival from India. Two cases occurred in the Welikada Jail and one at Mahara Jail. The remaining nine cases occurred at the Ragama Camp among estate coolies who had arrived from the coast of India. Stringent measures were adopted, and the disease did not spread.

Statement showing the different Centres where outbreaks of Cholera occurred during 1906, giving Date and Duration of each outbreak and the Number of Cases, classifying them into different Races.

Station.	No. of Cases and Deaths.		Date of first Appearance.	Date of last Case.	Of these														Source of Infection.
	Cases.	Deaths.			Sinhalese.		Moors.		Tamils.		Immigrants.		Malays.		Others.		Total.		
			1906.	1906.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	
Infectious Diseases Hospital, Kanatta	1	1	July 14	July 14	—	—	1	1	—	—	—	—	—	—	—	—	1	1	Tuticorin
	1	1	Oct. 10	Oct. 10	—	—	1	1	—	—	—	—	—	—	—	—	1	1	A recent arrival from South India
Welikada Jail ..	2	2	Nov. 9	Nov. 23	1	1	—	—	1	1	—	—	—	—	—	—	2	2	Not traced [India
Ragama Camp ..	9	5	July 17	Sept. 22	—	—	—	—	—	—	9	5	—	—	—	—	9	5	From the coast of
Mahara Jail ..	1	—	Oct. 5	Oct. 5	1	—	—	—	—	—	—	—	—	—	—	—	1	—	Not known
Total ..	14	9			2	1	2	2	1	1	9	5	—	—	—	—	14	9	

16. *Smallpox.*—There were 77 cases admitted into the Infectious Diseases Hospital, Kanatta, of these 27 were sent by the Port Surgeon from steamers. In March there was an outbreak in Green Path, Kollupitiya, which spread to Slave Island and other parts of the town. This outbreak was traced to a child who had died of small pox, and was a recent arrival from India. At the end of April a small outbreak occurred at Karagampitiya, a village about 8 miles from Colombo. There were 8 cases. The infection could not be traced.

17. *Chickenpox.*—There were 665 cases reported from various parts of the Province, and most of the cases were treated in their own houses. Of these, 312 were admitted into Kanatta and treated there.

Return of Cases of Smallpox, Modified Smallpox, and Chickenpox that occurred in the Western Province in 1906, and which were reported to the Medical Department.

Hospital or 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.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.		
Infectious Diseases Hospital, Kanatta ...	61	19	42	—	16	—	16	—	308	385	19	19	—	—	—	—	—	—	1	20
Lady Havelock Hospital ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Borella Convict Hospital ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Mutwal Jail ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Negombo Hospital ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Ja-ela	—	—	—	—	—	—	—	—	49	49	—	—	—	—	—	—	—	—	—	—
Minuwangoda ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—	—	—
Hanwella	—	—	—	—	—	—	—	—	31	31	—	—	—	—	—	—	—	—	—	—
Ragama Camp .	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Ragama District ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Henaratgoda ...	—	—	—	—	—	—	—	—	27	27	—	—	—	—	—	—	—	—	—	—
Veyangoda	—	—	—	—	—	—	—	—	41	41	—	—	—	—	—	—	—	—	—	—
Kadawatta	—	—	—	—	—	—	—	—	23	23	—	—	—	—	—	—	—	—	—	—
Kaduwela	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Aturugiriya ...	—	—	—	—	—	—	—	—	44	44	—	—	—	—	—	—	—	—	—	—
Kelaniya	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Mirigama	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Moratuwa	—	—	—	—	—	—	—	—	25	25	—	—	—	—	—	—	—	—	—	—
Horana...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Beruwala	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Neboda	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Panadure	—	—	—	—	—	—	—	—	30	30	—	—	—	—	—	—	—	—	—	—
Kalutara	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Total ...	61	19	42	—	16	—	16	—	665	742	19	19	—	—	—	—	—	—	1	20

18. *Measles and Mumps* prevailed to some extent in the town of Colombo and in the vicinity.

19. *Enteric Fever.*—This disease prevailed throughout the year, and the majority of the cases that were treated in the General Hospital and Lady Havelock Hospital, were from within Municipal limits but a few cases were reported from outside. In the General Hospital 338 cases were treated with 33 deaths, and in the Lady Havelock Hospital 126 cases with 14 deaths, against 164 with 41 deaths in the General Hospital and 38 cases with 9 deaths in the Lady Havelock Hospital for the year 1905. In the Panadure hospital 12 cases were treated with 2 deaths, and a few cases were reported from the adjoining villages. In the Negombo hospital 2 cases were treated. In the Kalutara hospital 16 cases were treated, with 2 deaths. In Moratuwa and adjoining villages this disease was epidemic, and there were 110 cases treated at the outdoor dispensary. The chief cause of the disease is the pollution of unprotected wells.

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

General Sanitary Condition of the Province.

21. The general sanitary condition of the Province remains in much the same condition as last year, except that some of the wells in the populous parts of the Province have been protected from pollution. I can only repeat my remarks of last year on this point, and I am sorry to say that very little, if any, has been done to improve the drainage of any of the small towns and villages. The principal scavenger in most of the towns and villages in the maritime districts is the native pig, which is very plentiful along the sea coast.

22. *Colombo.*—This town is annually increasing, and is kept in as sanitary a condition as existing arrangements will permit. The scavenging arrangements are the same as they have been for many past years; cesspits are being gradually filled up and closed. Many parts of the native part of the town are overcrowded, and the drainage is very defective; in some parts there is no attempt at drainage. I am glad to report that the dumping of the sweepings and refuse of the town over the grassfields within the limits of Municipality has been stopped; but I would recommend that the rubbish be incinerated instead of being distributed over the grassfields outside Municipal limits. Fast progress has been made with the Mansergh scheme for sewers and pumping stations, but it will be some time yet before this scheme is in working order, and the transport of night soil by cart will have to continue as before. The water supply to the town is now sufficient since the main has been duplicated. The water is pure and wholesome.

23. *Panadure.*—During the year a Local Board has been formed for this town, which is kept in a most insanitary state; drainage defective. Water supply obtained from wells, which are unprotected from surface contamination. The scavenging of the town is still defective. There are no public latrines.

24. *Kalutara.*—Improvements are being gradually carried out in this town, but the sanitary condition is still very defective. Public latrines insufficient, water supply defective, so also drainage. Some parts of the town are overcrowded.

25. *Negombo.*—Drainage is still defective, as the town is very low-lying and flat. Water has to be carted from some distance, as the water in the town is unwholesome. The scheme for supplying this town with a pure water supply is still under consideration. Some parts of the town are overcrowded. No public latrines are required.

26. *Avisawella.*—The Medical Officer reports that the sanitary condition of the town is, as reported before, still unsatisfactory, drainage defective, no public latrines, and water supply defective. No overcrowding.

27. *Minuwangoda.*—The Sanitary Board of this little town is doing good work by improving the drainage, erecting public latrines, and protecting the public wells from pollution.

28. *Moratuwa.*—Nothing has been done to improve the condition of this town. There are no public latrines, and very poor private ones. There is no attempt at drainage, and the water supply is very defective and obtained from shallow wells, the majority of which are unprotected from surface pollution. There is hardly any scavenging carried out; all refuse, &c., is left lying in the compounds, &c., of the houses, and the town in many places is overcrowded. This town is never free from enteric, and at times there have been as many as 30 cases within a small area, all of which have been traced to water contamination. It is high time that Government appointed a Local Board to look after the sanitation of this important and wealthy town. It is a necessity that should not be postponed any longer, as the existing conditions are a standing menace to the safety of the public health.

Hospitals.

29. *General Hospital, Colombo.*—The total number treated in the pauper section of this institution during the year was 17,115, against 12,533 in 1905; of these, 16,633 were new admissions. The total number of deaths was 2,044, that is 11·94 per cent., against 9·57 in 1905. The greatest mortality was amongst those sent in by the police, viz., 48·91, as against 13·81 among those voluntary seeking admission. The daily average sick during the year was 632·31 for pauper and paying section, against 510·40 in 1905. This hospital consists of 24 wards and 8 solitary wards. Throughout the whole year there was overcrowding, especially during the second and third quarters. The female side was very much overcrowded, as well as the male diarrhœa wards. The pauper side of the hospital has a maximum of 425 beds, but during the month of July the daily average sick was 729, and the greatest number in hospital on any one day was 730, which was on the 19th July. The main cause of this overcrowding was due to destitute Malabar coolies who had failed to procure employment. The influx of coolies from the Coast was very marked during the year. To relieve the overcrowding about 40 female patients were sent to the Branch Hospital, and steps were taken to open a pauper hospital at Ragama by taking over No. 4 Camp, and where from 150 to 200 could be accommodated. This, I am glad to say, was accomplished about the middle of November, and now 100 males and 50 females can be accommodated there, and the congestion at the General Hospital considerably reduced. The chief causes of death were—

	Cases.	Deaths.		Cases.	Deaths.
Enteric Fever ..	338	114	Lobular Pneumonia ..	65	15
Phthisis ..	884	274	Meningitis ..	19	15
Malarial Cachexia ..	571	77	Diarrhœa ..	936	318
Debility ..	1,185	235	Anchylostomiasis ..	607	61
Lobar Pneumonia ..	329	138			

The majority of cases which proved fatal came under treatment in a moribund and hopeless state, and many of the cases of enteric admitted into hospital died within one or two days after admission. The latrines are on the dry-earth system, and were kept in as sanitary a condition as they possibly could be, but all the seats should be replaced by Doulton earthenware squatting plates, and many of the latrines should be rebuilt on more modern plans. A Thresh's disinfector was daily in use at the institution, and was kept in order by the Public Works Department. The number of ward attendants and latrine coolies at this institution is quite inadequate; more night as well as day attendants are required, and their pay should be increased, and all attendants supplied with uniform. I would again beg to suggest that a ward of ten beds for gynæcological cases be built and a special nurse appointed for such cases. The paying section of this hospital consists of 42 beds, and a new building of 9 rooms, with operating room, storeroom, and attendants' room, was commenced about the middle of the year, will, I trust, be handed over to the Medical Department by the middle of 1907.

The total number of cases treated in the paying section during the year was 630 with 75 deaths, as against 511 with 28 deaths in 1905. There were 375 medical and 234 surgical cases; the percentage of deaths to total treated was 11·90. I am glad to state that a gatekeeper to this side of the institution was granted during the year, and I trust that during 1907 the mortuary will be built as well as a milk room.

Buildings.—A new kitchen with portable boilers is very much required for the pauper side, for the present one is more than a disgrace to the institution. I am informed that a plan with estimate has been made out, and I trust the new kitchen will be brought forward in the Supply Bill for 1908, as well as new latrines. The roofs of the temporary wards should be made permanent, and a new operating room is urgently required.

The staff of this hospital was increased during the year, viz., by the appointment of a third surgeon with a third house surgeon, so that now the work is more evenly distributed; but a clerk and extra steward for the paying section are much needed, as well as more nurses and attendants for night duty on the pauper side.

30. *Lady Havelock Hospital.*—The total number of patients treated during the year was 1,153, as against 1,030 in 1905 and 1,159 in 1904. The daily average sick was 33·6 as against 32·22 in 1905, and the percentage of deaths to total treated was 7·02 as against 6·99 in 1905. There were 126 cases of enteric treated during the year with 14 deaths, as against 38 with 9 deaths in 1905. The highest number of enteric cases in hospital in one day was 17, and this was in November, and it was then considered advisable to have these cases transferred to the Infectious Diseases Hospital, Kanatta, and since then all cases of enteric in females occurring in this institution, as well as in the General Hospital, are now sent to the Infectious Diseases Hospital, Kanatta, for treatment, where there are two sisters and a night nurse in charge with two attendants. The majority of these cases came from outside the gravets of Colombo, that is Narahenpita, Nugegoda, Kolonnawa, and Wellawatta.

There were 86 operations, with 4 deaths—one due to heart failure after operation and two to puerperal septicæmia.

During the year the staff of pupil nurses was increased from six to eight, but the staff has never been completed owing to illness, &c. Three of the nurses obtained certificates during the year; nine new candidates were accepted, and out of these six were appointed, one transferred to another hospital, and two resigned. Of those who obtained certificates, one has been made charge nurse and two have been appointed to other hospitals.

31. *De Soysa Lying-in Home.*—993 patients were treated at this institution during the year, as against 877 in 1905. The daily average sick was 21·35. 873 were discharged cured, 20 died, and 20 remained at the end of the year. The percentage of deaths to total treated was 2·14, as against 1·48 in 1905.

32. *Police Hospital.*—The total number of patients treated during the year was 753, as against 594 in 1905. The percentage of deaths to total treated was ·39. The daily average sick was 8·95, as against 7·35 in 1905.

33. *Victoria Memorial Eye Hospital.*—This new institution was opened for patients on the 2nd April, 1906, and since then there have been 507 cases treated, that is, 350 males and 157 females, of these 479 were pauper patients. The daily average sick was 37·35. There were no deaths. 479 cases were discharged, and 28 remained at the end of the year. The largest number of patients on any day was 43. Since the hospital has been opened the accommodation in the private wards, as well as children's and male isolation wards, has been adequate, but the male pauper wards have on several occasions been overcrowded. The staff of this institution consists of the Visiting Surgeon Dr. W. H. de Silva, Dr. A. Nell as House Surgeon, and the Matron Miss Fraser, with two nurses, but I would recommend that another nurse be provided as well as a night male attendant to assist the night nurse on duty.

34. *Branch Hospital, Borella.*—302 patients were treated during the year, as against 258 in 1905. There were no deaths. There was no overcrowding. A new kitchen and bathroom are urgently required. Attached to this institution is the female outdoor dispensary, and during the year no less than 16,157 patients were treated, the total number of times they were seen being 26,061 as against 23,679 in 1905. The daily average attendance was 82, and the number of Mohammedans treated was 1,063. The voluntary contribution amounted to Rs. 891·80.

35. *Panadure Hospital.*—735 cases were treated during the year; of these, 700 were new admissions, as against 693 last year. The death-rate was 14·55, as against 11·43 in 1905. The accommodation at this institution is insufficient, and new quarters for the apothecary as well as an operating room are urgently required. Plans have already been submitted and approved of, and in addition to these a permanent female ward of 12 beds is required, as the present temporary ward erected during the year will only last for a few months, when it will have to be renewed; but for this purpose a strip of land will have to be acquired, as the site of the present temporary ward is too close to the other wards. The attendance at the outdoor dispensary during the year was 8,519, and the number of times they were being seen 17,824. The total voluntary contribution was Rs. 373·46.

36. *Kalutara Hospital.*—The total number treated during the year was 1,388, as against 1,157 in 1905. The daily average sick was 44·23, as against 40·50 in 1905. The death-rate was 11·31, as against 8·76. The highest mortality was, as usual, amongst Malabars sent in by the police. A new dispensary with dispenser's quarters and operating room are required; plans for the same have already been drawn up and approved. The number of visits paid by 15,188 civil patients treated at the outdoor dispensary attached to this institution was 27,126, and 78 estate patients were treated paying 92 visits. The voluntary contribution for the year was Rs. 1,019·66.

37. *Negombo Hospital.*—At this hospital 1,110 patients were treated, as against 905 in 1905. The daily average sick was 35·67, as against 27·92 in 1905. The percentage of deaths to total treated was 11·35, as against 7·40 in 1905. The accommodation at this hospital is sufficient for the district, but an operating room is desirable, as well as improvements to the system of drainage. 10,028 cases were treated at the outdoor dispensary, as against 6,261 in 1905. The number of visits paid was 19,941.

38. *Avisawella Hospital.*—1,520 patients were treated during the year, as against 1,419 in 1905. Of these, 933 were discharged, 511 died, and 76 remained at the end of the year. The daily average sick was 81·47, as against 80·30; and the percentage of deaths to total treated was 33·61, as against 18·11—a very high percentage, mainly due to estate labourers being sent in the last stage of disease and to patients sent in by the police, who are principally destitute Malabars picked up in the bazaars and

on the roadside. There was no overcrowding to speak of, but this hospital will have to be enlarged in the future owing to the number of new rubber clearings which have been recently opened in the district. The attendance at the outdoor dispensary during the year was 16,033 civil patients, paying in all 32,784 visits, and 3,228 estate labourers, total number of visits paid being 4,388—a very poor attendance for estate labourers, considering the number of labourers employed in the district and the high mortality in the hospital. The voluntary contributions amounted to Rs. 637·78.

39. *Neboda Hospital.*—1,422 cases were treated during the year with a death-rate of 22·85, as against 1,265 with a death-rate of 18·11 in 1905. This death-rate compares very favourably with the death-rate recorded from Avisawella hospital, as the unhealthiness of the two districts was much the same. The daily average sick was 60·93, as against 57·63 in 1905. A new male diarrhœa ward of ten beds was opened in August last, and another containing the same number of beds and a new administration block were commenced, and will be completed about middle of 1907. 5,474 patients were treated at the outdoor dispensary, paying in all 7,928 visits. The voluntary contributions were Rs. 11·65.

40. *Pauper Hospital, Ragama.*—This institution was opened on the 3rd November, 1906, for the purpose of relieving the General Hospital of Colombo of the destitute and chronic cases which constantly gained admittance into the hospital. The hospital at present has accommodation for 100 males and 50 female patients, and I consider this is sufficient for the present. The Medical Officer in charge of the Ragama Camp is in charge of this hospital, and the staff consists of the medical officer, apothecary, matron, with three nurses and attendants. The water supply is obtained from wells at the bottom of the hill, and is pumped up by an engine; the water supply is good. The night soil is incinerated, and there is a Thresh's disinfector adjoining. The building is airy and well suited for its present purpose, but the class of patients sent there do not like the place, as most of them are beggars. 234 patients have been treated, with a death-rate of 20·08.

41. *Leper Asylum.*—At the end of 1905 there remained 317 lepers, and during the year 1906 174 were admitted, viz., 152 males and 22 females. The total treated during 1906 was 491, and of these 107 were discharged, 67 died, and 317 remained, exactly the same number as remained on 31st December, 1905. The largest number resident on any one day was 334 as against 330 in 1905, and the lowest 314. The daily average sick was 327·73, as against 322·02 in 1905. Of the 174 admissions during the year, 90 were new admissions and 83 were re-admissions. Of the new admissions, 25 were of the tubercular, 34 of the anæsthetic, and 31 of the mixed form of leprosy. The Western Province, including Colombo town, contributed, as it always has done, the largest number of new admissions, viz., 49, Southern Province 10, Central Province 9, Province of Uva 6, Northern Province 2, Province of Sabaragamuwa 2, and South India 12. Of those discharged, 16 were allowed home isolation—2 under special circumstances by the authority of the Principal Civil Medical Officer, 9 were sent back to the coast of India, 15 temporary leave, and 65 absconded, of whom 10 are still at large. There were 67 deaths, as against 74 in 1905. The percentage of deaths to total treated was 13·64, as against 15·01 in 1905. The female side was very much overcrowded during the year, but a new ward of 50 beds for females was commenced during the year and will shortly be opened; when this is done, a male ward of 40 beds is to be enclosed and joined on the female side, and then the overcrowding on the female side will be at an end. The four cells for refractory patients were built and handed over during the year to the Department.

42. *Kanatta Infectious Diseases Hospital.*—During the year 642 cases were treated, and of these 20 remained from the previous year, 592 were discharged, 25 died, and 25 remained at the end of the year under treatment. The daily average sick was 17·06, and the death-rate was 5·02 as against 5·50 in 1905. Of the total treated, 312 were for chickenpox, 175 for measles, 77 for smallpox, 5 for whooping cough, 13 for mumps, 1 for diphtheria, 18 for enteric fever, 2 for cholera, 1 for acute diarrhœa, 2 for conjunctivitis, 28 under observation for smallpox, 3 from plague-infected ports with fever. Of the cases which proved fatal, 19 were from smallpox, 1 from chickenpox, 2 from measles, 1 from enteric fever, and 2 from cholera. This institution consists of a number of temporary cadjan buildings, and it is high time that an infectious diseases hospital of a permanent nature was built.

43. *Clinic for Tropical Diseases, Borella.*—This institution was opened on 1st October, 1906, and up to the end of the year 25 cases of diseases peculiar to the Tropics were treated. The institution consists of 16 beds, and for the three months it was opened there was a daily average sick of 9·90, with a death-rate of ·04. The diseases treated were principally skin diseases, malarial cachexia, cirrhosis of the liver; parangi or yaws, leprosy, and anchylostomiasis. This institution was placed under the charge of Dr. Castellani, the Director of the Bacteriological Institute.

Jails.

44. The general health of the prisons was on the whole satisfactory. There was no epidemic of fever at Mahara as in the previous year. The daily average sick in all the jails was 82·24, as against 104·75 in 1905 and 97·73 in 1904. The death-rate for the year under review was much higher than last year. The death-rate to total strength of jail was 3·64, as against 3·62 in 1905. The percentage of deaths to total treated was 2·45, as against 1·95 in 1905. The prevailing diseases during the year were malarial fevers, enteric, diarrhœa, and dysentery. There were a few cases of measles, chickenpox, and mumps; the latter disease prevailed throughout the year. There were also two sporadic cases of cholera in Welikada Jail; both these cases were confirmed by bacteriological examination, but the source could not be traced; about this period of the year sporadic cases were recorded from different parts of the Island. Another case also occurred in October at Mahara Jail, but this case recovered.

Malarial fever was present at Mahara Jail from early in May to the end of the year. The number of cases treated was 851 with 14 deaths, and 6,337 prisoners were given quinine as a prophylactic. The prophylactic treatment with quinine was first commenced in 1904 and continued for some months by giving daily doses of 7 grains, it was then discontinued for some months in 1905, and in June, 1905, it was started again by giving 10 grains to each prisoner on two consecutive days every week, and this was continued up till November of the same year, and during the year under review the same treatment was continued up to the end of August, 1906, as fever was prevailing. In my opinion quinine acted in reducing the severity, frequency, and nature of the fever.

Dysentery and diarrhœa claimed the greatest number of victims, but they were less prevalent than in previous years. Dysentery was most prevalent during the early part of the year, but diarrhœa continued more or less throughout the year, and during the latter part of the year there was a great increase

in the number, due, I believe, to climatic changes during the north-east monsoon. Welikada Jail, as usual, contributed the largest number of bowel complaints. The number of cases of dysentery treated from Welikada was 42, as against 156 in 1905; Mutwal Jail 9 cases, as against 56 in 1905; Mahara Jail 18 cases, as against 46 in 1905. The number of cases of diarrhœa treated was Welikada 99 cases, as against 195 in 1905; Mutwal 28 cases, as against 175 in 1905; Mahara 4 cases, as against 31 in 1905, Hultsdorp 8 cases, as against 8 in 1905.

The number of eye diseases treated during the year was 235, as against 214 in the previous year Welikada Jail contributing 135 cases, but the worst forms were admitted from Mutwal Jail.

Mumps.—This disease prevailed throughout the year, and most of the cases were sent from Mutwal and Welikada. The number treated during the year was 116, as against 155 in 1905.

Chickenpox.—Eleven cases were admitted for treatment during the year and 4 remained at commencement of the year, in all 15 were under treatment.

Measles.—Three cases remained at end of 1905 and 8 cases were admitted, making 11 in all for the year.

Enteric Fever.—Sixteen cases of enteric fever were treated at the Borella Convict Hospital during the year with 5 deaths, as against 3 cases and 1 death in 1905. The first occurred in the hospital itself. The subject was long resident in the hospital, and was attached to the sweeping party. At Mahara Jail there were 10 cases of enteric with 3 deaths, against 3 cases in the previous year in all the jails.

Lung Diseases.—Twenty-seven cases of pneumonia and 58 cases of bronchitis were treated during the year, with 12 deaths from the former.

Acute Diarrhœa.—Nine cases of acute serous diarrhœa were treated in Borella Convict Hospital with 3 deaths, at Mahara Jail Hospital there were 3 cases with no deaths.

Latrines.—The latrines are now all supplied with Doulton's earthenware squatting plates, and they are kept in a sanitary condition.

The water supply of all the jails, with the exception of Mahara, is the town supply, and is pure, wholesome, and sufficient. The supply to Mahara is from a well outside the jail compound; it is carefully boiled before use.

There was slight overcrowding at Welikada and Hulftsdorp Jails about the middle of the year, but the other two jails were never overcrowded.

The Port of Colombo.

45. During the year 2,857 steamers and 484 native sailing crafts called at this port; of these, 2,418 were granted free pratique, and 923 arriving from infected ports were permitted to work as healthy in quarantine. The number of vessels kept in quarantine during the year for plague or suspected plague 9; for smallpox or suspected smallpox 22; for cholera or suspected cholera 3. During the months of July, August, and September, owing to an outbreak at Tuticorin, that port had to be closed to ordinary native passenger traffic. Two plague-infected vessels arrived from Bombay during the year. The P. &. O. Dongola arrived in harbour on the 21st April having buried at sea the day before a patient with bubonic plague of three days' duration. The vessel was put in strict quarantine in port, but according to plague regulations she should have proceeded to Galle to land passengers and cargo, but the Captain elected to proceed on his voyage rather than run the risk of taking his vessel into Galle harbour. Again, on 15th June the P. & O. Devanha arrived from Bombay with a case of plague, which succumbed shortly after the arrival of the steamer. In this case the contact passengers for Ceylon were all sent to Galle after careful disinfection, and detained for ten days at Bathfield House in quarantine. All cases of pneumonia landed here and occurring in ships from plague-infected ports are sent to the Infectious Diseases Hospital for treatment and detention until they are diagnosed as not of plague. Disinfection during the year was carried on, as before, at Kochchikada, as the new station at the root of the breakwater had not a sufficient supply of water. The number of persons who underwent personal disinfection during the year was—

Tally clerks	.. 7,357	Coal coolies	.. 45,955
Cargo coolies	.. 42,828	Passengers	.. 27,548

The total number of native passengers other than estate labourers arriving during the year was 71,107, immigrant labourers being 88,930. All such persons not showing satisfactory vaccination marks are vaccinated or re-vaccinated at the root of the breakwater, and during the year 17,766 persons were vaccinated.

46. *Ragama Camp.*—During the year 88,167 coolies and others passed through the camp, as against 141,823 in 1905 and 60,171 in 1904. Of this number, 441 were from plague-infected areas, 7,450 from smallpox-infected areas, 18,349 were cholera contacts or from cholera-infected areas. Of the total number of coolies who passed through the camp, 8,716 were found unvaccinated, and were all vaccinated within a few hours of their arrival in camp, but there is no means of finding out the result, as the coolies leave for their estates within forty-eight hours of their arrival, except those who are in quarantine. There were 9 cases of cholera in the camp during the year, and all the cases were removed to Talagalla Infectious Hospital and treated there. The infection was in all cases traced to the coast of India. The first two cases occurred on the 17th July, and both recovered. During August there were 2 cases and in September 5 more, making a total of 9, with 5 deaths, being a death-rate of 45·6 per cent. The water supply of the camp is obtained from wells at the bottom of the hill, and is of fair quality, sufficient in quantity, and is pumped up and stored in tanks (iron). The sanitary condition of the camp was throughout the year satisfactory. The drainage of the camp is satisfactory. The night soil is collected twice a day and incinerated.

Talagalla hospital is situated about half a mile away from the camp, and is now of a permanent nature. There were 18 patients treated in this hospital during the year, viz., 9 cases of cholera with 5 deaths, 3 of chickenpox, 1 of dysentery, 1 of malarial fever, 1 gastritis which proved fatal, 2 of diarrhœa with 1 death, and 1 of acute serous diarrhœa which proved fatal.

Vaccination.

47. During the year 1906 37,880 subjects were vaccinated, 32,879 were primary vaccination and 5,001 re-vaccinations, other than immigrant coolies. Of the primary, 30,256 were successful and 1,416 unsuccessful; in 1,207 subjects the result of the operation was not known, as they failed to present them-

selves for examination on the appointed days. The percentage of successful cases to total inspection was 95·52, as against 95.85 in 1905. Of the re-vaccination, 3,621 were successful and 700 unsuccessful, and the result was not known in 680 cases, as the subjects failed to present themselves for inspection. The percentage of successful subjects to total inspected was 83·80, as against 70·84 in 1905. Twenty-nine vaccinators were employed during the year, but of these eighteen were village vaccinators, two estate vaccinators, one calf vaccinator, and eight for the town of Colombo. Calf vaccination was carried on almost daily at the depôt at Kanatta. During the year 380 calves were vaccinated, from which 35,410 tubes of glycerinated paste was made and distributed weekly amongst the vaccinators and medical officers in the Island, as well as to the military and the Pearl Fishery Syndicate. The total cost of the institution for the whole year was Rs. 6,506·26, and the amount realized by the sale of calves and lymph was Rs. 1,755·50.

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

CENTRAL PROVINCE.

THE estimated population is as follows :—

Population	1905 .. 648,270		Birth-rate per 1,000	1905 ..	36·2
	1906 .. 650,968			1906 ..	37·5
Births registered	1905 .. 23,432		Death-rate per 1,000	1905 ..	26·3
	1906 .. 24,466			1906 ..	37·3
Deaths registered	1905 .. 17,016				
	1906 .. 24,349				

Prevailing Diseases.

2. The year under review was considered on all sides to have been a very unhealthy one. Disease was rife throughout the Province, carrying in its train great distress to the community and causing loss of numerous lives. The most prevalent diseases were malarial fevers, intestinal and respiratory diseases, and rheumatic affections.

Malarial Fever existed to a considerable extent and with great severity. There was hardly a single district that was not affected. It assumed an epidemic form from April to September, and was specially noticeable in the Galagedara, Matale, Kandy, Wattegama, Kadugannawa, and Teldeniya districts. Itinerating dispensers were employed to distribute quinine and to render other medical aid. By this means large numbers of poor and helpless villagers were treated, though it must be confessed that the death-rate, nevertheless, proved unduly high, especially among the aged and infants. With the heavy north-east rains this epidemic rapidly and completely disappeared. 88,733 cases of fever were treated in all the dispensaries of the Province, and of this number 37,507 were treated in the dispensaries distributed in the Matale District, 7,881 at Galagedara, 5,241 at Teldeniya, and 4,288 at Katugastota.

Dysentery was of next importance in point of increase, and occurred both on estates and in villages. In the latter especially its ravages were great and extensive. Though all possible help was afforded to the stricken by itinerating dispensers and hospitals and dispensaries, still the lack of intelligence insanitary surroundings, absence of nursing, prejudice against European treatment, and superstition, all combine to render comparatively ineffectual attempts to combat a notoriously fell disease.

Rheumatic and Respiratory Diseases existed in combination with meteorological variations, wet and damp weather especially favouring their development.

Parangi is gradually diminishing, and I can confirm my previous reports under this heading.

Anchylostomiasis is increasing among the estate population, and is responsible for a large proportion of its deaths. It is impossible to check its spreading, unless reasonable precautions are taken on estates to prevent fæcal pollution of soil and water, and strict measures adopted to prevent the landing of affected coolies from the Coast. The eucalyptus treatment was introduced into the hospitals, and while several officers report favourably on its results, a good many do not consider it so efficacious as the treatment of the disease with thymol ; and I have on my inspections made inquiries and agree with the latter, that, while it causes expulsion of the tiny worms, its effects are less potent than thymol, taking months before they entirely cease to appear in the motions.

Relative Mortality in the different Seasons.

3. *First Quarter.*—With the single exception of Matale, the death-rate of which was 35·5, all the other districts in the Central Province enjoyed better health than usual, and a smaller death-rate than the average.

Second Quarter.—The general health of the population during the quarter was bad. The death-rate during this period among the Sinhalese inhabitants rose in Kandy District to 36 per mille from an average of 26, and in Matale to 50 against an average of 30. Among the estate population it rose in Matale District to 61 from an average of 30. The chief diseases which caused the mortality were malarial fevers, dysentery, and diarrhœa. There was a prolonged drought following the rains in January, which affected the water supply of the district.

Third Quarter.—This quarter was much worse than the previous one, and general sickness and mortality were on the increase, affecting both the civil and estate population. This increase was most marked in July. Owing to deficiency in rainfall, the prevalent diseases were aggravated by want of wholesome food and water. The mortality was very heavy among the estate population. In Kandy District the death-rate was 35, whereas the birth-rate was only 28 ; in Matale District 113 and 33, respectively. Large numbers of infants and children succumbed.

Fourth Quarter.—With the heavy rains of the north-east monsoon all prevalent diseases, especially malarial fever, disappeared, and the general health and ordinary mortality restored. Figures are not available.

Meteorological Conditions and their Effects on Public Health.

4. These presented a remarkable variation from the usual conditions. The monsoons appeared late, the drought was extreme, and the rains were abundant and long continued, causing unprecedented inundations, with their attendant damage, distress, and ill-health. Fevers, dysentery, and bronchial affections followed in the wake of atmospheric changes, and the increased attendance of sick at the several dispensaries and hospitals provided the surest index of the impaired public health.

Particular Diseases.

5. *Smallpox.*—The following small outbreaks occurred during the year. In each instance rapid and rigorous measures were adopted to prevent spread, and the infection in each case was traced to new arrivals from the coast of India. Six cases occurred on Stellenberg estate, Pussellawa, two occurred on two estates in Lindula 8 miles apart, and one occurred each on Wanarajah estate, Dikoya, Suriyakande, Maskeliya, and Ambawella, Nuwara Eliya. One case occurred in the town of Kandy, and was removed to hospital. Altogether there were 12 cases and 3 deaths.

Cholera.—One fatal case occurred in Kengalla, and was presumed to have been caused by dietetic error. Three cases occurred at Katugastota and proved fatal. The source of infection could not be traced. Seventeen cases occurred at Milapitiya, a village 13 miles distant from Kandy and bordering the cart road to Hanguranketa. The cause or source of the outbreak could not be traced, but is presumed to have had some connection with the Katugastota cases that occurred only a few weeks previous. Eight of these 17 cases died. The outbreaks were kept well under control, and disappeared within a month. Of the 21 cases, 12 died.

Chickenpox prevailed extensively. 1,526 cases were treated. Of these, 879 were in Kandy District, 130 in Teldeniya, and 114 in Lindula.

Enteric Fever.—There was a marked diminution in the prevalence of enteric fever in the town of Kandy, notwithstanding the fact that during the month of July, in consequence of the reservoir running dry, it became necessary to issue the lake water to the town. Sixteen cases were treated in hospital with 3 deaths, to 32 cases the previous year. In Nuwara Eliya, however, there was a considerable increase, 47 cases were reported to 10 of the previous year. Of the 33 admissions into hospital, the death-rate was 22·8 per cent. The disease was most prevalent in the months with lowest rainfall. There were 15 cases in the first quarter, 16 in the second quarter, 11 in the third quarter, and 5 in the last quarter. Two cases were treated in the hospitals of Gampola and Matale, with 1 death in each hospital. At Dambulla hospital 6 cases were treated, with 1 death.

Leprosy.—Fifteen lepers were inspected and reported on during the year. Thirteen of these were in the contagious and two in the non-contagious stage. Eleven of these were admitted into the Asylum at Hendala, 4 were returned to the Indian coast, and 2 died. Two lepers discharged from the Asylum made adequate arrangements for their isolation and treatment at home, and were from time to time reported on by the medical officers of their respective districts. One of these died, the other is reported as getting worse.

Sanitation.

6. *Kandy.*—Much yet remains to be done to improve the sanitary condition of the town. The drainage is unaltered. The water supply proved seriously insufficient during the period of drought, and had to be issued in limited quantities at fixed hours only. In July the reservoir ran dry, and the Municipality was compelled to issue the lake water to the residents with due notice to boil the water for drinking. It is remarkable that though this water, which is contaminated by the drainage of the town, was consumed by the public for over a month, yet no ill-consequences followed. The question of an additional reservoir must receive early attention. The conservancy is satisfactory on the whole, but the night soil should be incinerated instead of being buried, as obtains at present. This cannot but exercise a prejudicial effect on the surrounding neighbourhood, and in course of time, not long distant, the question of re-opening sodden soil must be faced. Scavenging is satisfactorily done.

Matale.—Considerable improvement was effected during the year, especially in the drainage. Substantial and new concrete drains were built. Water supply is good, but insufficient. Scavenging and conservancy were properly attended to.

Nawalapitiya.—The general sanitary condition of the town was very satisfactory. The drainage is free, and there is an unlimited supply of pure and wholesome water. There are several public latrines in good order. Scavenging satisfactory. Improvements for flushing the slaughter-house were effected during the year. Bakeries were kept clean. The swamps referred to in my last report should receive attention.

Gampola.—General sanitary condition good. Water supply limited. Several of the old drains have been rebuilt, and the drainage is good. Latrine accommodation sufficient. Slaughter-house clean and in good condition.

Pussellawa.—Sanitation satisfactory. Drainage good, but requires extension. There are two Horbury latrines. Water supply good and sufficient. Scavenging regularly done. The slaughter-house requires a cement floor and zinc roof.

Dikoya.—Drainage at Norwood and Dikoya satisfactory. More drains are necessary at Hatton. A good water supply is desirable for Hatton and Dikoya. Latrines sufficient. Scavenging well done. Bakeries and slaughter-houses kept clean and in order.

Maskeliya.—Water supply ample. Drainage good, but the drains at the backs of houses should be cemented. Latrines sufficient. Conservancy good.

Bogawantalawa.—Sanitation fair. Latrine accommodation sufficient. Scavenging satisfactory. Drainage defective. Slaughter-house clean and satisfactory. Water supply abundant, but exposed to pollution.

Dimbula.—Bazaars kept clean. The drains require cementing. There are no public latrines. Two are required.

Lindula.—Sanitation satisfactory. Drainage good. Cement drains in the front of houses were built. Improvements required are the extension of the backyards of houses, which are very near the banks, by further cutting. Work in connection with a water service for Talawakele was begun towards the end of the year. At Lindula and Tillicoultry the water supply is scanty during the dry season. Latrine supply insufficient in all three places.

Nanu-oya.—Drainage, water supply, and scavenging require improvement. An estimate for drainage and water supply has been sanctioned.

Agrapatana.—Drains require cementing. There are no latrines. Water supply abundant, but liable to pollution.

Nuwara Eliya.—A large sum of money was spent in improving the drainage of the town; 1,500 feet of concrete drains were built. Five of the latrines were condemned and rebuilt; two more were added. A new site for the disposal of night soil was opened on the Kandapola road.

Uda Pussellawa.—Sanitary state satisfactory. Water supply plentiful, but of doubtful quality Markets clean. Drainage at Kandapola will be attended to.

Teldeniya.—The water supply failed during the drought. River water was used in consequence. Pipes are being laid for the new water service. There is no overcrowding. Drainage defective. No latrines. The town is to be brought under the Small Towns Sanitary Ordinance.

Madulkele.—No improvements effected. Horbury latrines are much needed at Hulu-ganga, as there are large gatherings at Sunday markets.

Pundalu-oya.—Sanitation satisfactory. Drains have been constructed. Scavenging regularly done. Water supply sufficient. No overcrowding.

Wattegama.—The town has been much improved, old dilapidated houses have been pulled down and new ones erected. New concrete cement drains are being built. The public cattle shed has been improved. The manure pit should be made impervious. Water supply insufficient and unwholesome. Another public latrine required.

Katugastota.—Scavenging regularly done. Drainage defective. Latrine accommodation insufficient. One well has been sunk by the Kandy Municipality. River water in general use.

Kadugannawa.—Water supply plentiful. Drainage bad. No latrines; two are required.

Galagedara.—No scavenging. No proper drainage. Water supply plentiful from two good wells. A proper slaughter-house is required to replace the present insanitary shed.

Padiyapellela.—Drainage defective. Latrine accommodation insufficient, there being only one Horbury latrine to serve a population of 300. Water supply abundant and good. Scavenging regularly done.

Dambulla.—No improvements effected. Drains and public latrines required.

Hospitals.

7. *Kandy.*—There was a considerable increase in the admissions into hospital, 5,554, as compared with the previous year 4,084. The daily average sick was 193·89 and 148·70 respectively. There was, therefore, overcrowding throughout the year. Although the mortality was very high among Malabars sent in by the Police (54·30) and of all Malabars, including estate labourers, treated (20·22), the percentage of deaths to total treated (10·96) may be considered satisfactory. Of those sent in from estates alone the percentage was 16·04. The electric light was installed throughout the hospital, and a European nurse added to the nursing staff.

Matale.—The hospital was seriously overcrowded throughout the year. Though 68 beds are assigned, there was hardly a day in which over 100 patients were not in the wards. To relieve the pressure, Government sanctioned the building of a temporary ward 100 feet long, but it has not yet been completed. 2,281 persons were treated to 1,425 the previous year, 1,644 out of the 2,281 having been Malabars. Of this number, 100 were cases sent in by the Police, 272 sought admission voluntarily, and 1,272 were sent in from estates. There were 650 deaths to 212 the previous year, the percentage of deaths to total treated was 28·05, the percentage of deaths to estate cases and all Malabars being respectively 32·07 and 32·90. Of the total number of deaths, 210 cases died within five days of admission. The Medical Officer remarks: "This will give an idea of the class of cases admitted during the year owing to the fever epidemic and general unhealthy conditions which prevailed. Coolies were picked up on roadsides in a moribund and hopeless state and brought into hospital to die. Some villagers were also sent in, found on the roadsides in a helpless and dying condition. Under these circumstances the death-rate could not be otherwise than high." 25,014 persons were treated at the dispensary and on estates compared to 12,461 persons the previous year. The visits paid amounted to 38,373, an average attendance of over 3,000 visits per month. This is the largest attended dispensary in the Province. No less than 12,769 persons were treated for malaria out of a total of 88,733.

Nuwara Eliya.—The total number of cases treated in hospital was 782, as compared with 601 in 1905. The death-rate was 10·10 to 9·31 in 1905. The mortality amongst those sent in from estates was 19·07, and Malabars seeking voluntary admission 15·07. 2,787 civil and 903 estate labourers were treated at the dispensary. The improvements effected were the addition of an operating room and corridors to connect the wards. Small wards for maternity cases and paying patients are required.

Gampola.—This hospital was submerged during the heavy rains of October. The patients were removed and accommodated in the Medical Officer's bungalow 1,194 persons were treated during the year, of whom 200 died. The daily average sick was 51·18, and the percentage of deaths 16·75. 754 of those treated were Malabars.

Dambulla.—This hospital was twice flooded in the month of December. 669 cases were under treatment during the year, with 50 deaths. The female side has been constantly overcrowded. At this and the itinerating stations 8,615 persons were treated.

Katugastota.—This hospital is chiefly used for the treatment of parangi and chronic ulcers and to relieve the pressure in the Kandy hospital. The dispensary is very largely attended, being situated in a populous centre. 10,285 persons were treated, who paid 19,222 visits.

Nawalapitiya.—This hospital was badly overcrowded throughout the year, and to relieve the pressure a new hospital at Dolosbage is under construction and nearing completion. There were 1,262 admissions, of which 751 were sent in from estates. Fifty remained under treatment from the previous year. There were 304 deaths, of which 196 were estate labourers. The daily average sick was 61·27, and the percentage of deaths to total treated 23·19, and to estate labourers 24·81.

Lindula.—Like all estate hospitals, the mortality was high (23·09). 1,111 cases were admitted, of which 879 were estate labourers. There were 281 deaths, of which 237 were estate labourers.

Maturata.—631 cases were admitted, with a death-rate of 8.59 per cent. The mortality among estate labourers was 19·28.

Ramboda.—528 persons were treated to 321 the previous year, with a daily average sick of 25·91 and 16·74. The percentage of deaths to total treated was 13·06.

Pussellawa.—269 cases were treated, 58 mixed races and 211 Malabars, of which 151 were sent in from estates. There were 49 deaths, of which 45 were Malabars (37 being estate labourers). The percentage of deaths to total treated was 6·89, of all Malabars 21·81, and those sent in from estates 24·50.

Uda Pussellawa.—Out of the 439 admissions, 209 were estate labourers. The percentage of deaths to total treated was 14·69; 48 of the 61 deaths were among estate labourers At the dispensary 2,813 civil and 1,055 estate cases were treated.

Dimbula.—The total number of patients treated in hospital was 467, as compared with 480 the previous year. 298 of this number were discharged, 148 died, and 21 remained at the end of the year. The daily average sick was 23·68; the percentage of deaths to persons treated 31·69. Of the 148 deaths, 126 were estate labourers, the percentage to these treated (347) being 36·31. The total number of persons treated at the dispensary was 5,625, of which 4,465 were estate labourers, as against 3,481 and 3,121 respectively in 1905.

Maskeliya.—This is a temporary hospital with limited accommodation; only serious cases are treated here. The ordinary cases are transferred to Dikoya, being conveyed in batches in an ambulance. The mortality to total treated was 33·23, against a percentage of 24·28 in 1905. There were 355 admissions to 280 the previous year. At the dispensary 210 civil and 2,652 estate labourers were treated.

Dikoya.—This new hospital was completed during the year. The total number treated was 1,604 to 1,087 the previous year. The death-rate, 20·69, was about the same as last year. The daily average sick was 84·74, as compared with 69 the previous year.

Madulkele.—The number of patients treated during the year was 810, of these, 789 were new admissions. In 1905 the figures were 564 and 534. The daily average sick was 39·57, against 29·01 in 1905. The total number of deaths was 136, a percentage of 13·35. A large number of the cases that died were admitted to hospital when too far advanced in disease or in a moribund condition. Money has been voted for a new hospital, and work in connection with it will soon begin.

Deltota.—565 cases were admitted, and 24 remained under treatment from the previous year. Of these, 484 were discharged, 76 died, and 29 remained at the end of the year. The daily average was 26·91, and the percentage of deaths to total treated 12.90. The percentage of deaths to estate labourers treated was 15·91.

Teldeniya.—The percentage of deaths to total treated was high (18·28), due, the Medical Officer reports, to the large admissions of Malabars and bad cases sent in from the estates. The percentage to total treated of Malabars was 22·00 and of estate labourers 21·85. Owing to increased admission, a temporary ward is under construction.

Mulhalkele.—This hospital was open from May to December, which corresponds with the fever season. There were 471 civil patients treated with 11 deaths, as against 252 with 3 deaths the previous year, and 35 Malabars (33 from estates) with 2 deaths as against 29 cases with 1 death last year. The daily average sick was 20, and the percentage of deaths to total treated 2·55. At Mulhalkele and the two itinerating dispensaries 10,503 persons received treatment.

Jails.

8. The general health of the Kandy prisons was not maintained at its usual satisfactory standard, the three last quarters of the year having been markedly unhealthy in common with the general sickness prevalent throughout the entire district. Malarial fevers of an exceptionally virulent type prevailed largely, and latterly assumed an influenzal character, exhausting and debilitating a subject very rapidly. Dysentery and diarrhœa, too, existed, and showed a distinctly severe type. All cases of infectious diseases, such as chickenpox, measles, and mumps, so commonly prevalent, were treated in a special ward within the jail precincts without affecting the general health. This experiment has now been tried for two years and has proved a marked success. In previous years all such cases were transferred to the infectious diseases hospital. Eight cases of enteric were treated with no deaths. The admissions into the Bogambra Jail during the year were 2,373, and the average daily strength was 471·91; while those of the Old Jail were 1,420 and 65·27 respectively. There was no overcrowding. 1,337 prisoners were admitted into hospital to 1,048 the previous year. Of these, 1,326 were discharged, 17 died, and 29 remained at the end of the year. The daily average sick was 40·28, and the percentage of deaths to total treated 1·23.

Nuwara Eliya.—There were 31 admissions, chiefly for diarrhœa. Two of these cases were enteric, and the infection was probably derived by drinking the water of a stream in the Park where the men worked. There were no deaths.

Vaccination.

9. 23,290 vaccinations and 755 re-vaccinations were done in the Province during the year; 19,395 of the former were discharged as successful, 2,712 were failures, and 1,183 reported as absent. Owing to prevalence of fever and consequent suspension of vaccination the number vaccinated during the year was lower by 4,326 than the previous year. 273 defaulters were prosecuted; 163 were convicted and fined. The fines amounted to Rs. 180·50. The rest were acquitted for various reasons. Twenty-three complaints against headmen were made to the Government Agent for neglect of vaccination duties, six were fined and eight warned.

NORTH-CENTRAL PROVINCE.

10. There is nothing special to note in the public health of the Province except a severe and sharp outbreak of epidemic diarrhœa in a remote Moorish village—Katuwanwella—towards the end of September last, when 48 persons were attacked with 26 deaths. The first case occurred on the 23rd September, and the last on the 2nd October. There was scarcity of food owing to the failure of crops, and the disease was aggravated from this cause. The whole village was quarantined, and every dwelling disinfected after the burial of the dead. All the cases were treated in their own homes. Rice was distributed to the villagers at Government expense and medical comforts supplied. This outbreak was returned as cholera.

11. *Malarial Fevers* prevailed as usual, but never assumed an epidemic form. 30,377 cases of malarious diseases were treated during the year at the dispensaries in the Province and 782 in the hospitals at Anuradhapura and Mihintale. The largest numbers were treated in the dispensaries at Anuradhapura 3,796, Kekirawa 2,702, and Nochiyagama 2,636.

Sanitation.

12. *Anuradhapura and Mihintale.*—No improvements effected.

Hospitals.

13. *Anuradhapura.*—1,715 patients were treated with 140 deaths to 2,102 and 184 respectively the previous year. The daily average sick was 58·53, and the percentage of deaths to total treated 8·16. The class of diseases treated was the same as last year, viz., malarial fevers, dysentery, and diarrhœa. Pneumonia prevailed in October more than usual, and the high mortality in that month was chiefly due to this cause. Three cases of enteric fever were treated, with two deaths.

Mihintale.—Thirteen patients remained over from 1905; 469 were admitted. Of this number, 34 died. The daily average sick was 18·59, and the percentage of deaths to total treated 7·05.

Jails.

14. There is only one jail in the Province, viz., at Anuradhapura. Twenty-three prisoners were admitted into the sick list to two the previous year. Nine of these cases were dysentery, which caused one death.

Vaccination.

15. The state of vaccination in the Province is satisfactory. Eleven defaulters were prosecuted; ten were fined. The fines amounted to Rs. 4. Twenty headmen were reported to the Government Agent; one was dismissed.

REPORT of F. G. Spittel, L.R.C.P. (Edin.), &c., Provincial Surgeon, Northern Proivnce.

I REGRET that I am prevented from showing here the population and birth- and death-rates of the whole Province. I am indebted to the Provincial Registrar for the following statistics of the Jaffna District:—

Population	1905	315,865
	1906	320,354
Births	1905	12,155
	1906	13,150
Deaths	1905	7,501
	1906	8,661
Birth-rate per 1,000	1905	38·48
	1906	41·04
Death-rate per 1,000	1905	23·75
	1906	27·03

The above table shows that the population of the district has increased by 4,489. The number of births also exceeded that of the previous year by 995. The number of deaths registered shows a marked increase, being 8,661, against 7,501, an increase of 1,160. The birth-rate per 1,000 shows an increase of 2·56, and the death-rate an increase of 3·28.

Prevalence of Sickness.

Except for the prevalence of malarial fever about the end of the last quarter and the whole of the first quarter of the year and some outbreaks of smallpox, the health of the Province during the year has been fairly satisfactory. The diseases most prevalent were malarial fevers, dysentery, diarrhœa, rheumatism, respiratory diseases, chiefly pneumonia, ulcers, and itch.

Malarial Fever.—This disease was present more or less in all the stations throughout the year, and it prevailed as usual to a great extent during the latter half of the last quarter and the whole of the first quarter of the year. However, the number of cases treated during the year compares favourably with the number treated during the previous year. The number of cases treated in all the stations during 1905 was 47,595, whereas during the year under review the number treated was 40,831, showing a reduction of 6,764 cases. The types of fever most common were the tertian and quotidian. Towards the end of the year additional officers were employed on special malarial duty, and quinine was distributed through the headmen in several villages.

Dysentery and Diarrhœa prevailed to some extent. 3,614 cases were treated in all stations. The largest number of cases, 946, was reported from time to time from Point Pedro. Neither of these diseases assumed an epidemic character, though most of the cases occurred during the wet season. Most of the cases were of a mild type, and were due chiefly to exposure to variations of temperature, irregular living, and unwholesome food.

Respiratory Diseases also occurred chiefly during the wet season, and were reported from nearly all the stations. The total number of cases of pneumonia treated during the year was 275, against 290 during the previous year. The largest number of cases, 50, was reported from Point Pedro.

Scabies.—This disease prevails to a great extent everywhere in the Province, and most of the patients suffering from it take native treatment. The disease is most prevalent in Jaffna, Point Pedro, and Delft.

Particular Diseases.

Smallpox.—Fifty-four cases of this disease occurred in the following places:—Jaffna town, in the villages Thyiddy, Myiliddy, Puloli, Chunnagam, Valvedditurai, Erukalampiddy, at the Pearl Fishery Camp Marichchukkaddi, Mannar town, Delft, and Kankesanturai. Eleven cases proved fatal, and the rest were discharged cured.

In the town of Jaffna there were two outbreaks. In the first three cases were reported. All these were the inmates of the Friend-in-Need Society's Hospital. One came to the hospital from the village Myiliddy and two from Kottady while they were incubating the disease, having been infected by the cases that occurred at Sarliapiddy towards the end of the previous year, and were really the last cases of the outbreak that occurred there at the end of the year 1905. All the three patients were promptly removed to the infectious diseases hospital, from where they were discharged cured. The second outbreak in town took place in March. There were nine cases at Karaiur, and one at Vannarponne. The first of these cases came infected from the Pearl Fishery Camp at Marichchukkaddi. All the patients were removed to the smallpox hospital, and only one proved fatal. At Thyiddy there was only one case,

which proved fatal. The source of infection in this case was obscure. At Myiliddy, during April and May, there were three cases, of which one proved fatal. The first case contracted the disease at the Pearl Fishery Camp Marichchukkaddi. There was one case at Puloli and one at Kankesanturai, during April. At Valveddyturai there was one case. At the Pearl Fishery Camp Marichchukkaddi six cases occurred in February and March. Of these, the first three patients were Arabs, who came infected from India, and the other three were Tamil residents of Jaffna, who contracted the disease at the Fishery Camp. In the village Erukalampiddy the first case was reported about the end of March, and the last about the middle of June. In all there were sixteen cases, of which two died. One case occurred at Delft. The patient visited the Pearl Fishery Camp in February, and within twelve days after his return to the island early in April fever set in, followed by the eruption of smallpox. He was promptly isolated, and was discharged cured in May. At Mannar three cases occurred in March and April. Two of these were infected at the Pearl Fishery Camp, and developed the disease shortly after their return to Mannar; the other was the attendant of the hospital, who contracted the disease from the patients he attended on. The last outbreak occurred in the village Chunnagam, about 6 miles from Kankesanturai. The disease was introduced by a man from Trincomalee. In all there were eight cases, one of whom was the headman of the village. One case proved fatal, six were discharged cured, and one was remaining in hospital at the end of the year.

With a view to prevent the spread of the disease, in all the above-mentioned stations the following sanitary measures were carried out:—All the patients and contacts were promptly isolated and placed under police supervision. House-to-house inspections were made daily. Vaccination and re-vaccination in the infected area were most vigorously carried out, and all the infected articles and cadjan roofs of infected houses were burnt. The infected houses were whitewashed, and disinfectants were freely used.

It would be seen from the above figures that the largest number of cases occurred in the village Erukalampiddy, which is thickly inhabited by Moors, who have a great inclination to conceal patients.

Chickenpox.—Thirty-three cases of this disease were reported from sixteen stations. The largest number of cases (6), was reported from Chunnagam and Delft.

Measles.—Only a few sporadic cases of this disease occurred in four stations, viz., Kankesanturai, Batticotta, Mandativu, and Mannar.

Cancer.—Only two cases were reported, one each from Chavakachcheri and Point Pedro.

Venereal Diseases.—605 cases were treated in thirty-four of the stations. The largest number of cases (211) was reported from Point Pedro.

Parangi.—923 cases were treated in twenty-one stations. The largest number (209) were treated at Vavuniya.

Leprosy.—There are six cases of leprosy in the Province, all males, one each at Mariankudal, Point Pedro, Vannarponne, Nallur, and two at Kankesanturai. All are in the non-contagious stage.

Cholera.—Two cases of this disease occurred during the year, both in a native vessel which arrived at Kayts from Negapatam on the 17th September.

Relative Mortality in the different Seasons.

The wet season begins with the setting in of the north-east monsoon rains, usually about the end of October and continues till about the end of December. The rainfall during the above period is usually very heavy. There is very little rain with the setting in of the south-west monsoon in May, after which the hot season begins and lasts till about the middle of October. During the months December, January, and February there is in addition a heavy fall of dew at nights, and mosquitoes breed in abundance; and it is during these months that malarial fever prevails almost everywhere in the Province to a great extent. The largest number of chest affections, chiefly pneumonia and bronchitis, occur also about this time. The first quarter is 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 sickness and mortality begin to rise again towards the end of the fourth quarter.

General Sanitary condition of the Province.

The general sanitary condition of the towns in the Province remains much the same as during the previous year. The only town in which some system of sanitation is carried on is Jaffna, and even here there is considerable room for improvement. In many places the houses are crowded together, and surrounded by fences that shut out both light and air. The compounds of many houses are low-lying and become water-logged for many days after heavy rains. There are low-lying tracts of land which remain marshy and swampy during and for some time after the rainy season. Very few houses are provided with dry-earth latrines, and most of them have filthy cesspits. A long-felt want, a Local Board, was at last established in July, but it was not brought into proper working order till about the end of the year. There is every likelihood that a great deal will be done by the Board in the near future to improve the sanitary condition of the town.

Water Supply.

The Jaffna town water for all purposes is obtained from wells. There are only few wells which supply water of fairly good quality which can be used for drinking. The water of most of the wells is hard, brackish, and unfit for either drinking or cooking. At Mannar the water supply is very unsatisfactory. Drinking water of good quality can only be obtained from some wells at Totakadu, a village situated about a mile and a half from town. Most of the people use the water of tanks, which is more or less polluted. The water supply at Mullaittivu is generally ample, and is obtained from wells. In Vavuniya most of the people use the water of tanks. There are a few wells, and nearly all run dry shortly after the rainy season.

Vaccination.

Vaccination was carried out satisfactorily throughout the year. The staff consisted of an Inspector and seven vaccinators. The work of the vaccinators was regularly inspected. The medical officers and apothecaries also carried out vaccination at their dispensaries once a week. The total number of persons operated upon by the vaccinators was 7,247 and by the medical officers 3,054. Of the total

number vaccinated by the vaccinators, 5,879 were successful, 461 unsuccessful, and the result was not known in 907. Of those vaccinated at the dispensaries, 2,566 were successful, 432 unsuccessful, and the result was not known in 56. The total number of re-vaccinations done during the year was 5,392, of which 1,748 were successful, 476 unsuccessful, and the result was not known in 3,168. The percentage of successful to total inspected by the vaccinators was 92·72, and the percentage of successful to total inspected at the dispensaries 85·59.

Hospitals.

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

Point Pedro Hospital.—846 patients were treated during the year, and the daily average sick was 33·52. The number of deaths was 18, showing a mortality of 2·12 per cent.

Mullaittivu Hospital.—The total number of patients treated during the year was 469, of which 13 proved fatal, showing a mortality of 2·84 per cent. The daily average sick was 28·53. There was no overcrowding of the wards at any time.

Vavuniya Hospital.—The total number of patients treated in this hospital during the year was 103, of which 16 died. The daily average sick was 4·15, and the percentage of deaths to total treated 15·53. There was no overcrowding at any time.

Mantota Hospital.—Total number treated during the year was 438, of which 34 died, showing a death-rate of 7·76 per cent. The daily average sick was 17·90.

Mannar Hospital.—The total number of patients treated during the year was 394, of which 16 proved fatal, showing a mortality of 4·6 per cent. The daily average sick was 7·9.

Dispensaries.

Besides the dispensaries attached to the above-mentioned hospitals, there are thirty dispensaries and fourteen visiting stations. During the year 16,647 patients were treated at the dispensaries, and the total amount collected, chiefly from voluntary contributions, was Rs. 242·64. The total number of patients treated in all the other dispensaries and itinerating stations was 63,012, and the total number of visits 100,791. The total collections of all these dispensaries, chiefly voluntary contributions, amounted to Rs. 1,560·39.

Jail and Jail Hospital.

There is only one jail in this Province, that at Jaffna. There are lock-ups in Mannar, Mullaittivu, and Vavuniya, and no prisoners are confined in them for any length of time. The Jaffna Jail has accommodation for 120 prisoners, and it has two hospital wards, each capable of accommodating six patients. Within the walls of the jail there are six wells, but the water in them being hard and brackish, water for drinking and cooking is obtained from a well in the esplanade, situated about quarter of a mile away from the jail. I visited the jail frequently, and always found that its sanitary condition was very satisfactory. The total number of prisoners confined in the jail during the year was of convicted prisoners males 229, females 12. The largest number of prisoners on any one day was 146, and the average daily strength 102·69. The total number of prisoners treated in the jail hospital was 82, and the average daily sick 2·36. Although the returns show 82 having been admitted to the hospital, I find that in reality there were only 62 individual sick prisoners, and that some of them were admitted more than once. The diseases responsible for the largest number of admissions were malarial fevers, diarrhœa, debility, and dysentery. The cases of dysentery were of a mild form, and invariably recovered rapidly. Only one case proved fatal, death being due to cerebral abscess, following disease of the middle ear.

REPORT of H. A. Keegel, L.R.C.P. (Edin.), Provincial Surgeon, Southern Province.

I WAS in charge of the Province from January to March and from July till December.

Return of Population.

Estimated population of the Southern Province for 1906 ..	569,740
Number of births registered in Southern Province during 1906	23,931
Number of deaths registered	20,927
Birth-rate per 1,000	42·0
Death-rate per 1,000	36·9

Public Health.

I regret to state that the public health throughout the year was unsatisfactory.

Smallpox prevailed in the Hambantota-Tangalla District until the end of June, and was confined to that district alone, with the single exception that it encroached in one instance into the Matara District. The suppression of the outbreak was attended with much difficulty, reflecting the greatest credit on the zeal of the medical officers concerned. This was followed by a mild outbreak at Galle, which was speedily checked. The total number of cases treated in the Province was 83, with a mortality of 28, or 33·79 per cent.

Cholera appeared in the Hambantota District in November. Three cases occurred in the town, and immediately after the whole village of Bundala, in the immediate vicinity of the Bundala Lewaya, was infected. I was on the spot promptly, and received much assistance from Dr. W. Margenout, Medical Officer, Hambantota, and the Mudaliyar of the Magam pattu in the suppression of the outbreak. The spread of the disease was promptly suppressed. The number of attacks was 35, and the number of deaths 18. Hospitals and camps were erected for contacts to meet any emergency, and no effort was spared to stop the spread of the disease. I thankfully acknowledge the expression of His Excellency the Governor's satisfaction at the success which attended these steps. The disease was introduced into the Hambantota District by means of the cart traffic between Hambantota and Koslanda, in the Province of Uva, where the disease was prevalent. Some infected carts or drivers had evidently halted, as they usually do for long intervals in Sinhalese villages *en route* and trafficked with the inhabitants, and thus conveyed the disease. Hospitals and camps were opened at Bundala. The epidemic speedily yielded to the steps adopted by me.

In the middle of December smallpox put in an appearance at Mirissa North; where the infection came from cannot be ascertained. The first case was that of a man who never left Mirissa. His case was over ten days old when it was first reported. Some of the contacts had fled, as was proved by a case occurring in the village of Borala eighteen days after. On the 18th December he and his contacts were placed under medical supervision. The case at Borala was brought into the same camp; two other relatives who went to Garanduwa, two miles away, who developed the disease, were also placed in the hospital. The contacts of all these persons were placed under police guard, and I am pleased to record at the time of this writing (January 30) that the outbreak at Mirissa was finally suppressed. Vaccination and house-to-house visitation were promptly instituted.

Galle.—With the exception of a slight appearance of smallpox referred to above, the Municipality was free from infectious disease.

Malaria and Dysentery prevailed to a very large extent throughout the Province, and cases were reported from every quarter of it. Whenever practicable the cases reported were visited and examined by the nearest medical officer or apothecary, medical assistance offered and given whenever accepted, and sanitary measures adopted, and directions issued to headmen whenever sanitary interference was necessary, and this was the case as a rule. As regards medicine, quinine was received and used without demur and thankfully, but in the case of dysentery there was a uniform disinclination to take European medicine, and consequently very little medical treatment was afforded. The mortality consequently was great.

Quinine distributors were engaged during the concluding months of the year in freely distributing quinine in those villages where fever prevailed. These distributors were non-resident but itinerate, no record therefore of the results are available, but I have no doubt that material benefit was conferred to the poorer classes chiefly by such distribution.

Measles and Chickenpox prevailed generally throughout the Province.

Vaccination.—I append a table showing the work in the Vaccine Department, and contrasting it with that of the two years immediately preceding. There was a marked increase in the number vaccinated during 1905 owing to the outbreak of smallpox. The special feature of this year is the increase in the vaccination work of the medical officers and apothecaries, and the maintenance of increased numbers of total vaccinated. Much dissatisfaction existed owing to the unsatisfactory results of the vaccine paste received from Colombo, rendering it necessary to make frequent demands for it. Failure cannot be always attributed to want of skill, or to applications rendering the paste innocuous after operation. It is beyond doubt that the vaccine deteriorates very rapidly, giving better results in the hands of those it reaches first than in the hands of those it reaches later, even within the period prescribed for its use.

The number of hospitals in the Province remain the same as last year.

Civil Hospital, Galle.

This institution had frequent changes of the medical officer in charge during 1905 and 1906, but I am glad to say that notwithstanding this its efficiency was maintained. Of 2,114 admissions, 105 were estate labourers. This class of patients is increasing, doubtless owing to the opening up of new cultivations. The death-rate was 8·84, as against 7·3 in the previous year. The increased percentage was chiefly among destitute paupers picked up by the Police and sent into hospital in the last stage of disease.

Anchylostomiasis.—116 cases were treated. The medical officer reports that the eucalyptus and castor oil treatment had good results, but that in a few cases it brought on diarrhœa, so that the mixture cannot be given any length of time. A small percentage of cases returned with relapses, which, he thinks, were most probably due to fresh infection.

Provisioning.—The contract for providing this hospital with cooked rations came to a termination with forfeiture of the contractor's security about the middle of the year. It was manifestly impossible to carry on this contract at the unworkable rates tendered. Heavy fines were imposed for failure to keep up to the terms of the agreement. Till the adoption of a new contract the medical officer supplied provisions at market rates, but this proved too expensive and the votes were exceeded. This system went on throughout the rest of the year, and no contract for 1907 was settled at the end of the year.

Matara.

The health of the district during the year was not satisfactory. Smallpox prevailed during the beginning of the year at Dodampahala, close to the boundary of the Tangalla District. In December an outbreak occurred at Mirissa, 5 miles from Weligama, on the Matara side, which at the time of writing was successfully suppressed. The rainfall was 67 inches, as against 85 in the previous year. There was an increase in the number of hospital cases, 975 with 26 deaths in 1905, as against 1,416 and 50 deaths in 1906. The daily average in hospital was 48.

Fever prevailed to a considerable extent in this district, and quinine was freely distributed to both schools and the inhabitants. There was also a considerable amount of dysentery, due to insanitation and unwholesome food, chiefly badly cured fish. The medical officer reports that as regards parangi, he adopted the Aix-la-Chapelle treatment of syphilis for this disease, with very satisfactory results.

The conservancy of the town received attention, as also the deficiency in the water supply. The medical officer reports that the Local Board gave his recommendations due attention. Vaccination was carried on vigorously in the district throughout the year.

The hospital is radically defective. Its greatest needs at present are the re-flooring of its baths and latrines, and the re-modelling of its system of surface drainage, admitting of a better fall in the direction of the river, and the enclosing of the grounds by a wall. The residence of the Medical Officer in the immediate vicinity of the hospital is also a matter which will have to be considered as a most desirable improvement.

Malaria.—1,438 patients were treated at the outdoor dispensary and 89 at the hospital for malarial fever, which prevailed in this district since June, 1906, in a more or less epidemic form. In the town a great deal was done to prevent malaria propagation by means of drainage and the filling up of swamps.

Tangalla.

The hospital is small, and by no means meet the actual hospital requirements of such a big and eminently unhealthy district. It is however of a modern type, ensures greater comfort of the sick, and replaces a building of an antiquated type originally put up as a "parangi hospital." The outdoor dispensary is attached to the hospital. The operating room is well equipped for ordinary requirements, and the latrines are furnished with Doulton squatting plates, which answer their purpose very well. The principal diseases treated in the hospital appear to be malarial fever and parangi. The health of the district throughout the year was very unsatisfactory. Smallpox, chickenpox, malarial fever, dysentery, and measles prevailed during the year. An Itinerating officer worked for some time in the affected districts, and the apothecaries visited cases reported to them. Distributors gave away much quinine to the fever-stricken inhabitants during the worst season of the year.

Tangalla Town.

I consider the sanitary condition of this town to be thoroughly defective, and that it should be brought under the control of a Local or Sanitary Board as early as possible. There is no drainage to speak of. The water supply is deficient and unwholesome. There is no conservancy either public or private, the roads are in bad order, and the small tenements squalid and ill-kept.

Hambantota.

In this district malarial fever prevailed extensively, 5,927 cases having been relieved at the outdoor dispensary. The rainfall was confined to June and October only, showing 9 inches, the climate for the rest of the year being hot and dry. The outbreak of cholera, which took place during the end of October, lasted only fourteen days, with a mortality of 33 per cent. The town will, I believe, during 1907 come under the control of a Sanitary Board. I have no doubt that this will be a most salutary step, as its present state is truly deplorable. The native town is in a state of dilapidation and insanitation. There is no system of drainage whatever, the streets are disgraceful, and there is an utter lack of public and private conservancy. Cesspits, which have not been cleaned for years, abound in close proximity to the squalid dwellings of natives, chiefly Malays and Kaffirs; and as for the drinking water, it was constantly polluted, so much so that the last expedient resorted to by the Assistant Agent was to lock the wells up and fit them with pumps.

The hospital has been annually condemned as unsuitable. It cannot be improved, and the same may be said of the medical officer's quarters. I beg to press this matter as one of Hambantota's urgent requirements.

Vaccination was carried on, but in a parangi-stricken and impoverished district, such as this is, its results were not quite satisfactory.

District Hospital, Deniyaya.

This is chiefly an estate hospital, situated so as to serve the Morawak korale district, and appears to be increasing in its utility. 590 cases were treated during the year, as against 448 in 1905. The death-rate was 21 per cent., dysentery, diarrhœa, and anchylostomiasis contributing chiefly to the mortality. The water supply is from a mountain stream, good and sufficient, though not perennial, as it cannot be depended upon during the dry season.

The provisioning contract for 1905 was terminated in the middle of the year, the contractor having waived his agreement, forfeiting his security, and market rates were resorted to.

There were 2,029 cases treated at the dispensary.

Vaccination was carried on in the dispensary and on the estates.

The sanitary condition of the town and market place of Deniyaya needs attention.

Jubilee Hospital, Balapitimodara.

The number of patients treated during the year was 304. This hospital serves a large and populous district and the adjoining estates, which have also dispensaries at Elpitiya and Batapola to draw on. The death-rate of this hospital was 9·15 per cent. on the total treated, the total of all Malabars being 10·62 and of those sent in from estates 9·60.

The outdoor dispensary is very largely attended, in fact it takes up much of the medical officer's time. There were 7,022 new cases, with 17,308 visits. The dispensary is now in the new building completed to commemorate the Jubilee of Her late Majesty, and has been a valuable means of relief to the hospital.

Branch Hospitals for Females, Galle.

This really is a part of the Government Civil Hospital, Mahamodara. It has no separate vote for it, and is in charge of the medical officer of the outdoor dispensary. 116 cases were treated, without any deaths. Twelve beds are available. This little hospital serves an extremely good purpose, and has the means of alleviating much suffering in a generally despised and diseased class.

House of Observation for Lunatics.

This institution has accommodation for 3 males and 3 females. The accommodation is insufficient. As a rule, it has inmates, and these have on some occasions been greater in number than the accommodation provided. The total confined during the year was 54. Of these, 18 were adjudicated as lunatics and removed to the Asylum at Colombo, 25 were discharged, 1 died of old age, 4 were removed by the relatives, and 6 remained at the end of the year, some of whom were awaiting removal to Colombo.

The Port of Galle.

251 steamships and 69 native crafts arrived here during the year, 114 of these were from plague-infected ports, and were dealt with in terms of the quarantine regulations. No case of plague was landed here, but eight passengers, who were contacts from the ss. "Devanha," a plague-infected vessel, were brought in from Colombo and kept at Bathfield House at their own expense till the period of incubation had passed. Rs. 300 realized from disinfection of linen was passed to the credit of Government, and

a sum of Rs. 1,039·50 received by sale of bills of health was likewise disposed of. 273 lighters were fumigated during the year. The steam disinfector at Trinity House was condemned and removed, and the one at the Plague Hospital was brought in and placed in the disinfecting chamber to replace the other.

Infectious Diseases Hospital, Galle.

These consist of three separate buildings :—

(*a*) The Infectious Diseases Hospital, Dadalla, which is kept in repair by the Municipality, and is intended for the reception of all cases of infectious diseases, excepting plague, taking place within the Municipal limits. It is officered, dieted, and equipped by the Medical Department. 35 cases were treated during the year, 13 of which were smallpox, the rest chickenpox, mumps, &c. The total vote allowed exceeded Rs. 327, and this was due to the unlooked for occurrence of smallpox. The premises are enclosed by barbed wire.

(*b*) Bathfield House intended to be used as a plague contact camp. It was so used once in 1906.

(*c*) Plague Hospital, Unawatuna, only used for plague cases, but never used in 1906 as such. It is well equipped and in good order.

Jail Hospital.

There are three jails in the Province, viz., Galle, Matara, and Tangalla. These keep prisoners who are not undergoing long sentences.

Galle Jail.—The total number of prisoners was 2,227. The largest number confined on any one day was 165 (10 below the regulated accommodation), so that the jail was never overcrowded. The number admitted into the sick list was 98, and 3 remained over at the end of 1906. Two died, the deaths being due one to malarial cachexia and the other to diarrhœa in an aged prisoner. The largest number on any one day was six. This jail is a very healthy one.

I have nothing special to record with regard to the Matara and Tangalla Jails, which were healthy throughout the year, and were found to be well kept.

Outdoor Dispensaries.

137,477 paupers, who paid 239,500 visits, were treated during the year, as also 1,859 estate labourers with 2,378 visits. The total treated throughout the Province in dispensaries only was 139,400 persons, with 241,974 visits.

The total number treated at outdoor dispensaries, attached to hospitals was 29,883 with 55,924, visits, the total treated being thus 169,283 with 297,898 visits. This shows a material increase on the figures for the preceding year, and may be easily accounted for by the fact that 1906 was a very unhealthy year, and that the rural population suffered thereby considerably.

During the year a dispensary was opened at Kosgoda. A philanthropic headman promised a building for the dispensary and a residence for the apothecary, pending the fulfilment of that promise, he offered a roadside house just big enough for our purpose. The dispensary was opened in March with great display, but up to the time of writing this report the promise of the new building remains unfulfilled.

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

THE population of the North-Western Province at the end of 1906 was 373,453. It was 379,411 at the end of 1905. There has therefore been a decrease of 5,688 in the population in consequence of the excess of deaths over births. There were 18,046 deaths and 13,092 births, showing an excess of the former by 4,954. The birth-rate was 34·53 per mile, and the death-rate 47·80. The birth- and death-rates in the previous year were 45·18 and 35·05 respectively. Only in the Chilaw District the births exceeded the deaths by 252.

The population in the Province of Sabaragamuwa was 323,743 at the end of 1906. In this Province also there has been a decrease in the population, that at the end of 1905 being 324,985, showing a difference of 1,241. The number of births during the year was 14,291, and the number of deaths 15,496. The birth-rate was 44·45 per mille and the death-rate 47·85, as against a birth-rate of 45·01 and death-rate of 31·20 in the previous year. In the Kegalla District, however, the births exceeded the deaths by 480.

Prevalence of Sickness.

In my annual report for 1905 I stated that the death-rate during that year compared unfavourably with that of any of the years since 1900. I am sorry to have to report that during 1906 the death-rate has been still higher, and the health of both the Provinces still more unsatisfactory. This has mainly been due to a severe outbreak of malarial fever, which occurred towards the end of April and lasted till August in nearly the whole of the Province of Sabaragamuwa and in a great part of the North-Western Province, accompanied in some parts of the districts with outbreaks of dysentery. The distress caused by the failure of the paddy crops consequent on the drought which prevailed during the first quarter of the year, and afterwards by the villagers being incapacitated from attending to their cultivation by sickness, also contributed to the increase of the death-rate.

The number of cases treated in the hospitals and dispensaries of both the Provinces was much larger than in the previous year. There were 7,815 cases treated in the six hospitals of the North-Western Province (Kurunegala, Puttalam, Chilaw, Marawila, Nikaweratiya, and Dandugamua), as against 7,034 treated in the previous year ; and 10,072 cases treated in the six hospitals of the Province of Sabaragamuwa (Ratnapura, Kegalla, Balangoda, Karawanella, Rakwana, and Kolonna), as against 7,545 treated during 1905 ; and there were 255,880 cases treated in the forty dispensaries and itinerating stations of the North-Western Province and 122,901 cases in the thirty dispensaries of the Province of Sabaragamuwa, the number treated in the previous year being 247,655 and 96,528 respectively.

One case of smallpox was reported from Naraichola, a village about 15 miles distant from Kalpitiya in the North-Western Province, on 24th March. The patient was a recent arrival from Marichchukkaddi, and the case was at once detected and isolated, and vaccination pushed on in the village and surrounding villages. A mild outbreak of smallpox occurred on Syambalaruppe estate in the village of Bopitigama, about 14 miles from Dandugamua, in the latter part of May, the infection being probably introduced by some recent arrival from India. There were six cases, of which one proved fatal. In the Province of Sabaragamuwa also a case of smallpox of a confluent type was reported from Atale estate in the Karawanella district on 13th December. The timely adoption of precautionary measures prevented the spread of the infection in all these cases.

A case of cholera was reported from Lanark estate in Rakwana in the Province of Sabaragamuwa on 3rd September, the subject being a new arrival from Tuticorin. An outbreak of cholera of a mild type occurred on Poonegala estate in the Kitulgalla division of the Kegalla District at the beginning of October. 53 cases were reported from Poonegala estate and one from the adjoining estate, Halgola, and there were only 6 deaths in all. The infection was probably introduced by a new arrival from Tattaparai. Besides the adoption of prompt measures for the isolation of patients and contacts and for disinfection, police guards were employed to prevent communication between the residents of the estate and outsiders, and these measures were attended with success.

Seventeen cases of chickenpox were reported from three stations in the Province of Sabaragamuwa, and nine cases from three stations in the North-Western Province. I have no doubt other cases occurred which have not been reported.

Eighty-one cases of measles were reported from three stations in the North-Western Province and ten cases from two stations in the Province of Sabaragamuwa.

Epidemic Dysentery.—Dysentery in an epidemic form prevailed on the tea estate at Madampe and to a great extent in the village of Massimbulla. Twenty-two cases of dysentery were reported from Kolonna, and outbreaks of dysentery are also stated to have occurred in two villages near Ellegawa and four villages near Kiriella. In the North-Western Province outbreaks of dysentery were reported from some villages in the Kurunegala District between Polgahawela and Potuhera and between Mawatagama and Rambodagala, and also from the southern and central divisions of Pitigal korale, where thirty cases occurred with six deaths. All these villages were visited by the nearest medical officers or apothecaries, and when no officer was available to visit any of the villages, medicines were sent for distribution to the headmen, with necessary instructions, but in many cases the villages preferred to take native medicines.

Remarks on Particular Diseases.

Malarial Fever.—A severe outbreak of malarial fever of an unprecedented nature occurred from May to August in nearly the whole of the Province of Sabaragamuwa, Kolonna korale and Mahawelitenna, including Molamura, being the only parts which escaped, and a large portion of the North-Western Province, the parts which escaped here being the dry districts of Wanni hatpattu and Demala hatpattu, in which are situated Nikaweratiya, Galgomuwa, Ehatuwewa, Anamaduwa, and Andigama, and Puttalam, Polpitigama, Madarankuli, Mundel, and Dandugamua, in which, however, fever prevailed to some extent as usual after the south-west monsoon rains. In the Province of Sabaragamuwa 77,714 cases of fever were treated in the hospitals and dispensaries, as against 35,192 in 1905 and 16,564 in 1904; and in the North-Western Province 153,951 cases were treated, as against 122,642 in 1905 and 56,139 in 1904. Over 50 per cent. of all the cases treated in the hospitals and dispensaries of both the Provinces were cases of malarial diseases. The stations where the largest numbers of cases of malarial diseases were treated were Dandugamua (13,895), Polgahawela (13,180), Wariapola (13,145), Kurunegala (10,781), Balalla (9,273), Narammala (8,400), and Katupota (8,200) in the North-Western Province; and Karawanella (9,809), Godakawela (8,865), Ratnapura (7,021), Rakwana (4,845), Pelmadulla (4,678), Rambukkana (4,470), and Balangoda (4,139) in the Province of Sabaragamuwa. Itinerating medical officers had to be employed to visit the villages and treat the sick, and quinine distributors to distribute quinine powders among the villagers. Vaccinators were also made use of in both the Provinces for this purpose. Quinine powders were also issued to the headmen for distribution. The cause of this outbreak of fever is attributed by some of the medical officers to the opening of large extents of forest land and turning up of fresh soil for rubber cultivation, and I am inclined to agree with them.

Parangi.—There was an increase in the number of parangi cases treated in the North-Western Province, the figures being 20,001 in 1906 and 16,997 in 1905, but in the Province of Sabaragamuwa there was a decrease, the numbers treated in 1906 and 1905 being respectively 1,502 and 21,651. The largest numbers were treated at Nikaweratiya, Balalla, Kurunegala, Dandugamua, Polpitigama, and Anamaduwa in the North-Western Province; and Kolonna, Embilipitiya, Mahaweletenna, and Balangoda in the Province of Sabaragamuwa.

Anchylostomiasis.—There has been no diminution in the numbers treated for this disease. The largest numbers were treated at the hospitals at Karawanella, Balangoda, Rakwana, Kegalla, Ratnapura, and Kurunegala.

Phthisis Pulmonalis.—Eighty-eight cases were treated in the hospitals of the North-Western Province and 71 in those of the Province of Sabaragamuwa, as against 95 in each Province treated in the preceding year.

Cancer.—Six cases were treated in the North-Western Province and 24 in the Province of Sabaragamuwa, as against 10 and 11 treated in the preceding year.

Leprosy.—There were only two fresh cases reported, one from Balangoda and the other from Karawanella.

Meteorological Conditions and their Effects on Public Health.

Rainfall was heaviest throughout the two Provinces during the fourth quarter, and next heaviest in most districts during the second quarter, and it was lowest during the first quarter. Kitulgalle records the heaviest rainfall during the year 237·38 in., and next to it Bulatkohopitiya 145·86 in., then Karawanella 136·83 in., Kurunegala records only 75·29 in., and Puttalam 46·60 in. The heavy rainfall during the second quarter, following the dry months of the first quarter, was accompanied by a general outbreak of fever, which continued through the wet months and lasted till August and abated in September, which was a comparatively dry month. The parts of the district which were not so wet

during the second quarter, as Wanni and Demala hatpattus in the North-Western Province and Kolonna and Mahawalatenna in the Province of Sabaragamuwa, did not suffer from the outbreak, but fever was very prevalent in them during the last quarter, when there was a heavy rainfall.

Sanitary Conditions of the Chief Towns.

Kurunegala.—Improvement to the drains are being effected, but a good and ample water supply is still a much-felt want.

Puttalam.—Drainage is defective, and the Moorish quarter of the town is overcrowded.

Chilaw.—Steps are being taken for the opening of a general cemetery a distance off from the town. There is still too much overcrowding in some parts of the town towards the fisher quarters, and the drainage is not satisfactory.

Ratnapura.—The sanitary condition appears to be satisfactory.

Kegalla.—Drains are defective, and conservancy arrangements unsatisfactory. A scheme has been submitted to Government for the improvement of the drainage by the Chairman of the Local Board. Wells have been sunk in convenient places in the town.

Rakwana.—Drainage satisfactory. A well and public latrines are required at the eastern end of the town.

Balangoda.—A commencement has been made in the building of side drains. More public latrines are required. There is only one at present for a boutique population of about 300.

Karawanella.—Sanitary condition fairly satisfactory. Cement drains and public latrines are required.

Jails.

The Kurunegala jail has been closed, and there is now only a jail at Chilaw in the North-Western Province. In the Province of Sabaragamuwa there are two jails, one at Ratnapura and the other at Kegalla.

Vaccination.

There were 10,078 successful vaccinations in the North-Western Province as against 9,608 in 1905, and there were 8,066 successful in the Province of Sabaragamuwa as against 10,711 in 1905. The paucity of the numbers vaccinated in the Province of Sabaragamuwa during the year under review is due to the vaccination having to be suspended owing to the increased prevalence of fever from May to August, and vaccinators to be employed in distributing fever powders in the villages.

Port Duties.

295 vessels were inspected at Kalpitiya, as against 339 inspected in the previous year.

Other Observations.

A branch dispensary to be visited by the apothecary at Anamaduwa was opened in October. The re-opening of the field hospital for the treatment of parangi cases at Anamaduwa is again strongly recommended.

Owing to the overcrowding of the hospitals temporary wards have been ordered to be put up at Chilaw, Karawanella, Ratnapura, and Kegalla. A new and larger hospital is urgently required at Chilaw.

REPORT of F. Oorloff, M.B., C.M. (Aberd)., Provincial Surgeon, Province of Uva.

THE means within the reach of the people for obtaining treatment for sickness consisted, as in the three previous years, of one civil hospital, two district hospitals, three field or parangi hospitals, eighteen dispensaries, and twelve itinerating stations.

The following hospitals and dispensaries are required to provide a complete scheme for the wants of the Province of Uva :—

A hospital at Muppane.

A hospital at Koslanda.

Branch dispensaries at the following villages :—Ridimaliyadda, to be visited by the District Apothecary of Bibile ; Kotabowa, to be visited by the Medical Officer of Medagama ; Bogahakumbura and Ekiriya, to be visited by the District Apothecary of Taldena ; and Bubula to be visited by the Medical Officer of Alutnuwara. There will be no necessity for Government to put up any buildings at these villages, as the headmen could provide the necessary accommodation.

Population ; Birth- and Death-rates.

The estimated population of the Province for the year was 190,817. This gives an increase of 146 over the population for 1905 ; 7,816 births and 8,790 deaths were registered. The birth-rate was 40·96 per thousand as against 42·34, and the death-rate was 46·06 per thousand as against 33·29 in the previous year.

Public Health.

The public health during the third and fourth quarters was very unsatisfactory. Cholera, malarial fever, and dysentery prevailed to a great extent during that period.

Malarial Fever.—During the year and especially during the third and fourth quarters this disease prevailed to a great extent. This was no doubt mainly due to the extensive areas of land that had been opened up for rubber cultivation.

Dysentery.—This disease also prevailed to a great extent during the third and fourth quarters. Those suffering from malaria were chiefly attacked by it.

Respiratory Diseases and Rheumatism.—These diseases and especially pneumonia were prevalent mostly during the first and last quarters of the year.

Parangi.—This scourge is almost exclusively found among the villagers in Medagama, Bintenna, Badulawella, Buttala, Muppane, Tanamalwila, and Wedikumbura. I have no doubt that with the extension of irrigation and the consequent amelioration of the people and the improvement of sanitation there will be few victims to it.

Relative Mortality in the different Seasons.

The death-rate, as was to be expected, was highest during the third and fourth quarters of the year, owing to the marked deterioration in the health of the Province during that period. Apart from cholera, the diseases that chiefly helped to swell the number of cases and the mortality were malaria and dysentery.

Meteorological Conditions and their Relationship to Diseases

The rainfall during 1906 was less than that during the previous year. It is usually heaviest during the first and last quarters, that is, during the prevalence of the north-east monsoon. During 1906, however, the rainfall for the first quarter was less than the rainfall during the second and third quarters, As already stated, during the third and fourth quarters of the year the diseases, apart from cholera, that prevailed to a great extent were malaria and dysentery. During the first quarter of the year the number of cases of malaria was comparatively very small, which was unusual. During the second quarter of the year the diseases that chiefly prevailed were parangi, skin affections, and sore-eyes.

Particular Diseases.

Cholera.—This disease prevailed to a great extent in several parts of the Province. The first case occurred on the 18th September on Kumbukkan estate in the Moneragalla district. The infection was traced to the Batticaloa coolies who were employed on that estate. From Kumbukkan estate it rapidly spread to all the villages in the Buttale and Wellawaya divisions, Koslanda, Badulla, Namunakula, Taldena, Alutnuwara, Passara, Madulsima, Lunugalla, Bibile, and Medagama. By the end of the year it was practically stamped out. There were 549 cases and 355 deaths, *i.e.*, a death-rate of 64·66 per cent. Out of the 549 cases, 222 cases occurred in the Wellawaya and Buttala divisions. The disease in these two divisions lasted much longer than I had anticipated, and this, I am of opinion, was due to the nature of the water supply. The water in the Wellawaya and Buttala divisions is derived from oyas. This circumstance no doubt was a powerful factor in disseminating the disease, and allowing it to last for the time it did. The contamination of the water was manifestly due to the promiscuous depositing of fæces on the soil. This was painfully evident on the rubber estates. The fæcal contamination of the soil was interdicted, and pits and trenches were provided on the estates and in every village, and police constables were detailed to see that they were used. The adoption of this measure was attended with signal success.

Smallpox.—There were two cases of this disease at Madulsima on Mahadova estate. It was imported from India. Of the two cases, one proved fatal.

Chickenpox.—207 cases were reported from ten stations

Measles.—25 cases were reported from one station.

General Sanitary Condition of the Province.

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

Badulla.—The water-supply of the town, as stated in my two previous reports, is insufficient. This can be remedied by having a separate water supply for the hospital. An estimate amounting to Rs. 1,750 for the service was submitted for the consideration of Government. A drainage scheme is the great want, the estimated cost of which is Rs. 35,000. A few more public latrines are also wanted. The scavenging was satisfactorily done.

Bandarawela.—This town has been brought under the operation of the Local Boards' Ordinances. A water supply has been provided. The scavenging was well attended to.

Haputale.—The water supply is good and sufficient. The scavenging was satisfactorily done. The drainage has been improved.

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

Koslanda.—A good water supply, drains, and public latrine accommodation are wanted.

Passara.—A good water supply and public latrines are wanted. The drains have been extended. The sanitation was well looked after.

Lunugala.—The sanitary condition is unsatisfactory, drains and a water supply are badly wanted. Another great need is a public latrine. This town should be brought under the operation of the Small Towns Ordinance.

Welimada.—What is most wanted for this place is a water supply.

Vaccination.

Six vaccinators (four district and two estate) were employed during the year. The medical officers and apothecaries also 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 Provincial Surgeon.

The following table shows the number of persons vaccinated, with results, during 1905 and 1906 :—

Primary Vaccination.

	1905.	1906.
Number vaccinated	7,223 ..	5,967
Number successful	5,853 ..	5,206
Number unsuccessful	703 ..	348
Number unknown	667 ..	413
Percentage of successful to total inspected ..	89·27 ..	93·73

Re-vaccination.

	1905.	1906.
Number vaccinated	1,574 ..	301
Number successful	552 ..	202
Number unsuccessful	773 ..	81
Number unknown	249 ..	18
Percentage of successful to total inspected ..	41·66 ..	71·37

There were 37 prosecutions in connection with vaccination, against 93 in the previous year. The results of the prosecutions were as follows :—Twenty-eight convictions with fines amounting to Rs. 16·50 being inflicted, six acquittals, one case was withdrawn, and two cases were pending at the end of the year. The fines inflicted by the Government Agent on 144 defaulters amounted to Rs. 72.

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

THE GENERAL HOSPITAL: PAUPER SECTION.

Administrative.

The Professional Staff.—I was obliged owing to ill-health to go to Europe on leave from the 1st May to the 15th August. During my absence the professional part of my duties was carried on by Dr. Paul, Dr. Chalmers had charge of the administrative duties from the 1st May to the 3rd June, and Dr. Ebell from that day till my return. Mr. Mylvaganam was appointed to act for Dr. Paul from the 1st May to the 15th August, when he was confirmed as Third Surgeon. The surgical duties in the pauper section were divided between Dr. Paul and Mr. Mylvaganam since that date.

The staff of visiting physicians consisting of Drs. H. M. Fernando, Allan de Saram, and Pestonjee remained unaltered throughout the year. The resident staff consisted of the full complement of six qualified officers, three House Surgeons and three House Physicians.

Dr. Sinnetamby was in charge of the Outdoor Department, Dr. Chalmers was Pathologist, and Dr. Castellani Bacteriologist to the Hospital.

The work of the professional staff was very onerous both on the medical and surgical side, the influx of patients being very great, particularly about the middle of the year, when there was great overcrowding.

The Nursing Staff.—On the 1st October the Rev. Mother Marie Emmanuel, who was Superintendent of Nurses for a period of twenty years, resigned her appointment owing to advancing years and failure of health. She was succeeded by the Rev. Mother Marie de la Pentecoste. I desire to place on record my appreciation of the excellent work done by the late Superintendent of Nurses during the time she had charge of the nursing of the pauper section of the hospital.

The number of nurses employed for day duty was increased to eighteen and those on night duty to six. Even this augmentation of the staff was found unequal to the nursing requirements of the hospital.

The ward attendants, both male and female, are unsatisfactory.

Steward's Department.—The work of the steward and his assistant has greatly increased. The supervision that they exercise over the kitchen and the cooks is greatly hindered by the very large amount of clerical work devolving on them. The receiving of raw materials from the contractor and the distribution of the diets cannot be satisfactorily attended to by these officers, and it is necessary that an extra hand to assist with the clerical work and the accounts should be available. The Provincial Surgeon, Dr. Craib, who is conversant with the work of the hospital, was good enough to recognize the necessity for an extra clerk, and in his report for 1905 suggested that one may be appointed. I earnestly hope that his suggestion will bear fruit. The work now is carried on at high pressure, and should the steward or his assistant fall ill or be incapacitated for duty the consequences would be disastrous.

Dispensing Department.—The work devolving on the Apothecary Mr. Majid and his two assistants has been very onerous. The outdoor dispensary has added a great deal to the duties of the dispensing staff owing to the great increase in the numbers applying for treatment.

Disinfection.—The hospital disinfector has been in constant use. The assistant overseer has to superintend the working in addition to his other duties, which are in consequence much interfered with.

Disposal of Night Soil.—This service was carried on as before by the Health Department of the Municipality at a cost of Rs. 552.

Expenditure.—The expenditure on diets and stimulants exceeded the sanctioned vote. The latter was Rs. 63,300 and the former Rs. 79,518·32. The increase was the direct result of the overcrowding that prevailed during a great part of the year. The cost per head for diet was 25·45 cents, for extras 6·62 cents, and for stimulants 2·75 cents, and the total cost 34·87 cents.

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

	Rs.	c.
From paying patients	492	95
From casualty cases	37	0
From unclaimed money of patients who died	152	53
Total ..	682	48

Buildings.—The old administration block was converted into residences for the Ceylonese nurses employed in the paying section. Besides sleeping-room, a dining-room, a kitchen, and a bathroom and lavatory were provided. The quarters are now comfortable and sufficient for present requirements. The quarters for the European nurses of the paying section will require enlargement as the staff is increasing. Complaints have frequently reached me from the matron and sisters that the outdoor dispensary and admission room below their quarters are a source of discomfort to them from the noise caused therein

both by day and night and from the foul emanations which proceed therefrom. Every endeavour is made to keep the premises and the latrines clean and inodorous, but I cannot disguise from myself that when a large body of patients occupy the waiting room the air is distinctly foul and offensive. I must confess I see no remedy for this. The quarters for the nurses of the pauper section have been enlarged to accommodate the increased staff. The older portions of the building are constantly requiring repairs, and it will be necesary in the near future to rebuild it as a two-storeyed residence owing to the limitation of available ground space.

I would again ask that the matter of rebuilding the hospital wards be given serious consideration. I would suggest that the wards in the quadrangle be taken down and rebuilt as two-storeyed buildings, provided with all the requisites of a modern hospital, for the accommodation of surgical cases. The wards at present are cheerless, comfortless, barn-like structures, without any facilities for nursing, defectively constructed, and insanitary in a surgical sense. The cubic space and superficial area are sufficient, the ventilating openings large, but the floors and walls harbour dust and dirt, absorb all droppings where the thin layer of cement is cracked or broken, and the unceiled roof adds to these drawbacks. There is no room for the ward nurse, no pantry or scullery, no kitchen or fireplace, where a meal could be warmed or water boiled.

I am strongly of opinion that a good plan of a modern surgical hospital should without delay be obtained and adapted to local requirements, and if on the score of expense the whole block cannot be taken in hand and rebuilt, at least a set of wards may be done each year, and in this way in the course of three or four years a really good hospital worthy of the Island and of its capital city be the result.

The latrines and bathrooms are antiquated, cover too large an area, are too far removed from the wards, and are impossible to keep sanitary. The hospital kitchen should be reconstructed on more approved lines or greatly altered. The requisite alterations and improvements were carefully considered and a plan obtained and an estimate furnished, and I hope that next year provision will be made for this very necessary work.

During the year the clinical class room was utilized as a ward owing to the prevailing overcrowding, but in December it was taken over by the officers of the Public Works Department and converted into a laboratory for the use of the Pathologist. The mortuary of the hospital is most unsatisfactory. Its unsuitability was thoroughly appreciated, and a new mortuary and an adjoining room for post-mortem examinations were asked for and have been sanctioned. The operating theatre requires to be modernized. Visitors to the hospital express their astonishment that such a large city as Colombo should possess such an antiquated operating theatre. It is needless for me to enlarge on its defects and deficiencies. Suffice it to say that it is behind the age. There should be two operating rooms available in this section of the hospital. The number of cases dealt with is so large that often two surgeons are operating simultaneously and a third has to wait. The Principal Civil Medical Officer is fully aware of the defects in the operating room, and has submitted a scheme for utilizing all the available space in his proposed alterations, so that two operating rooms, an anæsthetist's room, and a sterilizing room may be available.

It is in contemplation to have a milk room in the hospital. This is a very necessary innovation. The present system of receiving and issuing milk is one that is open to much abuse. The supplies come from the Government Dairy in sealed cans, are received at the kitchen, where the milk is boiled and then distributed to the different wards. In the kitchen and afterwards in the wards the milk not infrequently undergoes dilution. All attempts to secure the culprits have failed. The milk room will at least prevent dilution within its precincts, and the milk will be distributed in a more satisfactory, orderly, and cleanly manner. It is very necessary that a special ward should ere long be erected for the accommodation of purely gynæcological cases. The number of such cases applying for treatment is steadily on the increase, and the number and variety of the operations on women have also increased. In the lists of operations furnished with this report it will be noted that gynæcological operations are important entities, and that the most recent of them have been successfully performed by the surgical staff. The need for such a special ward is therefore unquestionable. It should be constructed on modern lines, properly equipped, and provided with a staff of well and fully qualified nurses, for there is no department in surgery, none dependent for success on the most minute attention to antiseptic details, than this, and none in which skilled nursing is more essential.

Overcrowding.—The pauper section of the hospital is provided with a maximum of 425 beds distributed among thirteen wards, but the daily average of sick during the year was about 600, or 175 over the regulation number. But this does not convey a true and correct idea of the overcrowding that prevailed, for during the month of July the daily average rose to 729, and the largest number under treatment, which was on the 19th, was 730. The large number in excess of the available beds had to be accommodated on the verandahs and passages on the floors, so that in the lower block of wards, where the overcrowding is always most marked, the sick lay all over in extremely close proximity to each other, with the result that the professional nursing and attending staff were found quite unequal to their legitimate duties. The overcrowding was so great that an attempt was made to stem the tide of the sick applying for indoor treatment by keeping the outdoor dispensary open throughout the whole day. I do not think this helped to any extent, but it was a source of much trouble and inconvenience without commensurate advantages and so was abandoned.

The causes that contributed to bring about the overcrowding were various, but I understand that the most fertile was the direct result of an unprecedented emigration of coolies from Southern India owing to the competition between the British India Steam Navigation Co. and a company of shipowners the outcome of the Swadeshi movement in India, whereby practically free passages across became available for coolies and labourers. The influx of coolies was markedly large anyhow, and these migrated to the hospital in quest of food and in a state of great privation when they failed to secure employment. Every effort was made to diminish the congestion in the wards by referring applicants for admission to the outdoor dispensary, by refusing admission to those not seriously ill, and by directing patients from out-lying townships to their district hospitals and dispensaries. But other means were necessary, and efforts were made to establish a branch hospital elsewhere, to which such patients as were not seriously ill could be transferred. For a time such a branch hospital was established in the vicinity of the Lady Havelock Hospital, and Miss Dr. Nell was placed in charge, with some relief ; and it is in contemplation to establish another such institution on a larger scale at Ragama. This promises to be more successful undertaking.

Professional.

Admissions to Hospital.—During the year under review the number of admissions into this section of the hospital was 16,023, and the total treated was 16,485, the total treated in 1905 was 12,533 and 12,860 in 1904. The daily average sick was 599·05, in 1905 it was 510·40 and 479·64 in 1904. The total number of deaths was 1,969, *i.e.*, 11·93 per cent. of those treated. The mortality among Malabars was 575, as against 1,394 among mixed races. The chief causes of death were as follows :—

	Cases.	Deaths.
Enteric Fever	338 ..	114
Dysentery	1,032 ..	279
Malarial Cachexia	571 ..	77
Tetanus	23 ..	15
Phthisis	884 ..	274
Debility	1,185 ..	235
Meningitis	319 ..	15
Lobar Pneumonia	329 ..	138
Lobular Pneumonia	165 ..	25
Diarrhœa	936 ..	318
Peritonitis	34 ..	27
Abscess of Liver	27 ..	14
Bright's Disease	81 ..	23
Anchylostomiasis	607 ..	61

A very large proportion of the mortality was due to the circumstance that the patients came under treatment when in a moribund or in a hopeless state. In the case of entries which show a comparatively large mortality, the deaths resulted in a large number of them within the first forty-eight hours, and the patients were too far advanced in the disease for treatment to be of any use. Tetanus proved a very fatal disease. The cases were most of them the result of improper treatment outside, and reached the hospital after various native remedies had been tried. The subcutaneous injection of antitetanic serum was employed in almost every case. In abscess of the liver the mortality was nearly 40 per cent.

Report on the Surgical Work done.

There was great activity in the surgical side of the hospital, no less than 1,254 operations were done with a mortality of 74, *i.e.*, about 6 per cent.

The Second and Third Surgeons' reports refer to the cases that passed their hands, and form interesting additions. The number of operations done by me was 196, of these 23 died. The following is a list of these operations :—

Name of Operation.	Number.	No. of Deaths.
Amputation : Finger	1 ..	—
Herniotomy :—		
(*a*) Strangulated inguinal :—		
(1) Fergusson's	1 ..	—
(2) Bassini	3 ..	1
(*b*) Radical cure :—		
(1) Fergusson	1 ..	—
(2) Bassini	6 ..	—
Hydrocele (Pratt's operation)	12 ..	—
Hydrocele of cord	2 ..	—
Hæmatocele :—		
(1) Extroversion of sac	1 ..	—
(2) Orchectomy	5 ..	—
Pyocele (orchectomy)	1 ..	—
Repair of ruptured urethra	2 ..	—
Catheterization under $CHCl_3$	8 ..	—
Circumcision for—		
(*a*) Phimosis	11 ..	—
(*b*) Para phimosis	1 ..	—
Amputation of penis	2 ..	—
Hæmorrhoids (excision and ligature)	7 ..	—
Fistula-in-ano, plastic operation	1 ..	—
Fissure-in-ano, incision and scraping ..	1 ..	—
Gynæcological operations :—		
(*a*) Removal of polypus uteri	1 ..	—
(*b*) Ovariotomy	1 ..	1
(*c*) Vaginal myomectomy	1 ..	—
(*d*) Curetting of uterus	5 ..	—
Tumour of brain (sarcoma)	1 ..	1
Excision of carbuncle	5 ..	2
Abscess, incision and drainage	28 ..	—
Incisions for cellulitis	3 ..	3
Hepatic abscess	16 ..	5
Mastoid abscess	1 ..	—
Cerebral abscess	1 ..	1
Abscess in knee joint	1 ..	1

	Number.	No. of Deaths.
Disarticulations at—		
(*a*) Hip joint	1	—
(*b*) Shoulder joint	1	—
(*c*) Metacarpo-phalangeal joint	3	—
(*d*) Medio-tarsal joint	1	—
(*e*) Metatarso-phalangeal joint	2	—
Laparotomy :—		
(*a*) Exploratory	1	—
(*b*) For penetrating wound	3	3
(*c*) For suppurative peritonitis	2	2
(*d*) For repair of bowel	1	1
Resection of rib for caries	1	—
Sinus, division and scraping of	4	—
Excision of glands :—		
(*a*) Cervical	2	—
(*b*) Axillary	1	—
(*c*) Inguinal	12	—
Removal of—		
Elephantoid scrotum	1	—
Elephantoid labia	1	—
Appendicectomy	3	1
Appendicitic abscess, incision and drainage ..	3	—
Empyema	2	1
Removal of tumors :—		
(1) Non-malignant	3	—
(2) Malignant	1	—
Removal of cysts :—		
(1) Sebaceous	4	—
(2) Dentigerous	1	—
(3) Retention	1	—
Removal of bullet	2	—
Operation for harelip	1	—
Nephropexy	1	—
Evulsion for toe nail	3	—
Ankylosed joints, breaking down adhesions :—		
(*a*) Shoulder	1	—
(*b*) Elbow	2	—
Repair of tendo achillis	1	—
	196	23

Remaining in hospital on December 31, 1906, 10 (in the Paying Wards).

THE PAYING SECTION.

Accommodation.—The accommodation in the paying section was found inadequate on more than one occasion, and patients applying for admission had to wait till room was available.

A set of wards consisting of eight separate rooms, provided with a special operating room, is in course of construction, and when completed will form a very desirable extension to the hospital. It will be a two-storeyed building, and will be lighted by electricity and provided with electric fans. During the year the old Planters' Ward and the Passenger and Cargill Wards were provided with electric fans.

It is intended to convert the old Planters' and Anthonisz Wards into a set of two association wards and two private rooms, one at either end, and to call them the Clerical and Skinner Memorial Wards, and to reserve them for the accommodation of patients from the Clerical and other Government services who are entitled to treatment in them. All those not so privileged, and who are unable to meet the higher charges in the Anthonisz Wards, will be allowed entrance into the Seamen's Ward, provided room is available.

Statistics.—The total number treated during the year 1906 was 630, of which 609 were new admissions. They were distributed as follows :—

Clerical Wards	52
Seamen's Wards	278
Cargill and Passenger Wards	220
Planters' and Anthonisz Wards	59

Of this number 75 died. The percentage of deaths to the total treated was 11·90.

There were 375 medical and 234 surgical cases. The number of surgical operations done was 148. Of these 22 died.

Staff.—The professional staff consisted of Dr. H. M. Fernando and myself. During my absence Dr. Paul attended to the surgical duties, with much acceptance and skill.

Nursing.—The nursing staff consisted of Matron Towel, seven European sisters, and six Ceylonese nurses. One of the sisters—Sister Johnson—was placed in charge of the operating room, with Nurse Mendis as her assistant. I desire to place on record my appreciation of Sister Johnson's work in the operating room. With all its structural defects and lack of proper equipment, Sister Johnson's efforts have produced a wonderful change for the better in it, the instruments in her keeping are always in the most cleanly condition, and the sterilization of both instruments and dressings done under her personal supervision leaves nothing to be desired. In Nurse Mendis she has a very loyal, intelligent, and industrious assistant. The nursing of the paying section has proved very satisfactory. All the nurses have done yeoman service, and I do not desire to make any invidious distinctions among them. A word of praise is also due to the Ceylonese nurses, who have all displayed much enthusiasm in their work. No

serious complaints against the nursing have reached me. The lack of attendants has been greatly felt when the wards were full, but under such conditions patients have willingly paid for special attendants solely for their use.

Steward.—I regret to record that Mr. Nallatamby, the Clerk and Steward of the paying section, died during the month of May of carbuncle and diabetes. Mr. Nallatamby did his work very thoroughly, but latterly, owing to failing health, he became unable to cope with his duties, and when he became totally incapacitated an extra hand was employed, but the accounts went greatly into arrears and caused a great deal of trouble to adjust. The need for an assistant to the steward, which I had previously impressed on the attention of Government, was fully proved by this incident, and I hope that the temporary measure of employing an extra hand will be made permanent. Mr. Ahamat succeeded Mr. Nallatamby as Steward. He is a very intelligent and efficient officer, and I think should have a higher salary than now enjoyed by him. His duties are most onerous and responsible, and employ him fully every day in the year from 7 A.M. to 6 P.M. With the opening of the new wards his duties will still further be increased, and for such services he should be adequately remunerated.

Gatekeepers.—During the year a central gate giving entrance to the paying section was constructed and the other gates closed. Two gatekeepers were appointed, one for day and one for night duty, and a small lodge was constructed for their occupation when on duty. The gatekeepers were supplied with a set of rules regarding their duties, the admission of visitors, &c., and a good many abuses were so abated, and a better system of acquainting inquiring friends of the condition of the patients instituted by a daily bulletin in the gatekeeper's charge.

Revenue and Expenditure.—The total receipts in the paying section amounted to Rs. 41,759·59, and the approximate total expenditure was Rs. 40,475·20.

Improvements required.—The beds in use are unsatisfactory, and I think better beds should be obtained to replace these. The cotton mattresses are also unsatisfactory, and even at a greater cost it will be more advantageous and conducive to the comfort of the patients if better mattresses were obtained.

Report of H. M. Fernando, M.D., B.Sc. (London), First Physician.

IN the pauper section of the hospital the medical cases treated during the year were :—

Enteric Fever : 338 with 114 deaths, as against 164 in 1905.
Malarial Fever : 2,902 with 83 deaths, as against 1,408 in 1905.
Dysentery : 1,082 with 279 deaths, as against 576 in 1905.
Dochmius Duodenalis : 607 with 61 deaths, as against 786 in 1905.
Pneumonia : 329 with 138 deaths, as against 239 in 1905.

The increase therefore in all the above diseases has been considerable, except in the case of dochmius anæmia. In enteric fever, dysentery, and malarial fever the numbers treated were actually doubled.

In the male medical wards Nos. 2 and 3 under my care, where I have kept a record on a uniform system for several years, the following is the record for 1906, viz.:—Total cases 1,051 with 55 deaths, of whom 23 were admitted moribund, death resulting within twenty-four hours of admission.

Enteric Fever.—124 cases, with 7 relapses and 18 deaths.
Dysentery.—46 cases and 2 deaths, both of which occurred in protracted chronic cases.
Pneumonia.—51 cases and 13 deaths.
Dochmius.—61 cases and 1 death.

Of the above-mentioned 124 cases of enteric fever, 68 only were amongst *bonâ fide* residents of Colombo, 40 cases were drawn from the outskirts and neighbouring villages, and 17 were amongst Malabar and Coast coolies.

During the year under review epidemics of enteric fever have been prevalent in the city, and malarial fever to some extent in some of the low-lying suburbs. But in addition to the few cases of malarial fever contracted within the city, hundreds from the District of Colombo, outside the Municipality, and from Kelani Valley and other remote malarious districts have migrated to the town for treatment, or more often for begging when unable to work, and have died in the city and contributed to its mortality.

The deaths of a few prominent residents living in Cinnamon Gardens and the southern suburbs of Colombo during the middle of the year from dysentery gave rise to a prolonged discussion in the local newspapers on the cause of the epidemic. The cause was chiefly ascribed to the great increase of flies consequent on the faulty management of the night soil depôt at Narahenpita. On a careful analysis of the prevalence of dysentery, it would seem that this epidemic was not restricted to the southern suburbs only, the part which can be affected by the flies of Narahenpita, but was equally prevalent in the northern and central wards of the Municipality, where the depôt could not exert its baneful influence. But outside Colombo last year witnessed several epidemics of dysentery, some of extreme severity, immediately following the outbreaks of malaria in the Kelani Valley, Kurunegala, and Ratnapura Districts. It is a well-known fact that dysentery is prevalent after hot seasons, and affects the weak and debilitated after epidemics of malaria and influenza. When we review the conditions of the year 1906 likely to affect the general health of Colombo, we find the circumstances specially favourable for an outbreak of dysentery.

The first four months of the year were exceptionally dry and hot. In April an influenza epidemic spread throughout the city debilitating some of its inhabitants. With the commencement of the rains in May and June epidemics of malaria in the districts around drove their victims to Colombo. To add to this the famine districts of Southern India added their quota of famine-stricken coolies to the population of Colombo, with the result that the death-rate increased with an alarming rapidity.

The prevalence of dysentery and the high death-rate for the year I feel inclined to ascribe to the two causes already alluded to : the abnormal and prolonged heat and the pressure in the city population of an unusually large number of debilitated and poverty-stricken vagrants.

In dealing with the death-rate of a town like Colombo, sanitary experts should not overlook the fact that high price of food stuffs, especially rice, with the consequent diminution to the food supply of the masses, famine in Southern India, and the prevalence of fever to the maritime provinces, may all contribute to an increase of ill-health and a high mortality, independent of sanitary evils of the town itself.

The year 1906 was also noteworthy for a great and, as far as I can make out, a permanent increase to the numbers of enteric fever cases seeking treatment in this hospital. Although there was a large and distinct increase in this disease to the town itself, there seems to have been a widespread epidemic in some of the growing villages in the vicinity of Colombo, such as Kotte, Berawamulla, Pamankada, Wellawatta, and Dehiwala. From the accounts given by the patients admitted into hospital from some of these villages, the disease seems to have been prevalent to an alarming extent. In several places a large percentage of houses in each village with several cases in each house were involved. In Wellawatta, close to the railway station, I was informed by a medical practitioner in the neighbourhood that at least one-third of the houses contained enteric fever patients, and in one row of buildings of recent construction almost every house was infected. Four cases occurred in one house.

As long as such small townships are permitted to exist without any sanitary control, not only will enteric fever spread in an epidemic form in such spots, but will be a constant source of danger to the town of Colombo.

The present increase of enteric fever in Colombo is due chiefly to the widespread prevalence of the disease in the outlying villages. The communication of the disease to the inhabitants of the town can be brought about by a variety of ways, such as personal contact through visits and the introduction of contaminated milk curd, vegetables, fruit, &c., from these villages. It would be a hopeless task to stamp out enteric fever in Colombo, unless some sanitary control is exercised over the villages in its immediate neighbourhood.

In the paying wards there were treated 375 medical cases, as against 246 in the year 1905. Of these, 40 cases were enteric with 12 deaths, as against 27 cases with 5 deaths in 1905. The enteric mortality, 30 per cent. (a very high one), and much higher than previous years, was owing to the large proportion of cases admitted for treatment late in the course of the disease, either moribund or aggravated with severe complications.

There were no deaths amongst the cases of acute dysentery treated during the year, although twenty-one such cases received treatment.

The system of nursing introduced about three years ago has been working a sufficiently long time now to judge of its defects and advantage.

The efficiency of the nursing in this section of the hospital has improved considerably.

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. The total number treated in these wards was 3,893, against 2,809 in 1905. Of the medical cases treated, enteric fever, pneumonia, dysentery, malaria, phthisis, and anchylostomiasis are most noteworthy.

The number of enteric fever cases treated was 94, with 29 deaths. A fairly large number of these were brought in from outlying villages, such as Pamankada, Wellawatta Battaramulla, and Moratuwa. The high death-rate was due to a large percentage of the cases being admitted in the third week of the disease with complications, such as hæmorrhage, pneumonia, and perforation, death taking place in some cases within twenty-four hours, and others within seven days of admission. The other complications met with were parotitis, jaundice, neuritis, poliomyelitis, nephritis, and hæmaturia.

Owing to the enteric cases being scattered in the different blocks, it was deemed advisable to concentrate all the males in one block. From the 1st December all male cases were therefore concentrated in male medical ward No. 2, and all the females and children were transferred to the Infectious Diseases Hospital at Kanatta.

Seventy-three cases of lobar pneumonia were treated, with 18 deaths. Deaths taking place very shortly after admission.

The number of malarial cases have increased. A large number of chronic malarial subjects from malarial districts, such as Chilaw, Puttalam, Kurunegala, Anuradhapura, and other places, found their way here and swelled the numbers.

Anchylostomiasis, I am inclined to believe, is very slightly on the decrease. Thymol was invariably administered in these cases, but on the suggestion of the Principal Civil Medical Officer eucalyptus oil was given a trial and answered very well in mild cases, but in the severe forms it was useless.

The male phthisis cases continue to be treated in a separate ward, but no provision has yet been made for the females, who are still being treated in the general ward, and whose numbers are steadily increasing.

The wards were very much overcrowded all throughout the year, in spite of the restrictions laid on the admission of patients. The patients were accommodated on the floors of the verandahs and passages. The large number seeking admission were estate labourers, who on being discharged by their kanganies from the estates in a debilitated condition found their way to Colombo, and unable to earn a living sought admission into hospital. I also noted a large number of Sinhalese who found their way to this hospital. One hemiplegic was brought in a hand-cart drawn by a little boy—a son of the patient—from a village 14 miles from Matara in the Southern Province. Representations having been made that the hospital was overcrowded to an alarming extent, it was decided by Government to convert the old Boer Camp at Ragama into a branch hospital to accommodate 150 convalescents and chronic cases. This arrangement relieved the congestion considerably.

I would suggest that the consumptives, both male and female, be treated at Ragama, as the accommodation has been limited by two wards being set apart for the treatment of the male enteric cases. Isolation would be better carried out there than in a general hospital.

The nursing staff was severely taxed owing to the overcrowding, but performed its duties very satisfactorily, winning praise and admiration for its energy and devotion to duty.

The efficiency of the staff of attendants is not up to the required standard, and can only be attained by raising the salaries, which would then attract a better class than those hitherto employed. The night attendants were not sufficient, and special attendants had to be indented for from time to time for the serious cases.

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

DURING the year under review, as Third Physician, I was in charge of the following wards, viz., the middle male diarrhœa ward, lower male diarrhœa ward, and the female diarrhœa ward. The number of patients treated in these wards were :—

Middle Male Diarrhœa Ward	1,514
Lower Male	1,988
Female	1,090
Total ..	4,592

In 1905 the total number treated in the same wards was 2,893. This shows an excess of 1,699 patients in 1906. The number of beds assigned to these wards is 26, 28, and 29 respectively, total 83. The daily average sick was 36·64, 63·93, and 43·90 respectively, total 144·47. In 1905 the total daily average was 110·98.

The nature of the cases treated in these wards included malarial fever and its sequelæ diarrhœa, dysentery, dochmius duodenalis, pneumonia, enteric fever, phthisis, and rheumatism. There were 51 cases of enteric with 14 deaths, and 93 cases of pneumonia with 31 deaths. The mortality in these cases is no doubt high, but is accounted for by the fact that a great many of these patients belong to the pauper class, who are usually ill-nourished and brought into hospital in the last stage of the disease. A large number of patients were admitted in a dying condition, and among these, at the post-mortem examination, the cause of death in a few was found to be "suppurative meningitis." The Principal Civil Medical Officer and Inspector-General of Hospitals noticing the existence of this disease suggested that all such cases should be reported to the sanitary authorities, and the suggestion has been carried out.

The table of daily average sick given above shows the excessive overcrowding in these wards throughout the year, that with 83 beds available accommodation had to be found for 144 patients. The overcrowding was more marked during the later months of the year, when on some days the daily average reached 175 or more. Owing to this abnormal overcrowding the clinical lecture room was used as a ward for a few months, until the excessive pressure was relieved by sending patients to Ragama, where some huts of the Boer Camp were converted into wards.

The nursing of the patients was satisfactory. The sisters did their utmost for the patients, handicapped as they were by the great overcrowding of the wards.

The work of the ward attendants was not satisfactory, since the class of men employed is not of the best owing to the smallness of the salary offered ; and also very few men stay long enough to be well trained because of the nature of the work they are called upon to do.

Report of S. C. Paul, M.D. (Madras), F.R.C.S., (Eng.), Second Physician.

DURING the year 1906 I operated on 665 cases. Twenty-four cases died after operation, giving a mortality of 3·92 per cent. The largest percentage of deaths was due to bad cases of abscess of the liver occurring in French soldiers from Cochin-China.

Operations for inguinal hernia, 49 cases. Fergusson's operation was adopted in all these cases. Two of the cases were recurrences after Bassini's operation.

There were nine cases of strangulated inguinal hernia. In all these cases, after the strangulation was relieved, the complete operation was performed.

Of two cases of umbilical hernia, one occurred in a subject of cardiac dropsy. Symptoms of strangulation set in, and before the skin incision could be completed, the patient died of cardiac syncope. The other case occurred in a very fat female patient. It was a large hernia, in which the intestines had acquired extensive adhesions to the sac. After the separation of the adhesions the intestines were reduced and the hernial opening closed. By overlapping the recti muscles a firm support was obtained.

Hydrocele.—I had 51 cases of hydrocele of the tunica vaginalis and one of the cord. Only one case was treated by tapping and injecting with a solution of perchloride of mercury. The remaining cases were treated by an open operation. In all these cases Pratt's method of extroversion of the sac was adopted. The skin incision, however, was placed higher up. In my previous operations I had dispensed with all sutures, simply satisfying myself with extroverting the sac. Since then I had three cases of recurrence. These recurrences were due to the slipping back of the sac. I have therefore in my later operations used one or two stitches to secure the cut edges of the extroverted sac, and I have also taken the additional precaution of including in the stitches a portion of the fascia covering the cord, so that there may be no possibility for the sac to ever slip back.

Abdominal Operations.—Thirty-two cases, with seven deaths. Two cases of penetrating wound of the abdomen made a good recovery.

Ten cases of ovariotomy. All recovered. Of these, four were cases of ovarian dermoids. In two cases the pedicle had undergone twisting. One of these cases was sent into hospital as one of appendicitis. In one case of ovarian cyst, the cyst was of enormous proportions and had contracted adhesions to the colon and the bladder, both of which were torn during the operation. The rents were successfully repaired, and the patient made a very good recovery.

Four cases of abdominal hysterectomy were performed for large multiple fibroids of the uterus. I lost one case from shock. In this case the operation was prolonged, as the fibroids grew out from the cervical region into the pouch of Douglas, and firmly impacted in the pelvis.

One case of intestinal obstruction was found to be due to strangulation beneath a band. Patient made a good recovery.

Hysteropexy was undertaken for severe cases of prolapse of the uterus, in six cases with good results.

In one case of a severe degree of malarial cirrhosis of the liver, Talmas' operation was done with only partial success.

Laparotomy was undertaken for a case of suppurative peritonitis. The patient was very low at the time. On opening the abdomen I found the whole abdominal cavity full of pus with a strong fœcal odour. The patient died shortly after the operation.

An extremely interesting case of a young married lady was sent into hospital as a case of ruptured tubal pregnancy. The patient presented symptoms of acute localized peritonitis. At a consultation of the medical officers it was agreed that the case was one of suppurative peritonitis and an operation was advised. On opening the abdominal cavity, however, nothing abnormal was discovered. The patient died two days after the operation, and at the post-mortem examination the whole of the abdominal viscera were found to be normal, with the exception of the right adrenal.

Cholecystotomy was performed in one case. One large stone was removed. The patient died of severe toxæmia, due to suppurative cholecystitis.

Of two cases of volvulus of the sigmoid, one made a good recovery. The other died shortly after the operation. In this case the twisted part of the bowel had become gangrenous.

In one case of gunshot wound of the abdomen there were five tears in the small intestine, which were successfully repaired. The patient died on the third day after the operation, and the post-mortem revealed gangrenous changes in the pancreas due to damage to the pancreas by the shot.

In one case of tubercular growth of omentum, the affected portion of the omentum was successfully removed.

Of eight cases of carbuncle, I lost one. In all the other seven cases, in addition to excision of the carbuncle, I made use of antistreptococial injections. In one case the improvement was very marked. It was a case of a large carbuncle involving the whole of the gluteal region in a diabetic subject. The patient made a good recovery.

Of thirteen cases of hepatic abscess, I lost eight. Of these, seven occurred in French soldiers, who were admitted in a very low condition. The abscesses were multiple, involving a large portion of the liver.

Freyer's operation for enucleation of the prostate was done in one case with marked success.

Arthrectomy for tubercular disease of the knee was done in one case. The patient made a good recovery.

Twenty-nine cases of non-malignant tumours. Of these, three cases deserve special mention. One was a case of a large cystic goitre. Another was a case of what appeared to be at first sight a mass of lymphatic glands in the posterior triangle of the neck. This on subsequent examination was found to be an adenoma of an accessory thyroid. The third case was that of a large cystic hygromer in the posterior triangle of the neck in a child aged two.

Of fourteen cases of depressed fracture of the skull, I lost two. In both these cases the fraction was multiple extending down to the base. In two of the cases the longitudinal sinus was torn. Both the cases recovered. The hemorrhage from the sinus was controlled by gauze packing for seventy-two hours.

A case of aneurysm of the femoral arbery in Hunter's canal was completely extirpated.

Excision of the tongue for cancer was done in three cases with success.

Of eighteen cases of hemorrhoids, seventeen were treated by ligature and excision, and in one case Whitehead's operation was performed.

The upper jaw was removed on two occasions for sarcoma. Both recovered. The lower jaw was excised in three cases for cancer. One case died from septic pneumonia.

The breast was removed in eight cases: five cases of carcinoma of the breast, one of sarcoma, and two of tubercular disease.

Supra-pubic lithotomy was done in two cases with success. The incision in the bladder wall was in both instances sutured with catgut, and union took place without trouble. In one case the stone was of large size, measuring $2\frac{1}{2}$ in. long and $1\frac{3}{4}$ in. broad.

Six cases of suppurative phlebitis of the cord were treated by orchectomy, with one death. In all these cases the inguinal canal was laid open, and the cord severed as high as possible. In my later operations I have discarded the ligaturing of the cord in its entirety, but I ligature the arteries only, thus allowing free drainage to the suppurating veins.

Gastrostomy was performed in one case for malignant disease.

Of the æsophagus, the patient died on the fifth day after the operation of dyspnœa, due to pressure of growth on the trachea before a tracheotomy could be undertaken.

Seven cases of elephantiasis were operated on. One was a case of elephantiasis of both labia with marked hypertrophy of the inguinal glands on both sides. There were three cases of elephantiasis of the scrotum and two cases of lymph scrotum, which were all treated by complete removal of the scrotal integument.

The penis was amputated in five cases, and completely removed in one case for cancer.

Twenty cases of urinary fistulæ in the male were treated successfully by dilating the stricture and completely laying open the fistulous tracks. One case was unsuccessful.

Seven cases of intractable strictures were treated by external urethrotomy. In six cases Cock's operation was done.

The Operating Theatre.—In such a large hospital as this the present operating room does not fulfil the requirements of what a modern theatre ought to be. To the lay visitors it is certainly imposing with its vast array of galleries, instruments, cupboards, and aseptic furniture. In a theatre where so many abdominal operations are performed, no expense should be spared to adapt the theatre from time to time in accordance with the modern ideas of aseptic surgery. The question of adapting the present theatre to modern requirements has been brought to the notice of the Government by the Principal Civil Medical Officer. Not only has the question of adapting the present theatre to modern requirements to be faced sooner or later, but the desirability of erecting two or more operating theatres has to be considered. Over 1,200 operations are yearly performed in one room. Thorough cleaning and scrubbing of the theatre is impossible at present owing to the pressure of work.

Nursing.—The nursing is not what it ought to be. At present only one sister is in sole charge of thirty-two to forty-eight beds. The sisters are hard worked. On the surgical side we require more nurses. There should at least be three nurses to a ward of thirty-two beds.

In conclusion, I must express my indebtedness to my successive House Surgeons, Messrs. Spittel, Vandort, and Gunesekere, for the care and zeal they had shown in the welfare of the patients entrusted to their charge, and also to the sisters and nurses of the operating threatre and the different wards for the excellent manner in which they have discharged their duties.

I append herewith a list of my operations :—

Nature of Operation.	Number operated on.	Number died.	Number remaining on December 31.
Ligature of Arteries :—			
Brachial	1	—	—
Superficial temporal	1	—	—
Femoral	1	—	—
Posterior tibial	1	—	—
Removal of varicose aneurysm	1	—	—
Removal of varicose veins	1	—	—
Incision and drainage for suppurative phlebitis of thigh	1	—	1
Amputations :—			
Fingers	12	—	—
Forearm	1	—	—
Arm	4	—	—
At the shoulder joint	1	—	—
Toes	2	—	—
Leg	5	—	—
At the knee joint	1	—	—
Thigh	3	—	—
Reduction of dislocations :—			
Wrist	1	—	—
Elbow	1	—	—
Hip	1	—	—
Excision of joints : elbow for ankylosis	1	—	—
Arthrotomy for abscess of knee	1	—	—
Arthrectomy for tubercular disease of knee	1	—	—
Suturing of wounds	9	—	1
Removal of foreign bodies	11	—	—
Operations on bones :—			
Osteotomy	1	—	—
Sequestrotomy	9	—	—
Scraping of bone for cares	4	—	—
Union of ruptured tendo achillis	1	—	—
Removal of ganglion	1	—	—
Excision of upper jaw for sarcoma	2	—	—
Excision of lower jaw for cancer	3	1	1
Incision and drainage of abscesses	69	2	4
Excision for cellulitis	9	—	3
Scraping of ulcers	6	—	—
Operations on lymphatic glands :—			
Removal of tubercular glands	13	—	6
Removal of inguinal buboes	65	—	3
Plastic surgery :—			
For cicatrix on chest	1	—	—
For harelip (Rose's operation)	1	—	—
For epithelioma of lower lip	2	—	—
For patulous meatus urinarius	2	—	—
Perineorrhaphy	1	—	—
For vesico-vaginal fistula	1	—	—
Removal of non-malignant tumours :—			
Epulis	4	—	—
Adenoma	1	—	—
Lipoma	4	—	—
Sebaceous cyst	10	—	—
Dermoid cyst	2	—	—
Myeloma	1	—	—
Fibroma	1	—	—
Osteoma	1	—	—
Operations on the head :—			
Trephining for depressed fracture	14	2	1
Trephining mastoid antrum for abscess	1	—	—
Excision of eyeball	2	—	—

Nature of Operation.	Number operated on.	Number died.	Number remaining on December 31.
Operations on the nose and nasopharynx :—			
Removal of sarcoma of lateral carbilages ..	1	—	—
Removal of polypus ..	1	—	—
Cauterization for hypertrophied mucous membrane of inferior turbinate	3	—	—
Removal of adenoids ..	2	—	—
Cauterization for follicular pharyngitis ..	1	—	—
Operation on the neck :—			
Tracheotomy ..	1	1	—
Removal of cystic goitre	1	—	—
Removal of thyroglossal cyst ..	1	—	—
Removal of cystic hygroma	1	—	—
Removal of fibro-adenords of accessory thyroid ..	1	—	—
Excision of tongue for cancer (Whitehead's) ..	3	—	—
Tonsillectomy ..	3	—	—
Operations on the thorax and breast :—			
Excision of rib for empyema	4	—	—
Excision of breast ..	8	—	—
Removal of adenoma of breast ..	2	—	—
Operations upon the abdomen :—			
For penetrating wounds of the abdomen ..	2	—	—
For gunshot wounds of the abdomen ..	1	1	—
Peritonitis ..	2	—	—
For tubercular growth of omentum ..	1	—	—
Gastrostomy ..	1	1	—
For intestinal obstruction by bands ..	1	—	—
For volvulus of the sigmoid	2	1	—
Ovariotomy :—			
Ovarian dermoids ..	4	—	1
Ovarian cysts ..	6	—	—
Hysterectomy ..	4	1	—
Hysteropexy ..	6	—	—
For perirenal sarcoma ..	1	1	—
Talmas' operation for cirrhosis of liver ..	1	—	—
Cholecystotomy ..	1	—	—
For appendicitis ..	5	1	2
Operations for hernia :—			
For strangulated inguinal hernia ..	9	—	1
Fergusson's operation for inguinal hernia ..	49	—	2
For strangulated umbilical hernia ..	2	1	—
Operation for abscess of the liver	13	8	—
Operations upon the bladder and urethra :—			
Supra-pubic lithotomy ..	2	—	—
Supra-pubic cystotomy ..	1	—	—
Freyer's operation for enlarged prostate ..	1	—	—
Operation for urinary fistulæ ..	21	1	—
External urethrotomy (Cock's) ..	6	—	—
External urethrotomy (Wheelhouse's) ..	1	—	—
Dilatation of urethra for stricture ..	8	—	—
Operations upon the scrotum, penis, &c. :—			
Bennett's operation for varicocele ..	3	—	1
Pratt's operation for hydrocele ..	52	—	—
Incision and drainage for pyocele ..	3	—	—
Incision and drainage for hæmatocele ..	2	—	—

Nature of Operation.	Number operated on.	Number died.	Number remaining on December 31.
Orchectomy for hæmatocele	7	—	2
Orchectomy for suppurative phlebitis of the cord	6	1	—
Amputation of penis for cancer	6	—	—
Operative treatment for scrotal elephantiasis	6	—	—
Operative treatment for epithelioma of scrotum	1	—	—
Circumcision	38	—	—
Operations on the female genital organs :—			
For atresia of vagina	2	—	—
For imperforate hymen	1	—	—
Colporrhaphy	2	—	—
Supra vaginal amputation of cervix	1	—	—
Curetting of uterus	5	—	—
Pelvic cellulitis	1	—	—
For elephantiasis of labium	1	—	—
Operations on the rectum :—			
Excision of hemorrhoids	18	—	1
Operation for fistula-in-ano	28	—	—
Operation for prolapse of rectum	2	—	—
Operation for imperforate anus	1	—	—
Dilatation of stricture of rectum	1	—	—
	665	24	33

Report of H. B. Mylvaganam, F.R.C.S. (England), Third Surgeon.

I WAS appointed the Acting Second Surgeon on the 1st May, 1906, on the retirement from service of Dr. H. G. Thomasz and on the departure of Dr. T. F. Garvin to Europe on leave. I continued to act in this capacity until the return of the latter in August last, when I was made the Third Surgeon, in addition to my duties as the Lecturer in Anatomy, a post to which I was originally appointed. I took charge of the general surgical and male ulcer wards and part of the female surgical and syphilis wards.

The Wards.—It is very urgent that the two temporary wards, viz., the male ulcer and the syphilis wards, should be made permanent, as it is not at all safe to house men under cadjan roofs, and it is very difficult to keep the wards clean. The accommodation in the ulcer ward is not adequate to meet the growing demand. During the year under review this ward had on many occasions as many as 100 patients daily, though the accommodation is only for forty patients. Most of them had to sleep on the verandahs and on the floor inside. There are only a sister and two male attendants to attend to the nursing of the whole ward. At least there ought to be two sisters and three attendants to do the work of this ward satisfactorily.

In the syphilis ward, with its forty beds, there are only two untrained and underpaid attendants to attend to the nursing of the whole ward. It is desirable that a trained nurse should be placed in charge of it.

Only the ulcer ward is fitted up with a gas stove for boiling water. It is necessary that all the wards should be fitted up with the necessary copper cans and gas stove to boil water.

Nursing Staff.—At present the nursing of my wards, except the syphilis ward, is done by sisters who belong to a Roman Catholic Sisterhood and by untrained and underpaid servants. These sisters are no doubt very assiduous in their work and very kind to their patients, but unfortunately most of them, I believe, have not had that amount of hospital training required of a hospital nurse.

The night nursing as carried out at present is equal to the needs of the wards. At present two sisters patrol round the wards, and with the aid of a night attendant they are supposed to attend to three or four wards at the same time.

I cannot rely upon the senior medical students who do dressing under me to attend to their cases satisfactorily. These men have not the necessary amount of time to devote to their cases. They only work till 9 A.M. After that they have to attend lectures. In the middle of operations they run away, otherwise they will lose their lectures. They have just enough time to scribble the daily state of the sick and to write a history or two. Most of the dressings are done by the sisters and the attendants, except the more important ones, which are attended to by the House Surgeon. They never have time to follow their surgeons to the wards other than to which they are attached. Consequently they lose a lot of clinical teaching, and they are very deficient in their clinical work. It is hoped that something will be done to put this matter right.

The Operating Theatre.—The sooner this antiquated building is demolished and a new one with all the latest scientific improvements is built the better it will be for this ever-expanding institution.

Operations.

During the eight months I was doing the work of the Second and the Third Surgeon of the Hospital I performed 393 operations, with 27 deaths. The more important ones worthy of any mention are as follows :—

Herniotomy.—Twenty operations were performed for the radical care of inguinal hernia, in four of whom there was also strangulation, which had to be relieved at the same time. The method adopted in all these cases was what is now familiarly known as the Fergusson's.

Hydroceles.—I was very much struck with the large number of hydroceles that come to us for treatment. I had 39 cases, in all of whom extroversion of the sac was performed.

Orchectomy.—The testes were removed in six cases of hæmatocele and in three of suppurating phlebitis of the cord. In the latter the testes with the cord as far as the external abdominal ring had to be removed. Suppurating phlebitis of the cord is a disease common to the Tropics.

Excision of Breast was performed in two cases, one was a case of scirrhus and the other a sarcoma. In both the axillary glands were also removed.

Hæmorrhoids.—Six cases. Five were treated with ligature and excision, and in one Whitehead's operation was performed.

Hepatic abscess.—Four cases were treated with excision of the rib and drainage.

Amputation of Penis was performed eight times in all for epithelioma of penis. In three cases Pearce Gould's operation was found necessary, as the disease had advanced too far.

Appendicectomy was successfully performed on an European lady for relapsing appendicitis.

Trephining.—Thirteen cases were operated on for depressed fracture of the skull.

Ovariotomy was performed successfully once in a case of mulatilocular cyst.

Laparotomy was performed nine times. On was for acute pancreatitis. In one case the cæcum was successfully excised for malignant growth, and the item was stitched to the abdominal incision, as the patient's condition was unfavourable for immediate intestinal anastomosis. The lower end of the ascending colon was closed and put back into the abdomen. In one case a malignant ovary was removed. Laparotomy was also performed in cases of double pyosalpinx, ruptured ectopic gestation, penetrating wound of the abdomen, and peritonitis. In one case the item was anastomosed with the transverse colon for a fæcal fistula.

Prostatectomy.—An entire prostate, which had undergone filro-adenomatous changes, was enuleated in one mass by the supra-pubic route, as practised by Freyer, in an old man.

Excision of the Tongue.—Whitehead's operation was performed once for epithelioma.

Lower Jaw was excised twice successfully for malignant disease involving the bone.

Tracheotomy was performed four times for diphtheria, stenosis of larynx, ædema glottis, and injury to the larynx.

Gastrostomy (Frank's) was performed in a case of pharyngeal fistula, following abscess of the thyroid gland.

Pyonephrosis.—Two cases. Both were incised and drained.

Supra-pubic Cystotomy was performed twice.

Stricture of Urethra.—Seventeen cases. In two external urethrotomy (Wheelhouse's) was performed, and the rest were dilated by bougies.

Varicocele.—Bennett's operation was performed twice.

Scrotal Elephantiasis.—In three cases the diseased tissues were entirely removed and the testes were enclosed in a pouch of healthy skin dissected out from the adjoining parts.

Interscapulo-thoracic Amputation, or removal of the fore quarter.—The whole of the upper extremity, including the scapula and the clavicle (Berger's operation), was disarticulated for a machinery accident. The whole of the scapula, except the tip of the acromion process which articulates with the clavicle, was excised for malignant growth. On recovery there was no deformity to be noticed in front.

Adenoma of Thyroid.—Five cases. In one Kocher's incision was made, and the whole tumour was enucleated.

Empyæma.—Two cases were treated with excision of the ribs. In one the pus had worked its way through an intercostal space and formed a large abscess, the size of an orange, beneath the right nipple.

Head of the Humerus was once excised for tubercular disease.

Filroid Polypus of Uterus.—A sub-mucous fibrid with a broad base was protruding into the vagina, and it was enucleated per vaginams.

Emphyæma of Antrum of Highmore.—The antrum was trephined through the anterior wall and drained.

Malignant Tumours.—Nineteen tumours from various parts of the body were excised.

Innocent Tumours.—Eight tumours from various parts of the body were removed.

Suppurating Arthritis of Knee.—This was treated with incision and drainage, with good result.

Carbuncle.—Four cases. All were incised and scraped.

I annex herewith a list of operations performed by me and a mortality return showing the chief complications that contributed to death :—

	Cases.	Deaths.
Head and neck :—		
Cranium—trephining for depressed fractures ..	13 ..	3
Ear :—		
Foreign body removed by detaching the auricle	1 ..	—
Mastoidectomy	3 ..	—
Nose and accessory sinuses :—		
Nasal polypi	3 ..	—
Eropyema of autrum of Highmore—anterior wall trephined	1 ..	—
Mouth :—		
Whitehead's operation for carcinoma of tongue ..	1 ..	—
Excision of lower jaw for malignant disease ..	2 ..	—
Neck :—		
Tracheotomy	4 ..	2
Angina ludovici	1 ..	1
Cellulitis of face	1 ..	1
Thorax :—		
Empyæma (ribs excised)	2 ..	—
Caries (ribs excised)	2 ..	—
Excision of breast for carcinoma ..	1 ..	—
Excision of breast for sarcoma	1 ..	—

	Cases.	Deaths.
Abdomen :—		
Appendicectomy	1	—
Appendicitic abscess opened and drained	1	—
Hepatic abscess (ribs excised and drained)	4	2
Laparotomy for acute pancreatitis	1	—
Laparotomy for peritonitis	2	1
Laparotomy for penetrating wound	1	—
Laparotomy for carcinoma of cæcum (excision and inguinal colotomy)	1	—
Laparotomy for lateral anastomosis (ileum with transverse colon for fæcal fistula)	1	1
Laparotomy for gastrostomy (Frank's) for pharyngeal fistula	1	—
Herniotomy :—		
Strangulated hernia	4	—
Reducible inguinal	16	—
Urinary system :—		
Pyonephrosis (incision and drainage)	2	2
Supra-pubic cystotomy	2	1
Prostatectomy (supra-pubic)	1	1
Generative system :—		
Hydrocele (extroversion of sac)	39	—
Orchectomy for—		
Hæmatoceles	6	
Suppurating phlebitis of cord	3	—
Stricture of urethra :—		
Dilatation	15	—
External urethrotomy (Wheelhouse's)	2	—
Amputation of penis for epithelioma through body	5	—
Do. (Pearce Gould)	3	—
Varicocele (Bennett's)	2	—
Removal of calculus from penile urethra	1	—
Circumcision	28	—
Scrotal elephantiasis	3	—
Rectum and Arms :—		
Hemorrhoids—Ligature and excision	5	—
Do. (Whitehead's)	1	—
Fistula-in-ano	8	—
Gynæcological operations :—		
Perineorophy	4	—
Anterior colporrhaphy	1	—
Ovariotomy	1	—
Laparotomy for—		
Malignant disease of ovary	1	1
Ruptured tubal pregnancy	1	1
Pyosalpin (double)	1	1
Vesico-vaginal fistulæ	3	—
Fibroid polypus of uterus (removed)	1	1
Curretting for endometritis	1	—
Amputations :—		
Finger	8	—
Arm	1	—
Forearm	2	—
Interscapulo-thoracic with clavicle	1	—
Leg	1	—
Thigh	5	—
Foot	2	—
Hip	1	1
Toes	4	—
Excisions :—		
Scapula for sarcoma	1	—
Head of humerus (tubercular caries)	1	—
Vascular system :—		
Varicose veins	1	—
Ligature of artery :—		
Brachial	1	—
Subclavian	1	—
Joints :—		
Dislocation reduced	1	—
Suppurating arthritis-incision and drainage	1	—
Ankylosed joint—adhesions broken down	1	—
Bones :—		
Fractures—		
Set	2	1
Wired	1	—
Sequestrotomy for necrosis	31	—
Scraping of sinuses	6	—
Lymphatic system :—		
Removal of glands (tubecular)	2	—
Suppurating buboes (incised and scraped)	25	—

	Cases.	Deaths
General :—		
Plastic operation	2 ..	—
Removal of foreign bodies from body ..	3 ..	—
Wounds (sutured)	10 ..	2
Carbuncle	4 ..	1
Abscesses	30 ..	3
Division by cicatrix	2 ..	—
Gunshot injury	1 ..	—
Tumours :—		
Innocent :—		
Setaceori cyst	6 ..	—
Prepatellar bursa	1 ..	—
Epulis	1 ..	—
Adenoma of thyroid	5 ..	—
Malignant :—		
Epithelioma	12 ..	—
Melanotic sarcoma	3 ..	—
Myeloid sarcoma	1 ..	—
Spindle-celled sarcoma	2 ..	—
Endothelioma (partid)	1 ..	—
Total ..	393	27

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

The Hospital.—The hospital was opened for the admission of in-patients on the 2nd April, 1906. The following was the full number of beds available at the time :—

	Beds.
Five private wards	6
One female ward	10
One children's ward	6
One isolation ward	2
Two male wards	20

The number of patients treated during the nine months under consideration was—

Male	350
Female	157
Total ..	507

Of these, 479 were pauper patients—272 were cured, 126 were relieved, and 81 not improved. These 479 patients stayed 10,239 days, average 21·36 days. There remained at the end of the year 28 patients. The average daily number of patients was 37·35. These patients have come from all parts of the Island, and some from India and the Straits Settlements.

The largest number of patients on any one day was 43; the smallest number of patients was 29 (this was during the Christmas season).

Number of deaths.—Nil.

Accommodation.—The private wards are at present quite adequate, very rarely have they all been occupied at the same time.

The children's ward and male isolation wards have also proved adequate. The male wards have barely proved adequate, several cases which ought to have received indoor treatment were kept out owing to want of accommodation. I feel that bad cases of corneal ulcers ought to be treated as inpatients, owing to the difficulty of these cases attending to themselves and intelligently following instructions whilst at home.

Expenditure.—The cost per head was 72·11 cents per diem; this is inclusive of the diets both of the private patients and staff.

The total cost of maintenance of the hospital in the nine months under consideration was Rs. 7,737·40. The amount voted was Rs. 12,933. This amount was not fully spent owing to the hospital being opened for only nine months.

Total payments by twenty-eight paying patients :—

	Rs. c.
Second Quarter	554 51
Third Quarter	684 64
Fourth Quarter	561 4
Total ..	1,800 19

Staff.—Dr. Andreas Nell, M.R.C.S., House Surgeon, was of great help to me both in the Grenier infirmary and the hospital, and has discharged his duties with much ability.

The Matron, Miss Fraser, had very arduous duties to perform, especially at the start; these duties were unsparingly attended to with success.

Nursing Staff.—The full complement of nurses allowed for this establishment is four, but we had to get on with two, at times entailing a great amount of work on the nurse on duty. It is absolutely necessary that we should have another nurse, and that as soon as possible, and instead of a fourth nurse, I would recommend the appointment of a night attendant.

Herewith I annex tables of diseases treated, with results. Tables showing the forms of eye diseases treated in the hospital in 1906 :—

Table A.—Operations performed.

	No. of Cases.		No. of Cases.
Scraping (orbital periostitis) ..	1	Removal of foreign body on conj. ..	20*
Forcible expression (trachoma) ..	1	Paracentesis of anterior chamber ..	1
Ectropion	4	Scarification of chemosed lids ..	4*
Abscess, conj. lid ..	23	Coaptation of severed lids ..	2
Cyst, conjunctival and meibomian	36*	Artificial pupil (tridectomy for leucoma)	7
Slitting up canaliculus (dacryocystitis)	51	Iridectomy in glaucoma	1
Division of symblepharon ..	1	Severing iritic adhesions ..	4
Excision of non-malignant new growth on lid	10	Cystoid, cicatrix (proclapsed iris) ..	3
Excision of pterygium and Pinguecula	13	Clitchett's ablation (enucleation) ..	1
Excision of conjunctival granuloma	10	Mules' enucleation	6
Scraping degenerated corneal scar	5	Evisceration	3
Tattooing leucoma ..	1	Needling infantile cataract ..	19
Epilation and hordeolum ..	7*	Senile cataract—	
For injury to eyeball ..	3	Extraction without iridectomy ..	12
Cautery to corneal ulcer ..	8	Extraction with iridectomy ..	66
Removal of foreign body on cornea	119*	Preliminary Iridectomies ..	43
		Extraction subsequent to iridectomy	16
		Total ..	501

* Minor.

In hospital 210 ; in outdoor department 291.
Major 314 ; minor 187.

Table B.—Nature of cases admitted to Hospital in 1906.

	No. of Cases.		No. of Cases.
Microphthalmos	1	Corneal injury	4
Blepharitis	2	Keratitis interstitial	8
Trachoma	1	Keratitis punctata	3
Conjunctivitis	22	Keratitis ulcerosa	64
Phlyctenular conjunctivitis ..	3	Keralomalacia	1
Purulent conjunctivitis ..	17	Leucoma	13
Conjunctivitis of new born infants	2	Anterior staphyloma	18
Lachrymal fistula, &c. ..	8	Pterygium	6
Gonorrhœal ophthalima ..	4	Panophthalmitis	17
Subconjunctival hemorrhage ..	1	Glaucoma	5
Meibomian growth ..	2	Occlusion of pupil	1
Conjunctival growth ..	7	Iritis and diseases of iris	51
Cellulitis of lids	4	Optic atrophy and neuritis ..	12
Conjunctival injuries ..	4	Cataract	205
Orbital periostitis ..	1	Retinal diseases	6
Contusio bulbi	1	Vitreous obscuration	1
Phthisis bulbi	1	Otorrhœa	1
Rupture of choroid ..	1	Nasal euchondroma ..	1
Symblepharon	1		
Penetrating wound of sclerotic ..	4	Total ..	507
Ectropion	3		

Table C.—Districts from which the Cases have come.

Kandy District	4	Nuwara Eliya District ..	2
Ratnapura District ..	9	Pussellawa District	1
Negombo District ..	9	Madulkele District	1
Dodanduwa	8	Galle District	21
Nawalapitiya	2	Bentota	3
Jaffna	2	Tangalla	2
Batticaloa	1	Badulla	5
Rakwana District ..	4	Agrapatana	2
Matara District	17	Maskeliya	1
Ambalangoda District ..	6	Dolosbage	1
Kurunegala District ..	8	Teldeniya	1
Matale	4	Tuticorin, India	1
Hatton District	3	Penang, Federated Malay States ..	1

Table D.—Recoveries from Paying Patients 1906.

	Rs.	c.
First quarter hospital not open.		
Second quarter	554	51
Third quarter	684	64
Fourth quarter	561	4
Total—Rs. ..	1,800	19

Private Wards :—Twenty-eight individuals.
Rates for Private Wards :—Entrance fee Rs. 10·50 and Rs. 5 per diem.
Seamen's Ward :—Entrance fee Rs. 10·50 and Rs. 2 per diem.

Grenier Eye, Ear, and Throat Infirmary.

Outdoor Patients.—Number of cases treated during the year was 12,544, as against 9,295 in 1905, and they were distributed as follows :—

Eye cases	11,731
Ear cases	528
Throat cases	295
Total ..	12,554

Eye cases treated during the year include those in the annexed Table B.

Collections.—The collections for the Eye, Ear, and Throat Department, have amounted to Rs. 389·10, as against Rs. 200·48 the previous year. These were of a purely voluntary nature.

Nature of Cases treated.—Table E appended. I have nothing special to note except to state that the number of cases of trachema seems to be stationary, and that most of these cases come from Slave Island from the Malay community.

Table E.—Annual Return of Diseases treated at the Grenier Infirmary, Victoria Memorial Eye Hospital.

Abrasion	3	Conjunctivitis	589
Abscess of lid	50	Do. phlyctenular ..	162
Abscess of conj.	1	Do. acute catarrhal ..	384
Abscess of lachrymal ..	27	Do. purulent ..	27
Ablation	1	Do. subacute ..	1
Ague brow	1	Do. granular ..	1
Amblyopia	1	Do. follicular ..	21
Amyloid degeneration of disc ..	1	Do. traumatic ..	3
Anismetropia	4	Do. chronic catarrhal ..	87
Aphakia lentis	4	Cyclitis	6
Astigmatism, hypermetropic ..	7	Cyst of caruncle	1
Do. myopic ..	7	Do. meibomian ..	44
Do. compound ..	16	Do. lid	4
Asthenopia	2	Do. ocular conjunctiva ..	6
Atrophy optic	27	Dacryocystitis	29
Atropine irritation ..	1	Degeneration cystic of R upper conj.	1
Burn of cornea	2	Degeneration of retina ..	1
Do. of lid	3	Detachment of retina ..	1
Do. with lime	2	Distichiasis	1
Do. with sulphuric acid ..	2	Disease fungoid of cornea ..	3
Do. of eye-ball	2	Dislocation of lens ..	6
Do. of conjunctiva ..	2	Ectropion	4
Blepharitis	85	Eczema of lids	2
Do. chronic	1	Ecchymosis	3
Do. squamosa ..	10	Episcleritis	5
Do. ulcerosa ..	23	Epithelioma	1
Cataract	460	Epiphora	1
Do. congenital ..	4	Eutropion	1
Do. ant. polar ..	3	Erythropsia	1
Do. diabetic ..	3	Erysipelas	1
Do. glaucomatous ..	4	Fistula lachrymalis ..	5
Do. incipient ..	13	Foreign body in cornea ..	132
Do. psilosis ..	1	Do. eye ..	12
Do. senile	7	Do. conj. ..	17
Do. traumatic ..	14	Glaucoma, chronic ..	6
Cellulitis	6	Do. sub-acute ..	9
Do. infra orbital ..	1	Do. secondary ..	1
Do. of lid	4	Glioma	3
Chemosis of conj.	2	Granuloma of lids ..	2
Choroiditis	8	Growth in eye	1
Ciliary spasm	1	Do. conj.	1
Coloboma congenital ..	1	Herpes ophthalmica ..	1
Do. iridis	6	Do. cornealis	1
Contusion of lid	6	Hernia iris	5
Contusio bulbi	51	Hordeolum	9
Conjunctival hœm. ..	46		

Hyperæmia of iris	5
Hypermetropia	123
Hysterical amblyopia	1
Hyperplasia of gland. tissue	1
Hypermetropia and presbyopia	12
Injury to lid	1
Do. cornea	2
Do. eye	1
Iris bombe	3
Irido cyclitis	2
Iridis prolapsus	1
Irritation, sympathetic	1
Iritis	92
Do. gonorrhœa	2
Do. post synechia	5
Do. rheumatic	12
Do. rheumatic, chronic	1
Do traumatic	2
Ischæmia retained	11
Keratitis	25
Keratitis diffusa	3
Do. discreta	1
Do. degeneration	1
Do. centralis	1
Do. lamellar	1
Do. leprotic	1
Do. interstitial	28
Do. marginalis	4
Do. phlyctenular	64
Do. striata	1
Do. superficial	61
Do. punctata	1
Do. traumatic	16
Do. ulcerosa	326
Keratoconus	1
Keratomalasia	8
Lachrymal obstruction	51
Leucoma	85
Do. adherent	3
Lithiasis of conj.	1
Lupus erythernatosus	2
Macula cornea	15
Mycotic disease of cornea	2
Muscæ volitaus	5
Myopia	36
Nebula cornea	5
Neoplasm of conjunctiva (non-malignant)	8
Neuralgia of eye	1
Do. supra-orbital	2
Nyetalopia	7
Occlusio pupillæ	5
Obscuratio vitrei	15
Œdema of lids	5
Ophthalmia catarrh., acute	240
Do. catarrh., chronic	48
Do. gonorrhœal	9
Do. granular	1
Do. neonatorum	19
Do. sub-acute	2
Do. sympathetic	4
Do. jegurity	2
Optic neuritis	5
Pannus	8
Panophthalmitis	31
Paralysis, facial	4
Periostitis orbital	3
Phthisis bulbi	52
Pinguecula	9
Polypoid growth	2
Presbyopia	184
Pterygium	49
Ptosis	1
Scald of lid	3
Do. of conjunct.	5
Scleritis	4
Staphyloma	11
Do. anterior	54
Do. ciliary	2
Strabismus	2
Do. divergent	1
Subluxatio lentis	4
Symblepharon	1
Synechia, anterior	18
Do. annular	1
Do. posterior	3
Tinea tarsi	1
Trauma septic of eyeball	3
Trachoma	37
Wound of cornea	36
Do. cornea septic	1
Do. conj.	14
Do. lid	4
Do. sclerotic	2
Xerosis of conj.	22
Ear cases	252
Throat cases	115
Total	4,866

REPORT of J. B. Spence, M.B., Medical Superintendent, Lunatic Asylum, Colombo.

FOR statistical purposes it is convenient to separate the Asylum from the House of Observation and I shall take the former first.

A. *Asylum.*—At the beginning of the year 571 patients (357 males and 214 females) remained under treatment. 160 patients (106 males and 54 females) were admitted during the year. The total number under treatment in 1906 was therefore 731 (463 males, 268 females). 127 patients (81 males, 46 females) were discharged, and 92 (62 males, 30 females) died. The number remaining at the end of the year was therefore 512 (320 males, 192 females), a decrease of 59 (37 males, 22 females) during its course.

The average daily number resident was 553·45 (males 345·53, females 207·91), a decrease of 6·94 as compared with the figure for 1905. In the case of males the decrease in the daily average was 7·02, in that of females there was an increase of ·08. The largest total number resident on any one day was 580 (an increase of three over the maximum of 1905), while the largest number of males was 368 (an increase of 7) and of females 215 (a decrease of 1). The smallest total number of patients simultaneously resident was 513 (320 in the case of males, 191 in that of females). The minimum numbers occurred near the end of the year, and not at the beginning as was the case in 1905.

B. *House of Observation.*—Nine patients (6 men and 3 women, remained under treatment at the beginning of the year. 135 males and 37 females, in all 172, were admitted during 1906. The total number treated was thus 181 (141 males, 40 females). Of these, 48 males and 29 females, total 77, were transferred to the Asylum, and 85 males and 9 females, total 94, were discharged without passing into the Asylum. The male patient died. The number remaining at the end of the year was therefore 9 (7 males, 2 females).

The average daily number resident was 10·14 (males 7·06, females 3·08). These numbers approximate very closely to those of 1905. The maximum number of males resident at one time was 19 (an increase of 6 over the corresponding number for 1905), of females 6 (a decrease of 2), and of both together 20 (a decrease of 1). The minimum numbers were 1 male, 1 female, both together 3.

The subjoined table summarizes the figures for the two institutions taken together :—

Table showing the Numbers in the Asylum and House of Observation taken together.

	Males.	Females.	Total.
Remained	363	217	580
Admitted	241	91	332
Total treated ..	604	308	912
Discharged — ..	214	84	298
Died	63	30	93
Remaining	327	194	521
Decrease	36	23	59

The numbers given above are those of the different persons treated or at least of quite distinct admissions. In the House of Observation, for technical reasons, one person has sometimes to be reckoned as more than one case, hence tables showing the number of cases will differ from the above.

For administrative as distinguished from statistical purposes the Asylum and House of Observation have to a great extent to be worked as one, and the combined figures represent the real strain on the accommodation.

The average daily number of males in the whole institution was 352·60, of females 211, and of both together 563·60. These figures convey a somewhat inaccurate idea of the inadequacy of the accommodation, since the maximum number resident at once was 601, and for some time the total remained near that figure. The maximum for males was 386, and for females 217, an increase of 20 in the case of males and a decrease of 6 in that of females as compared with the figures for 1905. The total maximum represents an increase of 17. The smallest numbers resident at one time were males 326, females 193, both together 521. These figures appear to indicate an arrest of the continuous increase, to which I directed attention last year, but how far the arrest is real or merely apparent will be considered a little later. In this and in recent reports I have dwelt on statistics at what may seem inordinate length in order to focus in an easily accessible form the chief reasons for regarding extension as necessary.

Admissions (*Asylum*).—The admission rate was slightly lower than that of 1905 : 160 as compared with 171, a decrease of 6 males and 5 females. Thirteen (9 men and 4 women) were epileptic, one (a man) was the subject of general paralysis of the insane, while so many as 20 (18 men and 2 women) did not appear to be insane at all. This seems to me a very unfortunate thing. Certain authorities appear to be rather unduly open to conviction on the subject of insanity, sharing in the tendency so common in Ceylon to say resignedly : " 'Tis a mad world, my masters." Probably the chief responsibility rests with medical witnesses, many of whom seem to be very easily satisfied on the point, but some of it attaches to the persons responsible for the suggestion of insanity. I have little doubt that in certain cases the suggestion is the fruit of evil motives. Of the other cases admitted, 81 (45 males and 36 females) were classed under " Mania," 39 cases (27 males and 12 females) under " Melancholia," and 4 (all males) under " Dementia." A case of imbecility and one of stupor (both males) completed the list.

I have repeatedly referred in previous reports to the comparative rarity of insanity in Ceylon, perhaps it would be more accurate to say the fewness of admissions to the Asylum here. The impression that the burden of lunacy here is heavy seems however to persist quite unaffected by demonstrations to the contrary. For the further establishment in conviction of those already influenced by the facts already adduced, I may point out that if the English ratio of admissions per 10,000 of the general population obtained here the number of new cases to be provided for would be about 2,200 instead of of 160.

Discharges (*Asylum*).—127 cases were discharged. Of these, 57 (33 males and 24 females) were " recovered," 40 (26 males and 14 females) were " relieved," and 30 (22 males and 8 females) were " not improved." The total number of discharges is 24 in excess of the previous maximum (103 in 1896), and much more in excess of the average for the previous fifteen years, which is 67 (approximately). The recovery rate (44·44 per cent. calculated on the number of admissions) is almost exactly the same as the average rate during the previous eighteen years (44·26 per cent.). The number of the " relieved " and " not improved " is swelled to unusual dimensions by the transfer of a number of Indian-born Tamil patients to the Madras Asylum. The latter category (" not improved ") is also magnified by the " not insane " persons, to whom allusion has already been made. The transfer of 36 Tamils (22 males and 14 females) to Madras was effected in pursuance of an arrangement concluded with the Government of India in accordance with a principle spontaneously enunciated by that Government, though it had previously been suggested here, but without result. The departure of these patients has afforded a certain amount of relief, very welcome even if only partial and temporary, of the congestion from which we suffered, and as a considerable proportion of these patients were of a type requiring accommodation, of which the supply is very insufficient, the relief was all the greater. Some of them had been here for long periods, one for nearly forty years and some others over thirty years. Most of the detachment were regarded as incurable.

One of the cases discharged as " recovered " was remarkable. The patient had killed his wife, apparently through jealousy, about eight years ago, and had been put upon his trial for murder, but was then pronounced incapable of making his defence in consequence of unsoundness of mind, and his trial was postponed, and he was sent to the Asylum. There were suspicious elements in the case, and for a long time I did not feel warranted in declaring him sane enough to be fit for trial; but a time came when that course seemed justifiable, and he was brought before the Visitors, who agreed that he was capable of making his defence. No sooner had this been done than he suddenly appeared to relapse. He assumed an aspect of the deepest melancholy, and refused food, and his behaviour, which had been rational before, became irrational. He was removed to jail, however, and afterwards sent for trial, but the jury (influenced probably by his appearance) found that he was still incapable of making his defence, and he was sent back here. After his return his aspect of melancholy gave way to the expression that had been habitual before these events, and he reverted to his former condition. He was

again produced before the Visitors, and again certified to be fit for trial; but on this occasion he was not removed till the day of trial. He then pleaded to the charge, and the jury expressed themselves as satisfied of his fitness for trial, and he was convicted of culpable homicide, his sentence being mitigated in consideration of the circumstances of the case. I think this is probably a unique instance of the trial and conviction of a person after prolonged detention in an asylum.

A table showing the forms of mental disorder in those admitted, discharged, and died has already been forwarded. I now furnish, in addition, a table showing the periods of residence of those who were discharged "recovered" and who died.

Deaths (*Asylum.*—The death-rate in Ceylon was, I believe, considerably above the average in 1906. In the Asylum it was very much higher, the ratio to the total number treated being 12·58 per cent. (ratio for males 13·39 per cent., for females 11·19 per cent.), and to the average daily number 16·62 per cent. (ratio for males 17·94 per cent., for females 14·42 per cent.). The corresponding averages for the preceding decade were: Ratio per cent. to total treated 7·94 (males 8·42, females 6·96), and to the average daily number 10·05 (males 10·80, females 8·69). The aggregate (92) exceeded by 20 that of any previous year, the former highest number being 72 in 1901, while the average for the preceding decade was about 49 per annum.

Allowing for the gradual increase in the Asylum population, the number of deaths may be regarded as being at least 30 above the normal. If this number be added to that of the Tamil patients (36) transferred to Madras, the reduction due to extraordinary causes (66) is seen to be greater than the total reduction (59) for the year without making any allowance for what must be regarded as an abnormally high discharge rate, and we are consequently led to the conclusion that there has really been no arrest of the continual increase in the demand for Asylum accommodation. The relief for the present is real and very welcome, but it is not likely to last.

The cause of the increased mortality is difficult to ascertain. I annex to this report a table showing the chief causes of death and the ages at death of those who died, but necropsies frequently show that death was contributed to by several different diseases, and in many of these cases it is difficult to decide which should be regarded as the chief cause. In the table 40 cases (27 men and 13 women) are entered as dying of some form of brain disease, but disease of that organ was present in many more cases, though it did not appear to have been the immediate cause of death. Only 19 deaths are ascribed to tuberculous disease, this proportion being only slightly above the English rate; but such disease was present in about 50 per cent. more cases, and in these its influence on the result must have been important. Seven of the deaths were due to old age and 12 to heart disease chiefly. In attempting to estimate the effect of the existing overcrowding on the death-rate, these cases, constituting nearly 20 per cent. of the whole number, may be excluded, and allowance has also to be made for the special unhealthiness of the year in other places, but I think there is no doubt that overcrowding contributed to the result, especially in the tubercular and intestinal cases. No fatal accident and no case of suicide occurred. One of the patients who died had been an inmate since 1870, and two others had been here over thirty years, and others over twenty years.

Admissions, Discharges, and Deaths (*House of Observation*).—The number of persons admitted (135 males, 37 females, total 172) exceeded that of the previous year by 33 (31 males and 2 females), and was the largest yet recorded. Only 77 of them (48 males and 29 females) were transferred to the Asylum, *i.e.*, more than half of the people sent for observation appeared not to require Asylum treatment. This seems to me to be a matter for much regret, especially in view of the conditions existing here at present, since these necessitate persons under observation being associated during their period of remand with others who have been ascertained to be insane, and being overcrowded along with them as well. No doubt some of them were transient cases of mental excitement, in which it was quite justifiable to send the subjects here; in a few cases the patients were taken charge of by relatives, who might just as well have adopted that course to begin with; but in a considerable number of cases I think there was no sufficient reason for subjecting the person to observation as to his mental condition. I believe the intention to have been good, but I think the result unfortunate, and I have some doubt as to its legality since the law seems to require that *primâ facie* evidence of insanity should precede such remands for observation. In a few cases the maxim "Once insane, always insane" seems to have undergone expansion and to have become "Once suspected of insanity, always to be so suspected." Persons who had been under observation here, and had been pronounced not insane, have sometimes been sent back, apparently for no other reason than that they had been here before; and in other cases a person just discharged as not insane has been taken to another court and a fresh remand for observation obtained, whereupon the whole process had to be gone through again. Doubtless the later court heard nothing of any previous case, but my experience leads me to believe, or at least to suspect, that the existing legal procedure may sometimes be abused by unscrupulous persons.

There was only one death in the House of Observation in 1906. The man was found on admission to be suffering from injuries, especially to the head, which he ascribed to an assault. The case was reported to the authorities and investigation was made, but the man gradually sank and died after ten days' residence. The necropsy was performed by the Judicial Medical Officer. No fracture of the skull had taken place, but the brain was softened. There was no evidence to show that death might not have been due to natural causes, and a verdict to that effect was returned at the inquest.

Administration.—Apart from the general ill-health and the high death-rate already referred to, the year under review has been uneventful. The difficulties due to the congested state of the institution have been more acutely felt than ever before, because the number to be dealt with was greater. At one time 678 people had to be crushed into the space provided for 378. For the present, however, some relief has been obtained by the diminution of the number of inmates already referred to; some further relief, so far as quiet male patients are concerned, will be afforded by the alterations (in progress) of the medical officers' former quarters; and the principle underlying the transfer of Tamil patients to Madras having been conceded by the Indian Government, it may be anticipated that the number of such patients here will be smaller in future. Probably, therefore, the congestion will not again reach the point it attained in 1906 for some time to come, but that it will ultimately reach it unless further extensions are provided meantime I have no doubt. The subject has received much careful consideration during the past year, but I am not yet able to report the adoption of a definite scheme of extension.

Some minor additions have to be recorded. With the growth of population the bathing accommodation had become very inadequate, and three large bathing tanks have been constructed in the grounds, two in the male and one in the female division. These have proved very useful. A much-needed extension of the laundry has also been built.

The deficiency in the water supply is still a cause of much inconvenience and harm. Hopes of improvement as the result of the duplication of the main from Labugama and afterwards from the construction of the "Elie House" reservoir have long been held out, but they have been doomed to disappointment. Among other causes the defect has been attributed to the inadequacy of the service pipe, a 4-inch pipe, probably much diminished in calibre by incrustation. When this main was put in the Asylum (much smaller then) was almost the only thing it had to supply; but now, when we need more water, less is available, since much is taken by bungalows in the neighbourhood and by the race course and cricket ground. I understand that the 4-inch pipe is to be replaced by a 6-inch one soon, and I trust the supply here will be more abundant afterwards. At present it is hardly possible to keep some parts of the building properly clean owing to the lack of water.

Expenditure.—Except under the heading "Equipment," the amounts voted have proved, as usual, insufficient; this was only to be expected since they were the same as those which had already proved insufficient in 1905. The chief deficit occurred under the heading "Diets and Extras," although in order to curtail expenditure only the cheaper of the food alternatives in the diet scale were made use of to any great extent, the result being undue monotony in the food supplied. The original vote was Rs. 55,520, and a supplementary vote of Rs. 11,000 was asked for in the course of the year, making up a total sum of Rs. 66,520 for this item. Assuming the additional sum to have been granted, there was a credit balance of Rs. 1,446 (cents omitted here and in the subsequent figures), the amount spent having been Rs. 65,074. The rapid reduction in numbers towards the end of the year rendered this balance unexpectedly large. Deficits also occurred under "Funerals," "Contingencies," and "Wages," and additional votes were asked for. If these were granted, there would still be a deficit of about Rs. 7 under the first head, and of about Rs. 172 under the second, while a credit balance of about Rs. 217 remained under the third, this being chiefly due to the saving of part of the steward's salary during the later months of the year. Under "Equipment" there was a relatively large apparent saving amounting to about Rs. 3,500, but the greater part of this was due to the fact that a quantity of stores asked for in November were not issued before the end of the year, and the money required to pay for them consequently remained in hand. The nett result is a credit balance of about Rs. 5,075, if the supplementary votes are included; without them there would be a debit balance of about Rs. 7,700.

Any revenue derived from paying patients helps to reduce this deficit, but even if all that is due is recovered, the total will only amount to about Rs. 5,191. So long as the law remains as it is, it is idle to expect any great increase of revenue.

Including certain salaries paid otherwise than from the "Wages" vote, but excluding interest on capital account and the cost of maintenance of the building, the cost per head was about 51 cents per day, or Rs. 3·57 per week, or Rs. 186·15 per annum, equal to about £12. 8*s.* 2*d.* In the comparatively frugal country of Scotland the maintenance expenditure (*i.e.*, excluding rent charges) per patient in 1904, the latest year for which I have the figures, was about £27. 11*s.*, *i.e.*, considerably more than double the cost here per head, with over twenty times the number to be maintained. I think I am entitled to say that the burden of lunacy in Ceylon is light.

Industrial Department.—This continues to be a very useful adjunct to the institution, and helps in its administration very much. A statement of its accounts for the year has already been forwarded. The funds at credit show an increase of Rs. 297·38 during 1906.

Changes in the Staff.—These have been rather more numerous than usual. In March Miss C. F. van Dort, L.M.S., who had been appointed temporarily as one of the Assistant Medical Officers near the end of 1905, and who had discharged her duties with much zeal and success, resigned, as she wished to go to England to continue her studies, and to acquire additional qualifications. After an interval she was succeeded by Mr. H. E. Ekanayake, L.M.S.

In September Mr. T. Anthonisz, the Steward, was transferred to the Badulla Hospital. His successor has not yet been appointed, but his former Assistant, Mr. J. D. Rozairo, has acted as steward since he left.

I am able to report favourably concerning the attendants generally, especially the males. I desire specially to record my appreciation of the care and ability displayed by the attendants, both male and female, charged with the conveyance of the Tamil patients to Madras.

Table showing Length of Residence of those discharged recovered and of those who died during 1906 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 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.	From 20 to 30 years.	Total.
Males	3	5	3	5	12	2	—	1	1	1	—	—	33
Females ...	—	4	5	4	9	—	2	—	—	—	—	—	24
Total ...	3	9	8	9	21	2	2	1	1	1	—	—	57

Died.

Males	10	6	5	2	10	5	2	3	4	4	5	6	62
Females ...	4	3	2	2	3	2	1	1	5	1	3	3	30
Total ...	14	9	7	4	13	7	3	4	9	5	8	9	92

Table showing Causes of Death and the Ages of those who died in the Asylum and House of Observation during 1906.

	Under 20.			20—30.			30—40.			40—50.			50—60.			60—70.			70 and over.			Total.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Brain disease	5	—	5	6	3	9	6	4	10	3	2	5	5	1	6	2	2	4	—	1	1	27	13	40
Heart disease	—	—	—	1	3	4	2	1	3	3	—	3	—	1	1	1	—	1	—	—	—	7	5	12
Chronic pneumonic phthisis ..	—	—	—	1	—	1	4	1	5	4	2	6	2	—	2	—	—	—	—	—	—	11	3	14
Tubercular diseases of intestines, &c. ..	1	—	1	—	—	—	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—	3	2	5
Dysentery and intestinal diseases ..	—	—	—	1	—	1	6	1	7	5	—	5	1	—	1	—	1	1	—	—	—	13	2	15
Old age	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	5	1	1	2	2	5	7

REPORT of Aldo Castellani, M.D. (Florence), Medical Officer in Charge of Clinic for Tropical Diseases.

THE institution was opened on 1st October, 1906. Its object is the scientific investigation of diseases proper to the Tropics. I may be allowed to quote how the leading journal of medicine—the British Medical Journal—concludes an editorial article on the Colombo Clinic: "The Government of Ceylon deserves the highest praise for the scientific spirit it has shown, and we can only hope that the success of the present experiment may encourage it to extend the system further" (B. M. J. No. 2,377).

According to instructions I do not give here the particulars of the investigations carried out; I give only, very briefly, some of the results arrived at.

1. *Skin Diseases*: *Tinea Imbricata* (Tokelau).—Two typical cases have been admitted. Ceylon must, therefore, be included among the countries where the disease is endemic.

2. *Tropical forms of Pityriasis Versicolor.*—The commonest varieties of the disease observed were those described by me in 1905, viz., *Pityriasis flava* due to the *Microsporon tropicum* (Castellani) and *Pityriasis nigra* due to the *Microsporon mansoni* (Castellani).

3. *A new dermato-mycosis.*—This disease will be fully described in a separate publication.

4. *Parangi.* (*Yaws, Frambœsia Tropica*).—Several cases have been admitted. The cause of the disease is a spirochæte found by me in February, 1905, and afterwards described in various publications of mine in 1905 and 1906. This spirochæte I named *Spirochæte pertenuis.*

Monkeys can be successfully inoculated with parangi. Monkeys inoculated with parangi do not become immune for syphilis. Monkeys inoculated with syphilis do not become immune for parangi. I have applied to parangi the Bordet-Gengou reaction, and have been able to demonstrate the presence of specific parangi-antigen and parangi-antibodies; I have also shown by means of the reaction that parangi-antibodies and antigen are totally different from syphilis antibodies and antigen. Parangi and syphilis are therefore two different diseases.

5. *Treatment of Parangi.*—I can confirm that the best treatment of the disease is the administration of potassium or sodium iodide in large doses.

6. *Leukemia.*—One case was admitted in November. It was a case of the spleno-myelogenic type, and ended fatally shortly afterwards. In my experience the disease is just as frequent in Ceylon and in other tropical countries as it is in temperate zones. Probably in the past leukemia has been often confused with chronic malaria. In Ceylon thes pleno-myelogenic type as well as the lymphatic form occur. Cases of pseudo-leukemia are also met with.

In the Tropics the diseases for which leukemia is most frequently mistaken are chronic malaria and kalazar. Kalazar cannot be taken for the lymphatic type of leukemia, as in kalazar the lymphatic glands are generally not enlarged. The disease, however, may clinically resemble closely the myelogenic type of leukemia. In both diseases there is irregular fever of long duration, enlargement of the spleen and liver, frequently hemorrhages of the skin, and various mucosæ. A microscopical examination of the blood will clear the diagnosis at once. In kalazar not only is there not any leucocytosis, but there is a well-marked leukopenia.

The examination of the blood will also clear the diagnosis between chronic malaria and leukemia. More difficult is the diagnosis between chronic malarial cachexia, with no parasites in the blood of the general circulation, and kalazar. In such cases the puncture of the spleen is necessary. In kalazar the spleen blood drawn by the syringe will contain the Leishman-Donovan bodies.*

As regards the prognosis, it is, as might be expected, just as grave in the Tropics as in temperate zones. Treatment is generally useless. Arsenic may occasionally produce a certain improvement. This, however, is always transient, and the disease terminates fatally. The Röntgen rays treatment promises perhaps better hopes of success.

Malaria.—Three cases of chronic malaria have been admitted and one case of benign tertian. This last patient was suffering from *Tinea imbricata.*

Liver Abscess.—A case of abscess of the liver was admitted, and transferred after a few days to the General Hospital for operation. The operation was performed by Dr. C. S. Paul. I mention this case of abscess of the liver on account of the following points:—(1) There was no history of dysentery; (2) the stools did not contain amœbæ; (3) the pus from the liver contained several individuals of the *Entamba histolitica* (Schaudin). No bacteria were present.

Bacterial Dysentery.—One of the cases of parangi—a child two years old—developed a very severe form of dysentery, which lasted two weeks. From the stools the Kruse-shiga bacillus was isolated.

Anchylostomiasis.—I can confirm that the chloroform-eucalyptus oil mixture gives very good results in the treatment of this disease.

Ascariasis.—Nearly all the patients presented in their stools eggs of *Ascaris lumbricoides.*

Opsonic Treatment of various Diseases.—I have followed the methods of Wright and Douglas. The opsonic index of the patients was regularly taken before each vaccine injection. As is well known from the classical researches of Wright and Douglas, when a vaccine is introduced into an animal, the immediate effect on the blood is a lowering of the resisting power to the organism in question. This phase, called "negative phase," is soon followed by a "positive phase," when protective substances are elevated and the resisting power of the blood rises. It is generally admitted that no further injections should be given during the negative phase. I followed this rule, making occasionally an exception in the case of patients of strong physique and when suffering only from localized affections. I have always prepared the vaccines direct from the germs isolated from the patients. The following is the technique I have used:—The germ is grown on Agar tubes for 48 hours then 10 normal loopfuls (one loopful—mmgr. 2) are mixed with 10cc. of sterile normal salt solution or sterile pepton water. The emulsion is then heated to a temperature ranging from 60 to 65 for one hour. After this the vaccine is ready for use, but I generally add half per cent. of carbolic acid. It is advisable to keep the vaccine in a cool dark place.

Following the method of preparation I have described, each cubic centimetre of the liquid will correspond to one loopful (2 mmgr.) of culture. To know the actual number of bacteria as suggested by Wright, does not give much more light as regards the standardization of the vaccine. I generally begin

* In cases of suspected kalazar it is always prudent, before puncturing the spleen to exclude the possibility of the disease being leukemia, as this operation might lead to a profuse, and even mortal, hemorrhage, if the patient happened to be suffering from leukemia instead of kalazar.

by giving only ¼cc. of vaccine, and gradually increase to ½cc. and ¾cc. I have never exceeded the dose of 1cc. per injection.

Altogether—counting the eight patients that I have treated privately outside the Clinic—I have used the opsonic treatment in 11 cases of various bacterial diseases, viz. :—

One case of pseudo-granuloma pyogenicum.
One case of pseudo-granuloma pyogenicum and coccogenic sycosis.
Two cases of acne vulgaris.
Four cases of folliculitis of the legs.
One case of furnuculosis.
One case of chronic dysentry of Kurse-shiga type.

The results were satisfactory, with the exception of the two cases of acne, one of which improved but was not cured, the other practically did not show any improvement.

REPORT of A. J. Chalmers, M.D., F.R.C.S., Registrar, Ceylon Medical College.

DURING the past year the progress of the College has been marked. New laboratories for practical physiology and research in physiology have been opened. Mr. Simon Fernando Gunawardana has generously equipped a laboratory for pathology, which, it is hoped, will be opened early next year. Work in the chemical and physical laboratories of the Technical College has begun.

The students' common room and lavatory have been completed, and the old latrine removed and a new one erected.

Gifts of gold medals in perpetuity from Dr. Rockwood for surgery, Mr. Mathew for medical jurisprudence, and Mr. de Abrew for biology have been received.

During the earlier part of the year Dr. Paul performed the duties of Registrar during my absence on leave.

Two new lecturers have been appointed, viz., C. H. Burgess, Esq., D.Sc., Victoria University, as Professor of Chemistry, and W. S. Templeton, Esq., M.A., B.Sc. (Glasgow), as Lecturer on Physics. These gentlemen will also be on the staff of the Technical College.

A new series of lectures have been inaugurated, viz., tropical medicine, by Dr. Castellani.

The teaching of pathology has been transferred from Dr. Castellani to me. Physiology is being temporarily carried on by Dr. David Rockwood and myself until permanent arrangements are finally made. Dr. Willey went on leave this year, and his lectures are being conducted by Dr. David Rockwood.

The number of students at the end of 1906 was,—

Medical students	.. ..	103
Apothecary students	.. ..	31
	Total ..	134

as against the total of 123 this time last year. The number of new students who joined the College during the year was—

Medical	.. ..	23
Apothecary	.. ..	13
	Total ..	36

as compared with 23 last year. The total fees collected for this year was Rs. 18,491·25 as compared with Rs. 15,321·50, which is an increase of nearly Rs. 3,170 this year.

The following is the number of students who passed examinations of the College :—

Medical Examination.

Medical Preliminary	.. .. ..	15
First Professional	.. .. ..	13
Second Professional	.. .. ..	14
Third Professional (Part I.)	.. .. ..	14
Third Professional (Part II.)	.. ..	10

Apothecaries' Examination.

Apothecaries' Preliminary	.. .. ..	8
First Apothecaries'	.. .. ..	11
Second Apothecaries'	.. .. ..	5

The License of the College was obtained by H. E. Ekanayake, L. Brohier, J. S. R. Goonewardena, H. A. Vandort, J. P. Wijesinghe, T. de Kretser, S. A. Vairakiam, E. A. Cooray, V. A. Goonetileke, and C. A. Pauluz.

The Certificate of Apothecary was obtained by R. D. de Silva, K. P. Deedrek, M. Namasivayam, W. B. M. Abeasekera, and V. Ponniah.

The College urgently requires a laboratory for chemical physiology, and plans of this building have been made by the Public Works Department.

The work of the London University Examination has begun, and one student has passed the biology portion of the Preliminary Scientific Examination.

During the past year the Council of the College, which was constituted by Ordinance No. 3 of 1905, began its work.

The calendar and the rules of the College, together with the rules for the examinations, have been duly approved by His Excellency the Governor in Executive Council. The amendments to the calendar made by the Council have also been approved.

Report of F. G. Spittel, L.R.C.P. (Edin.), Medical Officer in charge of Pearl Fishery Camp.

I was in medical charge of Pearl Fishery Camp at Marichchukkaddi from the 10th February till the 9th April.

2. The medical staff consisted of Dr. Vettivelu, who was in charge of the hospital and outdoor dispensary. Mr. Mooniyiah acted as health officer, and inspected all the vessels arriving at the port, and Apothecary K. Nagamuttu was in charge of the infectious diseases hospitals.

3. *Water Supply.*—As during the previous year, water for all purposes was obtained from Adappankulam, a tank situated at the eastern boundary of the camp. Most of the officials used the water of a well at Karadikully, a village situated about 2 miles north of the camp.

4. Adappankulam (tank) was surrounded by a thick fence, and patrols were employed to prevent people and cattle from polluting the water. Just next and below the bund of the tank was a large cement cistern, into which water was conducted by a cement pipe sluice, and from this cistern only people were permitted to take water. Twenty-four coolies under overseers were placed round the cistern with zinc buckets for the purpose of giving water, and no one was allowed to dip into the cistern any vessel belonging to them. At the commencement of the Fishery the tank was nearly full, and, when it ended, although it was not replenished by rain, there was water in it sufficient to last for about a month. The water, however, which was rather turbid at first, became more so about the time the Fishery was closed and the people dispersed.

5. As usual, before the Fishery commenced, water from both the well and tank was sent to Colombo for analysis, and the Public Analyst reported that the quality of the water was not satisfactory for drinking. However, I was not able to trace any sickness in the camp to the use of impure water. Most of the people boiled the drinking water, and some used filters. Besides the Adappankulam tank, there were within the boundary of the camp two tanks in which the people were permitted to bathe. From these tanks removal of water was not permitted, fearing that it would be used for cooking and drinking.

6. *Sanitation.*—The sanitary condition of the camp was all that could be desired under the supervision of the Sanitary Officer of Jaffna Mr. Nicholas. About 120 coolies and several overseers attended to the sanitation of the camp. Disinfectants were freely used wherever they were required, and at all times the camp was clean and free from smells.

7. *Health.*—But for the occurrence of six cases of smallpox, the first three of which were imported from India, the health of the camp was very satisfactory. There were 13 cases of chickenpox. Malarial fevers and dysentery prevailed to some extent. 1,266 cases of malarial fever and 49 of dysentery were treated at the dispensary, and 146 of the former and 14 of the latter were treated in the hospital, making a total of 1,412 of malarial fevers and 63 of dysentery.

8. *Smallpox.*—The first case was discovered after death on the 26th February. On inquiry it was ascertained that the patient, an Arab diver, left Dubai in Arabia on or about 19th January, arrived at the camp on the 13th February, and occupied a hut in the quarters of the Arab divers. Four days after arrival he took ill. On inspection of the body it was found covered with unmistakable pustules of smallpox.

9. The second case was also discovered after death. The patient was a Kilakarai diver, who arrived at the camp about the 16th February. On inquiry I was informed that fever set in on the 20th February, followed by the eruption of smallpox three days later, and he expired on the 2nd March.

10. The third case was that of a Moorman from India, who said that he came from Nagoor to Paumben about the 24th February, on the following day he left Paumben by boat, and arrived at the camp on the 1st March, on which day shortly after arrival he had fever. As he had no hut to live in he went about from place to place in the camp till the 5th March, when owing to a rash he had on the face and body he came to the dispensary for treatment. Here having discovered that he was suffering from smallpox he was forthwith sent to the hospital, where he expired on the 14th March.

11. The fourth case was that of an Arab diver who came from Dubai in Arabia, and arrived at Marichchukkaddi twenty-five days before he took ill. On the 12th March he had fever, and four days later the eruption of smallpox broke out on the face and body. This patient was most probably infected by either case No. 1 or 2. The patient was admitted into hospital on the 14th March, the day on which the eruptions appeared, and he died on the 27th of the same month.

12. The Fifth Case.—This patient was a Tamil cooly, who was employed by me to bury the corpse of case No. 2. From the time he assisted in burying the corpse on the 2nd March he was kept under observation. Although every precaution was taken with a view to prevent infection, he had fever on the 16th March, followed by the eruption of smallpox three days later, when he was without any delay removed to the hospital, from where he was discharged cured on the 7th April.

13. The sixth case : patient a Tamil man from Jaffna. He took ill on the 24th March, forty days after he arrived at the camp. He was promptly removed to the hospital, and was discharged cured on the 19th April. This patient was most probably infected by case No. 4.

14. Of all the above cases, only cases Nos. 5 and 6 had marks of vaccination. Both these had mild attacks and recovered. Cases Nos. 1 to 4 had no marks of vaccination. All had confluent attacks, and all proved fatal.

15. The two cases that were discovered after death were promptly buried. All the infected huts, clothing, &c., were burnt. Disinfectants were freely used. The contacts were segregated, and vaccination and re-vaccination were carried on as vigorously as possible.

16. *Weather.*—The weather throughout the Fishery was wet and dry. During the early part of the Fishery till about the 10th March the nights and mornings were cold and dewy. On the 19th March, towards evening, there were rain clouds and distant thunder, but no rain fell. On the 1st and 2nd April some rain fell, and on the 3rd April there was a smart shower of rain, accompanied with thunder and lightning, which lasted from about 4.30 to 6 P.M.

17. *Hospitals.*—The general hospital consisted of three male wards, one with accommodation for 18 patients, two with accommodation for 16 patients each, and a female ward for 8. In connection with the hospital there were two storerooms, a kitchen, three latrines, and a dead-house.

18. There were two infectious diseases hospitals, with all the necessary outhouses, one for cholera and the other for smallpox patients. Each consisted of a male ward for 20 and a female ward for 12 patients.

19. Besides the above buildings, there were a house of observation for the admission of suspicious cases of infectious diseases and a building with four rooms for segregation of contacts.

20. *Food of the Patients.*—A contractor supplied provisions, which were cooked in the hospital kitchen. The scale of diets was the same as in other hospitals.

21. *Water.*—Water for all purposes was obtained from Adappankulam tank. The drinking water was always boiled and filtered. Berkefeld and Pasteur filters were used.

22. *Latrines.*—The latrines, which were situated at a convenient distance from the hospital, were conducted on the dry-earth system. They were always kept clean and free from smells. The night soil was removed twice a day and buried in the jungle outside the limits of the camp.

23. *Equipment.*—The hospital was provided with an ample supply of equipment of very good quality from the Government Stores. Most of the perishable articles, such as linen, mats, &c., which were used, were destroyed after the hospital was closed, and the unused linen, &c., and all the non-perishable articles were given over in charge of the Storekeeper at Marichchukkaddi.

24. *Medicines, Disinfectants, Instruments, &c.*—These were supplied by the Civil Medical Stores according to an indent furnished by me. I was also well provided with disinfectants, equipment, &c., to enable me to cope with outbreaks of any infectious disease, including plague. After the hospital and dispensary were closed, all the remaining medicines and all the instruments were returned to the Civil Medical Stores.

25. *Numbers treated, &c.*—The hospital was opened on the 17th February and closed on 9th April. During the above period 245 patients were treated at the hospital, of whom 23 died and the rest discharged, showing a mortality of 9·38 per cent. The average daily sick was 35·44. The largest number of patients treated on any one day (10th March) was 50, and there was no overcrowding at any time.

26. The prevailing diseases were malarial fevers, general debility, pnuemonia, and dysentery.

27. The diseases which caused the mortality were malarial fever, of which 6 died; general debility, of which 4 died; pneumonia, of which there were 5 deaths; diarrhœa, with 5 deaths; and one each from dysentery, malarial cachexia, and bronchitis.

28. *Outdoor Dispensary.*—1,808 patients were treated at the dispensary. The largest number treated on any one day (8th March) was 74 new and 14 old cases. The prevailing diseases were malarial fevers, rheumatic affections, dysentery, and ulcers.

Statements showing the number of cases treated at the dispensary and hospital and the diseases for which they were treated are annexed :—

Return of Diseases treated at the Outdoor Dispensary at the Pearl Fishery Camp, Marichchukaddi, from 17th February to 8th April, 1906.

I.—General Diseases.	
Group A.	
Dysentery	68
Malarious fever	1,266
Malarial cachexia	6
Secondary syphilis	10
Gonorrhœa	17
Group B.	
Worms	7
Group C.	
Debility	4
Group D.	
Rheumatic affections	59
Tubercular affections	13
All other general diseases	24
II.—Local Diseases.	
Diseases of the nervous system	25
Do. eye	23
Do. ear	19
Do. circulatory system	9
Do. respiratory system	33
Diarrhœa	5
Diseases of liver	8
Other diseases of digestive system	49
Diseases of spleen	20
Do. lymphatic system	3
Do. urinary system	1
Do. connective tissue	24
Do. skin	48
Ulcers	51
Local injuries	16
Total number of outdoor patients treated at Dispensary	1,808

Return of Sick treated in the Pearl Fishery Camp Hospital at Marichchukkaddi, from 17th February to 9th April, 1906.

Disease.	Admitted.	Died.	Discharged.
Chickenpox	13 ..	— ..	13
Dysentery	14 ..	1 ..	13
Malarial fever, intermittent ..	142 ..	5 ..	137
Malarial fever, remittent ..	2 ..	1 ..	1
Malarial cachexia	4 ..	1 ..	3
Syphilis, secondary or cons. ..	1 ..	— ..	1
Debility	20 ..	4 ..	16
Old age	1 ..	— ..	1
Rheumatism	1 ..	— ..	1
Rheumatic fever	1 ..	— ..	1
Bronchitis	7 ..	1 ..	6
Asthma spasmodic	1 ..	— ..	1
Pneumonia lobular (catrh.) ..	18 ..	5 ..	13
Acute pneumonic phthisis ..	1 ..	— ..	1
Diarrhœa	10 ..	5 ..	5
Constipation	1 ..	— ..	1
Abscess	3 ..	— ..	3
Burns and scalds	3 ..	— ..	3
Bruise or contusion	1 ..	— ..	1
Wound, contused	1 ..	— ..	1
Total ..	245	23	222

Return separating the Mixed Races from the Malabars from February 17 to April 8, 1906.

	Mixed Races.	Malabars.	Total.
Admitted during 17th February to 8th April ..	149 ..	96 ..	245
Total treated ..	149 ..	96 ..	245
Discharged ..	138 ..	84 ..	222
Died ..	11 ..	12 ..	23
			Per cent.
Daily average sick in hospital ..		..	35·44
Percentage of deaths to total treated ..		..	9·38

REPORT of S. Hallock, L.R.C.P. (Edin.), L.F.P. & S. (Glas.), Medical Officer in charge of the Convict Establishment.

DURING the year under review I was in charge of the Convict Hospital, Colombo, where sick prisoners are sent for treatment from Welikada, Mutwal, Hulftsdorp, and Mahara jails. I was also responsible for the medical supervision of the above jails.

General Health.—The health of the prisoners in all the jails was very satisfactory. The strength of the jails for the year was 1,785·01, as against 1,629·30 in 1905. The daily average of sick of all the jails in 1906 was 82·24, as against 104·75 in 1905.

Prevailing Diseases.—The chief diseases prevalent during the year were malarial fevers, enteric fever, diarrhœa, and dysentery, diseases of the eyes and lungs. There were a few cases of measles and chickenpox during the early part of the year. Mumps prevailed throughout the year. There were two sporadic cases of Asiatic cholera from Welikada jail.

Malarial Fevers.—Malarial fever was prevalent at Mahara from May till the end of the year. A statement of the number of cases is annexed. The prophylactic treatment with quinine was first introduced at Mahara jail during the last quarter of 1904, when there was an epidemic of malarial fever. Quinine was administered in doses of 7 grains in the form of a powder to each prisoner daily; but this proving ineffective, the treatment was discontinued for some months. It was again started in June, 1905, and continued till November of the same year, when the doses were increased to 10 grains each and given twice a week on two consecutive days, till 25th March, 1906. It was again resumed in May, as fever was prevailing at the time, and continued till the end of August. Its beneficial influence was well marked in reducing the severity, frequency, and nature of the attacks.

Dysentery.—Dysentery claimed the largest number of victims. Diarrhœa and pneumonia ranked next in point of mortality. Dysentery and diarrhœa, the constant scourge of the jails, were however less prevalent than in the preceding years, although dysentery prevailed to a great extent during the early part of the year. Diarrhœa continued throughout the year to a certain extent, but during the last three months of the year, with the commencement of the north-east monsoon, there was a great increase. We were practically free from dysentery during the months of May, June, and July, when the disease was prevailing in the city in an epidemic form, and wholly free from the disease during the months of November and December. Welikada, as usual, contributed the largest number of bowel complaints, and the victims were mostly debilitated penal stage men. I have noticed that the worst months for Welikada this year were the last three months, when several cases of acute diarrhœa occurred off and on, including two sporadic cases of Asiatic cholera. At Mutwal two cases of diarrhœa occurred, but not in

such numbers as to deserve any comment. There were in all nine cases of acute diarrhœa with three deaths. Generally speaking, dysentery and diarrhœa showed a marked decrease this year, though Welikada and Hulftsdorp were both overcrowded during the latter half of the year. One sporadic case of Asiatic cholera, which recovered eventually, was reported from Mahara jail in October last, when a few cases occurred in the Ragama Camp.

Eye Diseases.—The number of eye cases treated during the year was 235, as against 214 in 1905. From May to August the admissions were few, but increased in number during the latter half of the year. Welikada jail alone contributed 135 cases. The severer forms were sent from Mutwal. Some of the mild cases were self-inflicted for gaining admission to hospital.

Lung Diseases.—27 cases of pneumonia and 255 cases of bronchitis were treated during the year, with 10 deaths from the former. The death-rate from pneumonia was rather high, as the type of cases from Mutwal was virulent, death occurring in a few days. In my opinion the virulence of the disease is explained by the fact that most of the fatal cases were debilitated subjects suffering from chronic malarial poisoning. There were also two deaths from phthisis pulmonalis. Lung diseases were more prevalent at Mutwal and Welikada during the last three months of the year.

Mumps.—This disease prevailed throughout the year, most of the cases being from Mutwal and Welikada. The number of cases treated during the year was 116, as against 155 in 1905.

Chickenpox.—Four cases remained at the end of last year, and 11 more cases were admitted in the early part of this year. The disease was finally stamped out in March, and no fresh cases have occurred since.

Measles.—Three cases remained at the end of last year, and 8 cases were admitted in the early part of this year. The disease was finally stamped out in April.

Enteric Fever.—16 cases of enteric fever were treated at the Borella Convict Hospital with 5 deaths, as against 3 cases and 1 death in 1905. The first case for the year occurred in the Borella Convict Hospital in March, the patient being a long resident of the hospital and attached to the sweeping party inside the jail premises. The disease then broke out at Mutwal in the month of June among the earth cutting party at the quarry. These cases were of a virulent type, and the source of infection was traced to the disturbance of the soil of cesspits, closed several years ago, during the process of earth cutting. Directly this was stopped the disease also ceased to prevail.

Accommodation.—There was ample accommodation at the Convict Hospital. As a comparatively small number of sick gained admittance, one of the wards was kept closed throughout the year. The accommodation at Welikada and Hulftsdorp became inadequate owing to a larger number of admissions than last year. Mahara and Mutwal jails were never overcrowded.

Hospital.—The Borella Convict Hospital, including the Infectious Diseases Hospital, consists of 9 wards and 2 cells, containing 209 beds in all. The cadjan wards, though well ventilated, are dusty, as their floors are made of mud and cowdung, except that of the surgical ward, which is cemented. The fever ward, also known as the B ward, is a large permanent ward with ample accommodation, but it is yet ill-ventilated and ill-lighted, though some improvements effected lately have generally improved the situation. The hospital accommodations at Mutwal and Mahara were quite satisfactory.

Drainage.—This continues to be good in all the jails. Two improvements are urgently required in the Borella Convict Hospital: (1) A closet to the S ward to keep the chamber pots, which are at present left in the yard; (2) better latrine seats for night latrines.

Nursing.—There are day and night male nurses in the Borella Convict Hospital and night nurses in Mutwal and Mahara jails. I cannot say the work done by them has been satisfactory.

Water Supply.—All the Colombo jails are supplied with water from Labugama, and the supply was good throughout the year. In Mahara the water is obtained from a well.

Latrines and disposal of Night Soil.—The latrines in all the jails are supplied with Doulton's squatting plates. The night soil of Welikada, Borella Convict Hospital, and Mahara are disposed of by incineration, and the urine is emptied into septic tanks outside the jail premises. The excreta from Mutwal and Hulftsdorp are removed by Municipal carts.

Diets.—Raw provisions are drawn daily from a contractor and cooked by the prisoners. Raw provisions as well as cooked food were daily inspected, and always found good and wholesome.

Labour.—Hard labour consists of (1) husk beating, pingo carrying, and treadmill for penal stage men at Welikada; (2) stone-cutting and quarrying for well-built prisoners who have passed the penal stage at Mahara and Mutwal; (3) masonry, carpentry, and other trade occupations for class prisoners. Light labour consists of coir twisting and picking for weak and debilitated prisoners. Convalescents from hospital are sent to Negombo jail for a change and easy labour. I have not so far noticed any injurious effects from the different kinds of labour in the jails.

The strength of all the jails for the year was 1,785·01, and the daily average of sick was 82·24. I attribute the low sick rate to the strict measures dealt to malingerers and to the improved sanitation and general cleanliness, especially as regards the quality of the food and the means adopted to prevent its infection by flies.

I append the usual tables which furnish full information regarding the sick and death-rates, the chief diseases treated, and the number of cases of bowel complaints from the different jails :—

Return of Malarial Prophylaxis.

Mutwal Jail.

	1906. January 1 to March 20 and June 17 to July 3.	1905. January 1 to March 20 and June 17 to July 3.
Number treated with quinine ..	6,337	Nil
Number of cases of malarial fever ..	373	348

Statement of Malarial Fever treated at Mahara Jail Hospital during 1906.

	No. treated.
May	55*
June	66*
July	108*
August	44*
September	19
October	22
November	31
December	20

* Fever season.

A.—Table showing the Strength, Rate of Sickness, and Mortality for the Years 1904, 1905, and 1906.

	1904.	1905.	1906.
Average daily strength	1,630·51	1,629·30	1,785·01
Average daily sick	97·73	104·75	82·24
Percentage of sick to strength	5·99	6·42	4·61
Percentage of deaths to strength	2·33	3·62	3·64
Percentage of deaths to total treated	1·22	1·95	2·46

B.—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.		
	1904.	1905.	1906.	1904.	1905.	1906.
Borella Convict and Infectious Diseases	9·66	11·24	9·75	70·82	88·28	67·80
Mahara	5·23	5·39	6·87	25·60	15·46	13·59
Female. Welikada	4·79	4·02	3·09	1·31	1·01	·85

C.—Table showing Chief Diseases with Mortality.

Diseases.	Admissions.			Deaths.		
	1904.	1905.	1906.	1904.	1905.	1906.
Fevers	1,198	658	851	7	3	14
Diarrhœa	558	563	177	5	5	13
Dysentery	323	457	172	17	26	14
Diseases of the eye	168	280	245	—	—	—
Pneumonia	32	37	33	7	17	12
Injuries	99	85	55	—	—	—
Other diseases	1,113	850	1,005	8	13	15
Total	3,491	2,930	2,538	44	64	68

D.—Table showing the Admissions for Dysentery and Diarrhœa from different Jails.

Diseases.	Welikada.			Mutwal.			Mahara.			Hulftsdorp.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Dysentery	150	156	42	62	56	9	22	46	18	27	21	6
Diarrhœa	176	195	99	93	175	28	42	31	4	22	8	8
Total	326	351	141	155	231	37	64	77	22	49	29	14

E.—Table showing the Summary of Deaths.

Died within the Convict Hospital, Borella	57
Died at Mahara Jail Hospital	8
	65
Died at Mutwal Jail	1
Died at Welikada Jail	2
	68

REPORT of C. Heynsberg, L.R.C.P. & S. (Edin.), Superintendent, Leper Asylum, Hendala.

I.—*Statistics.*

THE general statistics for the year are as follows :—

	Males.	Females.	Total.
Remained on 1st January, 1906 ..	245	72	317
Admitted during the year ..	152	22	174
Total treated ..	397	94	491
Discharged	101	6	107
Died	51	16	67
Remained on 31st December, 1906 ..	245	72	317

The total number admitted was 174, 9 in excess of the previous year. The largest number resident was 334, the lowest 314, and the daily average males 252·68, females 75·05, total 327·73. The average amount of cubic space was 974·69 cubic feet ; the superficial area 63·26 square feet. The number of beds available for males 278, females 54, total 332. The female wards continued to be overcrowded, but not inconveniently so. The male wards had sufficient accommodation for admission without overcrowding. Ward No. 1 of 48 beds will be occupied by the female patients as soon as the new ward of 50 beds, which is nearing completion, is taken over.

The Mohammedan inmates of the Asylum have been allowed by Government a separate ward for themselves and to cook their own food. They are in occupation of temporary ward No. 13.

Admissions.—The number admitted was 174 (152 males and 22 females), being 9 in excess of the previous year ; 90 were new admissions and 84 re-admissions. Of the former, 25 were tubercular, 34 of anæsthetic, and 31 of the mixed form of leprosy. The Western Province, including Colombo and Colombo District, contributed the largest number of admissions, viz., 49, Southern Province 10, Central Province 9, Province of Uva 6, North-Western Province 2, Province of Sabaragamuwa 2, and South India 12. Of the admissions, the number of new cases was one less than the previous year, the duration of disease previous to admission being from two months to twenty years.

Discharges.—One hundred and seven were discharged, 16 of whom were allowed home isolation, 2 were discharged under special circumstances by the authority of the Principal Civil Medical Officer, 9 Malabar immigrants, who were desirous of returning to India, were discharged and sent to their homes at the expense of Government, 15 were given temporary leave sanctioned by Government, and 65 absconded, of whom 10 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 punishment for absconders is the stoppage of their betel allowance and imprisonment in the cells.

Deaths.—There were 67 deaths during the year, the percentage to total treated being 13·64, a decrease on the death-rate of 1·37, the mortality being chiefly due to causes already referred to in previous annual reports, viz., exhaustion. Some of the inmates, who had been many years in the Asylum, succumbed during the year in the advanced stage of the disease.

2.—*Administration.*

The Medical Superintendent of the Asylum, Dr. Meier, retired at the end of the year, and was succeeded by myself. There were no other changes in the administration of the Asylum. The staff remained the same as in the previous year, and gave every satisfaction in the discharge of their duties.

3.—*Buildings.*

Four cells (three for males and one for females) for the confinement of absconders and refractory inmates were built. A new ward of 50 beds is in course of construction.

4.—*Water Supply, &c.*

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

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, 1906.. ..	—	2,544 92
Receipts from garden during the year ..	1,302 57	
Government allowance	897 13	
		2,199 70
		4,744 62
Expenditure on betel, &c.	—	1,819 72
		2,924 90
Deposited in Bank of Madras ..	—	2,488 45
Balance in hand ..		436 45

The editors of the various newspapers in Colombo have kindly continued to forward copies of their respective issues of their papers free of charge, and on behalf of the inmates of the Asylum, to whom these papers prove a blessing, I desire to thank the kind donors ; also to the general public for their benefactions during the year.

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

THE total number of patients treated during the year was 1,153, showing an increase of 123. The average daily sick was 33·67, as against 32·22 for 1905. Of this number, 348 were children up to 12 years of age. The number of paying patients was slightly increased, being 22. Of these, 9 were Europeans, 5 Burghers, 7 Sinhalese, and 1 Tamil.

There were 162 cases of diseases peculiar to women.

There were 57 cases of dysentery with 9 deaths, as compared with 60 cases with 5 deaths in 1905. There was a very virulent type of dysentery prevalent in May, which caused a good many deaths.

There were 126 cases of enteric fever with 14 deaths, as compared with 38 cases with 9 deaths in 1905. The death-rate of enteric fever shows the following :—1906, 11·11 ; 1905, 23·68 ; and 1904, 31·37. The number of cases of enteric fever treated had been increasing steadily since the beginning of the year. In November there were 17 cases on one day, being half the total number in hospital. It was then considered advisable by the Principal Civil Medical Officer that these cases should be isolated, and they were removed to the Branch Hospital on November 17, 1906, and treated there till they were removed to the Infectious Diseases Hospital in December. The majority of cases came from outside the gravets of Colombo, Narahenpita, Nugegoda, Kolonnawa, and Wellawatta. The total death-rate was 7·02 ; it was 6·99 in 1905.

There were 86 operations performed, with 4 deaths. Of these deaths, one was a case of hysterectomy for cancer of the uterus, the patient dying of heart failure ; one was a case of exploring laparotomy for peritonitis ; two were cases of retained placenta with puerperal septicæmia.

There were 16 laparotomies performed during the year. These included one for ectopic gestation, three hysterectomies for fibroma uteri, and 7 ovariotomies. All these made good recoveries.

Some attempts have been made to reduce the number of mosquitoes about the place by cutting down the creepers along the corridors and filling up the hollows in the grounds where water used to collect and form an excellent breeding place for them.

Nursing Staff and Training School.—This year, 1906, the staff of pupil nurses has been increased from six to eight. There has, however, seldom been a complete staff for various reasons : illness, resignations, or removal of nurses to other hospitals.

Three nurses have presented themselves for examination during the year : one in January, 1906, and two in September, 1906. All three gained certificates.

Eight candidates have been accepted this year. Four have been appointed, one has been transferred to another hospital, and two have resigned. One other pupil nurse resigned at the end of her first year.

Of the three nurses who have gained certificates, one has been appointed charge nurse and two have been appointed to other hospitals.

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

THE total number of patients treated during the year was 933, as against 877 in 1905. Of the total number treated, 873 were discharged cured, 4 were removed by relatives before recovery, 16 transferred to the General Hospital for treatment of intercurrent diseases, 20 died, and 20 were remaining at the end of the year. The percentage of deaths to total treated was 2·14, as against 1·48 in 1905. Of the 20 deaths recorded, 8 were due to accidents of childbirth, 1 to puerperal causes, 11 to non-puerperal causes (*vide* table below) :—

Table I.

Accidents of childbirth	..	Exhaustion following obstructed labour	2
		Puerperal eclampsia ..	3
		Placenta prævia ..	2
		Rupture of uterus ..	1
		Morbid adhesion of placenta ..	1
Puerperal causes	..	Puerperal sepsis ..	1
Non-puerperal causes	..	Cerebral hemorrhage ..	2
		Dochmius duodenale ..	5
		Heart disease ..	1
		Pneumonia ..	1
		Chronic enteritis ..	1
		Total ..	20

The above table shows that non-puerperal causes largely contributed to the mortality. The comparative large percentage of deaths is due to the fact that patients are not infrequently transferred from the General Hospital in a moribund state, because they happen to be pregnant or in labour pains. A separate ward for treatment of such cases is a long-felt want. It is highly unsatisfactory to treat such cases, especially those that are suffering from diarrhœa and dysentery, side by side with normal puerperal cases. Until provision is made for accommodating this class of patient, I would venture to suggest that the General Hospital authorities should treat them in the isolation ward attached to the female medical ward. Deducting the deaths from non-puerperal causes, the deaths from accidents of childbirth and puerperal causes is reduced to 8, so that the actual percentage of deaths to total treated is 0·85, as against 0·91 in 1905 due to same causes. Notwithstanding the admission of a large number of cases in a moribund state, the mortality of this institution compares favourably with that of the Indian and some of the European maternity hospitals. Most of the cases that proved fatal were admitted in a moribund state.

Ten cases of eclampsia were admitted during the year, of which 3 proved fatal. In 4 cases, as the cervix was rigid, delivery was expedited by Cæsarian section. Of these 4 cases so treated one proved fatal, death having been due to hemorrhage into the brain and not to the operation. In cases in which morphine fails to prevent the recurrence of convulsions, rapid delivery is always indicated. During the

year under review 5 such cases came under my observation. In one case delivery was effected by "accouchement force," the cervix having been rapidly dilated digitally (Harris' method) and partly instrumentally (with Bossi's dilator). Although convulsions ceased, the patient died shortly after operation from shock. In these cases, if aseptic technique can be ensured, Cæsarian section is by far the best method of expediting delivery. Five cases of placenta prævia were admitted during the year, of which two proved fatal. After several years' good record, two deaths following in close succession is a circumstance very much to be regretted.

Of 917 admissions, 800 were admitted before delivery, 27 after delivery, and 90 before commencement of labour.

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

Table II.—Classification of Obstetric Cases.

Class.	Division.	Subdivision.	Number admitted.	
I.—Natural ..	Purely natural ..	Occipito anterior	669	
		Occipito posterior (7) ..	—	
			—	669
II.—Difficult ..	Tedious ..	Natural powers over twenty-four hours (face)	5	
	Laborious ..	Forceps (face)	1	
		Forceps (head)	44	
		Forceps (brow)	1	
		Version, podalic	12	
		Cæsarian section (puerperal eclampsia 4)	—	
		Cæsarian section flat pelvis ..	1	
			—	64
III.—Preternatural	Inverted ..	Breech	18	
		Foot	4	
		Craneotomy for after-coming head	1	
			—	23
	Transverse ..	Arm (version)	2	
		Shoulder (version)	2	
		Hand and cord	1	
			—	5
	Compound ..	Head, hand, and foot ..	2	
		Breech and hand	1	
			—	3
	Plural births ..	Twins	14	
		Triplets	1	
			—	15
IV.—Complex ..	Hemorrhages ..	Concealed accidental hemorrhage (version)	1	
		Placenta prævia (5) ..	—	
			—	1
	Retained placenta	Simple retention (2) ..	—	
		Morbid adhesion (7) ..	—	
	Puerperal convulsions ..	Eclampsia	10	
	Descent of funis ..	With head	1	
			—	11
V.—Abortion ..	Disease of chorion ..	Hydatiform mole ..	2	
	Disease of decidua ..	Fleshy mole ..	1	
	Macerated fœtus ..	— ..	8	
			—	11
VI.—Not classified ..	Delivery before arrival ..	— ..	—	27
	Not classified ..	— ..	—	104
		Total ..		933

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

	Diseases.	Number Admitted.	
General diseases ..	Anchylostomiasis	11	
	Dysentery	12	
	Syphilis, secondary	1	
	Fever, malarial	5	
	Fever, enteric	1	
	Prolapse of uterus	2	
	Eclampsia	10	
	Asthma	2	
	Anæmia	2	
	Pneumonia	3	
	Ascites	1	
	Liver abscess	1	
	Cerebral hemorrhage	1	
	Appendicitis	1	
		—	53
Circulatory system .	Morbus cordis	—	1
Digestive system ..	Diarrhœa	—	11
	Total ..		65

Table IV.—Mortality Table.

Mothers	Recovered		913
	Died		20
Children	Born alive		736
	Born dead		87

Table V.—Obstetric Operations.

				Number Admitted.	
Forceps	Difficult	After-coming head	3		
		Brow	1		
		Head	42		
		Face	1		
				—	47
	Preternatural, compound	Head, hand, and foot	1		
		Breech and hand	1		
				—	2
Version, podalic	Complex	Placenta prævia	4		
		Transverse	5		
		Plural birth (twins)	2		
		Concealed accidental hemorrhage	1		
				—	12
Breech extractions	Difficult	Breech		—	2
Craneotomy	Difficult	After-coming head		—	1
Ovariotomy	Difficult	Ovarian tumour		—	1
Evacuation of uterus	Complex	Hydatiform mole	2		
		Morbid adhesion of placenta	7		
		Simple retention of placenta	2		
				—	11
Acceleration of labour by water bag	Complex	Placenta prævia		—	5
Artificial dilation of cervix	Difficult	Rigid cervix		—	1
Replacement of uterus	Complex	Inversion of uterus		—	1
Laparotomy	Preternatural	—		—	2
Cæsarian section	Difficult	Flat pelvis	1		
		Puerperal eclampsia	4		
				—	5
Curetting	Incomplete abortion	Menorrhagia	3		
		Removal of placenta	9		
				—	12
Trachlorrhaphy	Difficult	Rupture of cervix		—	3
Perineorrhaphy	Difficult	Rupture of perineum		—	15
Myomatomy	Complex	Uterine fibroid		—	2
			Total		122

Table VI.—Presentation and Position classified.

Presentation.	Position.	Variety.		
Vertex	Left (first)	Occipito anterior	493	
		do. posterior	6	
	Right (second)	do. anterior	276	
		do. posterior	4	
			—	779
Brow	Left (first)	do. anterior	—	
		do. posterior	1	
	Right (second)	do. anterior	—	
		do. posterior	—	
			—	1
Breech	Left (first)	Sacro anterior	13	
		do. posterior	—	
	Right (second)	do. anterior	10	
		do. posterior	—	
			—	23
Footlings	Left (first)	do. anterior	4	
		do. posterior	—	
	Right (second)	do. anterior	3	
		do. posterior	—	
			—	7
Face	Left (first)	Mento anterior	—	
		do. posterior	5	
	Right (second)	do. anterior	—	
		do. posterior	—	
			—	5
Transverse	Left (first)	Dorso anterior	4	
		do. posterior	3	
	Right (second)	do. anterior	—	
		do. posterior	—	
			—	7
Not classified	Delivered before arrival		—	27
	Not classified		—	104
		Total		953

Of the 122 operations performed during the year, the 5 cases of Cæsarian section require special mention. In 4 cases the operation was performed for eclampsia and 1 for contracted pelvis. The one case that proved fatal was not due to the operation, but to hemorrhage into the brain.

The popularity of the institution, I am happy to observe, is steadily increasing, especially among the Mohammedans, who in several instances seek admission, not as a last resource from sheer necessity to escape death, but from choice. The number of cases from this class of patients admitted during the year was 25, as against 24 in 1905. The paying section is also getting more popular than before. The number of admissions during the year was 22, as against 11 in 1905.

The Lying-in Home as a training institution of nurses 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. During the year 16 midwives were trained and sent out. It is a matter for congratulation that my attempt to obtain pupils from the Central and Eastern Provinces, although it repeatedly failed during previous years, has at last been crowned with success. During the year 2 from the Central and 1 from the Eastern Provinces were admitted. My application to increase this class of pupils to 8 having received a sympathetic response from the authorities, the gradual introduction of European midwifery to remote villages is now assured. The present supply is not equal to the demand of the whole Colony. The number trained and sent out being limited to 8, consequently the introduction of European midwifery practice into different parts of the Island will necessarily have to extend over several years. To ensure success it is necessary to enlist the sympathy and co-operation of the Government Agents and headmen of the various Provinces. The institution also trains two other classes of midwives, viz., paying and free pupils, who are only accessible to the well-to-do class of patients.

Table VII.

Class.	Received in 1905.	Admitted during 1906.	Passed in 1906.	Out of those passed. Sinhalese.	Tamils.	Burghers.	Europeans.
Paying pupils	1	4	3	1	—	1	1
Free pupils	1	3	2	2	—	—	—
Stipend pupils	6	15	11	11	—	—	—
Total	8	22	16	14	—	1	1

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, and the antiquated rattanned wooden cots in the wards should be replaced by aseptic cots.

Staff.—Although a permanent midwife has been allowed, yet the institution is under-staffed. It is impossible for one matron with only a midwife and untrained pupils to cope with the daily increasing work satisfactorily. The rapid increase in the paying section tax the resources of the staff when called upon to do work both night and day. An assistant matron and three permanent midwives are required for the better management of the institution.

Accommodation.—It is very much to be regretted that no provision has yet been made for quarters for the matron and for an aseptic ward. Early in 1905 this urgent work was within measurable distance of realization, but unfortunately the matter has not progressed any further. In an institution like this overcrowding is wholly inadmissible, and yet this has been the rule, and what is worse, that septic cases and those suffering from diarrhœa and dysentery had to be accommodated along with the normal cases in the same ward. In my report for 1905 I pointed out the urgent necessity for a new operating room and three or more delivery wards. This question, I have much pleasure in stating, has been solved by the munificence of a philanthropic lady, the widow of the late Mr. H. Fernando, who has offered to build an operating room with the latest improvements at a cost of nearly Rs. 7,000. She has also kindly promised to meet the cost of electric fittings of the operating room. When the plans and specifications are ready the building will be taken in hand at once, and when completed it will supply a long-felt want. The old operating room will then be converted into labour wards.

Instruments.—To carry on an aseptic technique to perfection various aseptic appliances are required. The old wooden-handled instruments should be superseded by metal-handled ones. I therefore venture to hope the necessary instruments and appliances will be allowed gradually.

REPORT of Aldo Castellani, M.D., (Florence), Director, De Soysa Bacteriological Institute.

I WAS on sick leave from the 5th August till the 11th September, having accidentally infected myself with rabid material, which rendered necessary my having to go to Kasauli to undergo the treatment at the Pasteur Institute there. During my absence Dr. Paul acted for me. The Assistant, Mr. A. de Silva, has discharged his duties very satisfactorily; the laboratory attendants, Albert Gurusinghe and D. Nines de Silva, have done their work well.

Bacteriological Examinations carried out during the Year.—The total number of specimens submitted for examination during the year was 1,720.

The following is a list of specimens examined :—

Blood for Widal's reaction	1,216
Do. malarial parasites	102
Do. plague bacillus..	1
Bacteriological examination of water	4
Do. deposit	1
Do. soil	1
Evacuations, &c., for cholera vibrio	64
Examination of dogs for rabies	3
Urine for pathogenic organisms	2
Do. tubercle bacillus	2
Secretion for lepra bacillus	3
Do. diphtheria bacillus	7
Do. gonococci	3
Sputum for tubercle bacillus	282
Do. plague bacillus	3
Urethral and vaginal discharge, &c., for gonococci	16

The total income of the Institute from fees recovered from medical practitioners, &c., amounted to Rs. 587. Rs. 545·50 was deposited in the Bank of Madras on Government account ; the arrears amount to Rs. 41 ·50.

Research Work.—According to instructions I do not here enter into the particulars of the various scientific investigations undertaken. I limit myself to give some of the principal results arrived at. The investigations have been carried out partly in the Institute and partly in the Clinic for Tropical Diseases.

Parangi (*Yaws, Frambœsia Tropica, Puru, Coco, &c.*).—The following are the conclusions to which I have arrived after a two years' investigation of the malady :—

1. The disease is due to the spirochæte, which I found in February, 1905, and described in June of the same year under the name of *Spirochæte pertenuis.*

2. The *Spirochæte pertenuis* is constantly present in the non-ulcerated papules ; it is present only in 30 to 40 per cent. of the ulcerated lesions ; it may be met with in the lymphatic glands and occasionally in the splenic blood of yaws patients, which proves that parangi is a general infection and not a disease localized to the skin only.

3. Parangi can be successfully inoculated in monkeys, the inoculation period varying from 19 to 93 days. With the monkey I have experimented with in Ceylon the eruption is generally localized to the point of inoculation, though the infection is general.

4. In the frambœtic elements, which appear in inoculated monkeys, the *Spirochæte pertenuis* is present.

5. Monkeys successfully inoculated with parangi do not become immune for syphilis.

6. Monkeys successfully inoculated with syphilis do not become immune for parangi.

7. By means of the Bordet-Gengou reaction it is possible to detect the presence of specific yaws antibodies.

8. Yaws antibodies are different from syphilis antibodies. Syphilis and yaws therefore cannot be the same entity.

9. The experiments made in the Clinic for Tropical Diseases permit me to confirm that the best treatment of parangi is the administration of potassium iodide in large doses.

Dysentery.—The experience of this year has confirmed that in Ceylon amœbic dysentery is endemic, as well as bacterial dysentery. Of the latter there are several types. The commonest is that due to the Kruse-Shiga bacillus. A very mild form of the malady I described in 1905 under the name of paradysentery. I am more and more convinced of the necessity—also from a practical point of view—of examining microscopically, and possibly bacteriologically, the stools in every case. Treatment cannot be the same for all forms ; it is worse than useless to inoculate a patient suffering from amœbic dysentery with an anti-serum, or a patient suffering from paradysentery with a serum which influences only the Kruse-Shiga bacillus.

As regards the dissemination of the disease, I have been able to prove experimentally that flies play a certain *rôle* in it, as is proved by the following experiments :—

1. If flies fed on dysenteric stools are placed in petri dishes containing Maconchie media, numerous colonies of the Kruse-Shiga bacillus develope.

2. The intestinal contents of flies fed on dysenteric stools contained the Kruse-Shiga bacillus.

3. A certain percentage of the flies caught in dysentery wards present in their intestine the Kruse-Shiga bacillus.

Paratyphoid cases of mixed infection : Paratyphoid and Malaria, Paratyphoid and Typhoid, &c.

The following are the conclusions of the investigations on this subject :—

1. Ceylon must be included among the countries where paratyphoid is endemic. Both types of the disease, paratyphoid A (Brian and Kaiser) and paratyphoid B, (Shotmüller), are met with.

2. The disease is clinically undistinguishable from typhoid, though generally it runs a milder course.

3. In a case of paratyphoid A, which ended fatally, intestinal ulcers were found identical with typhoid ulcerations.

4. Cases of mixed infection : paratyphoid and maralia ; paratyphoid and staphylococcemia ; paratyphoid and diplococcemia ; paratyphoid and typhoid, are met with in natives as well as Europeans.

Diphtheria.—I have had the opportunity of seeing several cases of the disease. The experiments of this year also confirm the opinion of Sir Allan Perry, Dr. Fernando, and myself that the disease is endemic in Ceylon.

Latent Microbism.—The fact is well known that persons may harbour pathogenic germs while being apparently in perfect health. In Colombo, examining fæces of healthy persons, I have found four times the Kruse-Shiga bacillus in people who had never suffered from dysentery; five times the bacillus paratyphosus B and once the bacillus typhosus in persons who had never had paratyphoid or typhoid; twice the cholera vibrio in persons who had never been affected with the disease. On another occasion I found the cholera vibrio in a case of simple diarrhœa.

The presence in a community of people harbouring pathogenic germs has great importance in the dissemination of epidemic diseases.

Hydrophobia.—Several carcases of dogs have been sent to the Institute from the police station for rabies investigation. The investigation has been made according to the subdural inoculation method in rabbits. In one case I searched for the Negri bodies with positive result.

Malaria.—The investigation of this year has shown that the commonest types in Ceylon are the benign tertian and the sub-tertian.

Diarrhœa from Flagellates.—During the year I have had opportunity to observe a case of this disease. The protozoa present—all in great numbers—were the following: trychomonas intestinalis, cercomonas hominis; entamœba undulanus. Irrigations of a 1 in 2,000 solution of methylen blue as suggested by me at the meeting of the British Medical Association in 1905 gave very good results.

Opsonic Treatment.—I have used the opsonic treatment—following the methods of Wright and Douglas—in various bacterial diseases (furnuculosis, pseudo-granuloma pyogenicum, &c.), with satisfactory results.

Report of H. Bawa, F.R.C.S. (Edin.), Port Surgeon, Colombo.

The duties of Port Surgeon, Colombo, during the year were carried out by myself, assisted by Assistant Port Surgeon H. P. Joseph, L.M.S., Assistant Port Surgeon Fitzroy Keyt, L.R.C.P. &. S., (Edin.), Assistant Port Surgeon for Immigration H. Christoffelsz, L.R.C.P. & S. (Edin).

2. The disinfecting station at Kochchikade was under the care of Apothecary Mr. E. W. de Silva.

3. The following Ports were regarded as infected during the year :—

Hiogo	Bhavnagar	Hong Kong
Kobe	Bombay	Calcutta
Osaka	Karachi	Mangalore
Tellichery	Rangoon	Bangkok
Alexandria	Freemantle	Manila
Suez	Brisbane	Madras
Tong Kali	Porbandu	Sydney
Mauritius	Verawal	

4. The total number of vessels calling at this port during the year was—

(1) British and foreign steamers	2,857
(2) Indian and native sailing craft	484

Of these, 2,418 were granted free pratique and 923 (having arrived from infected ports) were permitted to work as "healthy in quarantine."

The number of vessels kept in strict quarantine during the year was—

For plague or suspected plague	9
For smallpox or suspected smallpox	22
For cholera or suspected cholera	3

5. The widespread prevalence of smallpox in India, both in the cooly districts in the south and in the large ports, such as Calcutta, Bombay, and Rangoon, where during the earlier months infectious diseases were largely epidemic, caused considerable anxiety. All cases or suspected cases of the disease were removed from the vessel under supervision, landed at the root of the Breakwater, and taken to the Infectious Diseases Hospital at Kanatta for observation or treatment. Even among European passengers cases of smallpox occurred, and of these two proved fatal. In all cases of infected vessels the infected parts of the ship were disinfected thoroughly and the crew and passengers given the option of vaccination or re-vaccination, after which the vessel was allowed to work cargo, &c., precautions being taken to prevent shore coolies coming in contact with possibly infected members of the crew.

6. Three vessels were kept in strict quarantine for cholera during the year. Throughout the latter months of the year there was a widespread epidemic of cholera in the South Indian cooly districts, and large numbers of coolies were in consequence sent to Ragama for quarantine detention before being allowed to go on to their destinations. An outbreak of this disease at Tuticorin necessitated that port being closed to ordinary native passenger traffic during the months of July, August, and September.

7. Two plague-infected vessels arrived from Bombay during the year. The P. &. O. ss. "Dongola" which arrived from Bombay on the 21st April, having buried at sea on the day previous a case of bubonic plague of three days' duration diagnosed by the ship's surgeon. The vessel was in strict quarantine while at this port, but under the existing plague regulations was required to put into Galle to land passengers and cargo. Owing, however, to objections based on the size of the vessel the Commander declined to go to Galle, but elected to continue his voyage rather than risk the possible dangers of that harbour to a vessel of such tonnage. On the 15th June another large P. &. O. vessel,

the "Devanha," arrived from Bombay with a case of suspicious fever of short duration on board. The vessel was placed in strict quarantine, pending further observation of the case. The following day glandular and other characteristic symptoms supervened, revealing the case to be one of bubonic plague. The patient succumbed to the disease the following morning. In this case contacts (passengers for Ceylon) were taken to Galle after disinfection and detained at Bathfield House in quarantine for ten days after leaving the infected vessel.

8. All cases of acute pneumonia occurring on vessels from plague-infected ports were looked upon with suspicion and the vessel kept in strict quarantine under observation, pending definite diagnosis of the case negativing plague pneumonia. In such cases a bacteriological examination, when ordered by the Principal Civil Medical Officer, was carried out by the Director of the Bacteriological Institute.

9. Disinfection was carried out during the year at the Kochchikada disinfecting station, the new station at the root of the Breakwater not being provided with an adequate water supply. When this deficiency was to have been rectified, it was intimated by the Harbour Works authorities that the site on which the disinfecting station stands would be required for the "Titan" in connection with the new arm of the Breakwater now in contemplation. A proposal is before Government to utilize the site of the present cooly depôt for the disinfecting station, and remove the cooly depôt to a site to the south of the Battenberg batteries. The new cooly depôt will be to all intents and purposes a railway station, and the coolies will be removed at once direct to Ragama as soon as entrained, instead of as at present being fed at the breakwater depôt on landing.

10. The number of persons disinfected during the year were—

(1) Passengers	27,548
(2) Cargo coolies	42,828
(3) Coal coolies	45,955
(4) Tally clerks, &c.	7,359

11. The immigration depôt at the root of the Breakwater has worked satisfactorily, the total number of immigrant labourers being 88,930.

The total number of miscellaneous native passengers other than estate labourers arriving from Southern Indian ports during the year was 71,107. All such persons not having vaccination marks, or only unsatisfactory marks, are vaccinated or re-vaccinated at the root of the Breakwater before being permitted to enter the town. During the year 17,766 persons were so vaccinated.

12. *Revenue.*—Bills of Health: the sum realized by the sale of bills of health for the year was Rs. 14,626·50, 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, 1905			16
Issued during 1906			1,458
			1,474
Deduct—			
Free bills	74		
Outstanding at end of December, 1906 ..	7		
			81
Total ..			1,393

At Rs. 10·50 each = Rs. 14,626·50.

Cattle Disease Certificates.—Four cattle disease certificates were issued during the year, and the sum of Rs. 42, which was realized was credited to Government.

The amount realized from the disinfection of soiled linen during 1906 was Rs. 1,872·01, which was duly credited to revenue.

REPORT of E. R. Loos, L.M.S., Medical Officer in charge of Infectious Diseases Hospital, Kanatta.

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

	Treated.	Died.
Smallpox	77	19
Chickenpox	312	1
Measles	175	2
Whooping cough	5	—
Mumps	13	—
Diphtheria	1	—
Enteric fever	18	1
Cholera	2	2
Acute diarrhœa	1	—
Conjunctivitis	2	—
Under observation for smallpox	28	—
From plague-infected ports with fever	8	—
Total ..	642	25

Smallpox.—There were 77 cases of smallpox treated during the year. Twenty-seven of these were from ships, and were infected at Calcutta, Cawnpore, and Rangoon, the largest number being infected at Calcutta. On the 1st March there was an outbreak of smallpox at Greenpath, Kollupitiya, which spread to Slave Island and other parts of the town, the total number admitted into hospital being 33. This outbreak was traced to a child who had died of smallpox, and was a recent arrival from Southern India. At the end of April a small outbreak occurred at Karagampitiya, a village about 8 miles from Colombo. There were about 8 cases. The infection in this instance could not be traced. There were a few other cases in Colombo, and they were recent arrivals from India.

Chickenpox was prevalent throughout the year, and cases were admitted from all parts of the town. There was one death in a debilitated subject.

Measles was prevalent throughout the year, and there were two deaths due to broncho-pneumonia.

Whooping Cough.—A few cases were treated during the year.

Mumps prevailed to a less extent than in former years.

Diphtheria.—One case of diphtheria was admitted into hospital on the 7th May, a boy 10 years old brought from Forbes road, Maradana. This case was bacteriologically examined, and found to be a true case of diphtheria. The boy recovered under the anti-diphtheritic-serum treatment.

Enteric Fever.—In the month of December enteric cases were first admitted into this hospital for treatment, the cases being limited to females and children. Eighteen cases were treated, with one death.

Cholera.—Two cases were admitted into hospital during the year, the first on the 14th July. This patient was a fireman of the ss. "Purnea," and he was evidently infected at Tuticorin. The second case was a Moor, admitted on 10th October. He was a recent arrival from India. Both cases proved fatal.

Under observation for Smallpox.—Twenty-eight persons, who were smallpox contacts, were admitted into hospital and kept under observation, but none of them developed the disease.

From Plague-infected Ports with Fever.—Eight cases with fever were admitted from plague-infected ports. None developed plague.

Table I.—Estates Medical Aid Receipts and Expenditure in the Civil and District Hospitals during 1906.

RECEIPTS.	Amount. Rs. c.	Total. Rs. c.
District Hospitals.		
1. Diets: paid by estates at 30 cents a day ...	62,366 90	
2. Diets: paid by Government for "others" at 50 cents a day	47,745 0	
3. Funeral expenses of "others"	835 61	
4. (*a*) Medicines sold and prescriptions compounded at dispensaries ...	21,281 56	
(*b*) Collections at dispensaries ...	2,324 41	
(*c*) Medicines used by "others" in hospitals	22,399 62	
(*d*) Medicines used by "others" in dispensaries ...	23,901 14	
5. Paid by estates for visits ...	24,295 0	
6. Sale of drugs, unserviceable articles, &c., from Civil Medical Stores ...	2,577 11	
7. Recoveries made for maintenance of "others" ...	2,390 25	
		210,116 60
Civil Hospitals.		
1. Paid by estates for labourers at 30 cents a day ...	26,470 20	
2. Paid by estates for visits ...	2,825 0	
		29,295 20
Grand Total ...	—	239,411 80
Export Duty ...	—	158,389 3
Deficit ...	—	233,406 74
Total—Rs.		631,207 57

EXPENDITURE.	Amount. Rs. c.	Total. Rs. c.
District Hospitals.		
1. Diets: for estate labourers and "others" ...	151,564 23	
2. Medicines supplied from Civil Medical Stores ...	52,304 46	
3. Funeral expenses of estate labourers and "others" ...	3,247 2	
4. Salaries of District Medical Officers and allowances and salaries of Nurses and Apothecaries	160,115 68	
5. Departmental expenditure ...	4,967 9	
6. Maintenance and repairs to buildings	68,610 57	
7. Rent of outdoor dispensaries	9,458 0	
8. Transport of medicines, &c.	2,809 74	
9. Equipment	17,343 99	
10. Wages of attendants, &c. ...	30,053 53	
11. Contingencies ...	7,350 47	
12. Printing	900 10	
13. Exchange compensation ...	1,827 96	
		510,552 84
Civil Hospitals.		
1. Diets: for estate labourers ...	25,967 9	
2. (*a*) Medicines used by above in hospitals ...	7,812 65	
(*b*) Medicines used by above in dispensaries ...	338 99	
		34,118 73
1 Value of medicines supplied to district dispensaries ...	31,076 27	
2. Value of medicines supplied to estate dispensaries ...	55,459 73	
		86,536 0
Total—Rs.		631,207 57

Table II.—Statement of Expenditure under the Medical Aid Ordinance (Estates Branch) during 1906.

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.
					Diets.	Extra Articles of Diet. Stimulants.	Other Articles.	Total Provisions.								
District Hospitals.					Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.
Avisawella	1,003	22,289	517	7,082	9,150 16	13 50	73 29	9,236 95	932 10	480 0	275 82	1,643 40	535 21	2,370 54	15,473 82	
Neboda	1,323	21,379	99	964	6,045 86	4 61	0 22	6,050 69	1,303 66	—	166 60	1,440 0	241 34	1,917 46	11,119 75	
Deltota	377	5,730	212	2,087	3,646 58	—	23 8	3,669 66	329 84	—	—	965 0	162 78	2,114 5	7,241 33	
Dikoya	1,056	23,380	583	7,798	14,744 50	84 37	492 70	15,321 57	1,340 52	—	300 0	2,097 25	725 81	2,469 84	22,254 99	
Dimbula	347	6,899	120	1,749	6,324 48	9 50	18 95	6,352 93	910 48	—	69 12	1,302 50	432 58	1,922 44	10,990 5	
Kelebokka	605	12,041	205	2,646	4,324 94	17 29	208 93	4,551 16	597 81	—	127 50	1,059 5	262 2	1,269 24	7,866 78	
Lindula	965	20,548	221	3,204	12,507 66	15 70	349 4	12,872 40	961 90	—	452 32	1,826 82	417 61	2,496 32	19,027 37	
Maskeliya	310	6,399	24	240	2,879 45	16 97	195 36	3,091 78	1,625 12	—	208 50	742 50	315 25	1,914 52	7,897 67	
Maturata	201	5,516	452	4,402	6,108 46	7 79	49 77	6,166 2	765 23	—	—	915 0	444 44	11,869 48	20,160 17	
Nawalapitiya	830	16,374	482	5,992	8,794 43	71 85	206 97	9,073 25	690 79	—	427 20	940 0	353 17	2,412 16	13,896 57	
Pussellawa	154	3,065	269	1,672	2,067 29	3 64	63 66	2,134 59	684 82	—	27 25	750 0	156 82	1,514 28	5,267 76	
Ramboda	400	7,330	528	1,548	5,648 31	—	70 56	5,718 87	402 35	—	150 0	1,267 0	219 62	1,469 22	9,167 6	
Teldeniya	350	7,125	722	4,119	3,682 65	2 40	70 61	3,755 66	1,608 73	—	—	1,053 50	201 95	2,422 16	8,442 0	
Uda Pussellawa ...	220	3,161	236	2,641	3,186 7	—	143 16	3,329 23	497 71	—	195 21	540 0	342 17	1,764 18	6,668 50	
Deniyaya	274	8,685	628	4,042	5,656 50	53 72	57 57	5,767 79	595 97	—	150 0	1,099 36	158 81	1,084 46	8,856 39	
Haputale	410	7,955	475	5,708	8,233 56	217 30	322 68	8,773 54	570 97	—	—	1,625 50	360 3	2,604 2	13,934 6	
Lunugala	659	14,925	323	3,682	3,762 74	9 52	83 68	3,855 94	612 79	—	150 0	915 0	157 78	2,399 2	8,090 53	
Balangoda	759	25,570	753	8,505	11,744 15	194 88	653 62	12,592 65	1,340 55	—	157 50	1,786 0	334 93	2,914 24	19,125 87	
Karawanella	1,402	36,705	1,624	18,828	21,516 46	17 31	62 49	21,596 26	1,368 98	240 0	240 0	2,842 33	1,092 91	3,114 89	30,495 37	
Rakwana	727	12,595	794	8,581	7,157 38	22 39	473 52	7,653 29	487 31	—	150 0	1,256 0	220 19	2,262 14	12,028 93	
	12,372	267,671	9,267	95,490	147,181 63	762 74	3,619 86	151,564 23	17,027 63	720 0	3,247 2	26,006 21	7,135 42	52,304 46	258,004 97	
Civil and District Hospitals...	6,055	206,429	21,806	248,838	—	—	—	25,967 9	—	—	—	—	—	7,812 65	33,779 74	
Total ...	18,427	474,100	31,073	344,328	147,181 63	762 74	3,619 86	177,531 32	17,027 63	720 0	3,247 2	26,006 21	7,135 42	60,117 11	291,784 71	
District Dispensaries.																
Agrapatana ...	—	—	—	—	—	—	—	—	27 10	960 0	—	150 0	11 42	1,114 36	2,262 88	
Bogawantalawa ...	—	—	—	—	—	—	—	—	6 53	440 0	—	120 0	10 99	1,659 22	2,236 74	
Dolosbage ...	—	—	—	—	—	—	—	—	14 52	600 0	—	150 0	26 75	1,422 17	2,213 44	
Elkaduwa ...	—	—	—	—	—	—	—	—	9 18	660 0	—	120 0	6 54	1,534 29	2,330 1	
Galagedara ...	—	—	—	—	—	—	—	—	8 30	—	—	120 0	4 4	1,222 78	1,355 12	
Gammaduwa ...	—	—	—	—	—	—	—	—	11 74	—	—	120 0	19 30	1,094 88	1,245 92	
Kadugannawa ...	—	—	—	—	—	—	—	—	—	240 0	—	120 0	—	1,324 14	1,684 14	
Kandy ...	—	—	—	—	—	—	—	—	—	240 0	—	—	—	1,796 56	2,036 56	
Kotmale ...	—	—	—	—	—	—	—	—	24 7	660 0	—	120 0	11 96	1,219 38	2,035 41	
Nanu-oya ...	—	—	—	—	—	—	—	—	4 20	360 0	—	150 0	6 54	612 48	1,133 22	
Pundalu-oya ...	—	—	—	—	—	—	—	—	17 77	420 0	—	120 0	16 62	596 34	1,170 73	
Rangalla ...	—	—	—	—	—	—	—	—	20 35	—	—	120 0	4 20	1,088 59	1,233 14	
Rattota ...	—	—	—	—	—	—	—	—	35 50	240 0	—	150 0	6 84	1,396 68	1,829 2	
Watawala ...	—	—	—	—	—	—	—	—	4 28	720 0	—	120 0	7 19	1,269 29	2,120 76	
Wattegama ...	—	—	—	—	—	—	—	—	24 99	264 0	—	120 0	10 54	1,196 84	1,616 37	
Watagoda ...	—	—	—	—	—	—	—	—	14 92	240 0	—	144 0	4 9	804 2	1,207 3	
Elpitiya ...	—	—	—	—	—	—	—	—	4 90	—	—	120 0	7 49	1,298 42	1,430 81	
Udugama ...	—	—	—	—	—	—	—	—	5 17	84 0	—	153 32	3 17	2,204 16	2,449 82	
Bandarawela ...	—	—	—	—	—	—	—	—	20 20	—	—	120 0	3 38	1,098 99	1,242 57	
Haldummulla ...	—	—	—	—	—	—	—	—	6 27	—	—	120 0	8 80	722 4	857 11	
Koslanda ...	—	—	—	—	—	—	—	—	0 80	480 0	—	120 0	4 69	904 16	1,509 65	
Madulsima ...	—	—	—	—	—	—	—	—	24 65	300 0	—	120 0	4 62	622 68	1,071 95	
Muppane ...	—	—	—	—	—	—	—	—	1 50	300 0	—	120 0	10 98	769 42	1,201 90	
Namunukula ...	—	—	—	—	—	—	—	—	1 65	240 0	—	120 0	3 42	796 14	1,161 21	
Passara ...	—	—	—	—	—	—	—	—	5 70	300 0	—	150 0	5 45	1,022 64	1,483 79	
Aranayaka ...	—	—	—	—	—	—	—	—	19 79	420 0	—	720 0	4 99	1,162 98	2,327 76	
Bulatkohupitiya ...	—	—	—	—	—	—	—	—	2 28	90 0	—	120 0	2 11	—	214 39	
Kitulgala ...	—	—	—	—	—	—	—	—	—	480 0	—	120 0	8 93	1,122 62	1,731 55	
	—	—	—	—	—	—	—	—	316 36	8,738 0	—	4,047 32	215 5	31,076 27	44,393 0	
Estate Dispensaries ...	—	—	—	—	—	—	—	—	—	—	—	—	—	55,459 73	55,459 73	
Civil Dispensaries ...	—	—	—	—	—	—	—	—	—	—	—	—	—	338 99	338 99	
Total ...	—	—	—	—	—	—	—	—	316 36	8,738 0	—	4,047 32	215 5	86,874 99	100,191 72	
Grand Total ...	18,427	474,100	31,073	344,328	147,181 63	762 74	3,619 86	177,531 32	17,343 99	9,458 0	3,247 2	30,053 53	7,350 47	146992 10	391976 43	391,976 43

General.—Salaries and Allowances of Government Medical Officers (Personal Emoluments and Other Charges) ...	160,115 68		
Exchange Compensation	1,827 96		
Salaries of Extra Clerks, &c.	4,967 9		
Maintenance and Repairs to Buildings	68,610 57	239,231 14	
Transport of Medicines and other Miscellaneous Charges	2,809 74		
Printing	900 10		
		631,207 57	

Table III.—List of Drugs, &c., supplied to Estate Dispensaries during the Year 1906.

Name of Estate.	District where situated.	Cost of Drugs supplied. Rs. c.
Abbotsford, &c.	Nanu-oya	300 0
Agar's Land, &c.	Balangoda	698 69
Alton Group	Norwood	395 90
Ambalamana, &c.	Deltota	494 79
Atale	Ruanwella	368 29
Attabage, &c.	Pussellawa	350 0
Avington, &c.	Yatiyantota	80 0
Avisawella, &c.	Avisawella	744 50
Bambarabotuwa, &c.	Ratnapura	1,131 83
Bibile	Madulsima	190 0
Beverley, &c.	Morawak korale	531 43
Broughton	Bandarawela	239 60
Cabragalla, &c.	Koslanda	707 37
Campion	Bogawantalawa	296 96
Chesterford	Veyangoda	499 94
Clodagh	Matale	450 0
Clunes	Dehiowita	622 83
Cocagalla, &c.	Lunugala	274 52
Concordia, &c.	Nuwara Eliya	400 16
Condagalla, &c.	Ramboda	318 7
Culloden	Neboda	281 0
Daisy Valley	Kurunegala	163 50
Dalkeith	Matugama	138 0
Dambatenne	Haputale	191 44
Debatgama	Aranayake	160 0
Degalessa, &c.	Karawanella	635 22
Dehiowita	Dehiowita	130 0
Delwita	Kurunegala	400 0
Delta, &c.	Pussellawa	287 49
Dewalakanda	Dehiowita	373 80
Doolgalla	Yatiyantota	125 60
Drayton, &c.	Dimbula	300 0
Duckwari	Rangalla	325 0
Dunedin	Karawanella	299 96
Dunsinane	Pundalu-oya	368 86
Diyagama	Agrapatana	659 40
East Holyrood	Dimbula	300 0
East-Gowrakellie	Namunukula	164 74
Eadella	Polgahawela	250 0
Ederapola, &c.	Yatiyantota	465 13
Eila	do.	189 36
Elston	Puwakpitiya	569 48
Elfindale, &c.	Watawala	494 0
Ganepella	Karawanella	390 38
Galatura, &c.	Ratnapura	739 25
Gikiyanakanda	Neboda	568 7
Glassel, &c.	Dehiowita	374 92
Glenanore	Haputale	180 6
Glenlyon, &c.	Agrapatana	1,013 42
Goorookele	Deltota	350 0
Glen Alpin, &c.	Badulla	535 50
Halwatura	Panadure	548 98
Halgolla, &c.	Yatiyantota	789 37
Hauteville	Agrapatana	419 98
Haloya	Kandy	415 47
Hayes, &c.	Morawak korale	200 0
Helbodde	Pussellawa	308 76
Henfold	Lindula	240 50
High Forest, &c.	Maturata	350 57
Hope	Hewaheta	172 8
Hytton	Matale	375 82
Katooloya	Madulkele	231 11
Kandaluoya	Dolosbage	293 30
Katugastota	Katugastota	233 25
Kelani	Yatiyantota	363 40
Kepitiyagala	Matale	181 0
Knavesmire	Kegalla	264 21
Kumaradola	Moneragala	158 98
Lavant, &c.	Karawanella	513 23
Lawrencewatta	Matale	215 46
Laxapana, &c.	Maskeliya	593 58
Lebanon, &c.	Madulkele	755 90
Lethenty	Hatton	510 5
Madampe	Rakwana	368 50
Maddegedera	Bentota	288 90
Mahaoya, &c.	Dehiowita	417 8
Mahadova, &c.	Lunugala	274 8
Maldeniya	Dehiowita	551 88
Medakoombra	Watagoda	754 47
Mipitikande	Yatiyantota	175 0
Mocha	Maskeliya	473 74
Mooloya, &c.	Kandy	513 89
Moray, &c.	Maskeliya	194 50
Mudamane, &c.	Kitulgala	366 13
Muwankanda	Kurunegala	136 44
Nahalma	Avisawella	532 33
Narthupane	Neboda	255 12
Needwood	Haldummulla	315 87
Nikakotuwa	Matale	316 18
Nilambe	Deltota	324 2
Ninfield	Dehiowita	84 0
Nivitigala	Ratnapura	345 50
North Matale, &c.	Matale	650 0
Pallegama	Kegalla	200 0
Pallegoda	Bentota	419 0
Pallekellie, &c.	Kandy	460 20
Panawatta, &c.	Yatiyantota	345 0
Pantiya	Neboda	580 0
Panilkanda	Deniyaya	220 6
Penrith	Avisawella	412 97
Pitakanda, &c.	Kurunegala	228 84
Pitakanda Group	Matale	365 81
Polatagama	Karawanella	427 20
Pussellawa	Avisawella	221 60
Queensberry, &c.	Kotmale	267 97
Ragalla, &c.	Kandapola	470 86
Rassagala, &c.	Balangoda	944 96
Rayigama	Horana	410 0
Roeberry, &c.	Lunugala	324 38
Rondura Group	Kitulgala	302 0
Rookwood Group	Hewaheta	337 96
Ruanwella	Ruanwella	225 48
Sapumalkande, &c.	Dehiowita	485 30
Sarnia	Badulla	491 40
Silvakanda	Deniyaya	277 3
Spring Valley, &c.	Badulla	317 21
Sunnycroft, &c.	Veyangoda	776 80
St. Leonard's, &c.	Nuwara Eliya	621 58
Syston	Ukuwella	308 4
Tangakellie	Lindula	395 0
Theresia, &c.	Bogawantalawa	281 53
Troy, &c.	Karawanella	438 22
Udabage	Kitulgala	303 31
Udapolla	Yatiyantota	192 72
Unugalla, &c.	Badulla	368 32
Uva	do.	198 11
Ury, &c.	Passara	472 80
Vellai-oya, &c.	Watawala	488 46
Venture Group	Norwood	361 76
Vogan, &c.	Neboda	350 0
Waharaka, &c.	Kegalla	348 50
Wariagala	Kandy	187 92
Warwick, &c.	Ambawela	577 9
Watagoda	Watagoda	421 48
Waverly	Agrapatana	547 6
We-oya, &c.	Yatiyantota	400 0
Westhall, &c.	Kotmale	227 16
Weywelhena	Badulla	333 84
Wiharagala	Haputale	252 71
Yataderiya	Kegalla	501 52
Yatawatta, &c.	Matale	525 0
Yogama, &c.	Dehiowita	430 0
Yoxford, &c.	Watagoda	424 38
	Total—Rs.	55,459 73

Table IV.—Statement showing the different Centres where outbreaks of Cholera occurred during 1906, giving Date and Duration of each outbreak, the Number of Cases, and classifying them into different Races.

Station.	Number of Cases and Deaths.		Date of First Appearance.	Date of last Case.	Of these														Source of Infection.
					Sinhalese.		Moors.		Tamils.		Immigrants.		Malays.		Others.		Total.		
	Cases.	Deaths.			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Western Province.																			
Infectious Diseases ..	1	1	July 14, 1906	July 14, 1906	—	—	1	1	—	—	—	—	—	—	—	—	1	1	Tuticorin
Hospital, Kanatta ..	1	1	Oct. 10, 1906	Oct. 10, 1906	—	—	1	1	—	—	—	—	—	—	—	—	1	1	
Welikada Jail ..	2	2	Nov. 9, 1906	Nov. 28, 1906	1	1	—	—	1	1	—	—	—	—	—	—	2	2	Not traced
Camp, Ragama ..	9	5	July 17, 1906	Sept. 22, 1906	—	—	—	—	—	—	9	5	—	—	—	—	9	5	From the Coast of India
Mahara Jail ..	1	—	Oct. 5, 1906	Oct. 5, 1906	1	—	—	—	—	—	—	—	—	—	—	—	1	—	Not known
Total ..	14	9			2	1	2	2	1	1	9	5	—	—	—	—	14	9	
Central Province.																			
Hanguranketa, (Mailapitiya) ..	17	8	Sept. 12, 1906	Oct. 3, 1906	13	6	—	—	4	2	—	—	—	—	—	—	17	8	Cannot be traced
Katugastota town ..	4	4	Sept. 4, 1906	Sept. 4, 1906	2	2	1	1	—	—	—	—	—	—	1	1	4	4	These are probably cases of acute diarrhœa
Total ..	21	12			15	8	1	1	4	2	—	—	—	—	1	1	21	12	
Northern Province.																			
Kayts ..	2	2	Sept. 18, 1906	Sept. 19, 1906	—	—	—	—	2	2	—	—	—	—	—	—	2	2	These two cases occurred on board a native vessel which arrived from Negapatam, a cholera-infected port

Table IV.—Statement showing the different Centres where outbreaks of Cholera occurred during 1906.—*Continued.*

Station.	Number of Cases and Deaths.		Date of First Appearance.	Date of last Case.	Of these												Source of Infection.
					Sinhalese.		Moors.		Tamils.		Immigrants.		Malays.		Others.		Total.		
	Cases.	Deaths.			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Southern Province.																			
Hambantota town ..	4	3	Oct. 25, 1906	Oct. 29, 1906	2	2	—	—	—	—	—	—	2	1	—	—	4	3	Source of infection in either of these places could not be definitely traced, but was most probably from the Province of Uva, where cholera was prevailing at the time, and between which Province and Hambantota District there is a regular cart traffic.
Bundala village ..	31	15	Oct. 26, 1906	Nov. 9, 1906	31	15	—	—	—	—	—	—	—	—	—	—	31	15	
Total ..	35	18			33	17	—	—	—	—	—	—	2	1	—	—	35	18	
Eastern Province.																			
Kielwalle ..	3	2	Oct. 12, 1906	Nov. 23, 1906	1	—	—	—	1	1	1	1	—	—	—	—	3	2	Badulla District
Maha-oya town ..	1	1	Oct. 13, 1906	Oct. 13, 1906	—	—	—	—	1	1	—	—	—	—	—	—	1	1	do.
Gallodai ..	1	—	Oct. 22, 1906	Oct. 22, 1906	—	—	—	—	—	—	1	—	—	—	—	—	1	—	do.
Addalaichenai ..	2	2	Sept. 26, 1906	Sept. 28, 1906	—	—	2	2	—	—	—	—	—	—	—	—	2	2	Came in contact with cholera patients in the infected places in the Province of Uva
Sainthamaruthu ..	2	1	Sept. 28, 1906	Oct. 30, 1906	—	—	2	1	—	—	—	—	—	—	—	—	2	1	From Mupanai
Samanthurai ..	6	1	Sept. 29,1906	Oct. 20, 1906	—	—	6	1	—	—	—	—	—	—	—	—	6	1	do.
Maruthamunai ..	4	3	Oct. 2, 1906	Oct. 4, 1906	—	—	4	3	—	—	—	—	—	—	—	—	4	3	do.
Karative ..	3	1	Oct. 3, 1906	Oct. 6, 1906	—	—	3	1	—	—	—	—	—	—	—	—	3	1	do.
Kondavaduwan ..	4	4	Nov. 26, 1906	Nov. 28, 1906	—	—	—	—	4	4	—	—	—	—	—	—	4	4	do.
Nindoor ..	6	5	Dec. 11- 1905	Dec. 14, 1905	—	—	—	—	6	5	—	—	—	—	—	—	6	5	do.
Total ..	**32**	**20**			1	—	17	8	12	11	2	1	—	—	—	—	32	20	

North-Western Province. Nil.																				
North-Central Province.																				
Katuwanwala (Egodapattu) ..	48	26	Sept.	23, 1906	Oct.	2, 1906	—	—	48	26	—	—	—	—	—	—	—	—	48	26	Not traced ; due probably to local causes.
Province of Uva.																					Negative results bacteriological examination
Alutnuwara ..	57	34	Nov.	11, 1906	Dec.	14, 1906	52	29	1	1	2	2	—	—	2	2	—	—	57	34	From Batticaloa coolies who worked on Kumbukkan estate
Badulla ..	51	30	Sept.	30, 1906	Dec.	22, 1906	38	21	9	7	—	—	3	2	1	—	—	—	51	30	do.
Bandarawela ..	1	1	Dec.	2, 1906	Dec.	2, 1906	1	1	—	—	—	—	—	—	—	—	—	—	1	1	do.
Batugamana ..	1	1	Oct.	21, 1906	Oct.	21, 1906	1	1	—	—	—	—	—	—	—	—	—	—	1	1	do.
Bibila ..	37	25	Oct.	24, 1906	Nov.	29, 1906	30	19	6	5	1	1	—	—	—	—	—	—	37	25	do.
Butagalla ..	5	5	Oct.	1, 1906	Oct.	10, 1906	5	5	—	—	—	—	—	—	—	—	—	—	5	5	do.
Buttala ..	71	53	Oct.	6, 1906	Nov.	29, 1906	70	52	—	—	—	—	1	1	—	—	—	—	71	53	do.
Gampaha ..	3	3	Oct.	21, 1906	Oct.	24, 1906	2	2	—	—	—	—	—	—	1	1	—	—	3	3	do.
Hulanda-oya estate ..	14	11	Sept.	22, 1906	Oct.	2, 1906	1	1	2	2	—	—	11	8	—	—	—	—	14	11	do.
Kandawa ..	4	4	Oct.	9, 1906	Oct.	10, 1906	4	4	—	—	—	—	—	—	—	—	—	—	4	4	do.
Kumbukkan estate ..	9	7	Sept.	18, 1906	Sept.	18, 1906	—	—	2	2	7	5	—	—	—	—	—	—	9	7	do.
Kumbukkana village ..	11	8	Oct.	2, 1906	Nov.	13, 1906	7	5	1	1	3	2	—	—	—	—	—	—	11	8	do.
Lunugalla ..	15	9	Oct.	26, 1906	Nov.	7, 1906	11	6	2	2	—	—	1	1	1	—	—	—	15	9	do.
Madulsima ..	23	9	Dec.	18, 1906	Dec.	21, 1906	2	—	—	—	—	—	21	9	—	—	—	—	23	9	do.
Medagama ..	56	36	Oct.	9, 1906	Nov.	15, 1906	32	24	22	10	2	2	—	—	—	—	—	—	56	36	do.
Namunukula ..	38	19	Oct.	15, 1906	Nov.	10, 1906	17	6	3	2	—	—	18	11	—	—	—	—	38	19	do.
Okkanpitiya ..	16	16	Oct.	2, 1906	Nov.	10, 1906	16	16	—	—	—	—	—	—	—	—	—	—	16	16	do.
Paravilla estate ..	32	28	Oct.	2, 1906	Nov.	15, 1906	2	2	3	3	27	23	—	—	—	—	—	—	32	28	do.
Passara ..	9	1	Nov.	15, 1906	Dec.	5, 1906	2	1	—	—	—	—	7	—	—	—	—	—	9	1	do.
Randeniya estate ..	4	4	Oct.	10, 1906	Nov.	3, 1906	1	1	—	—	3	3	—	—	—	—	—	—	4	4	do.
Sirigalla estate ..	1	1	Sept.	22, 1906	Sept.	22, 1906	—	—	—	—	—	—	1	1	—	—	—	—	1	1	do.
Taldena ..	35	19	Nov.	9, 1906	Nov.	21, 1906	34	18	—	—	1	1	—	—	—	—	—	—	35	19	do.
Tanamalwilla ..	4	2	Oct.	20, 1906	Nov.	21, 1906	3	1	—	—	1	1	—	—	—	—	—	—	4	2	do.
Telulla ..	5	4	Oct.	14, 1906	Oct.	23, 1906	3	2	—	—	1	1	1	1	—	—	—	—	5	4	do.
Tuppitiya ..	1	—	Nov.	16, 1906	Nov.	16, 1906	1	—	—	—	—	—	—	—	—	—	—	—	1	—	do.
Watte ..	2	2	Oct.	25, 1906	Oct.	28, 1906	2	2	—	—	—	—	—	—	—	—	—	—	2	2	do.
Wellawaya ..	44	23	Oct.	10, 1906	Nov.	3, 1906	44	23	—	—	—	—	—	—	—	—	—	—	44	23	do.
Total ..	549	355					381	242	51	35	48	41	64	34	5	3	—	—	549	355	

Table IV.—Statement showing the different Centres where outbreaks of Cholera occurred during 1906.—*Continued.*

Station	Number of Cases and Deaths.		Date of First Appearance.	Date of last Case.	Of these														Source of Infection.
					Sinhalese.		Moors.		Tamils.		Immigrants.		Malays.		Others.		Total.		
	Cases.	Deaths.			Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Province of Sabaragamuwa.																			
Rakwana (Lanark estate) ..	1	1	Sept. 3, 1906	Sept. 3, 1906	—	—	—	—	—	—	1	1	—	—	—	—	1	1	The patient left Tuticorin on August, 27, stayed in Ragama Camp 3 days, and reached Lanark estate on September 1, 1906.
Kitulgalla (Punagala estate) ..	53	6	Sept. 19, 1906	Oct. 8, 1906	—	—	—	—	—	—	52	5	—	—	1	1	53	6	The infection was brought to the estate from the Coast.
Halgalla ..	1	—	Oct. 7, 1906	Oct. 7, 1906	—	—	—	—	—	—	1	—	—	—	—	—	1	—	The infection was brought from Punagala
Total ..	55	7			—	—	—	—	—	—	54	6	—	—	1	1	55	7	

Table V.—Return of Cases of Smallpox, Modified Smallpox, and Chickenpox that occurred in Ceylon during the year 1906, and which were reported to the Civil Medical Department.

Stations.	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.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.		
Western Province.																				
Infectious Diseases Hospital, Kanatta	61	19	42	—	16	—	16	—	308	385	19	19	—	—	—	—	—	—	1	20
Lady Havelock Hospital ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Borella Convict Hospital ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Mutwal Jail ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Negombo Hospital	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Ja-ela ...	—	—	—	—	—	—	—	—	49	49	—	—	—	—	—	—	—	—	—	—
Minuwangoda ...	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	—	—	—	—	—
Hanwella ...	—	—	—	—	—	—	—	—	31	31	—	—	—	—	—	—	—	—	—	—
Ragama Camp ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Ragama District ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Henaratgoda ...	—	—	—	—	—	—	—	—	27	27	—	—	—	—	—	—	—	—	—	—
Veyangoda ..	—	—	—	—	—	—	—	—	41	41	—	—	—	—	—	—	—	—	—	—
Kadawata ...	—	—	—	—	—	—	—	—	23	23	—	—	—	—	—	—	—	—	—	—
Kaduwela ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Aturugiriya ...	—	—	—	—	—	—	—	—	44	44	—	—	—	—	—	—	—	—	—	—
Kelaniya ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Mirigama ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Moratuwa ...	—	—	—	—	—	—	—	—	25	25	—	—	—	—	—	—	—	—	—	—
Horana ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Beruwala ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Neboda ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Panadure ...	—	—	—	—	—	—	—	—	30	30	—	—	—	—	—	—	—	—	—	—
Kalutara ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Total ...	61	19	42	—	16	—	16	—	665	742	19	19	—	—	—	—	—	—	1	20
Central Province.																				
Kandy ...	1	1	—	—	—	—	—	—	879	880	—	—	—	—	—	—	—	—	—	—
Dimbula ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Dikoya ...	1	—	1	—	—	—	—	—	14	15	—	—	—	—	—	—	—	—	—	—
Gammaduwa ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Elkaduwa ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—	—	—
Mulhalkelle ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rattota ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Teldeniya ...	—	—	—	—	—	—	—	—	130	130	—	—	—	—	—	—	—	—	—	—
Watawala ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kotmale ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—	—	—
Dolosbage ...	—	—	—	—	—	—	—	—	17	17	—	—	—	—	—	—	—	—	—	—
Kelebokka ...	—	—	—	—	—	—	—	—	14	14	—	—	—	—	—	—	—	—	—	—
Maturata ...	—	—	—	—	—	—	—	—	10	10	—	—	—	—	—	—	—	—	—	—
Agrapatana ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Ramboda ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rangala ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pussellawa ...	3	1	2	—	3	—	3	—	14	20	1	1	—	—	—	—	—	—	—	1
Nuwara Eliya ...	—	—	—	—	1	—	1	—	46	47	—	—	—	—	—	—	—	—	—	—
Nawalapitiya ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Uda Pussellawa ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Kongahawela ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—	—	—
Bogawantalawa ...	—	—	—	—	—	—	—	—	29	29	—	—	—	—	—	—	—	—	—	—
Dambool ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—	—	—
Lindula ...	2	1	1	—	—	—	—	—	114	115	1	1	—	—	—	—	—	—	—	1
Watagoda ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Katugastota ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Deltota ...	—	—	—	—	—	—	—	—	10	10	—	—	—	—	—	—	—	—	—	—
Hanguranketa ...	—	—	—	—	—	—	—	—	25	25	—	—	—	—	—	—	—	—	—	—
Galawela ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—	—	—
Maskeliya ...	1	1	—	—	—	—	—	—	5	6	1	1	—	—	—	—	—	—	—	1
Matale ...	—	—	—	—	—	—	—	—	46	46	—	—	—	—	—	—	—	—	—	—
Nanu-oya ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Madugoda ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Galagedara ...	—	—	—	—	—	—	—	—	11	11	—	—	—	—	—	—	—	—	—	—
Gampola ...	—	—	—	—	—	—	—	—	40	40	—	—	—	—	—	—	—	—	—	—
Nalanda ...	—	—	—	—	—	—	—	—	8	8	—	—	—	—	—	—	—	—	—	—
Wattegama ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Pundalu-oya ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Mausahiriya ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kadugannawa ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ...	8	4	4	—	4	—	4	—	1,526	1,537	3	3	—	—	—	—	—	—	—	3

Table V.—Return of Cases of Smallpox, &c.—*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.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated		
Northern Province.																				
Mylidy ...	4	—	2	2	—	—	—	—	1	5	1	—	—	1	—	—	—	—	—	1
Kottady	1	—	1	—	1	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—
Vannarponne south-west ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Karaiur ...	4	—	4	—	5	—	5	—	—	9	1	—	1	—	—	—	—	—	—	1
Kankesanturai ...	1	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Thyiddy ...	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	1
Palali ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Chunnagam ...	7	—	2	5	1	—	—	1	6	14	1	—	—	1	—	—	—	—	—	1
Mallagam ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Elavalai ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Valvettyturai ...	—	—	—	—	1	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—
Delft Centre ...	1	—	1	—	—	—	—	—	6	7	—	—	—	—	—	—	—	—	—	—
Mannar Town ...	2	—	2	—	1	—	1	—	4	7	1	—	1	—	—	—	—	—	—	1
Marichchukkaddi ...	4	4	—	—	2	—	2	—	—	6	4	4	—	—	—	—	—	—	—	4
Erukalampiddy ...	14	3	—	11	2	—	—	2	—	16	2	1	—	1	—	—	—	—	—	2
Batticotta East ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Chullipuram ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Navaly ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Mathagal ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Araly North ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Araly East ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Point Pedro ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Puloly West ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Thumpalai ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Total ...	41	7	15	19	13	—	10	3	33	87	11	5	3	3	—	—	—	—	—	11
Southern Province.																				
Segregation Camp, Tangalla ...	19	7	12	—	3	—	3	—	—	22	9	4	5	—	—	—	—	—	—	9
Palatuduwa ...	6	2	4	—	—	—	—	—	—	6	1	1	—	—	—	—	—	—	—	1
Kahandemodara ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Tillawatuduwa ...	2	—	2	—	1	—	1	—	—	3	—	—	—	—	—	—	—	—	—	—
Udaketiyagoda ...	5	3	2	—	1	—	1	—	—	6	2	2	—	—	—	—	—	—	—	2
Pahalagoda ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Baddegama ...	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	1
Tangalla Town ...	2	—	2	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—
Walawelgama ...	1	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	—	1
Unakurunda ...	4	—	4	—	—	—	—	—	—	4	1	—	1	—	—	—	—	—	—	1
Ekkassa ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Rekawa ...	1	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	—	1
Pollawaruwa ...	2	1	1	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—
Mawella ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Kadurukupokuna ...	9	1	8	—	—	—	—	—	—	9	3	—	3	—	—	—	—	—	—	3
Miniethiliya ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Hathagala ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Weeraketiya ...	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	1
Medilla ...	1	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	—	1
Sitinamaluwa ...	3	—	3	—	—	—	—	—	—	3	2	—	2	—	—	—	—	—	—	2
Urugumuwa ...	1	—	1	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	1
Dematuguda ...	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Kaluwella, Galle ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Dadella ...	3	2	1	—	—	—	—	—	—	3	1	—	1	—	—	—	—	—	—	1
Talapitiya ...	2	—	2	—	—	—	—	—	—	2	1	—	1	—	—	—	—	—	—	1
Niraduwa ...	3	—	3	—	—	—	—	—	—	3	1	—	1	—	—	—	—	—	—	1
Magalla ...	3	2	1	—	—	—	—	—	—	3	1	—	1	—	—	—	—	—	—	1
Galle Harbour ...	1	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Katukurunda ...	—	—	—	—	—	—	—	—	20	20	—	—	—	—	—	—	—	—	—	—
Weligama ...	—	—	—	—	—	—	—	—	29	29	—	—	—	—	—	—	—	—	—	—
Hiniduma ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Udugama ...	—	—	—	—	—	—	—	—	23	23	—	—	—	—	—	—	—	—	—	—
Akuressa ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Imaduwa ...	—	—	—	—	—	—	—	—	11	11	—	—	—	—	—	—	—	—	—	—
Baddegama ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Thiagoda ...	—	—	—	—	—	—	—	—	9	9	—	—	—	—	—	—	—	—	—	—
Hakmana ...	—	—	—	—	—	—	—	—	6	6	—	—	—	—	—	—	—	—	—	—
Kamburupitiya ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—	—	—
Infectious Diseases Hospital, Galle ...	—	—	—	—	—	—	—	—	16	16	—	—	—	—	—	—	—	—	—	—

Table V.—Return of Cases of Smallpox, &c.—*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.	Number of Cases.	Unvaccinated.	Vaccinated.	Re-vaccinated.		
Southern Province —contd.																				
Dodanduwa ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Matara ...	—	—	—	—	—	—	—	—	11	11	—	—	—	—	—	—	—	—	—	—
Ranchagoda ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Katuagoda ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Kirama ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Kosgoda ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Hikkaduwa ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—	—	—
Total ...	78	22	56	—	5	—	5	—	171	254	28	10	18	—	—	—	—	—	—	28
Eastern Province.																				
Batticaloa ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Muthur ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Kalmunai ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Trincomalee ...	44	3	41	—	7	—	7	—	50	101	6	—	6	—	—	—	—	—	—	6
Total ...	44	3	41	—	7	—	7	—	56	107	6	—	6	—	—	—	—	—	—	6
North-Western and Sabaragamuwa Provinces.																				
Dandegamuwa (Bopitigama) ..	6	—	6	—	—	—	—	—	—	6	1	—	—	—	—	—	—	—	—	1
Kalpitiya (Nuraichulai ...	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Polgahawela ..	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Kurunegala ..	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Karawanella (Atale) estate ...	1	—	1	—	—	—	—	—	5	6	—	—	—	—	—	—	—	—	—	—
Rakwana ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Kolonna ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Kegalla ...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Total ...	8	1	7	—	—	—	—	—	15	23	1	—	—	—	—	—	—	—	—	1
North-Central Province.																				
Anuradhapura ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Mihintale ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kekirawa ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maradankadawela...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madawachchy ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Topawewa ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kabatagasdegiliya...	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—
Tambuttagama ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nochchiyagama ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Habarana ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Egodapattu ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total ...	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Province of Uva.																				
Alutnuwara ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Badulla ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—	—	—
Baduluwell ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bandarawella ...	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	—	—	—	—	—
Bibila ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Buttala ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haldummulla ...	—	—	—	—	—	—	—	—	5	5	—	—	—	—	—	—	—	—	—	—
Haputale ...	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—	—	—	—	—	—
Kaslanda ...	—	—	—	—	—	—	—	—	7	7	—	—	—	—	—	—	—	—	—	—
Lunugalla ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madulsima ...	1	—	1	—	1	—	1	—	2	4	1	—	1	—	—	—	—	—	—	1
Maspana ...	—	—	—	—	—	—	—	—	14	14	—	—	—	—	—	—	—	—	—	—
Medagama ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Monaragalla ...	—	—	—	—	—	—	—	—	12	12	—	—	—	—	—	—	—	—	—	—
Okkampitiya ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Passara ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Taldena ..	—	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—	—
Tanamalwilla ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wellawaya ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Welimada ...	—	—	—	—	—	—	—	—	138	138	—	—	—	—	—	—	—	—	—	—
Total ...	1	—	1	—	1	—	1	—	207	209	1	—	1	—	—	—	—	—	—	1

Table VI.—Statement showing Particulars of Vaccination in the Island during 1906.

Province.	Primary Vaccination.							Re-vaccination.				Percentage of Successful to Total inspected.	
	Age.			Results.				Results.					
	Infants.	Children.	Adults.	Successful.	Unsuccessful.	Unknown.	Total No. vaccinated.	Successful.	Unsuccessful.	Unknown.	Total No. vaccinated.	Primary Vaccination.	Re-vaccination.
Western	4,251	25,437	2,952	30,072	1,385	1,183	32,640	3,261	700	680	4,641	95·59	82·32
Central	2,587	8,725	112	9,806	1,236	382	11,424	—	6	2	8	88·80	—
Northern	785	5,711	791	5,919	461	907	7,287	—	—	—	—	92·77	—
Southern	2,396	20,310	2,135	20,428	2,863	1,550	24,841	1,212	762	364	2,338	87·79	61·39
Eastern	1,685	3,632	147	3,525	1,826	113	5,464	1,252	142	245	1,639	65·87	89·81
North-Western ...	195	9,855	453	9,244	425	844	10,513	—	—	—	—	95·60	—
North-Central ...	156	3,897	64	3,821	200	96	4,117	—	—	—	—	95·02	—
Uva	1,103	1,858	3	2,722	104	138	2,964	—	—	—	—	96·35	—
Sabaragamuwa ...	810	5,200	33	5,011	396	636	6,043	—	—	—	—	92·67	—
Total ...	13,968	84,625	6,700	90,548	8,886	5,859	105293	5,725	1,600	1,291	8,626	91·06	78·05
Estate Vaccination ...	3,389	8,655	5,738	14,936	1,660	1,186	11,782	963	412	53	1,428	89·99	70·03
In District Outdoor Dispensaries	308	625	101	855	114	65	1,034	4	15	—	19	88·23	21·05
In Civil Outdoor Dispensaries...	5,798	9,171	118	12,195	2,436	456	15,087	1,704	464	3,168	5,336	83·35	78·59
Grand Total ...	23,463	103076	12,657	118534	13,096	7,566	133196	8,396	2,501	4,512	15,769	89·99	77·04
In 1905 ...	22,302	117575	14,213	128755	15,426	9,909	154090	8,080	4,899	4,670	17,649	89·31	62·25

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, 1906.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Steamers	224	229	281	264	271	234	231	220	212	226	223	242	2,857
Native Craft ...	55	49	52	39	36	27	24	30	32	49	30	61	484
Traders.													
Men	5,581	5,723	4,606	4,413	6,514	5,030	2,787	3,048	3,771	7,487	5,564	6,486	61,010
Women	288	362	401	378	522	701	251	264	317	611	447	528	5,070
Children	242	305	260	222	362	246	143	187	225	554	322	537	3,605
Infants	78	106	118	96	159	72	61	90	107	231	141	163	1,422
Total ...	6,189	6,496	5,385	5,109	7,557	6,049	3,242	3,589	4,420	8,883	6,474	7,714	71,107
Coolies.													
Men	1,431	1,835	2,706	3,888	6,643	8,257	8,028	5,965	4,832	3,561	2,977	2,076	52,199
Women	451	578	878	1,318	2,541	3,208	3,148	2,207	1,597	1,203	942	622	18,693
Children	267	284	461	836	1,574	1,920	2,022	1,408	933	649	574	383	11,311
Infants	133	194	294	425	913	1,161	1,242	872	552	413	321	206	6,727
Total ...	2,282	2,891	4,339	6,467	11,671	14,546	14,440	10,452	7,914	5,826	4,815	3,207	88,930
Vessels placed in quarantine	71	71	98	95	102	70	69	100	77	59	55	56	923
Number of Cases of Small-pox sent to Hospital ...	5	5	6	4	2	—	1	—	—	—	—	3	26
Number of Cases of Small-pox isolated on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of Cases of Chicken-pox sent to Hospital ...	2	—	2	3	—	—	—	—	—	—	—	1	8
Number of Cases of Chicken-pox isolated on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of Cases of Measles sent to Hospital ...	—	—	—	—	1	—	—	—	—	1	—	—	2
Number of Cases of Measles isolated on Board ...	—	9	—	—	—	—	—	—	—	14	—	—	23
Cholera.													
Number sent to Hospital ...	1	—	—	—	—	—	2	—	—	—	—	—	3
Number died on Board ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number remaining on Board	—	—	—	—	—	—	—	—	—	—	—	—	—
Fees.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dr. H. Bawa ...	357·0	346·50	514·50	430·50	509·25	351·75	330·75	351·75	414·75	299·25	425·25	525·0	4,856·25
Dr. H. P. Joseph ...	178·50	173·25	257·25	215·25	254·62½	175·87½	165·37½	175·87½	207·37½	149·62½	212·62½	262·50	2428·12½
Dr. F. Keyt ...	178·50	173·25	257·25	215 25	254·62½	175·87½	165·37½	175·87½	207·37½	149·62½	212·62½	262·50	2428·12½

For Tables VIII. and IX. see the Ceylon Blue Book, 1906, pages AA 39 and AA 48, 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 1906, excepting those treated in the Leper Asylum at Hendala and the Leper Wards at Kalmunai Hospital.

Institution.	Number treated.
Western Province.	
General Hospital, Colombo ..	5
Female Outdoor Dispensary ..	1
Clinic for Tropical Diseases, Colombo ..	2
Moratuwa Outdoor Dispensary ..	5
Kalutara Outdoor Dispensary ..	4
	17
Central Province.	
Civil Hospital, Kandy ..	8
Do. Katugastota ..	1
Do. Nuwara Eliya ..	1
District Hospital, Maturata ..	2
Do. Ramboda ..	2
Do. Teldeniya ..	3
Do. Dikoya ..	5
Do. Dimbula ..	1
Do. Deltota ..	2
Do. Kelebokka ..	2
	27
Northern Province.	
Nil.	
Southern Province.	
Outdoor Dispensary, Galle ..	2
Civil Hospital, Matara ..	1
	3

Institution.	Number treated.
Eastern Province.	
Civil Hospital, Trincomalee ..	1
Outdoor Dispensary, Paddiruppu ..	1
	2
North-Western Province.	
Nil.	
North-Central Province.	
Nil.	
Province of Uva.	
Civil Hospital, Badulla ..	3
Outdoor Dispensary, Badulla ..	2
District Hospital, Haputale ..	2
Outdoor Dispensary, Welimada ..	3
Branch Dispensary, Maspana ..	1
	11
Province of Sabaragamuwa.	
District Hospital, Balangoda ..	1
District Hospital, Karawanella ..	1
	2
Grand Total ..	62

Table XI.—Statement of Expenditure of the several Government Hospitals, Asylums, &c., for 1906.

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.
				Stimulants.	Other Articles.							
I.—Asylums.			Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.
Leper Asylum, Hendala	—	—	38,293 2	547 56	1,276 8	40,116 66	4,435 25	128 15	—	4,755 95	4,251 60	53,687 61
Lunatic Asylum, Jawatta	—	—	62,430 14	228 24	3,156 75	65,815 13	4,761 76	130 50	—	13,380 0	8,613 23	92,700 62
Total ...	—	—	100,723 16	775 80	4,432 83	105,931 79	9,197 1	258 65	—	18,135 95	12,864 83	146,388 23
II.—De Soysa Lying-in Home	—	—	2,294 83	21 25	71 24	2,387 32	459 67	5 25	—	1,185 0	1,060 77	5,098 1
III.—Civil Hospitals.												
Colombo	—	—	62,054 67	5,703 73	12,230 79	79,989 19	6,145 13	595 15	—	14,573 93	17,124 7	118,427 47
Seamen's, Planters', and Passengers' Wards	—	—	7,767 94	1,104 75	7,073 44	15,946 13	2,892 37	—	—	4,580 87	5,822 13	29,241 50
Lady Havelock Hospital	—	—	5,878 89	350 15	1,335 76	7,564 80	1,153 34	248 10	—	2,263 0	2,348 81	13,578 5
Negombo	—	—	4,262 76	17 35	110 17	4,390 28	472 88	180 0	—	1,091 76	595 31	6,730 23
Kalutara	—	—	5,154 20	34 80	75 52	5,264 52	329 15	217 0	—	1,054 0	414 11	7,278 78
Panadure	—	—	3,158 38	24 91	55 35	3,238 64	306 40	258 50	—	593 33	171 11	4,567 98
Kandy	—	—	24,549 16	651 9	2,069 42	27,269 67	2,340 56	1,304 80	—	5,101 96	2,878 0	38,894 99
Katugastota	—	—	998 49	—	—	998 49	36 67	—	—	366 0	113 15	1,514 31
Gampola	—	—	5,715 64	2 80	1,123 39	6,841 83	855 30	264 0	—	1,013 27	161 1	9,135 41
Nuwara Eliya	—	—	8,363 54	322 14	698 82	9,384 50	619 64	110 0	—	1,430 50	1,181 0	12,725 64
Matale	—	—	9,268 42	90 45	635 46	9,994 33	98 4	386 80	—	1,505 24	1,391 26	13,375 67
Mulhalkele	—	—	2,828 5	54 57	45 48	2,928 20	59 74	39 0	—	495 0	153 98	3,675 92
Mullaittivu	—	—	1,958 83	1 80	10 44	1,971 7	102 72	18 0	—	693 10	224 19	3,009 8
Vavuniya	—	—	2,406 9	8 53	89 32	2,503 94	67 52	90 0	—	483 0	208 56	3,353 2
Point Pedro	—	—	3,571 70	1 28	90 50	3,663 48	240 73	19 50	—	570 0	217 42	4,711 13
Mantota	—	—	1,788 69	8 70	135 51	1,932 90	94 19	62 0	—	580 0	357 12	3,026 21
Galle	—	—	12,077 34	3 75	1,419 79	13,500 88	1,272 49	—	—	2,789 22	1,810 90	19,373 49
Balapitiya	—	—	2,407 7	—	35 80	2,442 87	90 19	147 0	—	405 96	235 56	3,321 58
Matara	—	—	4,041 84	5 80	6 39	4,054 3	482 50	92 10	—	672 0	616 88	5,917 51
Tangalla	—	—	975 98	15 67	104 56	1,096 21	95 43	82 0	—	527 0	226 62	2,027 26
Hambantota	—	—	1,361 79	8 39	20 72	1,390 90	53 17	72 0	—	536 86	485 26	2,538 19
Batticaloa	—	—	2,487 19	2 64	192 4	2,681 87	306 57	87 60	—	1,085 25	499 48	4,660 77
Trincomalee	—	—	1,598 95	38 33	30 16	1,667 44	237 80	60 0	—	552 0	108 6	2,625 30
Kalmunai	—	—	4,723 49	4 59	334 73	5,062 81	371 74	52 50	—	1,169 0	525 72	7,181 77
Kurunegala	—	—	10,950 48	396 22	440 18	11,786 88	827 29	534 40	—	2,197 82	959 17	16,305 56
Puttalam	—	—	2,872 78	36 99	142 46	3,052 23	224 2	140 70	—	732 40	195 29	4,344 64
Marawila	—	—	4,987 19	158 66	94 61	5,240 46	384 12	165 0	—	816 0	214 31	6,819 89
Chilaw	—	—	2,067 70	14 88	130 38	2,212 96	169 72	239 0	—	360 0	165 63	3,147 31
Anuradhapura	—	—	5,790 86	17 40	151 38	5,959 64	345 33	123 14	—	1,379 21	751 86	8,559 18
Badulla	—	—	9,464 16	495 36	2,277 41	12,236 93	476 59	298 38	—	2,606 36	2410 33	18,028 59
Ratnapura	—	—	10,418 66	14 7	106 39	10,539 12	592 31	253 80	—	1,187 50	558 60	13,131 33
Kegalla	—	—	8,459 93	6 76	454 74	8,921 43	992 70	262 93	—	792 51	454 47	11,424 4

Tropical Diseases Hospital, Colombo ...	...	—	—	53 1	—	—	53 1	1,907 92	—	—	376 6	78 42	2,415 41
Pauper Hospital, Ragama ...	...	—	—	770 90	14 0	37 82	822 74	4,321 96	1 0	—	666 50	119 70	5,931 88
Victoria Memorial Eye Hospital ...	...	—	—	3,647 79	92 90	133 90	3,874 59	985 10	—	—	1,895 50	931 11	7,686 30
Bacteriological Institute, Colombo ...	...	—	—	—	—	—	—	—	—	—	637 61	1,615 87	2,253 48
Total	...	—	—	238,882 56	9,703 46	31,892 93	280,478 95	29,951 33	6,404 40	—	57,779 72	46,324 47	420,938 87
IV.—Field or Parangi Hospitals.													
Dandugamuwa	...	—	—	3,258 28	14 51	80 63	3,353 42	185 85	158 75	—	600 0	103 16	4,401 18
Nickaweratiya	...	—	—	2,536 28	—	166 85	2,703 13	91 65	185 61	—	465 94	130 1	3,576 14
Alutnuwara	...	—	—	3,108 90	19 62	144 33	3,272 85	146 27	112 25	—	1,113 50	803 14	5,448 1
Medagama	...	—	—	4,291 1	9 86	49 11	4,349 98	131 97	120 37	—	980 90	532 26	6,115 48
Buttala	...	—	—	4,571 85	30 45	374 81	4,977 11	314 59	135 0	—	1,305 15	451 9	7,182 94
Kolonna	...	—	—	5,066 6	—	6 13	5,072 19	351 83	78 25	—	557 5	617 43	6,676 75
Mahaoya	...	—	—	1,023 46	7 25	18 97	1,049 68	100 72	61 20	—	650 0	172 53	2,034 13
Total	...	—	—	23,855 84	81 69	840 83	24,778 36	1,322 88	851 43	—	5,672 34	2,809 62	35,434 63
V.—Immigrant Hospitals.													
Dambulla	...	—	—	4,267 46	38 8	107 21	4,412 75	137 15	34 50	—	568 66	380 3	5,533 9
Mannar	...	—	—	1,032 91	6 82	131 10	1,170 83	170 5	29 90	—	454 0	203 9	2,027 87
Puliyadi-irrakkam	...	—	—	—	—	—	—	—	—	—	240 0	—	240 0
Pesalai	...	—	—	—	—	—	—	2 70	—	—	142 0	2 30	147 0
Mihintale	...	—	—	2,304 58	11 60	26 72	2,342 90	186 69	90 50	—	654 0	497 7	3,771 16
Total	...	—	—	7,604 95	56 50	265 3	7,926 48	496 59	154 90	—	2,058 66	1,082 49	11,719 12
VI.—Nursing Service ...	...	—	—	—	—	—	—	—	—	45,167 67	—	—	45,167 67
VII.—Branch Hospital, Borella ...	...	—	—	1,132 67	—	1 12	1,133 79	214 47	—	—	408 0	102 99	1,859 25
VIII.—House of Observation, Galle ...	...	—	—	407 6	—	—	407 6	22 64	—	—	575 50	312 47	1,317 67
IX.—Infectious Diseases Hospital, Kanatta ...	...	—	—	2,230 45	31 67	461 52	2,723 64	1,033 67	65 90	—	1,729 0	839 1	6,391 22
X.—Salaries and Allowances of Apothecaries ...	...	—	—	—	—	—	—	—	—	—	86,195 56	—	86,195 56
Total	...	—	—	3,770 18	31 67	462 64	4,264 49	1,270 78	65 90	45,167 67	88,908 6	1,254 47	140,931 37
Grand Total	...	—	—	377,131 52	10,670 37	37,965 50	425,767 39	42,698 26	7,740 53	45,167 67	173739 73	65,396 65	760,510 23

Table XII.—Cost of Establishment, 1906.

	Amount. Rs. c.	Total. Rs. c.
Personal Emoluments	—	552,018 67
Exchange Compensation	—	10,457 32
Allowances.		
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
Medical College.		
Registrar, Medical College	7,271 74	
Clerk for College	362 50	
Librarian	240 0	
Allowances to Lecturers of Medical College ...	10,699 93	
Laboratory Assistants	2,720 0	
Assistant in Anatomy and Biology ...	360 0	
Head Servant	252 0	
Servant, Medical Museum	157 50	
Female Attendant for Dissecting Room ...	180 0	
Carpenter	150 0	
		22,393 67
Other Charges.		
Annual grant to meet expenses connected with the grant of leave to Medical Officers in solitary stations	41 70	
Tuition, board, &c., of one student at the London School of Tropical Medicine	265 50	
Examination fees (Preliminary Examination) ...	350 0	
Rent of Colonial Surgeon's Office, Jaffna ...	150 0	
Do. Kurunegala ...	225 0	
Rent of Temple House	1,048 48	
Rent of Medical Officer's quarters, Chilaw ...	120 0	
Stationery	3,990 72	
Bookbinding, office furniture, and petty expenses ...	1,950 45	
Furniture for the Medical College ...	290 17	
Subscription to Colonial Medical Library ...	500 0	
Appliances to illustrate lectures	938 22	
Prize medals, Medical College	40 0	
Medical College Library	525 0	
Upkeep of Laboratories	63 69	
Upkeep of Public Analyst's Laboratory ...	16,050 2	
Rent of Vaccine Stations	2,340 0	
Animal Vaccination, Central Depôt ...	6,314 73	
Remuneration to private medical practitioners, vaccinators, &c.	3,623 25	
Horse allowance to Principal Civil Medical Officer	840 0	
Horse allowance to Provincial Surgeon, Western Province	365 32	
Boatmen for Health Officer	1,352 26	
Carriage allowance to Inspector of Vaccination ...	420 0	
Horse allowance to Medical Officer in charge of Police	520 0	
Travelling allowance to Medical Officers, General...	25,383 20	
Travelling allowance to Medical Officers in the Provinces	29,500 40	
		97,208 11
Hospitals and Dispensaries	—	707,425 75
General.		
Purchase of medicines and instruments ...	243,418 24	
Transport of medicines	11,856 71	
Miscellaneous	455 96	
		255,730 91
Harbour Service.		
Plague precautions	5,662 77	
Port and Marine	360 0	
		6,022 77
	Total—Rs.	1,653,087 20