

The Straits Settlements medical report.

Contributors

Straits Settlements. Medical Department.

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STRAITS SETTLEMENTS.

The Straits Settlements Medical Report for the Year 1907.

1. *Population and Health.*—The following table shows the estimated population and the birth and death-rates for the years 1906 and 1907.

SETTLEMENT.	Estimated mean Population.		Births.		Deaths.		Birth Ratio per mille.		Death Ratio per mille.	
	1906	1907	1906	1907	1906	1907	1906	1907	1906	1907
Singapore ...	258,423	264,650	5,755	5,774	10,247	12,341	22.27	21.82	39.65	46.63
Penang ...	131,917	132,483	2,215	2,310	5,516	4,787	16.79	17.43	41.81	36.13
Dindings ...	4,411	4,471	149	148	152	240	33.78	33.19	34.46	53.83
Province Wellesley	119,652	120,430	3,707	3,747	3,610	3,109	30.98	31.11	30.17	25.81
Malacca ...	97,387	97,762	3,608	4,202	3,615	3,743	37.05	42.98	37.12	38.28
Total ...	611,790	619,796	15,434	16,181	23,140	24,220	25.23	26.11	37.82	39.07

2. The largest increase in births was in Malacca and that for deaths in the Dindings.

3. The death-rate for the Colony was 39.07 against 37.82 in the previous year. There has been a marked increase in deaths in Singapore under the heading fever.

4. Of the number of deaths registered in 1907, 4,339 were amongst infants of under one year of age, which represents 17.91 per cent of the total deaths, against a total of 4,195 for 1906 and 4,671 for 1905. The ratio per mille for 1907, after excluding the births of children born elsewhere than in the Colony, was 25.091 per cent against 25.502 per cent in 1906.

5. The following table gives the number of cases of Zymotic Diseases in the several Settlements in the years 1906 and 1907, and deaths therefrom, not including cases imported into the Colony:—

SETTLEMENT.	PLAGUE.				CHOLERA.				SMALL-POX.			
	1906		1907		1906		1907		1906		1907	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Singapore ...	10	9	15	15	192	172	213	180	26	10	9	5
Penang ...	...	...	...	...	2	2	2	2	2	2	14	1
Province Wellesley...	...	...	...	...	107	92	...	...	1	...	2	2
Malacca ...	...	...	...	...	...	...	...	...	5	1	1	1
Total ...	10	9	15	15	301	266	215	182	34	13	26	9

6. *Plague*.—There were 15 cases during the year in Singapore, all males, 1 Eurasian, 9 Chinese and 5 Indians, each case ended fatally.

7. *Cholera*.—There were 213 cases in Singapore. The disease took an epidemic form in August—156 out of the total occurring in this month—and continued until the end of September. One hundred and eighty cases ended fatally.

8. *Small-pox*.—There were 9 cases with 5 deaths in Singapore during the year against 26 cases with 10 deaths in 1906. In Penang there were 14 cases with 1 death against 2 cases and 2 deaths in the preceding year.

9. *Diphtheria*.—There were 18 cases in Singapore against 18 the preceding year. Eleven cases ended fatally.

10. *Enteric Fever*.—There were 353 cases of Enteric Fever and 140 deaths in Singapore, against 186 and 79 respectively in 1906. In Penang and Province Wellesley there were 26 cases with 7 deaths, against 15 and 4 respectively in 1906. No cases were reported in Malacca. In Singapore 71 cases occurred in August and 68 in September.

11. *Beri-beri*.—One thousand six hundred and twenty-six deaths were registered in 1907 for the three Settlements as against 1,507 in 1906. A special report on this head is appended.

12. *Veneral Diseases*.—The admissions to all the hospitals numbered 2,589 with 48 deaths.

13. *Phthisis*.—Two thousand eight hundred and twenty deaths were registered as due to this disease of which 1,795 were in Singapore; the number of deaths under this head in 1906 was 2,709 and in 1905, 3,015.

14.—*Dysentery and Diarrhœa*.—One thousand six hundred and seventy-one deaths were registered, 994 under Dysentery and 677 under Diarrhœa against 932 and 662 in 1906.

15. *Malaria*.—The admissions to all the hospitals numbered 4,279 and the deaths due to this cause were 395. The same steps have been taken to combat this disease as in last year.

16. *Sanitation*.—An Ordinance was passed during the year amending the Municipal Ordinance and in consequence certain schemes for the improvement of insanitary areas were taken in hand. Power was given under the Ordinance to the Municipal Health Department to enter buildings to detect over-crowding, and the closing and demolishing of insanitary houses. New sections were inserted dealing with building operations and the provision of back lanes and open spaces about buildings. Professor SIMPSON'S report was received about the middle of last year and on the recommendation of a special Health Committee most of the recommendations were adopted by the Municipal Commissioners. These generally were:—

- (1) That all town refuse be incinerated and none dumped.
- (2) That areas and swamps flooded by rains and high tide be systematically re-claimed.

- (3) That unoccupied areas for the extension of the town may be laid out in an approved style.
- (4) That the pail system be adopted for night-soil instead of an underground sewage system.

As it was too late in the year when the amendment was passed, nothing of a practical nature was done during the year.

17. *Hospitals and Work done.*—The total number of admissions into the Hospitals during 1907 excluding the Lunatic Asylum was 26,196 against 24,696 in 1906. The following table shows the work done during the last three years:—

Year.	Number of Patients Treated.			Number of Deaths.			Percentage of Deaths to Total Treated.		
	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.	Europeans.	Natives.	Total.
(a) 1905 ...	1,143	25,127	26,270	62	3,623	3,685	5.42	14.42	14.03
(b) 1906 ...	1,103	26,237	27,340	63	3,768	3,831	5.71	14.36	14.01
(c) 1907 ...	1,193	27,515	28,708	74	3,614	3,688	6.2	13.13	12.85

Includes Lunatic Asylum:—
 (a) 511 cases and 67 deaths.
 (b) 509 cases and 75 deaths.
 (c) 483 cases and 57 deaths.

18. The diseases responsible for the greatest number of admissions and deaths are shown in the subjoined tables with the corresponding diseases and deaths in 1906:—

Diseases.	1906.		1907.	
	Admissions.	Deaths.	Admissions.	Deaths.
<i>Infective Diseases:—</i>				
Beri-beri ...	1,712	296	1,559	243
Dysentery ...	1,668	426	1,351	540
Venereal Diseases ...	2,371	50	2,589	48
Malaria ...	2,859	254	4,279	395
<i>General Diseases:—</i>				
Anæmia and Debility ...	718	181	602	98
Diseases of the Nervous System	756	247	828	142
Diseases of the Respiratory System ...	1,825	721	1,054	322
Diseases of the Digestive System	1,976	391	2,324	503
Diseases of the skin ...	2,685	27	2,690	15
Injuries (Local and General) ...	1,878	69	1,945	92

19. *Lunatic Asylum.*—Eighty-eight patients were discharged recovered giving a favourable recovery rate of 44.67 per cent. There were 163 male and 34 female admissions to the Asylum during the year. The lowest death-rate of any year was secured in 1907, giving a percentage of only 19.52 on the average daily number resident.

20. *Pasir Panjang Hospital*.—Two hundred and sixty-three patients were treated for Beri-beri. The result of treatment of this disease is very gratifying as will be seen by referring to the report on the Pasir Panjang Hospital.

21. *Maternity Hospital*.—There were 105 admissions against 98 in the previous year. Much progress was made with the new hospital at Sepoy Lines. Two probationers passed out during the year making a total of 13 to end of 1907.

22. *Out-door Dispensaries*.—Twenty-five thousand one hundred and sixty-five patients were treated at the different dispensaries against 20,436 in 1906.

23. *Vaccination*.—The total number of vaccinations performed throughout the Colony in 1907 was 13,745 as against 15,054 in 1906. The following table shows the number vaccinated with the result in the several Settlements during 1907:—

SETTLEMENT.	Number of Vaccinations performed.	RESULT.				
		Perfect.	Modified.	Failed.	Not seen.	
Singapore ... {	2,458	2,458	...	...	...	(a)
	1,437	1,394	17	9	17	(b)
Penang ...	2,753	2,379	242	58	74	
Province Wellesley	3,593	3,431	57	88	17	
Dindings ...	134	90	4	6	34	
Malacca ...	3,370	3,194	115	45	16	
Total ...	13,745	12,946	435	206	158	

(a).—By Government Vaccinator. (b).—By Licensed Vaccinators.

24. The number of births registered against the 13,745 vaccinations is 15,623 after deducting the number of births elsewhere than in the Colony.

There is no return made of vaccinations performed by registered Medical Practitioners, hence the apparent large number of unvaccinated children.

25. *Quarantine*.—The number of passengers and crew examined on arrival in Singapore was 298,545 and 78,781 respectively. The number of pilgrims examined on departure was 5,781. The total number of passengers landed on St. John's Island was 26,408 as against 31,299 and 12,135 in 1906 and 1905 respectively, and the maximum number on one day was 2,996. In Penang the number of passengers and crew examined numbered 163,168 and 56,671 respectively. Of the pilgrim ships 1,408 passengers were examined on departure and 3,205 on arrival. The number of passengers landed at the Quarantine Station, Pulau Jerejak, was 17,650 and the maximum number on the Island on one day was 2,790. There was only one case of Plague imported during the year which was from an immigrant ship arriving at Penang. The Singapore Station was occupied throughout the year and the Penang Station was unoccupied only for one day.

26. *Government Analyst*.—Owing to the general reduction of charges for analysis and reports which was sanctioned towards the end of 1906 there was a considerable increase of work. The total revenue collected was \$12,455, against \$10,744 in 1906 and \$8,893 in 1905. Much work was also done in connection with the exhibits sent by the Police for analysis under "The Deleterious Drugs Ordinance." The results have shown a steady increase in the use of cocaine.

27. *Miscellaneous*.—There were 155 Medical Practitioners on the Register at the end of the year against 73 in 1906. The Ordinance for the Registration of Medical Practitioners was amended during the year to include those in the Federated Malay States and the increase is chiefly due to that change.

The Morphine Ordinance was repealed and the new "Deleterious Drugs Ordinance No. XIV of 1907" was passed in July; fresh rules under "The Poisons Ordinance No. X of 1905" were also issued during the year.

There were 13 Wholesale, 37 Retail and 7 Wholesale and Retail licences issued for Poisons during the year.

28. *Staff*.—Dr. T. C. MUGLISTON, Colonial Surgeon, Penang, proceeded on leave in October owing to ill-health and Dr. DANE from Singapore acted for him and Dr. HENNESSY in turn acted for Dr. DANE in addition to his other duties.

Dr. G. D. FREER, Principal, Medical School, proceeded on leave in March on the return from leave of Dr. FINLAYSON, and the latter in conjunction with Dr. KEITH undertook his duties in addition to their own.

Dr. G. E. BROOKE, Porth Health Officer, proceeded on leave in July and was succeeded by Dr. GIBBS who in turn was succeeded by Dr. HENNESSY.

Dr. A. H. KEUN, Resident Medical Officer, District Hospital, Penang, returned from leave in May when Dr. W. S. SHEPPARD proceeded on leave—Dr. NICHOLAS from Singapore succeeding him.

Miss E. BOOMGARDT, Deputy Registrar of Deaths, was transferred from Penang, to a similar appointment, to Singapore in September.

Dr. J. C. C. FORD returned from leave in November, resumed duties at Penang as Deputy Health Officer and relieved Dr. HENNESSY who returned to Singapore.

Drs. P. H. HENNESSY, A. S. MILLARD and E. G. WEIR arrived from home as House Surgeons, the first was appointed Assistant Port Health Officer and the other two were placed on the General Hospital Staff *vice* Dr. NICHOLAS promoted and Dr. BOURKE, resigned.


Dr. E. N. GRAHAM succeeded Dr. S. A. McCLINTOCK as House Surgeon, General Hospital, Penang, on the latter resigning the service, and Dr. J. L. NIVEN was engaged locally to succeed Dr. GRAHAM on his transfer to the Federated Malay States subsequently.

29. The following Reports are appended:—

- (a) Singapore Hospitals.
- (b) Penang Hospitals.
- (c) Province Wellesley Hospitals.
- (d) Malacca Hospitals.
- (e) Hospitals for Women.
- (f) Out-door Dispensaries.
- (g) Vaccination.
- (h) Quarantine.
- (i) Government Analyst's Department.
- (j) Medical School.
- (k) Pathological Department.
- (l) Labuan Medical Department.
- (m) Special Beri-beri Report, and I append the following returns for Singapore, Penang, Province Wellesley and Malacca:—
 - (1) Statistics of Population.
 - (2) Meteorological Returns.
 - (3) Nosological Returns.

D. K. McDOWELL,
Principal Civil Medical Officer,
Straits Settlements.

SINGAPORE, 14th May, 1908.



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APPENDIX A.

SINGAPORE.

General Hospital.

REPORT BY Dr. J. LEASK, *Senior Medical Officer-in-Charge.*

1. The buildings underwent painting, limewashing and general repairs.
2. A laundry and drying-room was built near the new dhobies' quarters.
3. Native Ward No. 1 was extended at the end near the gate.
4. The New European Female Block and European Operating-room were completed.
5. Hot water geysers were installed in the Native male, and the old female block.
6. Two reception rooms, one for Europeans and one for Natives were completed.
7. Two sinks were placed in the old female block, one upstairs and one downstairs.
8. The floor of the old reception room and part of the floor of the Medical Stores had cement substituted for wood.
9. A gas service was installed in the European operation room, and a sink made.
10. Gas lighting of the Hospital has been better than in former years, but on a few occasions the pressure has been low, and the light consequently bad.
11. Removal of night-soil was regular.
12. Removal of rubbish was regular.
13. Telephone service has been frequently interrupted.

	Remained from 31.12.06.	Admitted in 1907.	Total treated, 1907.	Discharged.	Transferred.	Absconded.	Died.	Remaining 31.12.07.	Percentage of Deaths to total treated.
Europeans ...	23	602	625	555	7	1	40	22	6.4
Natives ...	84	2,986	3,070	2,363	134	136	310	107	10.097
Native Police ...	7	350	357	326	...	20	3	8	0.840
Total ...	114	3,938	4,052	3,244	141	157	353	137	8.711

15. The Seamens' Wards have not been well filled this year again, though from time to time they have been nearly full.

16. The Officers' Wards as during last year have been well occupied relatively.

17. The Native Wards have been frequently overcrowded and the small extension at the end of Ward No. 1 has been a relief.

18. The total treated during 1907 was 4,052 against 3,511 in 1906, and the average daily sick was 142.63 against 141.546 in 1906.

19. The percentage of deaths to total treated was 8.716 against 8.117 in 1906.

20. There were 3,938 admissions (of whom 302 were females), against 3,368 in 1906.

21. The deaths were 353 (of whom 33 were among females).

22. *European Wards.*—In the European Wards the principal causes of admission were:—Malaria in its various manifestations 78, Venereal Diseases 63, Injuries 45, Alcohol 26, Enteric Fever 23, Dysentery 22, Dyspepsia 22, Observation and cases not diagnosed 19, Pyrexia of uncertain origin 18, Phthisis 17, Diarrhœa 16, Bronchitis 12, Dengue, Hæmorrhoids, Abscess each 11, Fistula in Ano 9, Abscess of Liver 7, Cellulitis 8, Synovitis 6, Appendicitis 4, Heart Disease 4, Bright's Disease 3.

23. Pneumonia (of which there were two cases) has been placed in the revised nomenclature under infective diseases, instead of under the respiratory system as formerly.

24. Deaths in the European Wards were 40 in number (7, being females) against 38 in 1906, the percentage to total treated being 6·4 against 6·022 in 1906.

25. The causes of deaths were:—Enteric Fever 7, Heart Disease 4, Phthisis 3, Apoplexy, Dysentery, Diphtheria, Fracture of Skull, Liver Abscess, Malaria, Peritonitis and Pneumonia each 2, Colitis, Eclampsia, Extra Uterine Gestation, Intestinal Obstruction, Cirrhosis Liver, Myelitis, Sprue, Tetanus, Cancer each 1.

26. *Native Wards.*—There were 2,986 (of whom 215 were females) admissions to the Native Wards.

27. The principal causes of admission were:—Malaria in its various manifestations 504, Wounds 429, Venereal Diseases 185, Observation 172, Enteric Fever 142, Dysentery 111, Pyrexia of uncertain origin 101, Anæmia 72, Beri-beri 67, Eye Diseases 29, Bronchitis 53, Phthisis 51, Pneumonia 38, Tuberculosis 12, Heart Diseases 15, Pleurisy 13, Fractures 59.

28. Of diseases of the Digestive System:—Gastritis 16, Dyspepsia 14, Enteritis 15, Appendicitis 3, Colitis 3, Sprue 6, Hernia 10, Fistula in Ano 15, Piles 9, Liver Abscess 5, Cirrhosis of Liver 12, Diarrhœa 64, Constipation 23, Colic 10.

29. Other causes of interest were:—Alcoholism 9, Tetanus 4, Bright's Disease 11, Myalgia 30, Inflammation of Glands 18, Cellulitis 36, Burns and Scalds 34, Poisons 6, Cholera 5 and Diphtheria 2.

30. *Deaths.*—The number of deaths in the Native Wards was 310 (of whom 26 were among females) giving a percentage to the total treated of 10·097 against 9·764 in 1906.

31. The chief causes of death were:—Malaria 50, Enteric Fever 44, Phthisis 30, Dysentery 3, Pneumonia 22, Beri-beri 16, Fractures 11, Enteritis 9, Bright's Disease 7, Diseases of Heart and Pericardium 6, Cirrhosis of Liver 5, Peritonitis 5, Tetanus 5, Wounds 4, Burns and Scalds, Pyæmia, Cerebral Hæmorrhage, Malignant Growths and Poisoning each 3.

32. Other causes of death of interest:—Diphtheria 2, Cholera 2, Pyelonephritis, Rupture of Intestine, Abscess of Brain, Broncho-Pneumonia, Empyema, and Syphilis each 2, and Appendicitis, Abscess of Liver, Strangulated Hernia, Intestinal Obstruction, Gastric Ulcer, Meningitis, Myelitis and Hemiplegia each 1.

33. The percentage of deaths to numbers admitted was:—in Phthisis 58·8, in Pneumonia 55, in Enteric Fever 30, Dysentery 27, and Malaria 9·9.

34. The deaths from Enteric Fever were mostly among jinrikisha coolies.

35. *Native Police.*—Of these 350 were admitted.

36. The principal causes of admission were:—Malaria 115, Venereal Diseases 30, Skin Diseases 26, Pyrexia of uncertain origin 25, Local Injuries 19, Dysentery 12, Bronchitis 10, Phthisis 7, Anæmia 6, Hydrocele 5, Pleurisy 4, Diarrhœa 7.

37. Enteric Fever, Eye Diseases, Gastritis, Sprue, Myalgia each 3, Heart Disease, Beri-beri and Hæmoptysis each 1, and no disease diagnosed (Malingering) 38.

38. *Deaths.*—There were 3, one each from Enteric Fever, Phthisis, and Gunshot wound of abdomen (suicide), giving a percentage to total treated of 0·84 against 0·539 in 1906.

39. *General Remarks, Malaria.*—With regard to cases of Malaria, a large number of blood examinations have been carried out in the latter half of the year by Dr. WEIR, and when parasites have been found the case has been classified accordingly.

40. But in many instances the patient has taken Quinine before coming into Hospital so that no parasites are to be found in the peripheral blood. In such cases if, with a history of rigors and large spleen and intermittent temperature charts, a

distinct increase of the large mononuclear cells of the blood has been found, I have classed them as Malarial Fever undifferentiated.

41. In 175 blood examinations (Natives and Europeans) made by Dr. WEIR, 55 were found to be Malignant Tertian, 12 Benign Tertian and 53 with a distinct mononuclear increase.

42. I have lately had the blood of every patient admitted with fever examined for Malaria or Enteric Fever and the results have been very interesting; as in the case of Malaria the diagnosis is made at once and accurate active treatment is not delayed.

43. On the point of treatment I cannot insist too strongly on the value of WARBURG'S Tincture in the Malignant or Subtertian form of fever.

44. This is a remedy which does not appear to receive sufficient attention at the hands of teachers in Europe at the present day, or its value is not sufficiently impressed on students.

45. Last century the late Professor McLEAN, I. M. S., writes:—"I have treated remittent fevers of every degree of severity contracted in the jungles of Deccan and Mysore, at the base of Mountain ranges in India, on the Coromandel Coast, in the pestilential highlands of the Northern Divisions of the Madras Presidency, on the Malarial Rivers of China, and on men brought to Netley Hospital from the swamps of the Gold Coast and I affirm that I have never seen Quinine, when given alone act in the manner characteristic of this tincture. And although I yield to no one in my high opinion of the inestimable value of Quinine I have never seen a single dose of it, given alone, to the extent of $9\frac{1}{2}$ grains, suffice to arrest an exacerbation of remittent fever, much less prevent its occurrence, while nothing is more common than to see the same quantity of the alkaloid in WARBURG'S Tincture bring about similar results."

46. This has also been my experience and why the remedy is not more widely used is hard to understand.

47. Over and over again I used Quinine by the mouth and by intramuscular injection without any effect on the exacerbation of the fever, when the subsequent administration of WARBURG'S Tincture has undoubtedly saved the patient.

48. A recent case is fresh in my memory. The patient, a European, from a Dutch Steamer, was admitted on the 6th day of the disease, blood examination showed a few Subtertian rings, and he was put on intramuscular injections of Quinine beginning with 29 grains twice a day which was increased to 30 grains twice a day, without any apparent effect on the exacerbation, when the patient's temperature rose to 106 with maniacal delirium.

49. On the 13th day of disease, eight days after admission, WARBURG'S Tincture was ordered in doses of three drachms three times a day.

50. This was given too late on that day to prevent the exacerbation, but on the following day the temperature only rose to 100 and after that was never again above normal.

51. It is said that when the Subtertian parasite is sporulating, death is inevitable. I would, however, be averse to accepting this proposition until I had given WARBURG'S Tincture an extended trial.

52. When I first came to the East it was fully recognized that Quinine by itself was ineffective in many cases of what was then known as bilious remittent fever, and that WARBURG'S Tincture was the preparation to use.

53. As Quinine by the mouth is inapplicable where there is much gastric disturbance, and intramuscular injections are given, so may WARBURG'S Tincture be given per rectum where it is readily absorbed.

54. I would recommend that every tropical station be provided with an ample supply of this invaluable preparation, and its inestimable value impressed on all who practice in the Tropics.

55. In the series of blood examinations made by Dr. WEIR, out of 120 where Malaria was demonstrated, 55 or 45.83 per cent were of the Subtertian malignant variety.

56. Towards the end of 1906 and beginning of 1907 I made 187 blood examinations, and found malarial parasites present in 75 instances: out of these 56, or 74 per cent., were Subtertian.

57. Sufficient time was not at my disposal to make a differential count, which, had it been carried out, would no doubt much reduce this percentage, still it must be obvious that over half the cases of malaria admitted here are of the malignant type.

58. This does not speak well for Singapore as regards Malaria, though many of the cases are imported.

59. I find that 56 Sinkhehs from the various coolie depôts suffering from Malaria were admitted during the year. Most of them immediately on their arrival from China.

60. I also find that 25 cases of Malaria were admitted to the European Ward from places outside, such as from ships running to coast and inland ports (*e. g.*, Port Swettenham, Batavia, and Medan), and from rubber estates and mines on the Peninsula, etc.

61. *Dysentery*.—I regret I have not been able to have the pathogenic organisms of cases of Dysentery under my charge differentiated and the symptoms and appearance of the stools compared.

62. Where the stools are mucous and blood stained, a few doses of Magnesia Sulph. with Ac. Sulp. Aromat and Cinnamon water usually cause loose feculent stools in 24 hours, and a few doses of Pil. Ipecac., Pil. Hydrag., and Opium, each one grain, terminate the case.

63. But if this result is not brought about in 24 hours, or the stools are sloughy or shreddy or dark coloured, Ipecacuana must be given at once in large doses.

64. Local treatment by means of 60 oz. Alkaline intestinal irrigations with a long tube is of much service.

65. In chronic cases I have found a combination of Pulv. Simaruba with Bismuth very useful.

66. *Abscess of the Liver*.—In these cases I prefer the open method of operation with resection of a portion of rib, and free drainage in one stage. The intra abdominal pressure is always sufficient to prevent leakage into the peritoneal cavity, in my opinion.

67. In the after treatment of these cases I have noticed that if the temperature does not come down and remain down after the operation, a second abscess must be looked for and that the prognosis is bad.

68. I have also noticed that when the discharge from the abscess becomes bile stained the prognosis is very bad. I have only seen two patients recover after this. I presume it implies great destruction of liver substance.

69. In several cases of Liver Abscess I have found night sweats the only clue to the condition.

70. Not long ago I had a patient who came in for treatment for Dyspepsia. There was no marked enlargement of the liver on percussion or palpation, no tenderness, no pain anywhere, no history of Dysentery, only loss of appetite and night sweats.

71. Trusting to former experience I operated and found an abscess in the liver eight inches long. The patient made a good recovery.

72. *Enteric Fever*.—For some years I have used Chlorine mixture for this disease, with a diet of white wine Whey and egg Albumen and with Bengers' food later on.

73. The disease is still prevalent among the jinrikisha coolies, no less than 85 of them were admitted.

74. Sinkhehs also bring it down from China, five cases having been admitted from the depôts, and seven cases were admitted to the European Wards who had contracted the disease outside the Settlement.

75. *Medico-legal*.—There were 930 persons sent to the Hospital by the Police. There were 121 bodies sent for post-mortem examination by the Coroner.

76. *Operations*.—There were 165 Surgical Operations performed.

77. *Staff*.—I was on sick and vacation leave from 15th March to 8th July, during which interval Dr. DANE was in charge.

78. Dr. NICHOLAS was promoted to be Supernumerary Colonial Surgeon on 22nd January, but continued to do duty as House Surgeon until June, when he was transferred to Province Wellesley.

79. Dr. ISIDORE BOURKE resigned in February.

80. Assistant Surgeon C. V. NORRIS did partial duty as House Surgeon from 5th February and was followed by Assistant Surgeon T. SCULLY until 10th May.

81. Dr. ALFRED S. MILLARD arrived from Europe on 11th May and was attached to Port Health Office in June and returned to the Hospital in July.

82. Dr. EDMUND G. WEIR arrived from Europe on 31st May.
83. Dr. E. N. GRAHAM came from Penang in June and did duty in Dr. MILLARD'S absence at port health work.
84. Senior Dresser E. P. CANAGASABY was transferred to Tan Tock Seng's Hospital in November and was replaced by Mr. T. A. S. PILLAY.
85. Dressers M. R. BHEEM resigned in February, C. CARVALHOES on 24th April, and S. DYRIAM in June and were replaced by V. SINNIAH on 20th February, W. NEWTON on 1st June, K. NALLATAMBY on 1st July.
86. Dresser W. NEWTON was transferred to Tan Tock Seng's Hospital and replaced by CHIN LEONG SENG in December.
87. *Nursing Staff.—Nursing Sisters.* The Head Nurse, Miss M. J. MCNAIR was on leave to Europe from 24th April to 19th November.
88. Miss ALICE SMITH returned from leave in Europe on 25th April and acted as Head Nurse until the return of Miss MCNAIR.
89. Miss MOLLIE CAMERON was transferred from Penang Hospital arriving here on 5th May.
90. Miss JESSIE C. MARTIN and Miss LYDIA BEATRICE THORPE for private nursing duties (spare time being utilised in the Hospital) arrived on 28th July and 7th August respectively.
91. Miss FLORENCE SUTTON arrived from England on 4th September.
92. Miss HELEN MARY WALKER and Miss WINIFRED MORLAND arrived from Europe on 2nd October.
93. Miss CONSTANCE STEPHEN was transferred to Penang on 22nd May.
94. Miss MARY WILLIS and Mrs. ALICE TAYLOR completed their agreements on the 6th and 24th August respectively, and returned to Europe.
95. Miss BESSIE HODGE resigned on 31st August.
96. *Probationers.*—Miss HELEN GIBSON commenced training on 31st January and Mrs. MARIA MUSKETT on 2nd April. The latter resigned on 19th September.
97. Mrs. E. BARCLAY, who had previous training, joined the staff on 5th April and resigned on 8th June.
98. Miss MARGARET PESTANA commenced training on 1st May.
99. Miss WINIFRED HOPKINS commenced training on 1st July and resigned on 13th September.
100. Miss GERTRUDE OLIVE WARNOCK, Mrs. CECILIA VEITCH, and Miss LOUISA ROSS commenced training on 27th September, 31st October and 13th November respectively.
101. Miss ROSE ANDRE' and Miss BESSIE MAY GAWLER resigned on 30th January and 31st August respectively.
102. Miss ISABEL MELDRUM was transferred to Penang on 19th February.

Police Force.

REPORT BY DR. W. G. ELLIS, *Police Surgeon.*

1. The total number of the force attending the out-patient room at the Central Station was 3,518, as compared with 3,301 for 1906 and 4,283 for 1905.
2. The greatest number seen on any one day was 27, the lowest 1.
3. The majority of those attending were suffering from trivial affections such as Catarrh, boot-bite, headache. Fewer were malingering, sending these men to Hospital and causing them loss of pay has considerably lessened the crime.
4. There were 289 sent to the General Hospital as in-patients compared with 294 in 1906, 335 in 1905, 357 in 1904, 317 in 1903, and 350 in 1902. Ninety-three others of the force have been admitted to the General Hospital for treatment having been sent by the Inspectors as urgent cases.
5. Of the 382 sent to the General Hospital, 17 (as was suspected) were reported to be malingering, the remaining 365 suffered from the following disorders:—Unclassed Fevers 24, Intermittent Fever 116, Enteric 3, Mumps 1, Pulmonary Tuberculosis 9, Pneumonia 2, Pleurisy 4, Bronchitis 10, Liver Diseases 6, Heart Disease 2,

Sarcoma 1, Phlebitis 1, Dysentery 14, Diarrhoea 10, Sprue 3, Colic 5, Colitis 1, Worms 2, Abscess 8, Ulcers 17, Skin Diseases 11, Eye Diseases 5, Beri-beri 5, Anæmia 5, Boils 3, Dyspepsia 7, Debility 4, Hydrocele 7, Injuries 22, Gonorrhœa 26, Chancroids 6, Syphilis 12, Dengue 3, Rheumatism 2, Alcoholism 2, Tonsillitis 3, and Adenitis 3.

6. A serious outbreak of Malaria occurred in August and September in the Keppel Harbour District and the police, their wives and children went down with hardly an exception at both the Keppel Harbour and Teluk Blanga Stations. The inhabitants of these stations were interchanged *en bloc* with those of Siglap and Bedoh, the newcomers were provided with mosquito curtains, dosed systematically with quinine and no cases occurred among them. Removed from the infected district the sick at Bedoh and Siglap made rapid recoveries. The interchange back was made later in the year, no death having occurred. The village of Keppel had another story to tell, losing many of its inhabitants. The district is being dealt with by the health authorities.

7. Two hundred and eighty-six candidates for the force were examined during the year, of these 189 were accepted and 97 rejected. Twenty members of the force were passed for further periods of service and 7 rejected.

The causes for rejection were as follows:—Venereal Diseases 22, Heart Disease 11, poor development 33, Varicocele 4, Phthisis 9, Asthma 3, Hernia 2, Debility 4, Impaired vision 2, Ch. Laryngitis 1, Deformity 2, over age limit 11.

The nationalities were:—8 Europeans passed, 1 Eurasian passed, 83 Malays passed and 43 rejected, 17 Sikhs passed and 5 rejected, 51 Chinese passed and 34 rejected, 29 Indians passed and 12 rejected, 13 Sikhs passed for re-engagement and 7 refused.

8. The Police stations both town and country, were inspected from time to time as usual, recommendations for sanitary improvements being made when considered necessary.

Prison Hospital.

REPORT BY DR. P. H. HENNESSY, *Acting Medical Officer.*

1. The sanitary condition of the Prison is good, and the health of the prisoners satisfactory.

2. Besides various sanitary improvements made during the year, a steam sterilizer has recently been erected, and the clothing of all admissions to Prison is now thoroughly sterilized.

3. The number of cases admitted to hospital, and the average daily sick, were much less than in the previous year, being 907 and 38.9 against 1,215 and 71.6.

4. *Civil Prison*.—The total population was 3,450 and the average daily number 53. The total admission to hospital was 12, giving a percentage of 0.34 admissions to total population. *See Table II.* The admissions were:—for Dysentery 2, Ulcers 2, Diarrhoea 2, Enteric Fever, Pyrexia, Malaria, Tuberculosis, Syphilis and Anæmia 1 each. No deaths occurred.

5. *Criminal Prison*.—The total population was 3,605 and the average daily number 852. The total admissions to hospital were 873, for ratio *see Table II.* The death-rate was very low compared with previous years *see Table I.* The diseases which caused most admissions and deaths amongst the criminals were:—Dysentery 84 with 4 deaths, Anæmia 21 with 1 death, Tuberculosis 16 with 8 deaths, Chronic kidney disease 6 with 2 deaths, Pneumonia 3 with 2 deaths and Cerebral Hæmorrhage 1 with 1 death.

6. *House of Detention*.—One hundred and seventeen vagrants were admitted with an average daily population of seven. The majority of these men were unfit for any but very light labour. Twenty-two were admitted to Hospital and two died. The causes of death were Anæmia and Dysentery. Both these deaths occurred in men who were admitted to Gaol with the disease from which they died.

7. *Dysentery and Diarrhoea*.—The admissions and deaths from these two diseases show a considerable falling off as seen below:—Dysentery: admissions 88, deaths 5, against 205 and 30 in 1906. Diarrhoea: admissions 169, deaths 0, against 263 and 6 in 1906. Alterations in the diets of prisoners, so as to vary them as much

as possible, are frequently made, and this may possibly be a factor in the improvement shown in these two diseases.

8. *Beri-beri*.—Eight cases were admitted, 7 came from Labuan Prison and 1 was admitted to Prison with the disease.

In connection with this, it is interesting to note that since the use of parboiled rice was begun in this Prison, the number of Beri-beri cases has steadily declined and Beri-beri may now be said to have disappeared from the Prison. From January to October, 1904, when Siam rice was used there were 252 cases of Beri-beri. From November, 1904, till July, 1905, when seven-tenths of the rice used was parboiled and three-tenths Siam, 48 cases occurred. From August, 1905, to October, 1906, only parboiled rice was used. Nine cases occurred. From November to December, 1906, there was only one case. This occurred in a prisoner who with some others was put on Siam rice as an experiment. In 1907 parboiled rice exclusively was used and not a single case occurred in the Prison. Eight cases were admitted from outside. Table III shows the number of cases of Beri-beri acquired before admission to Gaol 1897 to 1907. Table IV shows the number of cases of Beri-beri occurring each month 1897 to 1907.

9. *Enteric Fever*.—There were 5 admissions, all recovered. They occurred within the first half of the year and came from different parts of the Prison. In all these cases the blood examination showed positive Widal reaction.

Case I.—Middle Grade No. 165:—admitted to Prison 22nd March, 1905, to Hospital 24th January, 1907—ill four days. He worked in the Old Civil Prison and slept in D. Hall.

Case II.—Short Sentence No. 420:—admitted to Prison 19th November, 1906, to Hospital 11th February, 1907—ill three days. He worked at stone-breaking and slept in C. Hall.

Case III.—Chinese Remand Prisoner:—admitted to Civil Prison 19th April, 1907, to Hospital on 22nd April—ill four days.

Case IV.—Short Sentence No. 166:—admitted to Prison 8th November, 1906, to Hospital 21st May, 1907. He worked as assistant cook and cleaner in B. Hall.

Case V.—Upper Grade 1:—had been in Prison nearly two years before admission to Hospital. He worked as assistant cook and cleaner in A. Hall. With the exception of Case III, who came in with the disease, the others undoubtedly contracted it in the Prison. It has not been possible to trace the source of infection.

10. *Deaths*.—There were 20 against 74 in 1906. The causes of death were Tuberculosis 8, Dysentery 5, Pneumonia 2, Anæmia 2, Chronic Kidney disease 2, Cerebral Hæmorrhage 1.

11. *Staff*.—Dr. DANE was in charge till 12th October. I took up the duties here on 15th October.

Return of Admissions for Venereal Disease, etc., to Prison Hospital in 1907:—

—				Number admitted.	Proportion of Prostitutes.
Males	...	...	...	46	—
Females	...	...	...	Nil.	—

Return showing Total Number of Europeans and Natives separately treated in Prison Hospital with Deaths during the Year 1907:—

Nationality.			Remained on 31-12-1906.	Admitted in 1907.	Total treated.	Deaths 1907.
Europeans	...	...	1	9	10	—
Natives	...	...	54	898	952	20

Singapore Gaol.—Table I.

Showing the Death-rate amongst the Criminals to the Average Daily Population of Criminals.

—	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Death-rate ...	10.29	6.63	2.39	1.62	2.20	4.76	3.69	4.27	4.68	5.54	3.32	7.84	2.11

Singapore Gaol.—Table II.

Shows the Percentage of Admissions to Hospital for the Criminal and Civil Prisoners separately to the Population of each.

—	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Criminal Prisoners ...	29.8	20.0	21.5	19.8	35.9	24.9	24.6	27.2	29.0	24.2
Civil Prisoners ...	.06	.08	.44	.45	1.18	1.23	.55	.90	.4	.34

Singapore Gaol.—Table III.

Shows the Number of Cases of Beri-beri acquired before Admission to Gaol.

—	A. Number of Cases of Beri-beri.	B. Beri-beri recognized within 30 days of admission to Gaol.	Percentage B. to A.
			<i>Per Cent.</i>
1897 ...	3	2	66
1898 ...	124	9	7
1899 ...	165	9	5
1900 ...	224	18	8
1901 ...	219	22	10
1902 ...	415	51	12
1903 ...	169	26	15
1904 ...	266	35	13
1905 ...	*50	*30	60
1906 ...	4	1	25
1907 ...	8	8	100

* Includes 20 re-admissions. See note Table IV.

SINGAPORE GAOL.—TABLE IV.

Showing the Number of Cases of Beri-beri occurring in the Gaol each Month and the Number of them recognized within 30 Days after their Arrival in Gaol—"admitted with Disease."

	1897.		1898.		1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.	
	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.	Total.	Admitted with Beri-beri.
January	1	...	22	2	5	2	15	4	22	2	22	3	30	5	3	1	2	...	...	...
February	1	1	25	4	3	1	10	5	8	3	6	4	13	3	21	*20	...	...	...	...
March	25	...	1	...	4	1	2	...	6	2	20	7	1	...	1	...	...	...
April	1	1	23	...	8	...	17	3	8	3	3	...	16	3	...	...	...	...	...	...
May	2	1	5	...	14	...	25	...	18	4	1	...	28	3	1	...	...	...	...	...
June	7	1	32	...	17	...	79	5	3	2	11	1	7	...	...	...	...	...
July	1	...	7	...	36	1	23	2	86	10	1	...	29	5	11	8	...	...	...	...
August	2	1	19	1	8	...	12	1	27	3	...	...	34	2	1	...	...	...	...	...
September	6	1	3	...	32	2	10	1	36	4	2	...	45	2	3	...	...	...	...	...
October	10	2	5	1	24	1	19	1	62	6	7	3	26	2	2	1	...	...	...	...
November	...	2	78	1	8	...	44	4	41	4	35	10	53	7	10	2	...	...	...	...	...	...
December	...	1	22	1	16	...	17	7	26	...	32	1	65	5	4	...	...	...	1	...	...	...
Total ...	3	2	124	9	165	9	224	18	219	22	415	51	169	26	266	35	50	30	4	1	...	8

* Twenty Prisoners with Beri-beri were sent to Malacca for the benefit of their health. These 20 admissions are the same individuals returned convalescent.

Tan Tock Seng's Hospital.

REPORT BY DR. P. H. HENNESSY, *Acting Resident Medical Officer.*

1. *Staff.*—Dr. GIBBS left to do port health work on 22nd July and was succeeded by Dr. DANE, who acted for him from July 23rd to August 23rd, and then again from September 15th to October 8th. From August 23rd to September 15th Dr. E. N. GRAHAM was in charge. Dr. KEITH officiated till I relieved him on October 13th.

2. Assistant Surgeon WILLIAMS was on the staff throughout the year, Mr. SINHA from March 24th and Mr. HOGAN from June 19th.

3. The Dressing Staff is always a variable quantity, but December marked the arrival of the Hospital Assistant Grade, two men of that grade having been appointed.

Buildings.—Some thorough repairs to the Assistant Surgeons' quarters and Quarantine Camp were done during the year.

4. *Beri-beri.*—All Beri-beri cases were sent to the Pasir Panjang Hospital on the 14th April, together with 20 cases suffering from Pulmonary Tuberculosis. The latter, however, were sent back on October 21st, and the available accommodation was used for Beri-beri alone. The upkeep of these patients at Pasir Panjang was paid out of the Hospital funds. As vacancies occur at Pasir Panjang they are filled up from our supply of Beri-beri patients which is nearly always in excess of the demand for them. A separate report on the use of parboiled rice and its influence on this disease has been submitted.

5. The tuberculosis ward in use formerly has been vacated and the patients now occupy one of the largest and best wards in the Hospital.

6. *Total admissions, etc.:*—

Year.	Remained.	Admitted.	Total treated.	Discharged	Died.	Remaining.
1906	31-12-05. 521	7,124	7,645	5,892	1,220	533
1907	31-12-06. 533	7,529	8,062	6,059	1,467	536

Comparing these figures with those of last year, it will be seen that the number of admissions were 405 in excess and the total treated was 417 in excess. The average daily sick was 512.62 and the percentage of deaths to total treated was 18.20.

7. As may be expected from the class of patient admitted, Malaria, Dysentery, Beri-beri, Syphilis and Phthisis all played a prominent rôle in the number of admissions.

(a) *Malaria.*—Total treated, 1,555, Mortality 14.60. The Malignant type of Malaria (Subtertian) occurring in subjects whose general condition was as a rule wretched, and whose neglect of any treatment whatever till too late, accounted for a very high mortality.

In the other types of Benign and Quartan no fatal cases resulted.

(b) *Dysentery.*—Total treated 561, Deaths 263, Mortality 46.88. When it is remembered that most of the cases admitted are chronic cases, who will not observe the usual dietetic precautions and where other treatment is invariably useless, this mortality is not to be wondered at.

(c) *Tuberculosis.*—Total treated 512, Deaths 286, Mortality 55.86.

- (d) *Beri-beri*.—Total treated 821, Deaths 102, Mortality 12·42. As regards this disease no cases occurred in the hospital during the past year. The mortality is also very much less than it has been. This improvement is undoubtedly due to the substitution of cured for uncured rice.
- (e) *Syphilis*.—Total cases treated, 923, for Syphilis in all stages of the disease, showing a mortality of 1·62 per cent. In this disease the frequency of joint complications and nervous affections are noticeable.

8. The seasonal influence on the number of admissions and the mortality is shown in the attached table.

MONTH.	Admissions.	Deaths.	Mortality.
January	624	87	13·94
February	511	74	14·48
March	595	99	16·64
April	585	108	18·46
May	664	137	20·63
June	751	133	17·71
July	783	142	18·14
August	780	169	21·66
September	503	128	25·44
October	557	135	24·24
November	634	127	20·03
December	542	128	23·61

From this it will be seen that June, July and August provided the highest number of admissions whilst the months of May, September and December had the lowest number of admissions with the highest mortality.

9. In judging the total number of deaths it must be remembered that 153 cases were so bad that they died within 24 hours of admission, and 96 within 48 hours of admission.

10. *Surgical Aspect*.—Total number of operations 229; Major 57, Minor 172. The following operations were performed:—Laparotomy, Liver Abscess, Herniotomy, Cataract extraction, Iridectomy, Ligature of Arteries, Excision of Eyeball, Castration, Radical cure of Hydrocele, *i.e.* (excision of tunica vaginalis) and operations for the relief of Strangulated Hernia. In addition to the above numerous smaller operations were done in the wards.

11. The post-mortem work was done by Dr. FINLAYSON and Assistant Surgeon BARDHAM. All blood films and widal reactions were also undertaken by the Government Bacteriologist during the latter part of the year.

12. *Malignant Growths*.—Forty-six admissions and 21 deaths with 4 cases remaining. As a rule most of these cases were inoperable either from the situation of the growth, or the late stage at which it was admitted.

13. *Europeans.*—In this ward Europeans, Eurasians and Japanese were admitted. The total number was 215 and the mortality 5·12. Alcoholism, Malaria and Syphilis were the chief diseases accounting for the above admissions.

<i>Nationality.</i>	<i>No. admitted.</i>	<i>Nationality.</i>	<i>No. admitted.</i>
English ...	36	Manila ...	1
Irish ...	11	Candia ...	1
Scotch ...	21	Greek ...	2
German ...	12	Jew ...	2
French ...	1	Jaffna ...	1
Portuguese ...	2	Austrian ...	4
Australian ...	5	Spanish ...	1
Dutch ...	1	Goanese ...	3
Eurasian ...	55	Turkish ...	1
American ...	4	Boer ...	1
Japanese ...	43	Danish ...	1
Russian ...	3	Unknown ...	1
Ceylonese ...	2		

14. *Medico-Legal.*—Five hundred and twenty-six cases were sent in last year by the Police. Lacerated wounds of the scalp and other parts of the body, fractures of the long bones and the skull were the chief injuries.

Coroner.—One hundred and thirty-six inquests, inquiries and views were held by the Coroner during the year. From the following table it will be seen that the Chinese element composed more than two-thirds of the total:—

15. *Poisons*.—Eight cases were admitted, of these 6 were due to opium, of these 4 died. Alcohol and Mercury accounted for the remaining 2, of which the case of mercurial poisoning succumbed.

Quarantine Camp.

16. Two hundred cases were admitted.

The chief infectious diseases were:—

—			Admitted.	Died.	Mortality.
(a)	Cholera	... ..	72	59	81·94 per cent.
(b)	Small-pox	... ..	8	1	12·5 „
(c)	Plague	... ..	7	7	100·0 „
(d)	Diphtheria	... ..	1	1	100·0 „

The remaining were observation cases.

17. **LEPER ASYLUM.**

—	Remain- ed.	Admit- ted.	Total.	Dis- charged.	Trans- ferred.	Abscon- ded.	Died.	Remain- ing.
Male ...	16	43	59	2	32	11	12	2
Female...	28	3	31	...	...	5	8	18

The usual number of escapes have to be recorded. Five female lepers managed to elude the vigilance of the police constable on duty.

No treatment proved of use in any of the cases in the Asylum.

18. The Assistant Surgeons carried on the duties of Deputy Registrars during the year.

19. I have to record my appreciation of the work done by the Assistant Surgeons and of the help they accorded me.

Pauper Female Hospital at Kandang Kerbau.

REPORT BY ASSISTANT SURGEON MR. C. V. NORRIS.

1. There were 129 admissions into Hospital during the year, the total treated being 156.
2. Most of the admissions were of the destitute class and were brought here to die; 23 deaths occurring within seven days of admission.
3. There were 11 admissions for Diarrhœa with 9 deaths, 10 for Tuberculosis with 9 deaths, 5 for Valvular Disease of the Heart all of whom died, Bright's disease 4 cases with 3 deaths, Chronic Bronchitis in the aged accounted for 4 deaths.
4. It is satisfactory to note that the Malays—a class who do not readily seek admission into Hospitals—accounted for 10 per cent of the admissions.

Lunatic Asylum.

REPORT BY DR. W. G. ELLIS, *Medical Superintendent.*

1. The average daily number of patients resident during the year was 292 (Males 243, females 49), an increase of two as compared with the previous year.

2. On the 31st December, 1906, there remained 286 patients (males 238, females 48). There were admitted in 1907 males 163, females 34, making the total treated 401 males and 82 females. The maximum and minimum numbers in the Asylum on any one day of the year were respectively 315 and 273.

3. Of the 296 patients remaining on the 31st December, 1907:—

<i>Males.</i>	<i>Females.</i>	
—	—	
149	41	came from Singapore.
63	12	„ „ Penang.
20	2	„ „ Malacca.
3	—	„ „ Johore.
2	—	„ „ Seremban.
1	—	„ „ Perak.
2	—	„ „ Sandakan.
1	—	„ „ Labuan.

4. There were under treatment on the 31st December, 1906, 12 criminal lunatics and 6 lunatic criminals; 13 criminal lunatics and 5 lunatic criminals were admitted in 1907, making a total of 36 criminals treated during the year. Of these, 7 were discharged recovered, 3 died, and 26 remain under treatment.

5. Evidence of past and present venereal disease in the admissions, as in previous years, is common. Over 22 per cent were sufferers, in five of these this affection was the undoubted cause of the mental breakdown, and it is probable that it was a predisposing cause in many other cases.

6. In continuation of my paragraph on General Paralysis of the Insane in last year's report it is interesting to note that the examination of brain substance forwarded to Dr. MOTT, Pathologist to the London County Asylums, confirmed my diagnosis of this disease in the person of a pure-blooded Asiatic, a Chinaman. This is the first case I have come across though always on the look out for it.

7. There were eight abscondments, about our usual yearly number, nearly all were convalescents and the others were quiet and harmless. The most of our patients are allowed considerable liberty, so material to their health and comfort, and it is preferable that a few should escape than that all should be more restricted in liberty.

8. I have to chronicle a determined attempt at suicide. A quiet, harmless dement, a Javanese, was found hanging from one of the gates in H. Block at 2.45 P.M. He was immediately cut down and artificial respiration carried on for 1½ hours before his breathing became normal.

9. The Asylum dhoby, a hard-working, well-behaved and industrious Chinaman, was found hanging dead from a beam in his room on the morning of June, 24th. It was obviously a case of suicide. No reason could be discovered.

10. The numbered tables at the end of this report are as heretofore. Some of those are recommended by the English Lunacy Commissioners.

Admissions.

11. One hundred and sixty-six men and 34 women have been admitted during the year:—

120	males	and	27	females	from	Singapore.
26	„	„	5	„	„	Penang.
14	„	„	2	„	„	Malacca.
1	„	„	—	„	„	Johore.
1	„	„	—	—	„	Perak.
1	„	„	—	—	„	Christmas Island.

12. Table X/7 gives their description of mental disease. They were in better physical condition than in previous years, but nine dying under one month's residence as compared with 18 in the year 1906.

Discharges.

13. Eighty-eight patients were discharged recovered, giving a recovery rate of 44.67 per cent on the admissions, a most favourable rate.

14. Thirty patients have been discharged relieved and four not improved to the care of their friends.

Deaths.

15. Forty-seven (47) males and ten (10) females died in 1907 giving a percentage of 19.52 on the average daily number resident. This is the lowest rate that we have ever had.

Table V shows the causes of death with the age at death.

Industries.

16. During the year there have been made 4,560 yards of cloth, 17 cotton blankets, 27 canvas rugs, 20 combination canvas jackets, 51 European jackets, 1,010 Native jackets, 129 women's jackets, 19 European trousers, 871 Native trousers, 156 sarongs, 24 dusters, 8 mattress covers, and 4 chair covers.

General.

17. The Revenue derived from paying patients amounted to \$3,389.77, sale of stores, refuse rice, etc., produced \$82.85.

18. The monthly cost of maintenance per head has been \$12.35 exclusive of Public Works Department expenditure compared with \$12.62 for the previous year.

19. Mr. NORRIS, Assistant Medical Officer, was transferred to Kandang Kerbau on the 21st March, and was replaced by Mr. SCULLY from Penang. Mrs. GUNN arrived from England and took up the duties of Matron on January 3rd.

TABLE B.
LUNATIC ASYLUM.

Giving the Nationalities of Patients in the Asylum on 31st December, 1907.

Nationalities.				Male.	Female.
European (Greek)	...	...	...	1	...
European (British)	...	...	...	1	1
Eurasian	...	...	...	11	1
Japanese	...	...	...	...	2
Jew	...	...	...	1	...
Negro	...	...	...	1	...
Chinese	Hokkien	...	...	65	10
	Teh Chiu	...	...	41	6
	Cantonese	...	...	27	21
	Kheh	...	...	30	3
	Hailam	...	...	21	1
	Lui Chu	...	...	4	...
Malay	...	...	...	7	6
Javanese	...	...	...	2	1
Buggis	...	...	...	1	...
Manila	...	...	...	1	...
Arab	...	...	...	2	...
Siamese	...	...	...	1	...
Tamil	...	...	...	19	3
Bengali	...	...	...	2	...
Goanese	...	...	...	1	...
Total				241	55

TABLE C.

Showing Admissions, Discharges and Deaths for each Month.

Month.	Admissions.			Discharges.			Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
January	11	2	13	12	1	13	3	2	5
February	10	2	12	5	2	7	5	1	6
March	19	4	23	10	1	11	6	...	6
April	17	1	18	9	4	13	7	1	8
May	15	3	18	10	2	12	1	...	1
June	11	6	17	4	...	4	2	1	3
July	19	1	20	6	1	7	2	1	3
August	12	4	16	9	1	10	5	1	6
September	17	5	22	12	1	13	2	1	3
October	8	...	8	8	...	8	5	...	5
November	13	3	16	5	2	7	6	2	8
December	11	3	14	16	1	17	3	...	3
Total	163	34	197	106	16	122	47	10	57
Average monthly rate	13	3	16	9	1	10	4	1	5

TABLE I.

LUNATIC ASYLUM.

Table showing the Admissions, Discharges and Deaths during the Year 1907.

—	Male.	Female.	Total.	Male.	Female.	Total.
In the Asylum on 1st January, 1907	...	...	...	238	48	286
Cases admitted :—						
First Admissions	148	29	177	...	...	...
Not First Admissions	15	5	20	163	34	197
Total Cases under care during the year	...	...	...	401	82	483
Cases Discharged :—						
Recovered	80	8	88	...	...	...
Relieved	22	8	30	...	...	...
Not Relieved	4	...	4	...	...	...
Absconded	7	1	8	...	...	...
Died	47	10	57	...	...	...
Total Cases Discharged and Died during the year	...	...	...	160	27	187
Remaining in the Asylum on 31st December, 1907	...	...	...	241	55	296
Average number resident during the year	...	...	...	243	49	292

TABLE II.

LUNATIC ASYLUM.

Table showing the Admissions, Re-admissions, Discharges and Deaths from 31st December, 1888, to 31st December, 1907.

—	Male.	Female.	Total.	Male.	Female.	Total.
Remaining on the 31st December, 1888 ...	...	...	...	176	32	208
Persons admitted during the period ...	...	...	...	2,957	477	3,434
Re-admissions ...	...	...	...	320	64	384
Total Cases treated ...	...	...	...	3,453	573	4,026
Discharged Cases:—						
Recovered ...	1,386	179	1,565	...	...	...
Relieved ...	337	82	419	..	...	...
Not Improved ...	103	38	141	...	...	...
Absconded ...	100	16	116	...	...	...
Died ...	1,286	203	1,489	...	...	...
Total Cases Discharged and Died since 31st December, 1888 ...	...	...	...	3,212	518	3,730
Remaining in Asylum on 31st December, 1907 ...	...	...	...	241	55	296

TABLE VI.

LUNATIC ASYLUM.

Table showing the Length of Residence of those Discharged Recovered and of those who Died, during the Year 1907.

Length of Residence.	Recovered.			Died.		
	Male.	Female.	Total.	Male.	Female.	Total.
Under one month	9	1	10	6	3	9
From one to three months	25	4	29	8	...	8
" three to six months	19	2	21	6	...	6
" six to nine months	14	...	14	7	1	8
" nine to twelve months	6	...	6	2	3	5
" one to two years	5	1	6	9	...	9
" two to three years	1	...	1	1	...	1
" three to five years	1	...	1	4	1	5
" five to seven years ... ..	...	...	...	2	...	2
" seven to ten years ... ..	...	...	...	...	1	1
" ten to fifteen years ... ..	...	...	...	1	...	1
" fifteen to twenty-five years ... ..	...	...	...	1	...	1
" twenty-five to thirty years ... ..	...	...	...	...	1	1
TOTAL	80	8	88	47	10	57

TABLE X-a.
LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1907.

CAUSES.	ADMISSIONS.											
	Number of Instances in which a Cause was Assigned.											
	Admissions :—Male.			Female.			Total.			Total.*		
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or exciting Cause. †					
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends)	2	1	3	...	...	...	...	...	2	1	3
Adverse Circumstances (including business anxieties and pecuniary difficulties) ...	4	...	4	...	...	...	...	...	4	...	4
Mental Anxiety and Worry and Overwork ...	...	...	...	...	...	1	1	2	1	1	2
Religious Excitement ... ..	...	...	...	...	...	...	...	...	...	...	...
Love Affairs (including seduction) ...	...	...	...	...	...	...	2	2	...	2	2
Fright and Nervous Shock ... ..	...	...	...	...	...	...	...	...	...	...	...
<i>Physical.</i>												
Intemperance in Drink	1	...	1	15	...	15	...	...	16	...	16
Venerical Disease ... ..	...	...	...	6	1	7	...	...	6	1	7
Self-abuse ... ..	...	...	...	...	...	...	...	...	...	...	...
Sunstroke ... ..	...	...	...	1	...	1	...	...	1	...	1
Accident or Injury ... ..	...	...	...	...	...	...	...	...	...	...	...
Pregnancy ... ..	...	...	...	...	...	...	...	...	...	...	...
Parturition and the Puerperal State ...	...	...	...	1	1	...	...	...	1	1	...
Uterine and Ovarian Disorders ... ..	...	...	...	...	...	...	...	...	...	...	...
Lactation ... ..	...	...	...	...	...	...	...	...	...	...	...
Puberty ... ..	...	...	...	...	...	...	...	...	...	...	...
Epilepsy ... ..	...	...	...	3	1	4	...	...	3	1	4
Privation and Starvation ... ..	...	...	...	1	...	1	...	...	1	...	1
Heart Disease	5	...	5	...	...	...	...	...	5	...	5
Phthisis ... ..	...	...	...	...	...	...	...	...	...	...	...
Malarial Fever ... ..	...	...	...	5	...	5	...	...	5	...	5
Typhoid Fever ... ..	...	...	...	...	...	...	...	...	...	...	...
Other Bodily Diseases or Disorders ...	...	...	...	...	...	10	2	12	10	2	12
revious Attacks	11	4	15	...	...	...	...	...	11	4	15
Old Age	3	1	4	...	...	...	...	...	3	1	4
Merphia Habit ... ..	...	...	...	...	...	...	...	...	...	...	...
Hereditary Influences ascertained ...	3	...	3	...	...	...	...	...	3	...	3
Congenital Defect ... ..	...	...	...	...	...	...	...	...	...	...	...
Indian Hemp Smoking ... ..	...	...	...	2	...	2	...	...	2	...	2
Unknown ... ..	...	...	...	...	...	...	...	...	100	21	121

* Some of the admissions are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the admissions. † Where these could not be distinguished.

TABLE X-b.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1907.—Continued.

CAUSES.	DISCHARGES.											
	Number of Instances in which a Cause was Assigned.											
	Admissions:—Male. Female. Total.											
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.†			Total.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends)	1	2	3	...	...	...	...	...	1	2	3
Adverse Circumstances (including business anxieties and pecuniary difficulties)	3	...	3	...	...	3	...	3	
Mental Anxiety and Worry and Overwork ...	1	...	1	...	...	...	...	...	1	...	1
Religious Excitement	
Love Affairs (including seduction)	
Fright and Nervous Shock	
<i>Physical.</i>												
Intemperance in Drink	18	...	18	...	...	18	...	18	
Venereal Disease	1	...	1	3	...	3	...	...	4	...	4
Self-abuse	
Sunstroke	
Accident or Injury	
Pregnancy	
Parturition and the Puerperal State	1	1	...	...	...	1	1	1	
Uterine and Ovarian Disorders	
Lactation	
Puberty	
Epilepsy	
Privation and Starvation	
Heart Disease	1	...	1	...	...	...	...	...	1	...	1
Phthisis	1	...	1	1	...	1	
Malarial Fever	4	...	4	...	...	4	...	4	
Typhoid Fever	
Other Bodily Diseases or Disorders	5	1	6	5	1	6	
Previous Attacks	19	4	23	...	...	...	...	...	19	4	23
Old Age	1	1	...	...	...	...	...	...	1	1	
Morphia Habit	
Hereditary Influences ascertained ...	2	1	3	...	...	...	...	...	2	1	3
Congenital Defect	
Indian Hemp Smoking	3	...	3	...	...	3	...	3	
Unknown	53	7	60	
Belladonna poisoning	

* Some of the discharges are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the discharges. † Where these could not be distinguished.

TABLE X-c.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders, in the Admissions, Discharges and Deaths of the Year 1907.—Concluded.

CAUSES.	DEATHS.											
	Number of Instances in which a Cause was Assigned.											
	Deaths:—Male.			Female.			Total.					
	As Predisposing Cause.			As Exciting Cause.			As Predisposing or Exciting Cause.†			Total.*		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<i>Moral.</i>												
Domestic Troubles (including loss of relatives and friends)	
Adverse Circumstances (including business anxieties and pecuniary difficulties)	
Mental Anxiety and Worry and Overwork	
Religious Excitement	
Love Affairs (including seduction)	
Fright and Nervous Shock	
<i>Physical.</i>												
Intemperance in Drink	
Venereal Disease	3	...	3	...	...	3	...	3	
Self-abuse	
Sunstroke	
Accident or Injury	
Pregnancy	
Parturition and the Puerperal State	
Uterine and Ovarian Disorders	
Lactation	
Puberty	
Epilepsy	2	...	2	...	...	2	...	2	
Privation and Starvation	
Heart Disease	2	...	2	...	...	...	...	...	2	...	2
Phthisis	1	...	1	...	...	1	...	1	
Malarial Fever	1	1	2	...	...	1	1	2	
Typhoid Fever	
Other Bodily Diseases or Disorders	16	2	18	16	2	18
Previous Attacks	3	1	4	...	...	...	...	...	3	1	4
Old Age	6	...	6	...	...	...	...	...	6	...	6
Morphia Habit	
Hereditary Influences	
Congenital Defect	
Indian Hemp Smoking	
Unknown	20	6	26	

* Some of the deaths are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the deaths. † Where these could not be distinguished.

TABLE XI.
LUNATIC ASYLUM.

Showing the Form of Mental Disorder on Admissions, Recoveries and Deaths, of the Year 1907, and the Form of Mental Disorder of the Inmates on 31st December, 1907.

FORM OF MENTAL DISORDER.	Admissions.			Recoveries.			Deaths.			Remaining in Asylum.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital or Infantile Deficiency with Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...
do, without Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy acquired	...	...	...	...	...	...	...	...	...	...	...	...
do, General Paralysis of the Insane	3	1	4	...	...	...	...	...	...	...	...	...
Mania, Acute	2	...	2	...	...	...	...	...	...	...	...	...
do, Acute Delirious	79	21	100	55	2	57	...	...	...	...	...	...
do, Chronic	2	...	2	...	...	...	...	...	...	...	...	...
do, Recurrent	1	...	1	...	...	...	...	...	...	...	...	...
do, A Potu	9	...	9	5	...	5	...	...	...	...	...	...
do, Puerperal	4	...	4	5	...	5	...	...	...	...	...	...
do, Senile	...	...	...	...	...	...	...	...	...	...	...	...
Melancholia, Acute	5	1	6	...	...	...	...	...	...	...	...	...
do, Chronic	26	4	30	7	2	9	...	...	...	...	...	...
do, Recurrent	...	...	...	...	...	...	...	...	...	...	...	...
do, A Potu	...	...	...	...	...	...	...	...	...	...	...	...
do, Puerperal	...	...	...	...	...	...	...	...	...	...	...	...
do, Senile	...	...	...	...	...	...	...	...	...	...	...	...
Delusional Insanity	11	2	13	...	...	...	...	...	...	...	...	...
Dementia, Primary	2	...	2	...	...	...	...	...	...	...	...	...
do, Secondary	8	...	8	...	...	...	...	...	...	...	...	...
do, Senile	...	...	...	...	...	...	...	...	...	...	...	...
do, Organic...	6	...	6	...	...	...	...	...	...	...	...	...
Not Insane on Admission	5	2	7	5	1	6	...	...	...	...	...	...
Delirium from Fever	...	1	1	...	...	...	...	...	...	...	...	...
TOTAL	163	34	197	80	8	88	47	10	57	241	55	296

TABLE XVII.

LUNATIC ASYLUM.

Showing Occupation of Admissions.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
				<i>Brought forward ...</i>	67	7	74
Blacksmith ...	2	...	2	Mason ...	1	...	1
Boatman ...	1	...	1	Miner, Tin ...	1	...	1
Carpenter ...	1	...	1	Painter ...	2	...	2
Cart Driver ...	1	...	1	Planter, Gambier ...	2	...	2
Clerk ...	6	...	6	„ Padi ...	2	...	2
Cook ...	1	...	1	„ Vegetable ...	5	...	5
Cooly, General ...	29	...	29	„ Tapioca ...	1	...	1
„ Jinrikisha ...	3	...	3	Prostitute ...	...	5	5
Engineer ...	4	...	4	Sailor ...	1	...	1
Farmer ...	1	...	1	Sawyer ...	1	...	1
Fisherman ...	3	...	3	Shoemaker ...	1	...	1
Gardener, Vegetable ...	5	...	5	Tailor ...	1	...	1
Hawker ...	10	...	10	Treasurer ...	1	...	1
Housewife ...	...	7	7	Unknown ...	77	22	99
<i>Carried forward ...</i>	67	7	74	TOTAL ...	163	34	197

Maternity Hospital.

REPORT BY DR. P. FOWLIE, *Honorary Visiting Surgeon.*

1. One hundred and five cases were treated during the year, an increase of seven over the previous year.

2. *Nationalities* :—

Europeans ...	...	...	...	...	29
Eurasians ...	...	...	...	...	8
Chinese ...	...	...	...	...	20
Malays ...	...	...	...	...	1
Sikhs ...	...	...	...	...	1
Tamils ...	...	...	...	...	23
Jews ...	...	...	...	...	5
Japanese ...	...	...	...	...	6
Burmese ...	...	...	...	...	1
Cingalese ...	...	...	...	...	1
Total ...					105

Of the cases, 80 were natural labours, 3 were tedious, 3 were abortions and 1 premature.

3. Of the complicated cases there were, 4 of Albuminuria, 3 Placenta Prævia, 2 of Retained Placenta, 1 Prolapsed Funis.

There were 4 cases of Mal-position; 3 being transverse, 1 a face position. One of the transverse cases was transferred to the General Hospital for Cæsarean Section with favourable result.

4. One case was admitted for observation, that of a woman who passed fetal bones per rectum. This was obviously a case of abdominal pregnancy going on to abscess formation bursting into the bowel.

Forceps were used in four cases.

5. I am glad to report that there were no deaths during the year, though as usual some cases were admitted in a very septic state. One case was so septic that it was judged to be advisable to close the hospital for a fortnight, from August 30th to September 14th.

6. *Children* :—

1. Born alive	...	...	...	{	Males 39
				{	Females 50
2. Still-born	...	...	...	{	Males 5
				{	Females 3

Average Weight of Children.

European ...	...	...	...	7 lbs. 13 ozs.
Native ...	...	...	...	6 lbs. 6 ozs.
Lowest weight of a child born alive	...	...	...	4 lbs.
Greatest weight	...	...	...	11 lbs. 12 ozs.

7. Mrs. LEWIS returned from leave on February 9th taking over from Miss SHAW who had acted for her for three months. Mrs. GUSH passed her examination for diploma in February, and Miss CARELESS in April. Both were granted certificates as midwives.

8. *Buildings*.—In the same unsatisfactory condition as before, but very satisfactory progress has been made with the new hospital at Sepoy Lines, and next year's report will emanate from there.

New Beri-beri Hospital at Pasir Panjang.

REPORT BY DR. W. G. ELLIS *Surgeon-in-Charge.*

1. Owing to the success, attending the treatment of patients from the Lunatic Asylum suffering from Beri-beri, on the sea-coast, it was decided some three years ago

to build wards on the beach at Pasir Panjang, adjoining the Asylum wards, for the accommodation and treatment of Beri-beri patients from the General Hospital, Tan Tock Seng's Hospital and the Gaol.

2. Five wards were built, each with accommodation for 40 patients; one for the prisoners, one for the General Hospital, and three for Tan Tock Seng's Hospital. These wards were ready for use early in the year under report. As at the time no beri-beri existed either in the Gaol or in the General Hospital, and the Lunatic Asylum had two of its three wards condemned as unfit for further use, the prisoners' block was taken over for the accommodation of 40 male chronic lunatics and the General Hospital block for an equal number of female lunatics. The three remaining wards were opened on the 14th April, 100 patients being transferred to them from Tan Tock Seng's, 82 suffering from Beri-beri and 18 from Pulmonary Tuberculosis.

3. *Phthisis*.—Ward No. 3 was given up to the treatment of this disease from April to October and as the ward is quite open and the patients were compulsorily out on the beach throughout the day, a fair attempt at open-air treatment was made. Unfortunately I have no success to record. The Asiatic is not yet sufficiently accustomed to nor educated up to European medicine to subject himself with patience to the sanatorium treatment for Phthisis. The early and possible curable cases refuse to remain long enough to give the treatment a fair trial, they insist on leaving after a few weeks residence whether their condition be improved or not. Many of those sent me were in the last stage of their disease, dying within a few days of admission. Others were sufficiently advanced as to be irrecoverable. For such patients I considered this hospital unsuitable.

4. In addition to the 18 cases of Pulmonary Tuberculosis transferred from Tan Tock Seng's Hospital on 14th April there were other 39 cases admitted up to 21st October. Of these 57 cases:—16 were discharged improved, 4 not improved, 5 absconded, 22 died, and 10 were transferred back to Tan Tock Seng's.

5. The treatment of Phthisis in this hospital was given up in October, the ward thoroughly disinfected, and early in November it was filled by more Beri-beri patients from Tan Tock Seng's.

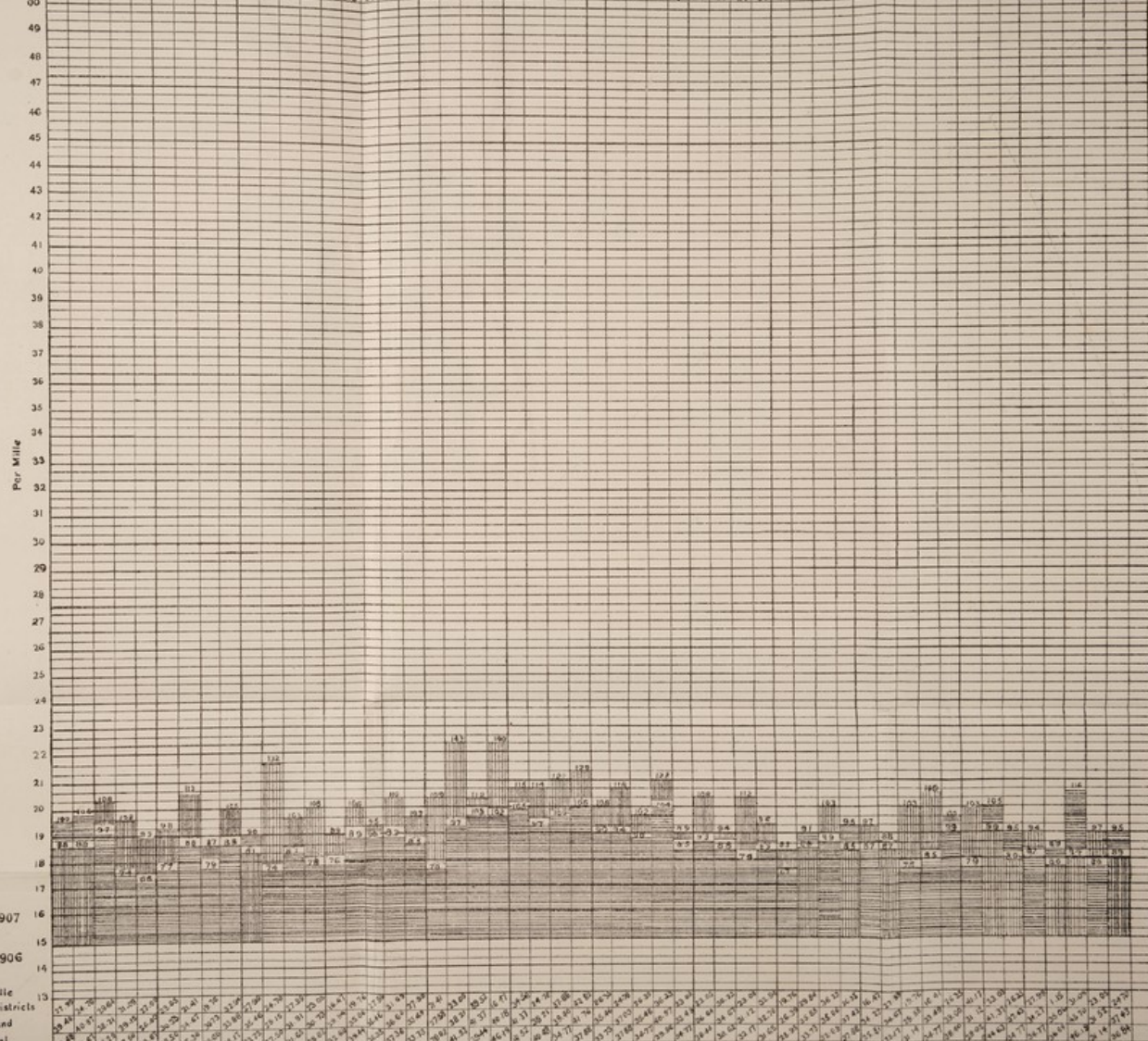
6. *Beri-beri*.—Eighty-two cases were admitted on 14th April, 181 were admitted up to the end of the year, making a total treated of 263. Of these:—73 were discharged recovered, 29 improved, 4 not improved, 5 were transferred improved and 9 not improved, 2 absconded recovered, 19 improved and 2 not improved, seven died, only three being from Beri-beri, and 113 remained under treatment on 31st December, 1907.

7. With few exceptions all these 263 patients were chronics, many in a poor and emaciated condition, many anæmic, the majority suffering from wrist and ankle drop, loss of knee jerks, tenderness of calves and sometimes thighs and arms, more or less inability to walk, a few had cardiac complications, and a few some slight œdema. Cases in the early acute stage of the disease were rare as patients were transferred to us from Tan Tock Seng's Hospital only as vacancies occurred. The main reason no doubt, of our exceedingly low death-rate. Still, the healthy site, the open-air treatment, the daily sea bathing (every patient was kept in the water for half an hour and massaged during a considerable proportion of that time), the good food (Bengal rice was given throughout and care was taken to vary the diet and mode of cooking as much as possible), must, I think, be considered large factors in our success. In addition every ward was thoroughly washed out daily with sea water and once a week was scrubbed with soft soap and disinfectants. Due regard was also paid to the periodic disinfecting of beds, bedding, clothes, and all utensils used for the cooking and serving of food. The ground around the wards was re-sanded from time to time by fresh sand from the beach, work undertaken by the lunatic patients.

8. It was gratifying to watch the bedridden begin to feed themselves and then to crawl, the crawlers commence to walk with the help of two sticks, to see first the one stick and then the other thrown away, and finally the patient become a sound man once more. Of course a matter of many months. Several patients admitted in April unable to stand or even lift their hands were discharged recovered before the end of the year, if they may be called recovered before the return of the knee jerks, a return that may have to be waited for for years in my experience.

9. My thanks are due to the whole staff for good work done and more especially to the Matron of the Lunatic Asylum who has been untiring in superintending the nursing and well-being of the sick and helpless and in the proper cooking and distribution of all meals and extras.

Death Rate per Mille calculated on a mean Annual Population of Rural Population												132,483 32,054		1907.												Death Rate within Municipal Limits Calculated on a Population of												100,429													
January			February			March			April			May			June			July			August			September			October			November			December																		
WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE	WEEK ENDING THE																					
5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28



200
190
180
170
160
150
140
130
120
110
100
90
80
70
60

195
185
175
165
155
145
135
125
115
105
95
85
75
65

1907
1906

Death rate mille
Corrected Rural Districts
Crude Pinang Island
Corrected Municipal

Like Col. Log's Office Singapore June 1908.

Death Rate per Mille for Municipality for year
Rural Districts

207



APPENDIX B.

PENANG.

REPORT BY DR. S. H. LUCY, *Acting Senior Medical Officer.*

1. The public health of the Island for the year 1907 judged from the vital statistics shows an improvement as compared with 1906. The death-rate per mille during 1907 was 36·13, whilst that for 1906 was 41·88.

2. The average death-rate for the ten years prior to 1907 was 37·99.

3. A contributing factor of the lower mortality which is of some importance is the decrease in the number of deaths from Dysentery and Diarrhœa. The deaths from these causes in 1907 amounted to 500 as against 645 in 1906.

4. The total number of deaths registered was 4,787 or 729 less than in 1906; the births show a slight increase, the numbers being 2,310 as against 2,215 in 1906.

5. The infantile mortality shows no improvement; the death-rate of infants under three months of age was 9·75 per cent, this is a very high rate and is 2·39 per cent higher than in 1906.

The deaths from Trismus are steadily increasing being 52 during the year as against 44 in 1906.

6. Fevers of various types including Enteric account for 1,010 deaths, in 1906 there were 1,166 deaths from the same causes.

Little abatement in the malarial mortality of the Settlement can occur, until the mosquito-ridden swamps and breeding-grounds within the township are filled in or drained.

7. One fatal case of Cholera occurred in Kuala Kangsar Road during October.

Three cases of Small-pox were reported in the town, one of these being discovered only after death.

8. There were no cases of Plague nor outbreaks of serious epidemic disease during the year.

9. The number of vaccinations was 2,753 as compared with 3,311 in 1906. 95·20 per cent of these operations were successful.

10. Seven thousand six hundred and fifty-three patients were admitted to the various hospitals on the Island as against 7,534 in 1906.

11. A chart is attached showing the actual deaths each week of this and last year; the greatest mortality occurred in the second week of December.

Quarantine Camp.

REPORT BY DR. A. H. KEUN, *Medical Officer.*

1. There were 5 patients in camp on January 1st, who together with the following admitted during the year:—Chicken-pox 30, Measles 8, Small-pox 3, Cholera 2, Enteric Fever 1, Dysentery 2, Malarial Fever 3, and 5 minor cases make a total of 59 cases treated.

2. There were only 2 deaths during the year:—Cholera 1, and Enteric Fever 1 (in a Hindu who arrived from Negapatam two days before he sought admission into the camp).

3. Twenty cases out of 54 came themselves to the camp or were brought in by their friends or relatives; the remainder were sent in by the Municipal Health Department.

4. In December, Wards 1, 2 and 3 were entirely re-erected on stone masonry and with boarded floors. Part of the swampy ground was filled in with red earth and on this site the new European Small-pox Hospital is to be built in 1908.

5. I attach Tables A, B and C to show seasonal variations of the infectious diseases and the incidence among the different nationalities.

TABLE A.

MONTHS.				Small-pox Admissions.	Chicken-pox Admissions.	Cholera Admissions.
January	...	...	...	...	...	...
February	...	...	...	2	5	...
March	...	...	...	...	7	...
April	...	...	...	...	2	...
May	...	...	...	1	2	...
June	...	...	...	...	...	...
July	...	...	...	...	2	...
August	...	...	...	...	2	...
September	...	...	...	...	2	1
October	...	...	...	...	6	1
November	...	...	...	...	1	...
December	...	...	...	...	1	...
Total				3	30	2

TABLE B.

NATIONALITIES.				Small-pox.	Chicken-pox.	Cholera.
Hindus	...	...	...	2	22	1
Chinese	...	...	...	1	...	1
Islam Klings	...	...	...	...	4	...
Eurasians	...	...	...	...	1	...
Malays	...	...	...	...	3	...
Total				3	30	2

TABLE C.

Return of Opium Smokers in the Quarantine Camp, Jelutong.

(a)	Total admissions	...	...	...	54
(b)	{	Opium smokers	...	...	2
		Opium eaters	...	...	—
(c)	{	Morphia injectors	...	...	—
		Illness attributable to opium habit	...	...	—
		Enhanced by the opium habit	...	...	—

General Hospital.REPORT BY DR. D. M. FORD, *Acting Senior Medical Officer.*

1. *Staff.*—I remained in charge of the Hospital throughout the year. Dr. LANG NIVEN was appointed Acting House Surgeon on the 16th November. Before his arrival the wards now under his care were worked by Mr. BATEMAN and Mr. HOLLOWAY, Assistant Surgeons, successively. During the year the remaining wards were under the care of Mr. RODRIGUEZ, Assistant Surgeon.

Nursing Staff.—Miss CLEMENTS, the Head Nurse, on the expiry of a three years' agreement left for England on the 4th August. Miss HARDING was appointed Acting Head Nurse. The vacant appointment of Nurse Probationer, caused by the promotion of Miss COLLEY to the class of Nurse has not yet been filled. This to a certain extent has caused some inconvenience, but the members of the staff have ably and willingly helped Miss HARDING to carry on with satisfaction. Misses CHRISTIANSEN and MILES, Nurse Probationers, have successfully passed their first examination in November.

Dressers.—Mr. AERIA who had worked very well for many years in this hospital applied for transfer and was sent to the Out-Door Dispensary, being relieved by Mr. DANIELS, another good worker. The others doing duty here were:—Messrs. DESILVA, GASPER and ALVINS. All gave satisfaction. About the middle of the year, during an epidemic of Small-pox in the village of Batu-Maung on this Island, Dresser DESILVA was placed there on special duty, and owing to his careful method of vaccination the spread of the disease was soon checked.

Mr. KIM CHENG, the late Clerk and Interpreter, died last August, and his loss has been much felt. He was an excellent accountant. His successor is Mr. ONG CHENG CHOE.

Servants.—An extra toty was placed on the establishment. On the whole the servants behaved well, but a large number of breakages must be placed to their credit. The imposition of fines in these cases is teaching more care. Ample provision has been made in the 1908 Estimates for supplying white drill and khaki uniforms to the servants. At present they look an untidy group at roll-call. The vote is annually recurrent.

The appointment of a linen woman last year supplied a long-felt want and the Head Nurse reports satisfactorily on the work of the present holder, Mrs. HEIR.

2. *Buildings.*—The additions and alterations appearing in the estimates for 1907 were put in hand and completed by the end of the year. These included a verandah to the new wing of the Nurses' House and entire renewal of the floors in the European Hospital. The floors of the Native Hospital will be attended to this year and electric call bells are to be fitted up in connection with each private ward. Other minor repairs were executed.

The grounds within the Hospital precincts were well kept. Nearly the whole extent of the swampy ground to the south and east of the Hospital has been covered over and its level raised. There only remains to be filled in a small plot on the south-east corner of the Hospital. I understand this plot will be used as a recreation ground by the Warders of the local House of Correction. Three houses have been constructed on the large plot for the use of Government servants. These improvements have rendered the Hospital surroundings more sanitary. During the heavy rainy months the surface water was quickly carried away.

Furniture, etc.—Eight Lawson Tait beds were purchased through the Crown Agents from England. Other substantial articles of furniture were purchased for the European Wards locally. The wants of the Native Wards in the way of furniture and bed-boards will receive attention this year. Various articles were purchased through the Crown Agents. The orders were promptly and satisfactorily executed. It would be very advantageous to all concerned if the Crown Agents for the Colonies could be induced to send out "Catalogues" of goods from reliable firms in England.

4. *Work done.*—One thousand seven hundred and sixty-four were admitted, (232 to the European Wards and 1,532 to the Native Hospital) showing an increase of 211 in 1906. The daily average rose to 69.12 from 61.69 in the previous year. Of the 232 admissions to the European Wards 155 were Europeans and Eurasians, the rest were pure Asiatics. With 58 remaining at the end of 1906 the total treated amounted to 1,822; of these 98 died (6 within 24 hours of admission), giving a percentage death-rate of 5.37, the same as the previous year. Five maternity cases were attended to in the European Hospital. All did well. The chief causes of admission with deaths (in brackets) were:—Beri-beri 29 (4), Dysentery 59 (16), Enteric Fever 15 (4), Malarial Fever 179 (3), Pneumonia 16 (8), Tuberculosis 21 (8), Meningitis four (4), Heart Disease seven (5), Bright's Disease 10 (7), Injuries 383 (9).

The other chief causes of admission were:—Venereal Diseases 89, Alcoholism 36, Anæmia 20, Chest Affections 66, Diseases of the Alimentary System 203, Abscess 38.

5. *Operations.*—Thirty-seven were performed requiring the use of chloroform. Enucleation glands 7, Herniotomy 4, Trephining 2, Removal of Tumour 2, Amputations 4, Radical cure Hydrocele 2, Resection bone 3, External Urethrotomy 2, Removal of Piles (Whitehead) 1, Liver Abscess 1, Supra pubic Lithotomy 1, Removal Elephantoid Scrotum 1, etc. Among the 37 operated on

5 succumbed. The conditions necessitating surgical interference in these cases were mastoid disease (Meningitis) 1, Strangulated Hernia 2, Rectal Stricture 1, Psoas Abscess (Tuberculosis) 1.

6. *Beri-beri*.—The use of parboiled rice was continued and no cases of Beri-beri were found to arise among the inmates. Twenty-nine Beri-beri patients were admitted, 4 died and 22 were discharged relieved. The average stay of the 4 deceased was 4 days, and of those discharged 30 days. Of the 29 admitted 13 were Chinese, 8 Tamils, 5 Malays and 3 Japanese.

7. *Opium Habit*.—From February, a record was kept of those addicted to this habit among the admitted. On enquiry about 80 admitted the habit, all Chinese, but this is not to be relied on, the Chinaman is well known to conceal this truth. However, of those who admitted the practice, I came across none in whom the diseased condition was either attributable to or enhanced by the habit.

Returns of Patients admitted into the General Hospital with Venereal Disease.

Number of cases with Venereal Disease	...	...	97
" " Prostitutes with Venereal Disease	...	...	2

Table showing the Admissions, Daily Average and Percentage of Deaths, in the General Hospital, Penang, for the Year 1907.

Nationalities.	Remaining 31st December, 1906.	Admitted, 1907.	Total Treated.	Discharged.	Transferred.	Absconded.	Died.	Remaining 31st December, 1907.	Average Daily Sick.	Percentage of Deaths to Total Treated.	Died in 24 hours.
Europeans ...	5	232	237	214	...	1	13	10	7.59	5.99	1
Natives ...	23	1,142	1,165	994	15	32	82	43	45.07	7.03	5
Native Police ...	30	390	420	405	...	2	3	8	16.46	.71	...
TOTAL ...	58	1,764	1,822	1,613	15	35	98	61	69.12	5.37	6

GENERAL HOSPITAL.

Return of Opium Smokers called for by Governor 862/1907 for the Year 1907.

MONTHS.	Total Admissions.	Opium Smokers.	Whether illness is attributable to or enhanced by the Opium Habit.
January	} ... Nil.
February 15th to 28th	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December...	
TOTAL ...	1,599	80	

Prison Hospital.

REPORT BY DR. R. DANE, *Acting Senior Medical Officer.*

1. That the prisoners must, for the purpose of this report, be classed into vagrants and non-vagrants is clear from a glance at the following figures, which show that the proportion of sickness and of deaths amongst the vagrants are about four times greater than amongst the non-vagrants.

2. *General Statistics.*—

—	A. Arrived in Gaol.	B. Average daily No. in Gaol.	C. Sent to Hospital.	D. Ratio C. to A.	E. Died.	F. Ratio E. to B.
Non-vagrants ...	3,280	232	245	7.47	11	4.74
Vagrants ...	143	34	48	33.57	7	20.59

3. *Vagrants.*—One hundred and forty-three vagrants arrived in Gaol giving 48 admissions to hospital. Thirty-nine were sent to hospital directly on arrival in Gaol and of them 5 died (another died who had arrived in 1906 and had gone straight to hospital). Four were re-admissions. Five were sent to hospital after having been in Gaol some time. Of these five cases:—2 were trivial, an ulcer and an abscess. One was a 1906 vagrant who had been twice in hospital since arrival in Gaol. Two were put on light labour on arrival in Gaol, but, not improving in health, were after a short time, sent to hospital, one of these died of Anæmia.

(a) *Deaths amongst the Vagrants.*—There were 7. Six of them amongst those who had gone straight to hospital on arrival in Gaol:—(1 debility aged 76, 1 Chronic Dysentery died in 24 hours, 1 Tertiary Syphilis, 1 old age, 1 Debility, 1 Anæmia). The 7 vagrants who died are referred to above in paragraph 3.

4. *Non-vagrants, Disease amongst.*—Two hundred and forty-five non-vagrants were admitted to hospital during the year. Of these 135 went straight to hospital on arrival in Gaol. The remaining 110 appear to have got ill in the Gaol.

Of these one finds that a large number were put on light labour on admission to hospital, that many prisoners are admitted to hospital suffering with dysentery but that this dysentery is of a very mild type and that most of them go out in two to seven days.

5. *Deaths amongst Non-vagrants.*—Total 11. Five were taken straight to hospital on arrival in Gaol and stayed there till they died. Three Consumption (Tubercular Pulmonitis), 1 Paralysis, and 1 Debility. Of the other 6 deaths:—2 were sent from Singapore Prison with Chronic Enteritis, it was vainly hoped, a change of air would do them good. One was put on light labour on admission to Gaol. Two were sent to hospital within 5 and 7 days of their arrival in Gaol.

One appears to have acquired Dysentery in Gaol and 17 days after his arrival was sent to hospital.

6. The facts given above lead one strongly to the conclusion that all the material sickness is brought into the Gaol and that it does not spread there. The site of the Prison, its structure and ventilation, the food, water and sanitary arrangements are all good. The walls and the ceilings are swept free from dust, the floor and the beds frequently washed, and the walls whitewashed. The conditions of living are, physically, much more healthy than those in which the majority of the inhabitants live outside.

7. I add, for comparison, a table which shows for each of the last ten years, the percentage of patients to prisoners.

There is a source of fallacy. Minor cases such as grazes and bruises are not regarded as patients although they are kept in hospital.

Penang Prison.

Table I showing the Proportion of Admissions to Hospital to the Number of Arrivals in Gaol for Ten Years.

YEAR.	NON-VAGRANTS.		Percentage of B to A. †	VAGRANTS.		Percentage C to D.
	A. Arrived in Prison.	B. Admitted to Hospital. *		C. Arrived in Prison.	D. Admitted to Hospital.	
1898	4,651	95	2'04	...	...	...
1899	4,610	139	3'01	...	...	...
1900	2,702	53	1'95	...	...	...
1901	2,837	98	3'45	...	...	...
1902	3,534	103	2'91	...	...	...
1903	3,674	96	2'61	...	...	...
1904	4,705	155	3'29	...	...	...
1905	4,847	337	6'95	...	...	...
1906	3,841	356	9'26	52	18	34'61
1907	3,280	245	7'50	143	48	33'57

* Prisoners with trivial cuts, etc., are sent to hospital for the convenience of the administration of the Prison. Such are not "admitted" to hospital.

† No conclusions should be drawn from this table without reference to the text of the report.

Return of Venereal Diseases.

DISEASES.	ADMISSIONS.		DEATHS.		REMARKS.
	Male.	Female.	Male.	Female.	
Primary Syphilis	...	6	...	...
Secondary Syphilis	...	4	...	...
Tertiary Syphilis	...	6	...	1	

Annual Return of Opium Smokers in the Criminal Prison Hospital, Penang, for the Year, 1907 beginning on 11th February, 1907.

(a)	Total admissions	...	...	293	
(b)	{	Opium Smokers	74	14 of the morphia injectors had their illness enhanced by the morphia habit.
		Opium Eaters	...	...	7
		Morphia Injectors	...	...	52
Total	...	...	133		

District Hospital.

REPORT BY DR. A. H. KEUN, *Medical Officer.*

1. *Buildings.*—Nothing of special importance was done to the Hospital buildings and out-houses. The Medical Officer's quarters within the District Hospital were completed early in the year.

2. *Staff.*—There were frequent changes in the Hospital staff during the year especially among the Assistant Surgeons and Dressers. The work of the staff was excellent and among the dressers I would specially name Mr. LIM TAI LEE, Senior Dresser, whose work was always most carefully and excellently done.

3. *Work done.*—On 1st January, 1907, there were 360 patients under treatment in hospital. During the year there were 3,725 admissions: males 3,503, including 43 in the European Ward; and 222 females making a total treated of 4,085.

The average daily numbers were: male 316.94, females 15.78. There were 627 deaths during the year giving a percentage of deaths to total treated of 15.34 (as compared with 17.49 in 1906 and 19.11 in 1905 and 20.14 in 1904). Of these 86 patients died within 48 hours of admission.

Last year Dr. GRAHAM dwelt on the specially high mortality in Phthisis. This year saw a total of 172 treated for Phthisis with 102 deaths a percentage of 59.05. As cases only come into hospital for treatment when the disease had run a certain course, and when the outside native doctors had failed to relieve the urgent symptoms, it is not surprising that post-mortem examinations should reveal most extensive damages to both lungs, and that hospital treatment should prove of little avail. When one considers the insanitary conditions under which these poor sufferers live, their huddling together in badly ventilated houses, whose doors and windows are kept shut for the most part and which seldom if ever have a thorough cleaning, one is not surprised that Phthisis is on the increase among the natives. I have been particularly struck with the absence of marked symptoms in such cases. Many of these patients come in for a slight cough, shortness of breath on exertion, or vague pains, fever or diarrhoea, and the systematic examination to which every patient on admission is submitted revealed the presence of Tuberculosis in many of them. Very often the presence of tubercular infection is only shown at post-mortem examinations, particularly for Chronic Diarrhoea. So commonly indeed are tubercular lesions discovered at post-mortem examinations on patients dying from Diarrhoea symptoms, that I specially examine the chest of every Diarrhoea or Dysentery patient. There does not seem to be a proclivity of certain occupations towards Phthisis, the indoor labourers, shop men, and people who live in cooly barracks are those chiefly attacked. Dysentery (acute and chronic) accounted for 180 treated and 98 deaths.

Chronic Diarrhoea gave 96 admissions with 40 deaths. Enteritis 50 treated with 22 deaths. It will thus be seen that intestinal disorders figure largely in the mortality returns, and the high mortality from these diseases must be attributed to the fact that these cases are only brought in either in the dying state or after weeks and months of treatment outside the hospital.

Beri-beri.—Gave a total treated of 164 cases with 33 deaths a mortality of 20.12 per cent, contrasting with the mortality of 22.45 per cent in 1906, 25.77 per cent in 1905, 26.17 per cent in 1904, 25.09 per cent in 1903, 31.67 per cent in 1902 and 31.60 per cent in 1901. This lowered mortality is distinctly favourable, and may be attributable to the care in dietery, (since only parboiled rice is now used) and to the use of strychnine by hypodermic injections in increasing doses as well as to the careful symptomatic treatment. While in previous years the occurrence of sporadic cases of Beri-beri in the hospital among patients undergoing treatment for other diseases was a fairly constant factor; the last two years, since the use of parboiled rice was instituted, saw a total absence of such cases. However, one had to include the very important factor of improved sanitation of these wards by more frequent washing and scrubbing and the scrubbing of the beds, etc., in the consideration of the suppression of hospital cases.

Venereal Disease as usual accounted for a large number of admissions, viz., 593. Malaria had a total of 324 treated with 33 deaths.

Tables A, B and C show the admissions and deaths from the principal diseases and special returns for Beri-beri and Venereal Diseases.

Annual return of opium smokers in the District Hospital, Penang, for the year 1907:—

A.—Total admissions	...	...	...	...	3,725
Opium smokers	...	...	...	...	207
Opium eaters	...	...	...	...	243
Morphia injectors	...	...	...	...	10
Illness attributable to Opium habit	...	...	...	...	Nil.
Enhanced by the Opium habit	...	...	...	...	117

TABLE A.
Table showing Admissions and Deaths from the Principal Diseases for the past Four Years, at the District Hospital, Penang.

DISEASES.	1904.			1905.			1906.			1907.		
	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.	Cases Treated.	Deaths.	Percentage.
Malarial Fevers ...	334	36	10.77	178	29	16.29	366	37	10.10	298	31	10.4
Beri-beri ...	512	134	26.17	357	92	25.77	231	44	19.04	164	33	20.1
Dysentery ...	86	40	46.51	157	78	49.68	358	162	45.25	180	98	53.2
Diarrhoea ...	332	188	56.62	190	106	55.78	73	28	38.35	96	40	41.6
Debility ...	265	91	34.33	127	41	32.28	76	16	21.05	89	33	37.0
Pulmonary Tuberculosis ...	207	132	63.76	175	116	66.28	213	138	64.78	172	102	59.5
Anæmia ...	129	24	18.60	133	47	35.33	167	57	34.13	178	37	20.8
Veneral Diseases ...	581	35	6.02	631	45	7.13	621	22	3.54	688	18	2.76
TOTAL ...	2,446	680	27.80	1,948	554	28.43	2,105	504	23.94	1,865	393	21.0

TABLE B.

Table showing the Admissions and Deaths at the District Hospital, Penang, for Beri-beri for the Year 1907.

NATIONALITIES.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Chinese	13	5	13	3	17	4	11	6	13	1	6	4	5	2	2	...	3	2	13	...	10	2	17	3	123	32
Klings, Etc.	2	...	...	...	6	...	2	...	...	...	1	...	1	...	1	...	2	...	2	1	...	...	...	...	17	1
TOTAL	15	5	13	3	23	4	13	6	13	1	13	7	6	2	3	...	5	2	15	1	10	2	17	3	140	33
Rainfall	1.54		.80		6.43		1.43		5.94		4.18		8.01		4.68		8.07		12.63		17.16		7.42		78.29	

TABLE C.

Return of Venereal Diseases admitted to the District Hospital, Penang, for the Year 1907.

DISEASES.	ADMISSIONS.		DEATHS.		REMARKS.
	Males.	Females.	Males.	Females.	
Primary Syphilis ...	54	2	Prostitutes 13.
Secondary Do. ...	214	33	7	4	
Tertiary Do. ...	118	...	4	...	
Gonorrhœa ...	28	3	...	...
Gonorrhœal Ophth. ...	26	...	...	...
Do. Rheu. (arthritis) ...	21	...	2	...	
Chancroid ...	86	...	2	...	
Bubo ...	46	...	...	...

European Small-Pox Hospital.

REPORT BY DR. A. H. KEUN, *Resident Medical Officer.*

The European Small-pox Hospital was only occupied once during the year. The patient, a European lady, dwelling in the Methodist Episcopal Deaconess' Home, Penang Road, and only two days arrived in Penang from Rangoon, was sent in by the Municipal Health Officer. The type of the disease was the confluent variety with intense Toxæmic symptoms. She had not been previously vaccinated. She died six days after admission into Hospital.

There were no additions and alterations to the buildings during the year. It was decided to have a new building, for European Small-pox cases, erected in the Quarantine Camp, Jelutong, as the present building is too close to the Hospital wards, the Resident Medical Officer's Quarters and to the Mortuary.

Balik Pulau Hospital.

REPORT BY DR. D. M. FORD, *Acting Senior Medical Officer.*

Buildings.—Re-attaping of latrines attached to Wards 1 and 2 and of out-houses to Ward 3 were executed. Other minor repairs were done. The grounds were always in excellent order. Ward 3 will in future be used for female patients. When the necessity arises, a temporary shed will be erected on the adjoining grounds for infectious cases.

Staff.—Mr. HOLLOWAY, Assistant Surgeon, was in charge of the Hospital in the early part of the year. He was transferred to the General Hospital on the 30th March. The Hospital has since been in charge of Mr. BATEMAN.

Dresser GANGATHERAM PILLAY was relieved by Dresser F. CHRISTIAN on 28th February, the latter was sent back to the District Hospital in town on being relieved by Dresser KUNG KOW SYE.

Work done.—Two hundred and fifty-eight patients were admitted during the year or 58 less than the previous year. The total treated amounted to 289. The daily average sick was 26.24 and the death-rate 6.57, a much lower rate than the year before. All patients were fed on parboiled rice and no inmates developed beri-beri.

The chief causes of admission were:—Malaria 47, Venereal Diseases 28, Dysentery 12, Debility 16, Ulcers 73. Most of the patients were Chinamen, in a poor state of health.

Epidemic Diseases.—In January an imported case of Small-pox was detected in a shed in Balik Pulau town. No further cases occurred till the middle of February, when a Tamil male presented himself at the Hospital for treatment. He was found to be suffering from Small-pox, on enquiry his residence was found at Ayer Puteh, a small village a mile from the town of Balik Pulau. This case was later on followed by two others from the same locality. They were all treated at the Hospital, and discharged cured. The district was clear for the next four months, and on the 1st July, a case of Small-pox was reported at the village of Batu Mau, which is situated on a point at the south-east corner of the Island and opposite the southern part of Province Wellesley on the mainland. The patient, a Malay lad, had lately come across with his parents from the province to look after a large fruit plantation, and on the night of their arrival were guests at a wedding feast in the village of Batu Mau. This case was followed by six others at intervals during the month. Vaccination, isolation and disinfection were carried out under the supervision of Dresser DE SILVA, who was sent there on special duty from the General Hospital. I visited the infected area on four occasions and the penghulu gave us considerable assistance. On the 28th August, the area was declared free and since then no other cases have been reported. The inhabitants were very willing to help and took very kindly to vaccination. The cases with the exception of the first and last occurred in adults and were of the discrete type. No deaths resulted. In this area 173 vaccinations were performed with 10 failures. No other infectious diseases occurred.

The rainfall for the year totalled 103 inches.

Return of Venereal Diseases.

Number of patients	...	...	...	258
Number of cases of Venereal Diseases	...	...	...	34

Return of Opium Smokers.

Number of admissions	...	...	...	258
„ Opium smokers	...	...	...	42
Whether the illness is attributable to or enhanced by the Opium habit	...	...	...	No.

Lumut Hospital, Dindings.

REPORT BY DR. R. DANE, *Acting Senior Medical Officer.*

1. A new ward has been built and petty repairs carried out.
2. *Admissions.*—Four hundred and sixty-three cases were admitted, this is the greatest number recorded for the Hospital; 319 from Sitiawan, 158 from the Dindings.
3. *Principal Diseases.*—Malaria 258, Digestive System 40.
4. Most of the fever cases come from Sitiawan, of the 258 Malarial cases admitted 182 came from Sitiawan, 68 from Lumut, 5 from Pangkore and 3 from Bruas.
5. Average daily sick was 19.7 against 6.85 in 1906.
6. *Death-rate.*—There were 48 deaths during the year, Dysentery 15, Malarial Cachexia 12, Diarrhœa 8, Beri-beri 4, Malarial Fever 4, Syphilis, Anæmia, Broncho-pneumonia, Bright's Disease, and Abscess of Liver 1 each. Thirty-two of the patients who died came from Sitiawan.
7. *General Health.*—No case of Small-pox, Cholera or Plague reported.
8. *Police.*—Generally, health good, 9 admissions to Hospital, no deaths.

Leper Asylum, Pulau Jerejak.

REPORT BY DR. S. H. LUCY, *Acting Senior Medical Officer.*

1. *Statistics.*—The total number of lepers treated during the year was 488, as against 496 in 1906.

Remaining on 31st December, 1906 ...			{ Colonial 243 }		336
			{ Perak 93 }		
Admitted during 1907 ...			{ Colonial 100 }		152
			{ Perak 52 }		
Total treated ...					488
Discharged ...			Colonial		1
Transferred ...			...		...
Absconded ...			{ Colonial 16 }		21
			{ Perak 5 }		
Died ...			{ Colonial 78 }		110
			{ Perak 32 }		
Remaining ...			{ Colonial 248 }		356
			{ Perak 108 }		
Total ...					488

Deaths during 1907.

MONTHS.	Colonial.	Perak.	Total.
January ...	2	2	4
February ...	5	4	9
March ...	8	1	9
April ...	3	3	6
May ...	3	2	5
June ...	7	2	9
July ...	7	3	10
August ...	7	3	10
September ...	7	3	10
October ...	8	2	10
November ...	13	5	18
December ...	8	2	10
Total ...	78	32	110

2. The average daily number of sick was 361.74.
3. There were 110 deaths, the percentage of deaths to total treated is 22.54.
4. An additional ward for Perak lepers was commenced in the latter part of the year.

Return of Admissions of Opium Smokers.

Total admissions ...				142
Opium smokers ...				129
Morphia habit ...				Nil.
Whether the illness is attributable to or enhanced by the				
Opium habit ...				No.

Admissions:—

Tamil ...				11
Malay ...				1
Ghurka ...				1
				13

Female Leper Ward, Jelutong.

REPORT BY DR. A. H. KEUN, *Resident Medical Officer.*

There were 11 patients remaining at the end of 1906. These consisted of Eurasian 1, Chinese 9, Tamil 1. Five cases were admitted during the year 1907, viz., Chinese 4, Tamil 1, making a total of 16 treated. There were 3 deaths all attributable to Cardiac Failure. The percentage of deaths to total treated was 18.75. The average daily sick was 13.09.

The Hindu woman admitted on August 23rd gave birth to still-born twins on September 27th, the mother made a good recovery.

Work done.—The flooring of the kitchen and store-room was cemented during the year and the cooking range re-erected.

Annual Return of Opium Smokers in the Female Leper Ward, Jelutong, Penang, for the Year 1907.

(a)	Total admissions	...	...	...	...	5
(b)	{	Opium smokers	...	...	...	2
		Opium eaters	...	...	...	...
		Morphia injectors	...	...	...	...
				Total	...	2
(c)	{	Illness attributable to Opium habit	...	...	...	...
		Enhanced by the Opium habit	...	...	...	...

APPENDIX C.

PROVINCE WELLESLEY.

REPORT BY DR. C. F. NICHOLAS, *Acting Medical Officer.*

1. The general health of the province during the year 1907 has been good; with the exception of one isolated case of Small-pox, there have been no outbreaks of Zymotic disease.

2. The registered births numbered 3,747 and deaths 3,109, the figures for 1906 were 3,707 and 3,610 respectively.

3. Two thousand one hundred and ninety-two patients were admitted to the Government Hospitals with 234 deaths, in 1906 the figures were 2,040 and 285 respectively.

4. One case of Small-pox occurred in the Central District.

5. The water supply of the Southern District, from the reservoir at Bukit Panchor, is still very unsatisfactory.

6. I took charge of the Province on June 14th, Dr. SHEPPARD going on leave. Mr. R. W. NICKELSEN relieved Mr. A. H. WHEATLEY at Butterworth on 15th May, 1907. Mr. WHEATLEY relieved Mr. J. W. HOGAN at Bukit Mertajam on May 14th. Mr. DUTTA relieved Mr. F. CLARKE at Sungai Bakap on October 1st.

Dresser S. DORASAMY from Sungai Bakap died of Pneumonia in August and was replaced by Dresser M. GANGATHARAM. Dresser A. SINGARAM died from Enteric Fever in December, and was replaced by Dresser M. GOVINDASAMY.

Dresser KUNG CHENG HUN, Bukit Mertajam Hospital was dismissed in June.

L. C. MOREIRA joined the Bukit Mertajam staff as apprentice dresser in June, but resigned on October 1st.

General Hospital, Butterworth.

REPORT BY DR. C. F. NICHOLAS, *Acting Medical Officer.*

1. The swamp at the back of the Hospital was partly filled in during the year, but again sank and will require refilling.
2. The following figures represent the work done :—

Remaining 1906	...	...	...	...	53
Admitted 1907	...	...	...	...	737
Discharged	...	...	...	...	619
Transferred	...	...	...	...	5
Absconded	...	...	...	...	12
Died	...	...	...	...	91
Remaining at end of 1907	...	...	...	...	63
3. Percentage of deaths to total treated was 11·51, excluding those dying within 48 hours of admission 9·92.
4. The average daily number of sick was 58·49.
5. Principal diseases treated were :—

Venereal diseases	...	...	...	...	81
Ulcers	...	...	...	...	78
Malarial Fever	...	...	...	...	68
Dysentery	...	...	...	...	46
Phthisis	...	...	...	...	29
Heart Disease	...	...	...	...	22
Anæmia	...	...	...	...	20
Beri-beri	...	...	...	...	15
Ankylostomiasis	...	...	...	...	14
6. Major Operations, four.—

Amputations	...	...	...	...	2
Removal of tumour	...	...	...	...	1
Laparotomy for penetrating wound	...	...	...	...	1
7. Police cases, 92.

Bukit Mertajam Hospital.

1. The main ward was pulled down in May and the building of a new ward commenced on the old site, this is now almost completed and will shortly be open for patients.

Only one ward was thus available for the greater part of the year.

Whenever possible patients were admitted and transferred to Sungai Bakap; many however objected.

2. The following figures represent the work done :—

Remaining	...	...	...	...	44
Admissions	...	...	...	...	518
Discharged	...	...	...	...	304
Transferred	...	...	...	...	186
Absconded	...	...	...	...	8
Died	...	...	...	...	54
Remaining at end of 1907	...	...	...	...	10

3. The percentage of deaths to total treated was 9·60, excluding those dying within 48 hours of admission 7·29.

The average daily number of sick was 25'00.

4. Principal diseases treated were :—

Abscess	...	...	...	...	68
Injuries	...	...	...	...	55
Malarial Fever	...	...	...	...	51
Syphilis	...	...	...	...	42
Beri-beri	...	...	...	...	28
Ankylostomiasis	...	...	...	...	27
Diarrhœa	...	...	...	...	26
Morbus Cordis	...	...	...	...	19
Pulmonary Tuberculosis	...	...	...	...	16

Sungai Bakap Hospital.

1. The grounds and buildings have been maintained in order. A new drain was constructed connecting that behind the Dressers' quarters with the main drain.

2. Work done :—

Remaining from 1906	...	...	...	...	24
Admitted	...	...	...	...	937
Discharged	...	...	...	...	844
Transferred	...	...	...	...	Nil.
Absconded	...	...	...	...	4
Died	...	...	...	...	89
Remaining at end of 1907	...	...	...	...	24

3. Percentage of deaths to total treated was 9'26, excluding those dying within 48 hours 7'82.

4. The large increase in the number of admissions is due to patients being transferred from Bukit Mertajam on account of the small number of beds available there.

Estate Hospitals.

1. *Caledonia and Victoria Estates.*—Considerable improvements have been carried out at this Hospital: the old brick drains round the wards have been replaced by cement ones which empty into one main cement drain, and the earth underneath and around the wards has been cemented over.

2. Admissions to hospital	...	...	...	...	1,777
Deaths	...	...	...	...	76

3. Principal diseases treated were :—

Diarrhœa	...	...	...	...	361
Fevers	...	...	...	...	324
Ulcers	...	...	...	...	247
Wounds	...	...	...	...	118
Dysentery	...	...	...	...	113
Venereal diseases	...	...	...	...	89

1. *Byram Estate:*—

Admissions	...	...	...	...	1,025
Deaths	...	...	...	...	24

2. Principal diseases treated were :—

Bowel disorders	...	...	...	...	471
Fevers	...	...	...	...	187
Venereal diseases	...	...	...	...	59
Respiratory disorders	...	...	...	...	53
Wounds	...	...	...	...	53

3. Assistant Surgeon CRONING was in charge of Caledonia, Victoria and Byram Estate Hospitals during the year.

1. *Malakoff Estate*.—There were 784 admissions with 3 deaths.

2. Principal diseases treated were:—

Ulcers	...	...	...	...	201
Fevers	...	...	...	...	141
Bowel disorders	...	...	...	...	112
Venereal diseases	...	...	...	...	48

1. *Prye Estate*.—Admissions 798 with 2 deaths.

2. Principal diseases treated were:—

Ulcers	...	...	...	...	369
Fevers	...	...	...	...	171
Bowel disorders	...	...	...	...	90
Venereal diseases	...	...	...	...	28

1. *Batu Kawan Estate*.—Admissions 490 with 7 deaths.

2. Principal diseases treated were:—

Bowel disorders	...	...	...	...	101
Venereal disorders	...	...	...	...	72
Ulcers	...	...	...	...	49
Fevers	...	...	...	...	48

1. *Sungai Duri Estate*.—This hospital was opened on July 31st. But owing to the difficulty in getting a competent dresser, only the most trivial cases were treated there, all serious cases being sent to Sungai Bakap.

APPENDIX D.

MALACCA.

REPORT BY DR. F. B. CROUCHER, *Medical Officer*.

The general health of the Settlement during 1907, judging from the number of deaths recorded, shows no improvement on the previous year, the death-rate being 38·28 per mille compared with 37·11 per mille for 1906. The population however of the Settlement has probably increased beyond the normal rate owing to the large number of births registered during the year, viz.: 4,202 against a mean of 3,721 during the last ten years and also from the immigration of coolies owing to the opening up of rubber estates.

The estimated mean population for the year was 97,764 comprised as follows:—

Europeans	...	...	...	...	57
Eurasians	...	...	...	...	1,518
Malays	...	...	...	...	74,686
Chinese	...	...	...	...	20,332
Indians	...	...	...	...	1,091
Others	...	...	...	...	80

The births numbered 4,202 (2,176 males and 2,026 females) against 3,608 in 1906 and 4,624 in 1905 giving a birth-rate of 42·98 per mille.

The deaths numbered 3,743 (2,347 males and 1,396 females) giving a death-rate of 38·28 per mille for the Settlement against 37·11 per mille for last year and 40·25 per mille for 1905. Of this number 1,099 were of infants under one year of age, over 25 per cent of the total against 32 per cent in 1906.

The causes of death were given as follows:—

Fever not specified	...	...	1,579	against	1,452	in 1906
Convulsions	...	...	1,005	"	1,119	"
Old age and debility	...	...	313	—		
Beri-beri	...	...	187	against	218	in 1906
Phthisis	...	...	155	"	161	"
Malarial Fever	...	...	96	...		
Diarrhœa	...	...	94	"	68	"
In child birth	...	...	60	"	55	"
Bronchitis	...	...	44	...		
Dysentery	...	...	35	"	33	"
Accidents, Injuries, etc.	...	...	35	...		

The returns are furnished in the country districts by the native police who inspect all bodies after death. Whilst this method is a good check on infectious diseases and deaths from violence, it cannot be accepted as a reliable return of the various causes of deaths.

Zymotic Diseases.—There was only one case of Small-pox reported during the year near Batang Tiga. It was discovered by the police inspecting officer after death which was reported as due to "Fever." The father of the deceased was fined \$25 for not reporting the case and the person who reported the case as due to "Fever" was fined \$100. The source of infection was not traced. No other serious illness of an infectious nature was reported in the Settlement during the year.

Municipality.—The number of births registered within Municipal Limits was 569 (296 males and 273 females) and the number of deaths 775 (493 males and 282 females) against 525 and 742 respectively last year.

With an estimated mean population for the year of 15,422 this gives a birth-rate of 36.9 and a death-rate of 50.25 per mille. As I have already pointed out in previous years the population of the town has probably increased considerably owing to the construction of the railway and the opening up of the new estates. In proof of this the Municipal Secretary states that there is a large decrease in the number of inhabited houses in the town and that those that are empty are mostly unfit for habitation. The population at the Census in 1901 was found to be 2,259 less than the estimated, since then it has been calculated by deducting the deaths and adding the births of the previous year. This works out at present at 4.5 persons only per inhabited house. There is little doubt in my opinion that this is below the true average which is probably over six persons per house.

Beri-beri.—The inmates of the various Government institutions were given parboiled rice throughout the year. There were in all 597 cases under treatment of whom 57 died giving a death-rate of 9.55 per cent. Deducting, however, those who died within a short time of admission and one patient who refused to take parboiled rice, the death-rate falls to 6.09 per cent. No cases of Beri-beri occurred among the prisoners at the Gaol during the year nor have any fresh cases arisen among the police recruits at the Dépôt since parboiled rice was substituted.

Staff.—Assistant Surgeon DE SOUZA was in charge of the Durian Daun Hospital throughout the year without the help of the second Assistant Surgeon. Assistant Surgeon SEN was in charge of Jasin Hospital and Dresser HOSIE of Alor Gajah Dispensary. Assistant Surgeon PENG LOK carried out the duties of Deputy Registrar of Deaths during the year.

Civil Hospitals.—The total number of cases treated at the various Hospitals was 3,880 against 3,098 last year, and 3,445 in 1905. There were 348 deaths giving a death-rate of 8.99 per cent against 7.61 per cent last year and 11.83 per cent in 1905.

Durian Daun Hospital.

Buildings.—The various latrines, etc., were limewashed and tarred and minor repairs were carried out during the year. Ward No. VI was rebuilt and a tiled roof substituted for the attap one.

General Hospital.

European Ward:—

Remained 1st January, 1907	...	...	...	1
Admitted 1907	...	...	...	8
Discharged	...	...	...	7
Absconded	...	...	...	—
Died	...	...	...	2
Remaining 31st December	...	...	...	—
Average daily sick	...	...	...	50

Native Ward:—

Remained 1st January, 1907	...	...	...	15
Admitted 1907	...	...	...	222
Discharged	...	...	...	223
Absconded	...	...	...	Nil.
Died	...	...	...	3
Remaining 31st December, 1907	...	...	...	11
Average daily sick	...	...	...	7.68

Percentage of deaths to total treated 2.03. The chief diseases treated were:—
Beri-beri 20, Malarial Fever 21, Syphilis 14, Ulcer Vulva 18, Diarrhœa 7, Injuries
58 with 2 deaths, Observation 29, Dengue 7.

Quarantine Camp.

Remained 1st January, 1907	...	...	...	Nil.
Admitted 1907	...	...	...	3 (2 Chicken-pox and 1 Dengue).
Discharged	...	...	...	3
Remaining 31st December, 1907	...	...	...	Nil.
Average daily sick	...	...	...	12

Pauper Hospital.

Remained 1st January, 1907	...	...	...	190
Admitted 1907	...	...	...	2,312
Discharged	...	...	...	1,994
Absconded	...	...	...	25
Died	...	...	...	275
Remaining 31st December, 1907	...	...	...	208
Average daily sick	...	...	...	203.68

Percentage of deaths to total treated 10.99.

The chief diseases under treatment were:—

Beri-beri	...	...	...	437 with 41 deaths.
Malaria	...	...	...	511 " 16 "
Dysentery	...	...	...	80 " 25 "
Diarrhœa	...	...	...	184 " 89 "
Phthisis	...	...	...	95 " 60 "
Albuminuria	...	...	...	63 " 16 "
Syphilis	...	...	...	222
Ulcer	...	...	...	442

Prostitutes.—Ten Japanese and 17 Cantonese were under treatment for Venereal Diseases.

Operations.—Seventy-one in all were performed during the year.

Necropsies.—Seventy-seven (9 medico-legal) were made during the year.

Gaol Hospital.

The general health of the prisoners was good. There were 14 admissions to Hospital for the following diseases:—Dysentery 2, Malarial Fever 5, Phthisis 1, Diarrhœa 4, Valvular disease of the Heart 1, Colic 1. There were 3 deaths (Phthisis, Heart Disease and Malarial Fever). The average daily number of prisoners was: Civil 11·65, Criminal 24·98.

Leper Asylum.

Five lepers were admitted during the year of whom 2 died, 1 absconded during the absence of the attendant (by breaking down the stonework of the doorway) the other two were transferred to Singapore.

District Hospitals.

The total number of patients under treatment at the District Hospitals was 1,115, as compared with 838 in 1906 and 1,126 in 1905. The increase was due to the large increase in the number of patients at Jasin Hospital.

Alor Gajah.

Buildings.—The dispensary buildings were limewashed and varnished and are in good condition.

There were 5 admissions to the emergency ward, 4 suffering from Injuries and 1 from Pneumonia. The latter case died.

Jasin.

Buildings.—The old ward which had been partly blown over late in 1906 was put in order and the office and dispensary were enlarged. The Hospital buildings were limewashed, etc., throughout.

Patients:—

Remained 1st January, 1907	...	...	...	31
Admitted 1907	...	...	...	1,079
Discharged	...	...	...	982
Transferred to Malacca	...	...	...	9
Absconded	...	...	...	15
Died	...	...	...	64
Remaining 31st December, 1907	...	...	...	40

The average daily sick was 49·72 and the percentage of deaths to total treated was 5·76.

The nationalities of those in Hospital were:—

Chinese	...	...	...	869
Indians	...	...	...	203
Javanese	...	...	...	27
Malays	...	...	...	9
Ceylonese	...	...	...	2

The chief diseases treated were:—

Malaria	...	...	...	363 with 4 deaths.
Beri-beri	...	...	...	140 " 16 "
Dysentery	...	...	...	24 " 8 "
Phagedœna	...	...	...	7 " 1 "
Syphilis	...	...	...	61 " 1 "
Diarrhœa	...	...	...	34 " 18 "
Injuries	...	...	...	24 " 1 "
Ulcers	...	...	...	307 " ...
Pneumonia	...	...	...	8 " 3 "

APPENDIX E.

**HOSPITALS FOR WOMEN PREVIOUSLY TREATED UNDER "THE
CONTAGIOUS DISEASES ORDINANCE."**

Singapore.

REPORT BY MR. C. V. NORRIS, *Assistant Surgeon.*

One hundred and eighty-three patients were admitted during the year which with 33 remaining at the beginning of the year give a total treated of 216.

Of the admissions 89 were Japanese, 68 Chinese, 22 Indians and 4 Malays.

The average daily sick was 42.1 and the death-rate 9.2 per cent.

The chief causes of admission were Venereal Diseases 51, Tubercle of Lungs 13.

Seven were treated for Beri-beri with 1 death, 4 for Dysentery with 2 deaths, 3 for Enteric with 1 death, 15 for Tuberculosis with 9 deaths, these being admitted in an advanced stage of the disease.

Penang.

REPORT BY DR. D. M. FORD, *Acting Senior Medical Officer.*

With 14 cases remaining at the end of 1906, and 89 admitted during the year, the total treated was 103.

The 89 admissions were made up as follows:—

Japanese	...	...	...	...	...	49
Chinese	...	...	...	...	...	22
Hindus	...	...	...	...	...	18

The chief affections were:—Venereal 40, Beri-beri 9, Diseases of the Alimentary tract 15; the deaths totalled 8.

All Chinese and Hindus were fed on parboiled rice. No cases of Beri-beri occurred among the inmates.

Province Wellesley.

Two hundred and sixty patients were admitted during the year, against 223 in 1906 of which 245 were males and 15 females. Twenty per cent of the female patients were prostitutes.

Malacca.

REPORT BY DR. F. B. CROUCHER, *Medical Officer.*

Twenty-seven prostitutes, 10 Japanese and 17 Cantonese, were under treatment for Venereal Diseases.

APPENDIX F.

OUT-DOOR DISPENSARIES.**Singapore.**

REPORT BY MR. J. V. PESTANA, *Assistant Surgeon.*

Ten thousand four hundred and ninety-two patients, who paid 35,776 visits, were treated during the year, an increase of 1,629 over the number of the previous year.

The Dispensary was opened on 296 days, the average daily attendance was 120.66, that for 1906 being 105.18. The fees collected amounted to \$3,166.60 being an increase of \$409.65 over the amount for the previous year.

The principal diseases treated were:—

Malarial Fevers in its various forms	...	...	...	...	2,295
Ulcers	...	...	...	...	1,130
Venereal Diseases	...	...	...	...	720
Injuries	...	...	...	...	627
Rheumatism	...	...	...	...	506

The nationalities of the patients were as follows:—

Europeans	...	...	...	...	75
Eurasians	...	...	...	...	584
Chinese	...	...	...	...	4,849
Malays	...	...	...	...	685
Indians	...	...	...	...	3,754
Jews and others	...	...	...	...	545

Penang.

REPORT BY DR. R. DANE, *Acting Senior Medical Officer.*

Appended is a comparative statement of work done during the past year and previous years.

The patients treated during the year 1907 numbered 6,876 as against 7,046 for the previous year.

The Dispensary was open for 296 days during the year, the daily average number of visits was 40.50. The total receipts for the year amounted to \$866.90 an increase of \$98.90 on the receipts for 1906.

This institution continues to be well appreciated by the poorer class of natives

The principal diseases treated were:—

Malaria	...	...	...	...	1,245
Rheumatism	...	...	...	...	517
Syphilis	...	...	...	...	246
Bronchitis	...	...	...	...	382
Diarrhoea	...	...	...	...	165
Dyspepsia	...	...	...	...	109
Ulcers	...	...	...	...	761
Local Injuries	...	...	...	...	622

Staff.—Dresser V. DANIEL PILLAY, who was transferred on 19th October, 1907, to the General Hospital, was relieved by Dresser M. AERIA.

Balik Pulau.

During the year 453 patients presented themselves for treatment as compared with 311 the previous year.

The following table gives statement of work done:—

Number of patients	...	...	...	...	453
Do. Government servants	...	...	...	...	81
Do. indigent patients	...	...	...	...	122
Do. paying patients	...	...	...	...	250
Do. males	...	...	...	...	381
Do. female patients	...	...	...	...	72
Do. visits	...	...	...	...	732
Average number of visits per diem	...	...	...	...	2
Receipts for the year	...	...	...	...	\$33.55

The nationalities of those treated were:—

Europeans	...	...	...	...	10
Japanese	...	...	...	...	2
Chinese	...	...	...	...	226
Klings	...	...	...	...	123
Malays	...	...	...	...	89
Bengalis	...	...	...	...	3

The chief diseases were:—Ulcers 120, Fever 118, Digestive 51, Ringworm 9.

Dindings.

A large increase in the attendance, 604, against 496 in the year 1906. Mild Malaria is the most prevalent disease.

Receipts \$35.70 against \$17.00 for 1906.

Province Wellesley.

The total number of out-patients was 1,903 as against 1,640 in 1906 distributed as follows:—

Butterworth	...	...	...	...	485
Bukit Mertajam	...	...	...	...	811
Sungai Bakap	...	...	...	...	607

The total receipts were \$150.40.

The chief diseases treated were:—

Malarial Fever	...	...	...	...	340
Digestive disorders	...	...	...	...	317
Ulcers	...	...	...	...	259
Respiratory disorders	...	...	...	...	191
Rheumatism	...	...	...	...	120
Venereal Diseases	...	...	...	...	120

Malacca.

The number of patients treated at the Out-door Dispensary was 2,908 against 2,480 last year. The receipts amounted to \$1,184.65 as against \$792.50 for the previous year.

The nationalities of patients treated were:—

				<i>Males.</i>	<i>Females.</i>
Europeans	...	...	...	67	35
Eurasians	...	...	...	303	243
Chinese	...	...	...	823	378
Malays	...	...	...	491	88
Indians	...	...	...	319	81
Others	...	...	...	18	62

The chief diseases treated were:—Malarial Fever 299, Beri-beri 192, Dysentery 43, Dengue 40, Gonorrhoea 117, Syphilis 141, Pyrexia 309, Bronchitis 285, Dyspepsia 167, Diarrhoea 74, Asthma 64, Skin Diseases 283, Minor operations 13, Injuries 75, Colic 100.

Jasin.

The number of out-patients attending at Jasin during the year was 1,218 against 757 last year and 429 in 1905, and was made up as follows:—

				<i>Male.</i>	<i>Female.</i>
Europeans	...	...	...	25	—
Eurasians	...	...	...	11	3
Chinese	...	...	...	499	15
Malays	...	...	...	268	73
Indians	...	...	...	290	32
Others	...	...	...	—	2

The chief diseases treated were:—Malarial Fever 489, Beri-beri 36, Ulcers 371, Injuries 43, Syphilis 20, Constipation 32.

The receipts amounted to \$125.60 against \$58.35 last year.

Alor Gajah.

The number of patients at Alor Gajah was 711 against 616 last year.

The receipts for the year amounted to \$32.35 compared with \$28.10 last year.

				<i>Male.</i>	<i>Female.</i>
Europeans	...	...	...	8	—
Eurasians	...	...	...	27	11
Chinese	...	...	...	111	13
Malays	...	...	...	296	89
Indians	...	...	...	126	24
Others	...	...	...	5	1

The chief diseases treated were:—Malarial Fever 121, Beri-beri 11, Syphilis 37, Bronchitis 17, Dysentery 13, Constipation 37, Ulcer 176, Injuries 89, Gonorrhœa 15, Diarrhœa 14, Phagedœana 14, Ophthalmia Catarrh 15.

APPENDIX G.

VACCINATION.

Singapore.

The number of vaccinations performed by the Public Vaccinator was 2,458 of which 1,830 were infants under one year. Of the total number vaccinated 1,168 were males and 1,290 females, and 1,641 were within town limits and 817 in country districts.

The largest number vaccinated in any one month was 260 in the month of March. All vaccinations were successful.

In addition to the above 1,437 vaccinations were performed by the licensed vaccinator of which 9 were failures.

Penang.

REPORT BY DR. R. DANE, *Acting Senior Medical Officer.*

The total number of vaccinations performed by the Public Vaccinator during the year 1907 in the town and country districts was 2,753; 95.20 per cent of these operations were successful. The cost of each successful vaccination, for the town and country districts, was \$1.05 and 86 cents respectively.

The subjoined Table shows the Number vaccinated during the past Five Years and the Number of Births registered.

YEAR.	Vaccinations in town and country districts.	Percentage of successful cases.	Total births registered.
1903	3,419	76.33	2,495
1904	3,280	88.38	2,493
1905	3,446	87.76	2,613
1906	3,311	90.72	2,215
1907	2,753	95.20	2,310

The vaccinator for the town division, Mr. C. M. BOUVILLE, retired on a well-earned pension from the 1st December, 1907. The combined duties of the town and country districts, are being temporarily performed by one vaccinator.

At the Dindings 134 vaccinations were performed and 187 during the previous year. The percentage of perfect and modified cases was 70.14 and 77.54 during the previous year.

The probable cause of the decreased number of vaccinations for 1907 is the low birth-rates of 1906 and 1907.

Province Wellesley.

TABLE SHOWING NATIONALITIES.

Annual Return of Vaccination of Province Wellesley for the Year 1907—Number of Cases Vaccinated was 3,593:—(Males—1,908, Females—1,685.)

	European.	Eurasians.	Chinese.	Malays.	Hindus.	Others.	Total.
Perfect ...	1	14	595	2,375	414	32	3,431
Modified ...	...	...	10	32	15	...	57
Failed ...	...	...	20	45	23	...	88
Not Seen ...	...	...	9	3	4	1	17
Total ...	1	14	634	2,455	456	33	3,593
Percentage of failures to total vaccinated. }	...	...	3.15	1.83	5.04	...	2.44

PERCENTAGE OF FAILURES TO TOTAL VACCINATED.

Northern.	Central.	Southern.	For the three Districts.
2'09	'78	... 4'70	2'44

COST OF EACH SUCCESSFUL CASE OF VACCINATION.

Northern.	Central.	Southern.	Remarks.
23 cents.	33 cents.	31 cents.	...

Malacca.REPORT BY DR. F. B. CROUCHER, *Medical Officer.*

The total number of vaccinations performed during the year was 3,370 as against 3,688 in 1906.

The following table shows the detailed results:—

—	No.	Perfect.	Modified.	Failed.	Not seen.
Town	592	555	23	10	4
Country	2,778	2,639	92	35	12

The percentage of failures was 1'33 as against 5 per cent last year showing a large reduction. This result was due to keeping the vaccine in a refrigerator during the greater part of the year and so preserving it in good condition.

The nationalities of those vaccinated were:—

European	...	...	...	...	1
Eurasians	...	...	...	...	47
Chinese	...	...	...	...	486
Malays	...	...	...	...	2,802
Indians	...	...	...	...	25
Others	...	...	...	...	9

APPENDIX H.

QUARANTINE.

Singapore.REPORT BY DR. H. J. GIBBS, *Acting Port Health Officer.*

Shipping.—During the year 1,226 visits were paid to vessels comprising the examination of 78,781 crew units and 298,545 passengers.

Of these vessels 19 were infected as follows:—

Small-pox	...	...	...	11
Cholera	...	...	...	7 and

one the s.s. "Teesta," with both Cholera and Small-pox.

They came from the following ports:—

		With Small-pox.	
<i>From Jeddah.—</i>			
S. S. "Antenor" ...	...	with 1 case and 805 passengers.	
" " "Oanfa" ...	...	" 2 " 935 "	
<i>From Hongkong.—</i>			
S. S. "Lightning" ...	...	" 1 " 949 "	
" " " " ...	...	" 1 " 388 "	
" " "Shantung" ...	...	" 1 " 1,048 "	
" " "Capri" ...	...	" 2 " 978 "	
" " "Japan" ...	...	" 2 " 1,933 "	
" " "Gregory Apcar" ...	...	" 1 " 1,218 "	
<i>From Amoy.—</i>			
S. S. "Chow Fa" ...	...	" 1 " 818 "	
<i>From Hoihow.—</i>			
S. S. "Choi Sing" ...	...	" 1 " 1,270 "	
<i>From Calcutta.—</i>			
S. S. "Lightning" ...	...	" 1 " 521 "	
		With Cholera.	
<i>From Calcutta.—</i>			
S. S. "Kum Sang" ...	...	" 0 " 411 "	
<i>From Madras.—</i>			
S. S. "Thongwa" ...	...	" 0 " 2,036 "	
<i>From Bangkok.—</i>			
S. S. "Deli" ...	...	" 1 " 52 "	
<i>From Swatow.—</i>			
S. S. "Keong Wai" ...	...	" 6 " 826 "	
" " " " ...	...	" 0 " 634 "	
<i>From Hoihow.—</i>			
S. S. "Keong Wai" ...	...	" 6 " 691 "	
<i>From Malacca.—</i>			
S. S. "Sri Muar" ...	...	" 0 " 92 "	

With Cholera and Small-pox.

<i>From Madras.—</i>			
S. S. "Teesta" ...	...	" 1 " 1,183 "	

In the case of the "Sri Muar" she left Singapore on the afternoon of the 17th September with passengers. On her arrival at Malacca early the next morning a fatal case of Cholera was found on board and she was at once sent back to Singapore for disinfection.

Disinfection by the Steam-lighter "Hygeia" was carried out in 11 instances. On one occasion disinfection not proving satisfactory, it was found that her fittings had deteriorated. A week's attention rendered her subsequent work satisfactory.

The state of health of an additional 3,817 incoming steamers not in quarantine was ascertained by Medical Certificate by the officers of the Marine Department, who presented the certificates for signature by the Masters or Surgeons of these vessels.

During the early part of the year 8 pilgrim ships returned to Singapore from the previous pilgrimage. Two of these were infected with Small-pox. Amongst the 1,762 passengers they carried, there were 3 cases.

Later on in the year 8 pilgrim ships were inspected previous to departure for Jeddah with 5,781 pilgrims.

Inspection of vessels with the exception of those carrying immigrants is carried on between the hours of 6 A. M. and 6 P. M.; the latter have to be anchored by 4.30 P. M. of the day of their arrival.

Harbour.

Deaths occurring whilst in harbour on ships or in sampans were investigated and the corpses viewed in 56 instances. Permits for landing such corpses being subsequently issued.

On the 7th August a case of Cholera occurred amongst the coolies of the Tin Smelting Works on Pulau Brani. The patient was at once isolated and, very shortly afterwards, removed to St. John's Island where, after a stay of three weeks, he was discharged cured. Daily visits were paid to the Island and disinfection of premises carried out by me until the 11th August when quarantine restrictions were removed. On the 16th August a fatal case occurred in the coolie lines; the smelting works were again placed in quarantine and daily disinfections carried out until the 19th August. Since then there have been no cases.

Four visits were paid in July and September to the Marine Department staff on Pulau Brani on account of illness.

Three visits of sanitary inspection were also paid to this island.

Office.—The number of Bills of Health issued by the Department was 1,318 of which 44 were granted to war vessels and transports free of charge.

The revenue received from the others amounted to \$6,370.

Dr. FINLAYSON conducted the bacteriological work of this office.

Town.—The Telok Ayer disinfector was removed to St. John's and is now ready for use.

The work of investigating, dealing with and disinfecting all reported cases of infectious disease, both in Government buildings in the town and in the whole of Singapore island, outside the Municipal Limits, is deputed to this Department.

The cases so dealt with were four:—One at Galyang for Small-pox, one each at the Kandang Kerbau Police Barracks and the Kalang Tunnel Works for Cholera, and the fourth a case of Puerperal Septicæmia at the Maternity Hospital.

During the year 67 batches totalling 560 Cholera contacts; 3 batches comprising in all, 24 Small-pox contacts; and, 10 batches numbering 109 Plague contacts were transferred to St. John's Island from the town of Singapore. There were also 9 Cholera contacts sent from Pulau Brani.

Amongst the Cholera contacts 6 cases of Cholera developed of whom 4 died.

Quarantine Station.—The station was occupied every day of the year.

The total passengers landed on St. John's was 25,408.

The maximum in quarantine on any day was 2,996.

The total sick treated in hospital amounted to 628.

The maximum daily number of hospital patients was 56.

The average daily number of sick was 13.92.

The number of deaths 63.

The percentage of deaths to total treated was 10.03.

The rainfall at St. John's was 68.13 inches.

The prophylactic measures adopted against Malaria consisted in clearing the Island of undergrowth and lalang and the filling in of the swamp behind the engine room and luggage shed.

Mosquito nets and frames, similar to those in Tan Tock Seng's Hospital, are to be fitted to the hospital wards on St. John's.

Water Supply.—The distilling plant not producing, during its working hours of between 7 A.M. and 4 P.M., sufficient water it was found necessary to purchase 618,240 gallons of Municipal water at a cost, including transport, of \$3,700.

Three hundred thousand five hundred and fifty-five billets of firewood were consumed in distilling 348,500 gallons of water.

Forty-seven thousand eight hundred billets were needed to pump the purchased water in the reservoir. Eleven thousand seven hundred and seventy billets were used in the disinfection of contacts' belongings.

A general survey of the distilling plant was held during the year.

The increase in the number of standpipes in the camps enabled the contacts to get a more bountiful supply of distilled water.

A good supply of rainwater is collected from the roofs of the newer wards and is used for the cleaning of the wards and latrines and the flushing of the drains. Jeyes fluid is added to this water to prevent its use by the contacts for drinking and cooking purposes.

Vaccinations to the number of 3,157 were done by the island staff assisted by the Government Vaccinator.

Public Works.—Fifty-six 400-gallon galvanised iron water tanks were provided for the fourteen new wards for the collection of rainwater from their corrugated

iron roofs, and, these, have proved most useful in furnishing the Island with a large quantity of water as already specified.

Extra standpipes have been erected in all the camps and are much appreciated.

A water pipe has been laid on to the new dressers' quarters.

A new disinfecting shed has been built.

The corrugated iron eaves of the Plague and Small-pox wards have been deepened.

The standpipes throughout the island have been fixed to granite pillars and their bases bricked.

The floorings of Wards I to VI have been raised and the wards tarred and limewashed.

Wards VII to XX have been re-kadjanged.

General repairs have been executed to the Medical Officer's and Nurses' quarters, the Police barracks and the Observation ward.

The ration shed has been furnished with a chopping block and a cistern for holding rice.

Minor repairs in the shape of attention to the drains, brick paths and masonry have been carried out.

The Contractor proved very unsatisfactory and had twice to be fined in the sums of ten and a hundred dollars for supplying inferior articles of food.

He was also caught overcharging contacts for scheduled prices of articles of diet and opium.

His contract terminated on the last day of 1907.

Visitors.—Seven visits were paid by the Chinese visitors and their remarks recorded and sent to the Colonial Secretary once a month.

Personal and Staff.—Dr. BROOKE was in charge until the 22nd July and I have acted for him for the rest of the year.

Mr. MUKERJI, Assistant Surgeon, resumed his duties on the Island on the 25th March. On the 14th October he was granted on account of ill health, leave of absence to recruit his health in Calcutta.

Mr. ANGUS has been in charge as Engineer on the Island for the whole year.

Clerk LOW SWEE HOH resigned on 31st March and his place was filled on 22nd April by TENG KONG PENG.

Dressers DAVENASAM and O'DONOHUE have worked hard and well.

Ten toties were engaged on the 1st October, 1907.

They fill a much needed want. A charge of half a cent a day a contact is made against ships' agents to recoup the Government for the expenditure incurred in the employment of these men.

Provision is made for the employment of ten extra gardeners in 1908.

Attached are comparative statistical tables.

	1905.	1906.	1907.
Vessels examined	1,279	1,625	1,226
Crews examined	81,129	129,233	78,781
Passengers examined	242,302	363,788	298,545
Days St. John's occupied	363	365	365
Total landed on St. John's	12,135	31,299	26,408
Largest day's occupation	2,517	5,709	2,996
Average daily contacts	274.26	1022.14	569.46
Total sick treated	234	761	624
Maximum number of hospital patients	54	84	56
Average daily number of sick	10.4	19.2	13.9
Number of deaths	52	362	63
Percentage of deaths to total treated	22.2	47.57	10.03
Autopsies on Island	7	13	28
Autopsies on Ships	3	1	...
Innoculations (Haffkine)... ..	223	113	...
Vaccinations on St. John's	2,586	6,093	3,157
Vessels infected—Small-pox	25	25	11
" Plague	5	3	...
" Cholera ... ..	...	8	8
Pilgrims, out-going	6,137	6,576	5,781
Pilgrim steamers	16	11	8
Disinfection (Hygeia)	16	34	11
Bills of Health	1,220	1,674	1,318
Permits to land corpses	53	54	57
Rainfall on St. John's	46.37	64.26	68.13

Condensed resumé of Work done by Port Health Department during past 6 Years.

YEAR.	Crews and passengers examined.	Passengers landed on St. John's Island.	Visits paid to Vessels.	Bills of Health.	Cases of Small-pox treated on St. John's.	Cases of Cholera treated on St. John's.	Cases of Plague treated on St. John's.	Haffkine's Inoculation on Ships.	Vaccinations on St. John's.
1902	307,900	17,668	901	1,000	5	689	...	...	...
1903	321,365	21,253	806	1,000	19	271	136	761	140
1904	279,297	17,852	712	1,036	46	...	9	745	4,623
1905	323,431	12,109	1,279	1,220	62	2	5	223	2,586
1906	493,021	30,076	1,625	1,674	37	319	2	113	6,963
1907	377,326	25,408	1,226	1,318	37	28	...	...	3,157

Penang.

REPORT BY DR. J. COLIN C. FORD, *Medical Officer.*

Harbour.—Six hundred and thirty-three vessels with 56,671 sailors and 163,168 passengers were medically inspected. Eight pilgrim vessels were inspected and cleared for Camaran and Jeddah, under the Pilgrim Ships Ordinance. The number of pilgrims embarking at this port for Jeddah were 1,408. Five vessels returned carrying 3,205 pilgrims from the Hedjaz.

In Statement *A* will be found the number of ships and passengers inspected in each month of the year.

In Statement *B* is shown the number of vessels arriving from ports subject to quarantine restrictions during the year.

Quarantine.—Nineteen vessels arrived during the year infected with disease.

Plague	... 1 from China	and 2 from Jeddah.
Cholera	... 4 " Calcutta	" 1 " Negapatam.
Small-pox	... 3 " China	" 1 " Negapatam.
Small-pox	... 3 " Calcutta	" 1 " Jeddah.
Chicken-pox	... 2 " Negapatam	" 1 " Singapore.

One of the return pilgrim vessels landed 1,854 pilgrims on the Quarantine Station for observation for plague and 142 from another pilgrim vessel were detained on the station for observation for small-pox.

Quarantine Station, Pulau Jerejak.—With the exception of a single day in January, the station was in continuous use during the year. The large majority of occupants being those landed from Calcutta and Rangoon vessels to complete the quarantine period of ten days.

The number of people detained for observation from 166 vessels was 17,650. The maximum number in detention on a single day being 2,790, of whom 2,452 were from Negapatam. The average daily number detained being 116.9.

Statement *C* shows the monthly occupation of the Quarantine Station.

Plague.—One case of Bubonic Plague was landed from a Chinese immigrant vessel, this patient recovered.

Cholera.—Twenty-four cases of Cholera were treated. Three cases from Calcutta, and 21 cases occurred among Tamil coolies from Negapatam, between the 8th and 18th of September; 15 of these 21 cases died giving a case mortality of 62.5.

Small-pox.—Four cases with no deaths were treated. As in former years all unprotected passengers from Calcutta and Rangoon were vaccinated as far as the supply of lymph would allow.

Chicken-pox.—Eleven cases were treated.

Other Diseases.—Twenty-three passengers died from diseases other than infectious and contagious.

Vaccinations.—The total number of vaccinations performed was 5,652.

Buildings.—Additional wards, etc., erected during the year.

North Camp.—A latrine in a more accessible part of the camp.

Central Camp.—Quarters for two dressers and three attap wards with kitchens.

South Camp.—One attap ward.

New Camp.—A large camp of six attap wards with kitchen and latrine was laid out on the South side of Pulau Jerejak, for the storage of water in this Camp, three covered zinc tanks, each capable of holding 400 gallons have been erected.

Staff.—I proceeded on leave on the 4th August, 1906, and resumed duty on the 6th November, 1907. Doctors S. M. MCCLINTOCK and P. H. HENNESSY and Assistant Surgeon Mr. WESTERHOUT acted for me.

An engineer on \$300 per annum was appointed in August to work the disinfecter (Thresk's) on the Quarantine Station.

BOEY AH OY, Chinese Inspectress, died in August and CAN AH EE was appointed in her place on the 1st September.

A statement showing the rainfall on Pulau Jerejak in each month of the year is appended.

STATEMENT A.

MONTHS.	No. of Vessels.	No. of Crews.	No. of Passengers.
January	50	4,838	8,487
February	42	3,933	17,290
March	47	4,365	13,543
April	46	4,207	13,186
May	46	4,626	18,137
June	47	4,615	13,150
July	50	4,767	12,832
August	82	8,265	15,029
September	69	6,656	16,277
October	85	4,219	15,520
November	31	2,913	8,552
December	37	3,267	11,165

STATEMENT B.

	Vessels.
<i>India</i> —Bombay	38
Calcutta	78
Negapatam	30
Rangoon	134
Moulmein	22
Tuticorin	2
Colombo	1
<i>China</i> —Hongkong	85
Amoy and Swatow	41
<i>Siam</i> —Tongkah (Puket)	76
Merbau	6
Situl and Perlis	43
Bangkok	2
<i>Arabia</i> —Jeddah	5
<i>Japan</i> —Moji	1
<i>Straits Settlements</i> —Singapore	66
Port Swettenham	3

STATEMENT C.

MONTHS.			No. of Vessels.	Passengers.	Daily Average.
January	...	...	10	498	71'39
February	...	...	12	566	119'57
March	...	...	16	2,715	561'58
April	...	...	18	1,372	270'76
May	...	...	19	1,305	213'10
June	...	...	13	650	136'4
July	...	...	11	1,452	323'10
August	...	...	19	2,248	408'42
September	...	...	12	3,681	1,541'43
October	...	...	12	1,289	210'70
November	...	...	13	720	113'3
December	...	...	11	1,154	231'54

RAINFALL—PULAU JEREJAK.

					<i>Inches.</i>
January	...	...	...	...	1'34
February	...	...	...	...	3'12
March	...	...	...	...	5'68
April	...	...	...	...	5'91
May	..	...	...	...	6'63
June	...	...	...	...	6'65
July	...	...	...	...	5'12
August	...	...	...	...	3'33
September	...	...	...	...	4'53
October	...	...	...	...	5'66
November	...	...	...	...	11'54
December	...	...	...	...	5'59

Malacca.

REPORT BY DR. F. B. CROUCHER, *Medical Officer.*

A case of Cholera occurred on board the s.s. "Sri Muar," on the 18th September. The patient died shortly before the arrival of the ship and was buried at sea. The other passengers were sent back to Singapore for quarantine. All passengers arriving from Singapore during the following two months were kept under observation.

Government Analyst's Department.

REPORT BY DR. FRANKLAND DENT, M. SC., PH. D., F.I.C., *Government Analyst.*

The amount of work carried out by this Department in 1907 shows a considerable increase over that done during the previous year, which I attribute largely to the general reduction in the charges for analyses and reports, which was sanctioned towards the end of 1906 and consequently, as was anticipated, the greater number of samples which were sent here by firms and private individuals. The regular taking of samples under the Liquors and Opium Ordinances in all parts of the Colony has also led to an increase of official work.

The total revenue for the year was \$12,455 as against \$10,744 in 1906 and \$8,893 in 1905.

2.—(a) *Deleterious Drugs*.—The Police authorities sent in no less than 2,173 articles, mostly paper packages, mixing cups, hypodermic syringes and prepared solutions for subcutaneous injections. On analysis the morphine hydrochlorate was found to total 28,940 grains whilst the cocaine hydrochlorate amounted to 4,343 grains. These figures show that of the total amount of alkaloid 13 per cent consisted of cocaine, whilst during the previous year about 10 per cent only was cocaine, thus indicating a steady increase in the use of this drug. During the year the Morphine Ordinance of 1904 was repealed and the Deleterious Drugs Ordinance came into force in July, this includes at present morphine and cocaine, in order the better to deal with the abuse of these drugs.

(b) *Excise Seizures*.—Besides the above quantity of morphine hydrochlorate 28,000 grains were seized by the excise authorities as it was being smuggled into the Colony.

3. *Anti-Opium Pills and Cures*.—Eight samples were sent in for examination with the result that if any ingredient of medicinal value was found to be present at all, it turned out to be morphine itself.

4. *Chandu*.—Thirty-eight samples were sent in under the Opium Ordinance from all parts of the Colony, and as a rule they were found to be of good and remarkably constant quality. In a few cases the smaller hun packets were found to be underweight whilst the larger packets and chi-pots were as often overweight.

In addition some experimental work was done for the Commission of Enquiry appointed by the Governor as to the use of opium.

5. *Counterfeit Coins*.—One thousand three hundred and forty-four coins were sent in during the year for examination, they included 382 dollars, 16 fifty-cent pieces, 640 twenty-cent pieces, 304 ten-cent pieces, two one-cent pieces and one sovereign, of all these only 12 were found to be genuine.

Besides the above 317 Straits dollars and 36 twenty-cent pieces which had been counterfeited in Dutch territory were sent in for examination and report.

A regular system of examining the persons and clothes of all prisoners caught in raids on coiners for any stains that might connect them with counterfeiting, has been inaugurated and much valuable evidence has been thus obtained to be used for or against the accused. Besides this in every case a large number of implements, chemicals, moulds and other paraphernalia are always sent in for examination.

6. *Liquors*.—Fifty-five samples were sent in during the year and it was found that a large proportion of the better known wines and spirits submitted were spurious. This state of things is no doubt owing to the absence of a Foods and Drugs Ordinance with which to deal effectively with them. The following chart gives details of the samples submitted:—

From.	Brandy.	Whisky.	Samsoo.	White Spirit.	Gin.	Medicated Wine.	Port.	Fermented rice Com- pounds.	Beer.	Total sent.	Found to be Spurious.			
											Brandy.	Whisky.	Port.	Medicated Wine.
Spirit Farmers, S.	4	5	...	3	...	2	...	14	...	...	...	3
Deputy Public Prosecutor	...	4	3	...	...	...	...	...	...	7	4	3	...	...
C. P. O., Malacca	2	1	2	...	2	1	1	...	10	2	1	1	...
Acting Protector of Chinese, S.	4	...	...	...	...	...	...	4	...	...	...	...
Acting Protector of Chinese, P.	...	2	2	1	...	1	...	1	...	7	2	2	1	...
Acting Supdt. of Excise Farm, P. ...	1	...	2	...	1	...	1	...	...	5	1	...	1	...
Supdt. of Excise Farm/Labuan	...	1	1	1	...	1	...	...	...	4	1	1	...	...
Military Hospital, Tanglin	...	3	...	...	...	...	...	...	...	3	2	...	...	...
Magistrate, Seremban	1	...	...	...	...	...	1	...	...	...	...
	13	7	15	5	5	4	3	2	1	55	12	7	3	3

It will be seen that all the whisky and port samples—12 out of the 13 of brandy and 3 out of the 4 of the medicated wines—were not genuine.

Best prosecutions (which had been taken under the Merchandise Marks Ordinance) resulted in fines for the vendors of one sample of whisky and one sample of brandy, and under the Liquors Ordinance of 1906 for the sale of three samples of medicated wines, a nominal fine was imposed. Chemists and druggists are now required to take out a special licence to deal in medicated wines as is compulsory in Great Britain.

7. *Methylation*.—One hundred and three drums and 161 casks of arrack were methylated. In the earlier part of the year much inconvenience was caused by the fact that no pyridine was obtainable at any of the dispensaries. In order to avoid this difficulty in future crude pyridine has since been bought in Europe by this department and retailed at practically cost price. This system has worked very well and moreover the stuff can be guaranteed to be of full strength, which was not always the case before, and it saves everybody concerned a considerable amount of time.

8. *Explosives*.—Three samples of Gelignite, two of Dynamite and one of Schultz's Powder were tested on importation into the Colony, and all the samples passed the prescribed tests. On two occasions Dynamite cargoes alleged to have been damaged were overhauled, tested and reported upon.

One local firm was prosecuted and fined for breaches of the regulations under the Explosives Ordinance XII of 1899.

9. *Petroleum*.—The quantity of petroleum imported in tins and in bulk both show a considerable falling off since last year. Permits to land two shipments of oil (flashing at 72° and 66° respectively), which had not previously been declared dangerous were refused.

On many occasions shipments of oil for Billiton, Hong Kong, Sarawak, Calcutta and Penang have been tested here in order to avoid delay. Twelve inspections of the tanks of petroleum vessels were made to ascertain whether they were free from inflammable vapour.

Fifty-three samples of oil taken from various parts of the town were tested and the result showed that in many cases they consisted of inferior low flash oil filled into old tins of well-known brands. Proceedings were taken and several convictions followed.

On three occasions I was appointed by His Excellency to serve on Committees of technical enquiry, in connection with vessels carrying dangerous petroleum.

10. *Toxicology*.—Sixty-five exhibits coming under this head have been analysed and reported upon, 40 of them were sent by the Chief Police Officer, Singapore, 5 were from the General Hospital, 4 from the Principal Civil Medical Officer the rest came from various parts of the Straits Settlements and Federated Malay States.

These included the usual assortment of cooking utensils, decoctions, etc. In about half the cases reported upon, the alleged victims were undoubtedly suffering from delusions.

11. *Quack Medicines*.—Nine bottles of medicine and two boxes of pills were seized from quack "doctors" and examined here.

12. *Drugs*.—A bottle of fever mixture sent in from the Native States together with the prescription from which it had been made up, was found to be about 50 per cent deficient in its principal ingredient. A sample of dog pill was also found not to conform to the prescription sent with it.

13. *Vitriol throwing*.—One case involving an examination of the victim's clothes was sent here.

14. *Urines*.—Six samples were examined for poisons or for pathological reasons.

15. *Blood Stains*.—Twenty-eight exhibits including clothes, parangs, choppers, knives, etc., were sent in by the police for examination.

16. *Stomachs*.—Thirty-two stomachs have been received for analysis as to the presence of poisons, and in only four instances was no poison found. Morphine and opium still remain the favourites especially with suicides.

The chart shows at a glance where they come from and the result, the figures in brackets at the headings of the columns representing the limits of variation in the amounts of poison recovered in grains.

WHERE FROM.	MORPHINE ($\frac{1}{4}$ — $\frac{2}{10}$).	OPUM ($\frac{1}{4}$ —68).	CHANDU DROSS = 10 $\frac{1}{2}$ Morphine).	ARSENIC ($\frac{2}{10}$).	STRYCHNINE ($\frac{1}{10}$ — $\frac{1}{4}$).	MORPHIA and MERCURY $\frac{1}{10}$ and Traces Res- pectively).	PROMAINES.	NO POISON PRESENT.	TOTAL.
Tan Tock Seng's Hospital, Singapore	3	6	...	...	...	...	2	3	14
General Hospital, Singapore	...	7	3	1	...	...	...	...	11
Government Veterinary Surgeon	...	...	...	...	1	...	...	...	1
Port Health Officer, Singapore	...	...	..	1	...	...	...	...	1
Chief Police Officer, Penang	...	...	...	...	1	...	1	...	2
Colonial Surgeon, Penang	...	1	...	...	...	...	...	...	1
Resident, Perak	...	...	...	...	...	1	...	1	2
Total	11	9	1	1	2	1	3	4	32

17. *Waters*.—Of the 31 samples analysed:—17 came from Singapore, 4 each from the Federated Malay States and Christmas Island, 3 from the Quarantine Station and 1 each from Bangkok, Penang and Malacca.

Sixteen samples were certified as good, 4 were found of doubtful quality and 6 were condemned. Five samples were reported upon as to their fitness for boiler purposes. Besides these a few samples were sent in in connection with poison cases, and some experiments were also made on the pitting of boiler plates and its prevention by boiler composition.

18. *Milks*.—One sample of condensed milk, one of goat's milk and 23 of cows' milk were analysed. These were mostly sent in from Government Institutions.

Two samples were found to contain over 50 per cent of added water, and in two cases prosecutions were successfully undertaken for supplying milk adulterated by the addition of water (and in one case of cane sugar also) to Government Institutions. Ten of the milks were reported as low quality and one as adulterated buffalo milk. The rest were reported as genuine.

In order to facilitate the detection of doubtful milks, the various hospitals, etc., here, regularly forward their lactometers at intervals for verification and now keep daily records of the readings taken on these instruments.

19. *Minerals and Alloys*.—Seventy-five samples including:—16 of tin ore, 16 of wolframite, 15 of gold and silver ore, 4 of copper ore, 7 of coal, 2 of galena, 2 of hematite and 1 each of arsenic and iron ore and sheelite and 8 allays of tin and lead and 3 of bronze were analysed and reported upon. This is a considerable increase over the number received during the previous year.

20. *Miscellaneous*.—Twenty-five odd samples including coconut oils, mangrove bark, cutch extract, a bullet in a murder case, cajaput oil, sago flours, soil, gambier, pineapple syrup, chop ink in a forgery case, indigo, bone-dust, nuts and gutta, etc., were sent in for analysis and report, two Abel-Pensky Flash point apparatus were sent for verification by the Standard Instrument here, and several consignments of damaged goods from Europe were reported upon.

21. One official visit was made to Malacca for the purpose of giving evidence at the Assizes.

22. During July the Laboratory was removed from the old site in Hill Street to the new premises specially erected at Sepoy Lines. This position is very suitable owing to its freedom from dust and vibration.

23. *Personal*.—Mr. W. R. ANGUS, Junior Laboratory Assistant, left the Government service on January 4th, the vacancy has up to the present not been filled.

APPENDIX I.

Comparison of Oils imported into Singapore, between 1906 and 1907.

Description of Oil.	1906.			1907.		
	Number of Vessels.	Tins.	Tons.	Number of Vessels.	Tins.	Tons.
American Oil { Devoes ...	7	213,968	...	5	229,576	...
Oil { Sylvan Arrow	2	169,000	...	6	185,000	...
{ Cross ...	17	53,699	...	27	99,236	...
{ Crown ...	88	316,672	...	51	232,480	...
Langkat Oil { Dragon ...	29	375,000	...	23	39,800	...
{ Lamp Glass..	7	24,950	...	8	31,840	...
{ Rising Sun...	8	17,000	...	4	11,050	...
{ Silver Light..	3	17,356	...	10	113,186	...
Aroe Bay ...	...	...	...	2	...	3,600
Balik Papan ...	5	...	16,590	8	...	18,877
Batavia ...	...	...	...	1	2,500	...
Palembang...	11	...	14,166	6	...	5,555
Petroleum Residue ...	13	...	34,652	12	...	29,705
Plajoe ...	1	...	525	...	...	...
Pulau Brandan ...	2	...	1,100	1	...	500
Palau Samboe ...	...	...	...	17	46,935	3,600
Soe-Soe ...	11	...	30,323	6	...	13,950
Total ...	204	1,187,645	97,356	187	991,603	75,787

APPENDIX 7.

Straits and Federated Malay States Government Medical School.

REPORT BY DR. G. D. FREER, *Principal.*

1. *Full Course for the Diploma.*—Thirteen new students, including 1 female student, were admitted in March, and 3 in July, making with 16 who joined in 1905 and 11 in 1906, a total of 43 students working in the full five years' course for the diploma.

2. Of the new students, 11 were Tamils, 1 Chinese, 1 Eurasian, 1 Malay, 1 Bengali, and 1 Japanese.

3. One student, whose progress has proved unsatisfactory was allowed to resign.

4. The results of the examinations are shown in the lists appended to this report and are in the main satisfactory. In May 6 students and in December 14 succeeded in passing the examinations in Anatomy and Physiology for those who had completed the second year of study. The passing of this examination means that after a further three years at Hospital work and the more purely professional part of their studies they should be able to proceed to the final examination for the diploma. It is satisfactory to note that Miss NUNES, the first female student to join the school, was one of the above who passed.

5. *Hospital Assistant Course.*—Ten new students were taken on for their two years' course of training, 6 for the Straits, 3 for the Selangor and 1 for the Pahang Medical Service.

6. In December, an examination was held for those who had completed the two years' course and 5 passed out, 2 for the Straits and 3 for the Perak Medical Service.

7. It is with much regret that I have to report that one of the Student Hospital Assistants M. VALLIPURUM died in July from Plague contracted while assisting the Government Pathologist at a post-mortem examination.

8. *Staff and General Remarks.*—Although there were numerous changes in the staff during the year owing to absence and other unavoidable causes, there has been no interference in the regular course of instruction laid down in the curriculum. With a few exceptions the conduct and progress of the students have been good, and the number of applications for admission continues to increase.

9. From March 4th to the end of the year I was away on leave, and during my absence Drs. FINLAYSON and KEITH shared my duties between them, Mr. R. J. BARTLETT, Science Master at Raffles Institution, lectured on Botany in place of Mr. H. N. RIDLEY absent on leave. Introductory classes on Clinical Medicine and Surgery were held by Drs. MILLARD and WEIR at the General Hospital, Dr. G. E. BROOKE being away the lectures on Elementary Hygiene and Sanitation were given by Dr. W. R. C. MIDDLETON. In the absence of Dr. P. FOWLIE the course of instruction in Midwifery was begun by Dr. N. BLACK. Lectures were given twice a week during the long session and as far as possible arrangements were made for the students to see cases at the Maternity Hospital. When the new Maternity Hospital is completed and in working order it is hoped that the difficulties in the way of an adequate number of patients for the purpose of teaching this important subject will be overcome.

11. The New Lecture Room and the Chemical Laboratory were completed about the middle of the year, and form an important addition to the buildings. They are cool, well ventilated and will provide ample accommodation for some time to come. A number of new Pathological Specimens have been put up by Dr. KEITH and added to the former collection which now numbers over 160.

STRAITS AND FEDERATED MALAY STATES GOVERNMENT MEDICAL SCHOOL.

RESULTS OF EXAMINATIONS FOR THE L.M.S. DIPLOMA.

Physics.

MAY, 1907.

PASSED.

First Class.

1. V. Supiramaniam.
2. M. Naganather.

Second Class.

1. Lim Yun Fah.
2. A. M. Soosay.
3. A. S. Kanapathi Pillai.
4. Loh Seng Tak.
5. T. A. Menon.
6. Abdul Latiff.
7. S. Nagalingam.

FAILED.

Six.

G. E. BROOKE, *Examiner.*

Anatomy.

MAY, 1907.

PASSED.

- | | |
|--------------------|----------------------|
| 1. M. W. Chill. | 5. S. R. Krishnan. |
| 2. Chen Su Lan. | 6. J. Gnanapragasam. |
| 3. John S. Lee. | 7. P. C. Fernandez. |
| 4. Tan Toon Cheng. | |

FAILED.

Nine.

N. BLACK & C. F. NICHOLAS, *Examiners.*

Physiology.

MAY, 1907.

PASSED.

- | | |
|--------------------|-----------------------|
| 1. M. W. Chill. | 7. Ho Sui Khan. |
| 2. S. R. Krishnan. | 8. E. W. DeCruz. |
| 3. Tan Toon Cheng. | 9. John S. Lee. |
| 4. Chua Boon Chye. | 10. W. F. Carnegy. |
| 5. Chen Su Lan. | 11. J. Gnanapragasam. |
| 6. S. Danasamy. | |

FAILED.

Six.

J. KIRKWOOD, *Examiner.***Osteology.**

MAY, 1907.

PASSED.

1. Lim Yun Fah.
2. Loh Seng Tak.

FAILED.

None.

C. F. NICHOLAS & N. BLACK, *Examiners.*

RESULTS OF EXAMINATIONS FOR FULL COURSE STUDENTS, DECEMBER, 1907

Anatomy.

PASSED.

First Class.

Teo Chin Teong.
Choo Sian Kim.
De Cruz.
G. B. Leicester.
A. J. Tamboo.

Second Class.

A. Aroozoo.
Chua Boon Chye.
Miss E. Nunes.
S. Danasamy.
W. F. Carnegy.
R. Chelliah.
Ho Sui Khan.
R. Vythilingam.
A. Saravanamuthu.
Yap Yeow Chin.

FAILED.

Three.

N. BLACK, *Examiner.***Physiology.**

DECEMBER, 1907.

PASSED.

First Class.

A. J. Thumboo.
Teo Chin Teong.
Choo Sian Kim.
Miss E. Nunes.
P. C. Fernandez.

Second Class.

Yap Yeow Chin.
Gurmukh Singh.
R. Vythilingam.
A. Saravanamuthoo.
R. Chelliah.
G. B. Leicester.
O. R. Cortelling.

FAILED.

Two.

J. KIRKWOOD, Captain, I.M.S., *Examiner.*

Chemistry.

DECEMBER, 1907.

FULL COURSE STUDENTS.

PASSED.

*First Class.*A. M. Soosay.
M. Naganather.
Kozo Ando.*Second Class.*H. M. Metha.
A. S. Kanapathi Pillai.
V. Supiramaniam.
S. M. Kumarasamy.
S. Nagalingam.
A. Anugraham.
Miss E. Hitchcock.

FAILED.

Five.

J. R. BROOKE, *Examiner.***Osteology.**

DECEMBER, 1907.

FULL COURSE STUDENTS.

PASSED.

*First Class.*H. M. Mehta.
Abdul Latiff.*Second Class.*S. Nagalingam.
A. M. Soosay.
Miss E. Hitchcock.
A. Anugraham.
V. Supiramaniam.
Kozo Ando.
M. Naganather.
S. M. Kumarasamy.
A. S. Kanapathi Pillai.
V. Nagalingam.

FAILED.

Three.

N. BLACK, *Examiner.***Botany.**

DECEMBER, 1907.

FULL COURSE STUDENTS.

PASSED.

*First Class.*M. Naganather.
A. S. Kanapathi Pillai.
A. M. Soosay.
Miss E. Hitchcock.
Kozo Ando.*Second Class.*Abdul Latiff.
S. Nagalingam.
S. M. Kumarasamy.
V. Supiramaniam.
V. Nagalingam.
A. Anugraham.

FAILED.

Four.

J. W. MOORE, *Examiner.*

These figures are not absolutely accurate, as in several instances the patient died within an hour or two after admission into the hospital and the diagnosis of Malaria was only established on post-mortem examination. The majority 73 per cent, suffered from a subtertian or tropical infection, a fact which has been commented upon in previous reports.

With a combination such as the extensive mosquito-breeding grounds in the Island and the ignorance of the average Chinese coolie, it is impossible to suppose that this disease can be readily or within a short period eradicated.

B. Widal Reaction.

Six hundred and eighty-six were examined, 597 being forwarded from hospitals while 89 were sent in by private practitioners:—Of the former 240 gave a positive reaction, of the latter 35.

In several cases a second or third examination was made, so that the total does not represent individual suspected cases of enteric fever.

A table showing the monthly incidence may be of interest, showing the marked increase during the months of August and September.

January	...	12	May	...	19	September	...	59
February	...	8	June	...	17	October	...	25
March	...	8	July	...	17	November	...	15
April	...	15	August	...	64	December	...	16
		—			—			—
		43			117			115
		—			—			—

As during the months when there occurred this marked rise in the Enteric Fever incidence, there was also an epidemic of Cholera; it was impossible to devote any attention to tracing the cause of the increase in the number of cases, save that by repeated examination the Municipal Water Supply was eliminated as the source of infection. It is to be remarked that it seemed of advantage to send in both a film and some blood serum in cases where the diagnosis rested between Malaria and Enteric Fever. In several instances the Widal was positive while no parasite was observed in the blood, in other instances the Widal was negative but Malarial parasites could be demonstrated in the film. In some three or four instances the patient suffered from Enteric Fever with an intercurrent Malarial infection. It seemed also peculiar that the rise occurred during what are termed the Autumn months, when the disease shows the highest monthly incidence in Europe. It is difficult to estimate correctly what aetiological factors produced this result.

C. Tuberculosis.

Two hundred and six specimens of sputum in suspected Phthisis were examined the tubercle bacillus was found in 67 or 32.5 per cent.

D. Diphtheria.

Sixteen swabs from suspected cases were inoculated on blood serum in four only was the causal bacillus found.

E. Gonorrhoea.

Films from 32 suspected instances were examined: the typical diplococcus was observed in 15.

F. Leprosy.

The bacillus lepræ was observed in 7 instances, with a negative result in 36 cases.

G. Various.

Amongst these are included some 41 specimens of urine, examined for the presence of casts, oxalates, etc., 31 blood films for differential counts and 20 specimens of faeces for the presence or absence of ova. In no case was there anything of special interest. Several tumours, both innocent and malignant were sectioned and reported upon, including one of Molluscum Contagiosum which appears to be very uncommon. Four films were examined for Filaria Embryoes, none being found, while some 6 samples of pus from abscesses in different parts of the body were forwarded to demonstrate the presence or absence of T. B. cocci, etc. None of these cases call for any lengthy remarks.

Rats.—One thousand and thirty-five were examined, giving a monthly average of 86. In each of the months of March, April and July one rat was found showing

evidences of a chronic plague infection. This was proved both by cultural and inoculation tests, the animals experimented upon dying within five days and exhibiting typical plague lesions. The two varieties, *Mus Rattus* and *Mus Decumanus*, which have been shown by the recent Indian Commission to be of the highest aetiological importance in the spread of this infectious disease, are found in abundance in Singapore:—Specimens of the rat flea were sent home and identified at the Lister Institute as the *Pulex Cheops*; these did not occur in large numbers on the rats forwarded for examination. Apparently there is no epizootic disease amongst rats in Singapore, but it would be of great advantage were it possible to have a large number of rats examined to find out what percentage suffer from Plague. This would necessitate a special staff, as, with other work, it is impossible that it could be undertaken by this department.

Rabies.—Towards the end of December a case of suspected rabies in a dog was notified to the Government Veterinary Surgeon. A rabbit was inoculated subdurally, it died about three weeks later from paralytic rabies.

Water.—Municipal Supply. Seventeen samples of Municipal water either from a tap in the Laboratory or from standpipes situated in different quarters of the town were examined. The number of micro-organisms varied from 75 to 250 per c. c., in no instance were there any indications of sewage pollution and the samples corresponded with the standard formerly considered.

Wells.—Six were examined.

Three were considered potable, while 3 showed sewage contamination.

Province Wellesley Supplies.—Seven specimens were forwarded from this district. The reports have already been forwarded.

II. Mortuaries.

There were 1,083 autopsies performed at Tan Tock Seng Hospital or at the General Hospital, the majority being made at the former institution.

Appended is a return showing the diseases to which death was directly attributed. One seeks to avoid confusing detail for the present, so that, on occasion, distinct diseases are grouped under one heading. These are dealt with more fully when one comes to discuss the incidence of the different affections.

Beri-beri	50	Cirrhosis of Liver with	
Tuberculosis	152	Perihepatitis	32
Dysentery with complications	196	New growth	18
Malaria	212	Shock or accident	43
Varied septic conditions	68	Poisoning	15
Anchylostomiasis	23	Gastro Enteritis or Entero-	
Diseases of heart and vessels	36	Colitis	28
Disease of Bronchi with		Cholera	7
Bronchic-Pneumonia	24	Plague	2
Diseases of blood	2	Stricture of Gut	4
Diseases of kidney	19	Senility or General Debility	8
Lobar Pneumonia	70	Syphilis	2
Enteric Fever	71	Too decomposed	1
		Total	1,083

Return showing the incidence of Disease.

From this one can form a more definite idea as to what diseases are more prevalent in Singapore. Malaria, Dysentery, Tuberculosis of Lungs, Enteric Fever, Pneumonia, and Beri-beri form a large percentage of the total.

GENERAL DISEASES.

1. Beri-beri	60	10. Syphilis	10
2. Enteric Fever	78	11. New growth	31
3. Cholera	9	12. Tetanus	2
4. Malaria	228	13. Erysipelas	1
5. Dysentery	289	14. Siriasis	2
6. Sapræmic conditions	61	15. Chicken-pox	2
7. Septicæmia	3	16. Leprosy	1
8. Pyæmia	10	17. Plague	2
9. Diseases of blood	3	18. Rheumatoid arthritis	1

LOCAL DISEASES.

A.—Diseases of Nervous System.

1. Meningitis, cerebro-spinal ...	2	4. Pachymeningitis ...	1
2. Meningitis, septic ...	1	5. Cerebral Gumma ...	2
3. Myelitis spinal ...	4	6. Cerebral Abscess ...	2

B.—Diseases of Circulatory System.

1. Atheroma of aorta, etc. ...	172	8. Pericarditis, adhesive ...	6
2. Aneurism of aorta, thoracic ...	7	9. Thrombosis, cerebral ...	3
" , abdominal ...	1	10. " of portal vein ...	1
3. Endocarditis, ulcerative ...	1	11. " , femoral veins ...	2
4. Valvular disease, aortic ...	38	12. " , Left common	
5. " , mitral ...	8	iliac ...	1
6. " , aortic and		13. Hæmorrhage, subdural ...	2
mitral ...	4	14. " , cerebral ...	4
7. Pericarditis, acute ...	12	15. " , cerebellar ...	1

C.—Diseases of Respiratory System.

1. Bronchitis, acute ...	10	13. Simple ulceration of larynx ...	4
2. " , chronic ...	3	14. Syphilitic " " ...	2
3. Bronchiectasis ...	1	15. Tubercular " " ...	15
4. Pleuritis, acute ...	6	16. Tubercular cervical or axillary	
5. " , " with effusion ...	4	glands ...	5
6. Pleuritic adhesions, fibrous ...	190	17. Tubercular mediastinal glands ...	5
7. " , " , plastic ...	64	18. Broncho-pneumonia ...	35
8. " , " , tubercu-		19. Lobar pneumonia ...	82
lar ...	165	20. Empyema ...	18
9. Tuberculosis of lungs, active ...	189	21. Pyopneumothorax ...	3
10. " , " , quies-		22. Pulmonary infarct ...	6
cent ...	36	23. " abscess ...	14
11. Acute miliary tuberculosis ...	5	24. " gangrene ...	2
12. General Tuberculosis ...	3		

D.—Diseases of Digestive System.

1. Nerosis of jaw ...	4	28. Syphilitic stricture of rectum ...	2
2. Simple ulceration of pharynx ...	1	29. Prolapse of rectum ...	1
3. Tubercular " " ...	1	30. Tape worm ...	1
4. Parotitis, acute ...	1	31. Anchylostomiasis ...	37
5. Gastric ulcer ...	8	32. Cirrhosis of Liver ...	113
6. Ulcer of duodenum ...	1	33. " " with gum-	
7. Fibrous structure of duo-		mata ...	5
denum ...	1	34. Perihepatitis, acute ...	5
8. Cyst of duodenum ...	1	35. Hepatic abscess—dysenteric ...	17
9. Gastro-enteritis, acute ...	4	36. " " Septic ...	2
10. Enteritis, acute ...	16	37. Distomiasis ...	32
11. Entero-colitis, acute ...	10	38. Rupture of spleen ...	8
12. Rupture of small gut ...	2	39. Abscess of spleen ...	5
13. Simple perforating ulcer of		40. Infarct of spleen ...	4
small gut ...	1	41. Perisplenitis, acute ...	10
14. Gangrene of small gut ...	2	42. Empyema of gall bladder ...	1
15. Enteric Fever ...	78	43. Suppurative Cholecystitis and	
16. Appendicitis,—suppurative ...	1	choolangitis ...	5
17. " , perforating ...	2	44. Gall stones ...	12
18. Hernia, umbilical ...	1	45. Tuberculosis, Intestines ...	94
19. " , inguinal ...	5	46. " Mesenteric	
20. Intussusception ...	1	glands ...	8
21. Peritonitis, suppurative ...	52	47. " Liver ...	7
22. " , tubercular ...	8	48. " Spleen ...	3
23. " , adhesive ...	3	49. " Suprarenals ...	2
24. Dysentery ...	289	50. Cystic degeneration of supra-	
25. Simple ulcer of rectum ...	3	renals ...	1
26. Perforating ulcer of rectum ...	1	51. Hepatic Cyst ...	1
27. Fibrous stricture of " " ...	2	52. Schistosomum Japonicum ...	1

E.—Diseases of Genito-Urinary System.

1. Acute nephritis ...	1	14. Tuberculosis of testicle ...	1
2. Chronic Parenchymatous Nephritis ...	8	15. " bladder ...	3
3. Chronic interstitial nephritis ...	39	16. Rupture of kidney ...	1
4. Pyelitis, acute ...	1	17. Enlargement of prostate gland ...	1
5. Pyonephrosis ...	2	18. Cystitis ...	12
6. Pyelonephritis ...	6	19. Calculus in bladder ...	5
7. Infarct of kidney ...	1	20. Urethral fistula ...	1
8. Tuberculosis of kidney ...	6	21. Endometritis, acute ...	1
9. Hydronephrosis ...	3	22. Salpingitis, acute ...	1
10. Renal calculus ...	4	23. Salpingo, oophoritis-chronic ...	3
11. Calculus of ureter ...	1	24. Puerperal eclampsia ...	1
12. Abscess, renal or perirenal ...	3	25. Puerperal sepsis ...	1
13. Abscess of testicle ...	2	26. Hydrops of fœtus ...	1

F.—Diseases of Bones and Joints.

1. Caries of spine ...	2	6. Necrosis of tarsal bones ...	1
2. Anchylosis left hip joint ...	1	7. Septic arthritis, knee joint ...	1
3. Necrosis of superior maxilla ...	1	8. Gonorrhœal synovitis ...	1
4. " inferior maxilla ...	3	9. Tuberculosis, tarsus ...	1
5. " femur ...	1	10. " , knee joint ...	1

G.—Affections produced by External Causes.

1. Burning and scalding ...	3	Heart penetrating ...	3
2. Drowning ...	1	Liver 2, Hernia sac 1, Foot 2 ...	5
3. Fracture—28		Lung 2, Pleura 3, Thigh 1, Throat 2 ...	8
" Ribs ...	4	Wounds Gunshot—3	
" Femur ...	5	Head 1, Abdomen 2 ...	3
" Skull ...	13	5. Strangulation ...	3
" Foot ...	1	6. Poisoning—15	
" Jaw ...	1	Morphine 8, Ptomaine 5,	
" Tibia, fibula ...	2	Mercury 1, Iodoform 1 ...	15
" Humerus ...	2	7. Operative shock ...	2
" Pelvis ...	1		
4. Wounds stab or incised—21			
Chest penetrating ...	5		

H.—Senile Decay or General Debility ... 8

I.—New Growth and Malformations.

1. Horse shoe kidney ...	2	Carcinoma of liver ...	3
2. Absence of one kidney ...	1	" pancreas ...	1
3. Transposition of viscera, complete ...	1	" calcum ...	1
4. Malignant growth, 15		" glands of neck ...	1
Epithelioma of tongue ...	1	" kidney ...	1
" pharynx ...	1	5. Benign growth, 6.	
" penis ...	1	Adenocystoma of ovary ...	1
Adenocarcinoma of stomach ...	4	Fibroma of thyroid gland ...	1
Adenocarcinoma of œsophagus ...	1	" mamma ...	1
		Polyp—Jejunum ...	2
		" Gall bladder ...	1

General Diseases.

Beri-beri.—Only some 60 cases or about 6 per cent occurred as compared with 191 or 21 per cent in 1906. They showed in the large majority the typical cardiac dilatation with effusion into the various serous cavities. Researches published during the year have thrown no light upon the causal agent of this affection which apparently has decreased to a considerable extent, not only in Singapore, but from what information one receives, throughout the Malay Peninsula.

Enteric Fever.—Seventy-eight cases were examined; in 21 instances an ulcer had perforated giving rise to peritonitis. The habits and customs of the Chinese coolie have been commented upon in previous reports their eating, drinking, method of sewage disposal, etc. One finds, on several occasions, that a patient comes to Hospital in practically a dying condition, suffering from Suppurative Peritonitis due to a

perforated Typhoid ulcer. This individual had felt ill, in all probability, for three weeks and, if we include the incubation period 14 to 21 days, he had been capable of spreading infection for over one month. Attention should also be paid to those who recover from this affection, as their excreta contain the causal bacillus for varying periods, up to at times three months, after convalescence. One desires to direct the attention of the Government to the work carried on in certain districts in Germany, where the patient is kept under observation and the stools, etc., are disinfected until the *B. Typhosus* can no longer be demonstrated in the excreta.

Cholera and Plague are treated in the Addendum which deals with the autopsies performed at the Quarantine Camp.

Malaria.—Of the 228 cases, 212 or 93 per cent died from the disease. In addition some 150 cases showed pigment in spleen, liver and other viscera, as evidence of a previous infection. There is nothing to add to my former remarks; the incidence will certainly remain high so long as the predisposing local conditions remain as at present.

Dysentery.—A dysenteric condition was observed in the gut in 289 cases, of these 196 or about 70 per cent died of the disease. In some 30 instances the affection was not limited to the large intestine but had extended for some 3 to 4 feet into the small gut, while in 32 cases old pigmented scars were demonstrated in the large bowel. By far the greater number suffered from Amœbic Dysentery, and in 17 cases abscess formation had occurred in the liver; this was either single or multiple, mostly the former, and in two instances the abscess had ruptured into the right Pleural sac. Associated with a dysenteric affection of the bowel, one occasionally observes small necrotic abscesses in the pulmonary substance, more particularly in the lower lobes. They have ragged, shreddy walls with an indefinite outline, and contain foul-smelling grumous purulent material. No Amœba has been demonstrated in their contents, though the condition of the bowel appeared to be caused by that protozoon. In nine instances an ulcer in the gut had perforated, causing either local or general suppurative peritonitis.

A perforation is unusual; what is more commonly noted is, that the inflamed peritoneal lining over the site of the ulceration becomes adherent to the adjacent coils.

Sapraemic Conditions.—In the majority this was due to sloughing phagedænic ulcers on the extremities, passing on in some cases to a gangrenous condition or giving rise to an extensive cellulitis.

Syphilis.—The various manifestations of the tertiary stage were found in quite a number of cases especially the ulcer or pigmented scar on the legs. One point to be noted, perhaps, in association with this disease is the frequent occurrence in individuals, varying from 25 to 40 years of age, of atheromatous changes in the intima of the aorta.

New Growth.—One naturally is more interested in the occurrence of Malignant Neoplasms of which there were 15. There were fewer instances, 3, of Primary Carcinoma of the liver as compared with 1905, when 10 were observed.

Local Diseases.

A.

There is nothing to note in this section.

B.

Atheroma of Aorta.—As remarked in my note upon Syphilis the large number of cases, 172, showing more or less marked arterio-sclerosis is to be commented upon, when one considers that this occurs at a lower age-period than what is noted in Europe, only a small percentage of autopsies being made on individuals over the age of 45.

Aneurism of Aorta.—In two instances the aneurism had ruptured.

Pericarditis.—The acute cases for the most part occurred in association with Lobar pneumonia. In the adhesive type the pericardium was affected in two instances from Tuberculosis of adjacent pleura.

C.

Tuberculosis of Lungs, etc.—The incidence of this disease naturally ranks very high and it must be so when one reflects on the ætiological conditions, which have been fully dealt with by Professor SIMPSON and Dr. MIDDLETON, Municipal Health Officer, in their various reports.

One has no opportunity of observing the incidence in children, but there is reason to believe it is low, as they are for the most part breast-fed, while the cattle in Singapore, are singularly free from Tuberculosis. Only in some eight cases there occurred Tubercular manifestations in the mesenteric glands, when macroscopically no lesion could be detected in the intestine, while a tubercular infection of the gut without advanced lesions in the lungs practically never occurred. One cannot enter at length into a discussion on Human and Bovine Tuberculosis and their relations, but there is every reason to suppose that the infection here is spread from one individual to another.

The lesions met with are manifold varying from a small quiescent caseous nodule at the apex of one lung to a general tubercular infection, showing deposits in different viscera. In one instance the genito-urinary system was markedly affected while another exhibited tubercular glands in a neck axilla, mediastinum, etc., simulating a case of Hodgkin's Disease.

<i>Lobar Pneumonia</i> .—Whole or part of right side	...	...	40
" " Whole or part of left side	...	...	21
" " Part of both sides	...	...	21

Cold is still given in the Medical Text-books as an ætiological factor in this disease, but it must surely be reckoned of secondary importance in this climate. The lesions are, as a rule, typical and caused by the specific Diplococcus. It was thought by Dr. MIDDLETON, Municipal Health Officer, that the *B. pestis* might in some instances be the causal organism, but on repeated examination one has not been able to demonstrate the bacillus, which more usually produces a patchy pneumonia. Undoubtedly the disease is an infectious one and ought to be considered so, though it practically never seems to occur as an epidemic. The right lung appears, as in my Report of 1905, to be more frequently affected. In some seven cases pulmonary abscess occurred as a sequela.

Empyema:—

Right side	...	...	...	11
Left side	...	...	...	6
Both sides	...	...	...	1

This condition occurred as a complication or sequela of the former disease save in two cases where it was an extension from a Hepatic abscess.

Three cases of Pyopneumothorax, following Tuberculosis of the lung, are also to be noted.

Broncho-Pneumonia.—In several instances this was noted in association with Enteric Fever, there simply being an extension of the Bronchitis which often occurs in that disease into the capillary bronchi in isolated areas. In one case a septic Broncho-pneumonia followed necrosis of the Inferior Maxilla.

D.

Peritonitis-suppurative.—This was caused by a variety of conditions and in the majority the whole peritoneal coat of abdominal wall and gut was affected.

These included:—

Perforating Typhoid ulcer	...	...	19
" Dysenteric "	...	...	7
" Gastric "	...	...	2
Appendicitis	...	...	3
Rupture of Intestine	...	...	2
Strangulated Hernia	...	...	1 etc.

In several the Peritonitis was localised and occurred as a sequela of:—

Hepatic abscess	...	...	2
Gastric ulcer	...	...	1
Empyema of Gall bladder	...	...	1
Dysenteric or Enteric ulcer	...	...	4 etc.

The cases of rupture of small gut following injury were peculiar. They occurred about the region of the duodenum while the external evidences of injury were very slight. They will probably be further commented upon by Dr. KEITH.

Anchylostomiasis.—Though the Nematode was observed in a large percentage of cases, only in 37 instances was it present in such numbers as to be considered pathological. In 23 the condition was assigned as the cause of death, the Anæmia due to the *Anchylostomum duodenale* being extremely marked.

Distomiasis.—The Trematode, *Distoma Sinense*, was noted in the gall bladder or bileducts in 32 instances. It has been remarked that this condition is restricted to those Chinese belonging to the Kwangtung province of China. Of the cases noted 22 came from this district—recorded as Tichiu, Macao or Cantonese. The others were unknown, the majority being corpses sent by the Coroner for post-mortem examination.

Schistosomum Japonicum.—One case was noted, showing the typical Cirrhosis of the liver, etc.

Intussusception.—This was about the region of the ileo-cæcal valve. It occurred in a well-marked case of Dysentery.

Hepatic Cirrhosis.—In a large percentage the cirrhosis was well marked. I wish to enter into this subject more fully in a later report, so that at present I shall make no further comment—32 or about 29 per cent died from the disease.

E.

There is little to comment upon in this section. The case of Eclampsia occurred in a European, while the specimen of Hydrops of the Fœtus was an example of a rare condition.

One advanced case of Chronic Intestinal Nephritis was demonstrated in a boy of 18.

F or *G* require no amplification.

H.

I have nothing to add to the note made in my report to the Municipal Commissioners, 1905.

III. Quarantine Camp Mortuary.

By an unfortunate accident the post-mortem book was almost completely destroyed by white ants. Accordingly it is impossible to give any accurate return, so that I have not included the records as having any bearing on the incidence of the disease.

Return showing cause of death—approximate.

Cholera	...	...	161	Broncho-pneumonia	...	4
Plague	...	...	9	Chronic bronchitis	...	1
Beri-beri	...	...	3	Gastro-Enteritis and Entero-		
Dysentery	...	...	15	colitis	...	18
Malaria	...	...	14	Anchylostomiasis	...	2
Enteric Fever	...	...	1	Suppurative pericarditis	...	1
Diphtheria	1	" peritonitis	...	2
Lobar Pneumonia	2	Too decomposed	...	1
Empyema	2			

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The outbreak of Cholera has been dealt with by Dr. MIDDLETON, Municipal Health Officer. The appearances presented in the majority of cases were absolutely typical of the disease. From what source the epidemic originated, one was unable to determine, though one suspected strongly infected shell-fish as one of the ætiological factors.

In a few instances the lesions exhibited differed in many respects from those shown in a typical case, while the *Vibrio* could not be demonstrated in smears from the intestinal wall nor in culture from the intestinal contents. It may be that these cases also suffered from a specific attack and, though classified as cases of Acute-Colitis, were really typical cases of Cholera.

Plague.—All nine cases were of the Bubonic type. In three other instances the diagnosis was established by simple bacteriological examination of the bubo, no complete autopsy being performed.

None showed any pulmonary affection.

IV. Staff.

Dr. KEITH carried on the duties until my return from leave in the beginning of March. From March to December Dr. KEITH and myself acted for Dr. FREER, Principal of the Medical School. This entailed so much extra work that it was almost impossible to undertake any research, the routine duties of the Departments occupying so much time.

Mr. S. N. BARDHAM entered on his duties in the beginning of July and has materially assisted in the post-mortem work at Tan Tock Seng's Hospital.

APPENDIX L.

Annual Report on the Medical Department, Labuan, for the Year 1907.

Population.

The estimated population of the Island on 31st December was 8,286 a decrease of 31 as compared with the previous year. One hundred and eighty deaths and 149 births were registered. The birth-rate was highest during the first and fourth quarters of the year and lowest during the second and third. The death-rate was highest during the second and fourth quarters and lowest during the first and third. The mortality under one year of age was 51.

The infant mortality is largely due to faulty methods of feeding: mothers preferring to bring up their children by the bottle-fed system, instead of by the breast. The feeding-bottles used are of the cheapest manufacture and provided with a long India rubber tube which is impossible to clean, the result is a sour bottle and sour milk which supplemented with the addition of rice cause derangements of the digestive system and more often than not ends the child's life prematurely.

Public Health.

The public health during the year has been satisfactory. There has been no epidemic.

General Sanitary Condition.—Steamers arriving from infected ports were inspected before being granted pratique. In no instance was a vessel detained. There are no buildings on Pulau Papan—the quarantine station—and should a case arise for isolation, there will be some difficulty in knowing where to house it more especially so in the case of a European.

The general sanitary condition is much the same as in previous years, improvements take place slowly and are only seen in the town of Victoria and its suburbs.

Malaria.—This fever has been somewhat prominent during the year under review, and it is to be little wondered at considering that the town is more or less surrounded by a swamp and in compounds there are stagnant pools. The Police Force have suffered considerably chiefly owing to the individual members not using mosquito curtains. The site of the barracks is an unhealthy one.

Beri-beri.—There has been a considerable decrease during the year. Formerly it used to head the list of all diseases treated in the Hospital, but fortunately now it is much lower down in the list.

Ankylostomiasis.—This disease is fairly common amongst the coolies working at the coal mines where all the conditions necessary for the life of the parasite exist.

Veneral diseases.—There has been a marked diminution in this class.

Chicken-pox.—This occurred in isolated cases and with nothing special of note.

Vaccination.

The total number vaccinated during the year was 255, of which 175 were primary and 80 were secondary vaccinations. The few failures were due more to want of care on the part of the parents and children rather than to insusceptibility to the lymph. The lymph supplied was good.

Meteorological Conditions.

The seasons are divided into a North-east and South-west Monsoon. The latter prevails during nearly three-quarters of the year. As a rule the North-east does not set in until the middle of December or beginning of January and lasts until the middle of April or the beginning of May when the South-west Monsoon begins to blow.

The highest temperature during the year was 92F. and the lowest 71F. The total rainfall during the year was 143.03 inches. The greatest fall in 24 hours being 7.26 inches on 14th May. I take this opportunity of suggesting that self-recording meteorological instruments be provided so as to insure accurate results.

The Hospital.

The total number of patients treated during the year was 183 with 24 deaths. Of those who died 7 were admitted in a moribund condition. Of the total treated 9 remained from the previous year, thus showing an admission of 174—176 were discharged leaving 7 in Hospital under treatment at the end of the year. The daily average sick was 10.53. The general arrangements at the Hospital as regards water supply, bathing, drainage, and sewage are the same as in past years.

The buildings have been colour washed.

R. E. ADAMSON.

MONTHLY RETURN OF DISEASES AND DEATHS IN 1907, AT LABUAN HOSPITAL.

MONTHS.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		YEARLY TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
MEAN TEMPERATURE ...	84.39	...	86.61	...	81.05	...	83.00	...	83.67	...	82.10	...	81.54	...	82.33	...	82.57	...	81.99	...	81.93	...	77.70	...	81.90	...
MEAN HUMIDITY ...	90.12	...	89.28	...	90.16	...	88.50	...	90.22	...	87.63	...	88.03	...	74.45	...	69.50	...	73.64	...	74.26	...	74.54	...	82.32	...
DISEASES.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
A. GENERAL.																										
Febricula ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria: Intermitent ...	2	...	2	...	1	...	7	...	6	...	5	...	2	...	4	...	1	...	4	...	4	...	2	...	40	...
" Remittent ...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
" Pernicious ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Malaria Cachexia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Beriberi ...	2	1	1	...	...	1	...	2	...	...	...	1	...	1	...	4	...	1	...	1	...	...	...	...	...	5
Muscular Rheumatism ...	1	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Debility ...	2	...	2	...	1	...	1	...	1	...	2	...	...	...	2	...	1	...	1	...	...	...	...	...	...	...
Gonorrhoea ...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anæmia ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yaws ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B. LOCAL.																										
Nervous System:																										
Neuritis ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neuralgia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Concussion of Brain ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Torticollis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Digestive System:																										
Ulcer of Mouth ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulcerative pharyngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dyspepsia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried forward. ...	9	1	7	...	5	1	10	...	16	1	13	1	7	2	10	1	6	2	10	2	6	2	2	1	101	14

MONTHLY RETURN OF DISEASES AND DEATHS IN 1907, AT LABUAN HOSPITAL.—Continued.

MONTHS.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		YEARLY TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
MEAN TEMPERATURE ...	...	84.39	...	80.61	81.05	83.00	83.67	82.10	81.54	82.33	82.57	81.99	81.93	77.70	81.90											
MEAN HUMIDITY ...	...	90.12	...	89.28	90.16	88.50	90.22	87.63	88.03	74.45	69.50	73.64	74.26	82.52												
DISEASES.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Brought forward</i> ...	9	1	7	...	5	1	...	13	2	10	6	2	10	1	2	10	2	6	2	10	2	6	2	10	2	14
Diseases of Digestive System :—Contd.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Constipation ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hemorrhoids ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Respiratory System :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congestion of Lungs ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess of Lung ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asthma ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Strumous Ozena ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Circulatory System :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mitral inefficiency ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Renal System :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bright's Disease ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cystitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Generative Organs :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Soft Chancre ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Orchitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess of Testicle ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Skins :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dermatitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Carried forward</i> ...	12	1	11	2	8	1	13	16	3	13	10	2	10	1	2	13	1	6	4	12	2	6	2	4	135	21

MONTHLY RETURN OF DISEASES AND DEATHS IN 1907, AT LABUAN HOSPITAL.—*Concluded.*

MONTHS.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		YEARLY TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
MEAN TEMPERATURE	84.39	...	80.61	...	81.05	...	83.00	...	83.67	...	82.10	...	81.54	...	82.33	...	82.57	...	81.99	...	81.93	...	77.70	81.90	
MEAN HUMIDITY	90.12	...	89.28	...	90.16	...	88.50	...	90.22	...	87.63	...	88.03	...	74.45	...	69.50	...	73.64	...	74.26	...	74.51	82.52	
DISEASES.																										
<i>Brought forward</i>	21
Disease of Skin:— <i>Cont.</i>
Burns ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulcers
Diseases of Cellular Tissue: Abscess ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Eye:—
Conjunctivitis, simple
Conjunctivitis, Gonorrhoeal
Injuries: Local:—
Bruise
Wounds
Fracture of Femur
Fracture of Humerus ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Compound Fracture of Humerus
Fracture of Spine ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fracture of Tibia
Fracture of Femur
Crushed Fingers
Dislocation of Wrist
Parasites:—
Scabies
Ankylostomiasis
Unclassified
Tumours, innocent
TOTAL ...	16	2	14	2	11	1	15	...	20	1	19	2	18	4	19	1	15	2	17	4	10	2	9	3	183	21

APPENDIX M.

REPORT ON THE RESULTS OF THE USE OF CURED RICE IN CONNECTION WITH THE TREATMENT OF BERI-BERI DURING 1906 AND 1907.

1. Reports from the several Hospitals in the Straits Settlements enclosed.
2. The figures for the two years summed up are as follows :—

HOSPITAL.	1906.				1907.			
	Remained.	Admitted.	Died.	Percentage to total treated.	Remained.	Admitted.	Died.	Percentage to total treated.
<i>Singapore.</i>								
General	13	99	29	...	5	70	15	...
Lunatic Asylum ... ..	...	2	...	...	...	2	...	...
Prison ... ..	...	(a)4	1	...	1	(b)7	...	...
Tan Tock Seng's	119	811	139	...	116	705	102	...
Total	132	916	169	16·12	122	784	117	12·91
<i>Penang.</i>								
General	2	22	1	...	4	29	4	...
District	35	196	44	...	24	140	33	...
Balik Pulau	4	17	8	...	1	2	1	...
Prison ... ..	...	3	...	...	...	2	...	...
Total	41	238	53	19·00	29	173	38	18·81
<i>Province Wellesley.</i>								
Butterworth ... ..	...	10	2	...	4	15	1	...
Sungai Bakap	1	3	1	...	...	8	1	...
Bukit Mertajam	3	25	3	...	4	24	4	...
Total	4	38	6	14·28	8	47	6	10·91
<i>Malacca.</i>								
General and Pauper	69	367	27	...	4 66	387	41	...
jasin	7	104	18	...	9	131	6	...
Total	76	471	45	8·23	79	518	47	7·87

(a) One admitted with disease. (b) All admitted with disease (6 from Labuan).

3. It will be seen from these statements that in each of the Settlements there has been an improvement in the death-rate in 1907 over 1906.

4. The figures for 1902, 1903, 1904, and 1905 are given here for comparison.

	1902.			1903.			1904.			1905.		
	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.
Singapore ...	1,465	379	25.87	1,465	457	31.19	1,784	595	33.35	1,229	307	24.98
Penang ...	445	139	31.23	319	82	25.71	567	147	25.93	460	112	24.35
P. Wellesley	40	7	17.50	65	24	36.92	78	25	32.05	48	21	43.75
Malacca ...	259	50	19.31	313	84	26.83	567	112	19.75	576	135	23.44
TOTAL ...	2,209	575	...	2,162	647	...	2,996	879	...	2,313	575	...

5. As far as can be ascertained no patients admitted to hospitals in 1906 and 1907 for other diseases contracted Beri-beri except 5 cases in the General Hospital, Singapore, in 1906, but it is difficult to say if they contracted it without the possibility of their having been in a position to derive it from outside or of their having entered with the poison in them.

6. The two admissions in the Lunatic Asylum in 1907 were among inmates. These occurred during two short periods when they were given Siam rice. A similar experiment in the Singapore Prison in 1906 resulted in one case occurring. The conclusion to draw from this is that patients using cured rice do not readily contract Beri-beri, but the difference is too small for any practical deduction to be drawn from the above figures.

7. There were two cases in the Prison, Singapore, when the men had been taking parboiled rice for months.

D. K. McDOWELL,
Principal Civil Medical Officer,
Straits Settlements.

SINGAPORE, 6th February, 1908.

RESULTS OF THE USE OF CURED RICE IN CONNECTION WITH THE TREATMENT OF BERI-BERI.

SINGAPORE.

1. *General Hospital.*—Since cured rice was substituted for the uncured, five cases of Beri-beri have occurred in patients admitted to Hospital for other diseases. They all occurred in 1906 between the months of August and November; 53, 24, 16, 23, and 32 days respectively after admission.

During 1907: 70 cases were admitted with 15 deaths.

2. *Lunatic Asylum.*—The Asylum patients were all put on Bengal rice in May, 1905.

There were	3	cases in	July,	1905.
"	2	"	August,	"
"	5	"	November,	"
"	1	"	December,	"

There was no case of beri-beri in the Asylum during the year 1906 with the exception of two admitted with the disease, who made rapid recoveries. Bengal rice was given throughout the year with the exception of the month of December.

The Asylum patients were all on Bengal rice during the year except for two periods when they were all given Siam rice. In the first of these two periods Beri-beri began to appear after 36 days and in the second after 46 days. Dr. ELLIS is collecting material for a report on this question which will give fuller particulars.

3. *Prison Hospital*.—On November 1st, 1904, the feeding with parboiled rice was begun, but the kanji was not made of it till 1st August, 1905, since when, with the exception of a short period in November, 1906, it is the only rice used.

On 11th November, 1906, 144 long-sentence prisoners were put on Siam rice exclusively, while the rest of the prisoners remained on parboiled rice. Unfortunately one of those on Siam rice, for some reason, developed Beri-beri, so all the prisoners were put on parboiled rice again.

In 1905, from January to July, 44 cases of Beri-beri were admitted to Hospital, while from August to December there were only 6 admissions.

In 1906, only 4 cases occurred. One came to Prison with the disease. Two of the others got Beri-beri after they had been taking parboiled rice for months, and the other after his parboiled rice had been changed to Siam rice for three weeks.

In 1907, there were 7 admissions to Hospital from Beri-beri, but they did not occur in the Prison. Six came from Labuan Prison with the disease and the other, a short-sentence Malay, was found suffering from the disease, on admission to Prison. It may be said that Beri-beri has almost disappeared from the Prison.

The non-use of Siam rice or the use of the parboiled rice appears to have played an important part in this disease.

4. *Tan Tock Seng's Hospital*.—Eight hundred and twelve Beri-beries were admitted in 1906 and 561 were admitted into Hospital from 1st January to 31st October, 1907.

One hundred and twenty-nine deaths occurred amongst the admissions for 1906 which gives a percentage of 15·89 deaths to admissions. Of admissions from 1st January to 31st October, 1907, 70 died thus giving a percentage of 12·77 deaths to admissions. Including those remaining in Hospital on 31st December, 1905, the total number of Beri-beries treated in 1906 amounted to 931 and the deaths to 139, thus giving a percentage of 14·93 to total treated.

Including those remaining in Hospital on 31st December, 1906, the total number of Beri-beries treated in 1907 amounted to 821 and the deaths to 102, thus giving a percentage of 12·41 to total treated.

As far as can be ascertained no patients contracted beri-beri whilst in Hospital. All the inmates were fed on parboiled rice with the exception of the inmates of the Female Leper Ward who were fed on uncured Siam rice.

From the number of admissions into Hospital from beri-beri it would appear that the disease is not so prevalent as in previous years.

I am of opinion, therefore, from the above figures that there can be little doubt that the feeding of the patients on parboiled rice, has a marked influence on the disease for the better.

PENANG.

1. *Prison Hospital*.—The exclusive use of parboiled rice was commenced on 25th July, 1905, and has continued ever since.

In 1905, 38 prisoners suffered from Beri-beri, but the last case was admitted to Gaol three days after the parboiled rice was commenced. Of the 38 cases, 32 were admitted to Hospital more than 20 days after their arrival in the Gaol.

In 1906, only two of the prisoners suffered from Beri-beri, of whom one arrived with the disease, and the other was recognised less than ten days after his arrival in Gaol.

In 1907, up to September 30th, no case originated in the Gaol. Only two arrived with it.

It is clear that just as the use of the parboiled rice commenced in the Gaol the disease suddenly became much less prevalent in the area whence our prisoners are drawn; a fact which, for the purpose of the experiment, was most unfortunate.

2. *General Hospital, Lock Hospital, Balik Pulau Hospital*.—Of these three Hospitals, the Acting Colonial Surgeon Resident, Dr. FORD, reports:—"No case of Beri-beri has arisen among the inmates of these institutions since the exclusive use of parboiled rice."

One cannot say, however, from the figures available, that cases used to originate in any of these Hospitals before the exclusive use of parboiled rice.

3. *Province Wellesley*.—The report of Colonial Surgeon, Dr. NICHOLAS, is to the effect that during the years 1903, 1904, and the year 1905 prior to the introduction of parboiled rice, there were 159 admissions for Beri-beri with 71 deaths 44 per

cent, while since the introduction of parboiled rice in 1905 there have been 72 admissions with 11 deaths 15 per cent.

The total number of patients who left cured during the former period—53 or 33 per cent of the total treated, while for the latter period 64 per cent were cured.

The average stay in Hospital does not appear to have been much affected.

The figures given by Dr. NICHOLAS show that for 1903, 1904, and the first-half of 1905 and even before the introduction of parboiled rice no Beri-beri cases arose in Hospitals, also that none have arisen since.

The only conclusion one can draw is that parboiled rice appears to have acted beneficially in curing the disease, but the source of error pointed out in paragraph four must be regarded.

4. *District Hospital, Penang.*—The Resident Medical Officer, Dr. KEUN, states that, before the exclusive use of parboiled rice, cases of Beri-beri used to arise amongst the patients, and that since the introduction of this rice no such cases have occurred. Before the change of rice the mortality was 33·6 per cent, afterwards 24·8 per cent. One possible source of error must be recollected. While Beri-beri was, for the latter period, certainly less common it may also have been much less virulent, and so the decreased mortality may have been quite independent of the change to parboiled rice.

5. *Lumut Hospital.*—There has really been no change here since the introduction of parboiled rice; the number of cases of Beri-beri is very small and whether any of these did commence in the Lumut Hospital cannot now be ascertained. The Dresser in charge simply says:—"During 1905 and 1906 no case of Beri-beri has originated in the Hospital."

MALACCA.

1. *Durian Daun Hospital.*—The patients have been given parboiled rice throughout the two years in question. In 1906, there were 436 patients under treatment for Beri-beri, of whom 27 died. Of this number, however, 17 died within 24 hours of admission. The percentage of deaths to total treated was 6·19 or omitting the deaths within 24 hours of admission 2·38 only.

At the beginning of 1907 there were 70 cases of Beri-beri under treatment in the Hospital and 387 admissions during the year, giving a total treated of 457. There were 41 deaths giving a death-rate of 8·97 per cent. Of the number, however, 15 died within 48 hours of admission and were probably not affected by the change of diet, omitting these the death-rate falls to 5·88 per cent. Of the total number under treatment 347 were cured, 7 were relieved and 62 remained under treatment at the end of the year.

2. *The Prison.*—The prisoners were given parboiled rice throughout 1906 and 1907. No cases of Beri-beri occurred among them and there were no admissions of prisoners suffering from this disease.

3. *Police Dépôt.*—In November, 1906, one of the recruits living in the newly opened Dépôt was sent to Hospital suffering from Beri-beri. He was followed in December by two more cases. On examining the boys several suspicious cases were found among them, complaining of numbness and feeling of weight in the lower extremities. The rice was found to be of very bad quality, broken and dirty. Parboiled rice was substituted and a drain was dug round the barracks. One more case was sent to Hospital early in January, but the rest of those attacked rapidly improved in health, and no fresh cases occurred among the recruits during the year. In November, 1907, however, one of those first attacked, who had meanwhile been promoted to Corporal and who lived by himself in the College grounds and fed on ordinary rice, had a relapse and was sent to Hospital. He quickly improved again under treatment.

4. *Jasin Hospital.*—Parboiled rice was given throughout the two years. In 1906, there were 111 cases under treatment for Beri-beri with 18 deaths, giving a death-rate of 16·21 per cent. Of this number, however, 4 died within 24 hours of admission and 2 more were suffering from other diseases. Deducting these the death-rate falls to 11·42 per cent.

In 1907, there were 140 cases in all under treatment with 16 deaths, giving a death-rate of 11·42 per cent. Of the total number, however, 6 died shortly after admission and 1, a Javanese, was fed by his friends on ordinary rice as he could not take the parboiled rice. Deducting these the death-rate falls to 6·76 per cent.

Singapore.

Return of the Statistics of Population for the Year 1907.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1907 ...	4,227	4,486	36,136	197,324	19,040	3,437	264,650
„ Births during the year 1907	115	158	1,502	3,510	402	87	5,774
„ Deaths „ 1907	69	149	1,710	9,367	875	171	12,341
„ Immigrants „ 1907	} No data available.						
„ Emigrants „ 1907							
Number of inhabitants in 1906 ...	4,160	4,425	36,117	191,570	18,840	3,301	258,423
Increase	113	70	...	...	...	52	...
or							
Decrease ... ..	...	...	199	103	273	...	340

Race or nationality should be specified, as nearly as possible, in accordance with the above model.

Meteorological Return for the Year 1907.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
	°F	°F	°F	°F	°F	°F	Inches.	%		Miles.	
January	154.4	70.0	88.2	72.3	15.9	79.4	5.20	76	NE	128.4	
February	154.1	68.8	89.1	72.4	16.7	79.3	5.28	76	NE	140.5	
March	149.6	70.8	89.1	73.8	15.3	80.0	4.97	79	NE	156.7	
April	153.0		89.9	74.6	15.3	82.0	4.17	73	SE	150.5	
May	147.5		88.5	74.2	14.3	81.3	6.54	78	SE	88.0	
June	146.9		89.5	75.4	14.1	82.2	6.52	77	SE	121.8	
July	145.7		88.0	73.8	14.2	80.6	12.20	78	SE	147.5	
August	143.9		88.2	74.4	13.8	81.5	6.36	77	SW	161.3	
September	145.6		87.3	74.1	13.2	80.6	5.97	81	SW	132.5	
October	151.7		88.7	74.8	13.9	81.5	11.12	78	SE	140.5	
November	143.9		87.4	74.4	13.0	80.2	4.18	80	NW	110.5	
December	140.2		85.9	73.2	12.7	78.7	13.53	83	NW	95.7	
Mean	148.0	69.9	88.2	73.9	14.3	80.6	Total. 86.04	78	...	131.1	

SINGAPORE.

Return of Diseases and Deaths in 1907 at the following Institutions:—
General-Hospital, Prison, St. John's Island, Tan Tock Seng's Hospital, Quarantine
Camp, Leper and Lock Hospitals and Lunatic Asylum.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	128	799	135	927	174	
Chicken-pox ...	...	25	...	15	...	
Cholera ...	1	106	81	107	...	
Dengue ...	...	12	...	12	...	
Diphtheria ...	...	6	5	6	...	
Dysentery ...	45	810	339	855	11	
Enteric Fever ...	11	268	101	279	13	
Enteritis ...	1	4	1	5	...	
Erysipelas ...	...	8	1	8	1	
Gonorrhœa ...	18	285	...	303	19	
Influenza ...	...	1	...	1	...	
Leprosy ...	44	47	20	91	20	
Malaria ...	...	...	...	...	...
<i>a.</i> Tertian ...	5	...	...	5	...	
<i>b.</i> Quartan ...	...	13	1	13	...	
<i>c.</i> Aestivo Autumnal ...	5	125	50	130	12	
<i>d.</i> Chronic ...	1	46	...	47	3	
<i>e.</i> Not differentiated ...	27	2,190	248	2,217	48	
Measles ...	...	71	1	71	...	
Mumps ...	...	3	...	3	...	
Phagedœna ...	1	18	3	19	1	
Plague ...	...	9	8	9	...	
Pneumonia ...	3	186	106	189	3	
Pyæmia ...	...	9	3	9	1	
Pyrexia ...	3	475	3	478	4	
Rheumatic Fever ...	7	59	...	66	4	
Septicæmia ...	...	36	29	36	...	
Small-pox ...	...	47	4	47	3	
Syphilis ...	...	...	...	...	...
<i>a.</i> Primary ...	21	246	...	267	4	
<i>b.</i> Secondary ...	81	730	23	811	67	
Tetanus ...	1	10	7	11	1	
Tuberculosis ...	32	541	325	573	32	
Yaws ...	...	1	...	1	...	
INTOXICATIONS.						
Alcoholism ...	...	53	...	53	...	
Mercury, chronic poisoning by ...	...	1	...	1	...	
Morphinism ...	...	3	...	3	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	22	294	48	316	21	
Anæmia, pernicious ...	...	2	2	2	...	
Exophthalmic Goitre ...	...	3	...	3	1	
Leucocythæmia ...	...	2	...	2	2	
Osteo Arthritis ...	1	1	...	2	...	
CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS.						
Malformations ...	...	2	...	2	...	
New Growth, Non-malignant ...	5	16	...	21	1	
" Malignant ...	...	63	25	63	5	
Cyst ...	...	7	1	7	...	
DISEASES OF THE NERVOUS SYSTEM.						
Inflammation and Degeneration ...	...	...	...	...	...
<i>a.</i> Neuritis ...	2	14	...	16	2	
<i>b.</i> Multiple Neuritis ...	...	1	...	1	...	
<i>Carried forward...</i>	465	7,638	1,570	8,103	453	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	465	7,638	1,570	8,103	453	
DISEASES OF THE NERVOUS SYSTEM.—						
<i>Continued.</i>						
DISEASES OF THE SPINAL CORD AND MEMBRANES.						
Inflammation Meningitis ...	...	3	3	3	...	
Do. Myelitis ...	1	4	3	5	...	
Degeneration		...	...	2	...	
<i>a.</i> Of Anterior Columns.	2	...	...	18	8	
<i>b.</i> Of Lateral Columns.	3	15	...	5	2	
<i>d.</i> Of Posterior Columns.	1	4	1	1	...	
<i>e.</i> Of Lateral and Pos- terior Columns ...	...	1	1	1	...	
<i>f.</i> Insular Sclerosis ...	...	1	...	1	...	
DISEASES OF THE BRAIN AND MEMBRANES.						
Inflammation Meningitis ...	1	14	7	15	...	
Hæmorrhage ...	1	3	3	4	...	
Abscess ...	...	5	5	5	...	
Apoplexy ...	1	3	2	4	...	
NERVOUS DISORDERS AND DISEASES OF UNDETERMINED NATURE.						
Apoplexy ...	...	6	4	6	...	
Paralysis						
<i>a.</i> Paraplegia ...	2	10	4	12	1	
<i>b.</i> Hemiplegia ...	13	25	7	38	11	
<i>c.</i> Monoplegia ...	...	1	...	1	...	
Paralysis Agitans ...	...	1	1	1	...	
Torticollis ...	...	1	...	1	...	
Epilepsy ...	...	2	...	2	...	
Headache ...	...	8	...	8	...	
Neuralgia ...	...	9	...	9	...	
Hysteria ...	...	1	...	1	...	
Neurasthenia ...	...	2	...	2	...	
MENTAL DISEASES.						
Idiocy ...	...	2	...	2	2	
Mania Acute ...	116	115	6	231	173	
<i>a.</i> Hysterical ...	...	4	...	4	...	
<i>b.</i> Puerperal ...	...	1	...	1	1	
<i>e.</i> Senile ...	3	7	...	10	10	
Melancholia ...	52	36	...	88	43	
Delusional Insanity ...	...	13	...	13	10	
General Paralysis of the Insane	...	2	...	2	2	
Dementia ...	116	25	6	141	59	
DISEASES OF THE EYE.						
Conjunctivitis						
<i>a.</i> Catarrhal ...	6	175	...	181	...	
<i>b.</i> Purulent ...	2	53	...	55	...	
<i>g.</i> Granular ...	...	35	...	35	...	
Keratitis ...	1	4	...	5	1	
Ulceration of Cornea ...	13	14	...	27	9	
Opacity ...	10	23	...	33	9	
Acquired deformities ...	8	18	...	26	7	
Iritis ...	3	14	...	17	1	
Optic Neuritis ...	...	1	...	1	...	
Lenticular Cataract ...	3	14	...	17	5	
Pan-ophthalmitis ...	3	29	...	32	14	
Amblyopia Amaurosis ...	...	2	...	2	...	
Blepharitis marginalis ...	...	3	...	3	...	
Entropion ...	...	2	...	2	...	
<i>Carried forward...</i>	826	8,349	1,623	9,175	821	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	826	8,349	1,623	9,175	821	
DISEASES OF THE EAR.						
Inflammation Middle Ear ...	..	7	...	7	1	
DISEASES OF THE NOSE.						
Inflammation of soft parts ...	...	4	...	4	...	
Epistaxis ...	...	3	...	3	...	
DISEASES OF THE CIRCULATORY SYSTEM						
Pericarditis ...	...	11	8	11	...	
Endocarditis ...	...	3	...	3	...	
Valvular Disease ...	13	159	25	172	4	
Dilatation ...	...	1	...	1	...	
Aneurysm of Heart ...	...	9	5	9	1	
Syncope ...	...	2	1	2	1	
Disordered Action of Heart ...	...	1	...	1	1	
Aneurysm ...	...	2	1	2	...	
Phlebitis ...	...	2	...	2	...	
Thrombosis ...	1	1	...	2	...	
Varix ...	...	2	...	2	1	
Other diseases, Circulatory System ...	...	2	...	2	4	
DISEASES OF THE RESPIRATORY SYSTEM						
Asthma ...	1	24	1	25	...	
Inflammation of Mucous Membrane ...	...	8	1	8	...	
Bronchitis ...	10	218	16	228	11	
Hæmorrhage ...	...	8	5	8	...	
Broncho-pneumonia ...	...	25	15	25	1	
Chronic interstitial inflammation ...	1	...	...	1	1	
Phthisis ...	...	87	35	87	...	
Emphysema ...	...	2	2	2	1	
Pleurisy ...	4	43	9	47	5	
Empyema ...	...	18	8	18	...	
Hæmothorax ...	...	2	...	2	1	
Other diseases, Respiratory System ...	...	1	...	1	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Inflammation (Stomatitis) ...	...	9	...	9	...	
Ulceration ...	...	2	...	2	...	
Caries (teeth) ...	...	1	1	1	...	
Abscess (gum) ...	...	4	...	4	...	
Toothache ...	...	3	...	3	...	
Inflammation of Tonsils ...	...	...	...	...	...
<i>a.</i> Follicular ...	1	9	...	10	...	
<i>b.</i> Suppurative ...	...	1	...	1	...	
<i>c.</i> Peritonsillar Abscess ...	...	1	...	1	...	
Hypertrophy of Tonsils ...	...	2	...	2	...	
Inflammation (Pharynx, etc.) ...	1	9	...	10	...	
Post-pharyngeal Abscess ...	...	1	...	1	...	
Inflammation (Stomach) ...	...	27	1	27	...	
Ulceration " ...	...	6	2	6	1	
Indigestion ...	2	89	...	91	4	
Other Stomach diseases ...	...	16	11	16	3	
Inflammation (Intestines) ...	...	...	...	...	...
1. Enteritis ...	3	131	53	134	8	
2. Appendicitis ...	...	8	1	8	3	
3. Colitis ...	1	35	11	36	3	
<i>Carried forward ...</i>	864	9,348	1,835	10,212	876	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases. Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	864	9,348	1,835	10,212	876	
DISEASES OF THE DIGESTIVE SYSTEM.—						
<i>Continued.</i>						
Sprue ...	1	13	4	14	...	
Hernia ...	3	16	1	19	1	
Obstruction (Intestines) ...	...	4	3	4	...	
Diarrhœa ...	28	435	67	463	9	
Constipation ...	1	68	...	69	...	
Colic ...	...	22	...	22	2	
Ulceration ...	1	2	...	3	...	
Fissure of the Anus ...	1	...	...	1	...	
Fistula in Ano ...	1	36	...	37	...	
Rectovesical Fistula ...	...	3	...	3	...	
Piles ...	2	29	...	31	...	
Prolapse ...	...	5	...	5	1	
Other Diseases (Rectum and Anus) ...	...	8	6	8	...	
Inflammation (Liver) ...	...	...	...	...	...
(a) Abscess of Liver ...	1	14	10	15	1	
(b) Cirrhosis of Liver ...	5	119	45	124	11	
Perihepatitis ...	...	1	...	1	...	
Hyperæmia or Congestion ...	...	7	...	7	...	
Jaundice ...	1	9	...	10	...	
Calculi (Bladder) ...	...	3	1	3	...	
Inflammation (Peritoneum)...	...	20	18	20	...	
Dropsy (")...	1	8	1	9	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Splenitis ...	...	12	...	12	...	
Peri-splenitis ...	...	1	1	1	...	
Inflammation (Glands) ...	...	32	...	32	...	
Suppuration (") ...	6	87	3	93	5	
Inflammation (Vessels) ...	...	1	...	1	...	
Mechanical Affections ...	1	2	2	3	...	
DISEASES OF THE URINARY SYSTEM.						
Acute Nephritis ...	1	8	3	9	1	
Bright's Disease ...	4	92	40	96	10	
Pyelitis ...	...	2	2	2	...	
Moveable Kidney ...	...	1	...	1	...	
Renal Colic ...	...	2	...	2	...	
Inflammation (Bladder) ...	...	6	...	6	...	
Calculus & Gravel " ...	...	2	...	2	...	
Retention of Urine ...	...	6	...	6	...	
Hæmaturia ...	...	3	...	3	...	
Chyluria ...	...	2	...	2	...	
Albuminuria ...	...	4	4	4	...	
DISEASES OF THE GENERATIVE SYSTEM, (MALE ORGANS.)						
Urethritis ...	...	1	...	1	...	
Stricture ...	1	16	1	17	2	
Urethral Fistula ...	...	4	...	4	...	
Extravasation of Urine ...	...	3	1	3	...	
Impacted Calculus ...	...	4	...	4	...	
Hypertrophy ...	...	1	...	1	...	
Phimosi ...	...	14	...	14	...	
Paraphimosi ...	...	1	...	1	...	
Ulcer of Penis ...	1	9	...	10	5	
<i>Carried forward...</i>	924	10,486	2,050	11,410	924	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	924	10,486	2,050	11,410	924	
DISEASES OF THE GENERATIVE SYSTEM.						
<i>Continued.</i>						
MALE ORGANS.—Contd.						
Soft Chancre ...	6	147	...	153	11	
Abscess Scrotum ...	...	11	...	11	...	
Sloughing ...	...	4	...	4	...	
Hydrocele (Cord Spermatic) ...	...	12	...	12	2	
Hæmatocele " ...	...	1	...	1	1	
Hydrocele (Tunica Vaginalis) ...	...	14	...	14	1	
Hæmatocele " ...	...	1	...	1	1	
Inflammation (Testicle) ...	...	...	...	...	...
<i>l.</i> Orchitis ...	...	12	...	12	...	
Hernia Testis ...	...	14	...	14	2	
DISEASES OF THE FEMALE ORGANS OF GENERATION.						
Inflammation (Ovary) ...	...	2	...	2	...	
Inflammation (Uterine Liga- ments) ...	1	...	...	1	...	
Displacements and Distor- tions (Uterus) ...	...	...	...	...	...
<i>Δ.</i> Retroversion ...	...	1	...	1	...	
<i>δ.</i> Retroflexion ...	...	1	...	1	...	
<i>ζ.</i> Prolapsus ...	...	1	...	1	...	
Inflammation, Abscess (Vulva) ...	...	2	...	2	...	
Aménorrhœa ...	...	2	...	2	1	
Dysmenorrhœa ...	...	1	...	1	...	
Menorrhagia ...	...	2	...	2	...	
Other Diseases ...	2	57	2	59	8	
AFFECTIONS CONNECTED WITH PREGNANCY.						
Abortion ...	...	1	...	1	...	
Ectopic Gestation ...	...	1	1	1	...	
AFFECTIONS IN CONNECTION WITH PARTURITION.						
Premature Birth ...	...	1	...	1	...	
DISEASES OF THE FEMALE BREAST.						
Mastitis ...	...	1	...	1	...	
Other Diseases ...	...	4	...	4	...	
DISEASES OF THE ORGANS OF LOCOMOTION.						
Inflammation ...	...	...	...	...	...
<i>a.</i> Ostitis ...	...	1	...	1	...	
<i>b.</i> Periostitis ...	...	5	...	5	...	
Caries (Bones) ...	1	11	...	12	2	
Necrosis ...	3	17	2	20	2	
Arthritis ...	1	25	...	26	...	
Synovitis ...	8	26	...	34	2	
Caries (Spine) ...	...	1	...	1	...	
Psoas Abscess ...	...	3	...	3	...	
Myalgia ...	...	38	...	38	6	
Ankylosis ...	1	3	...	4	...	
<i>Carried forward ...</i>	947	10,909	2,055	11,856	963	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	947	10,909	2,055	11,856	963	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	1	61	6	62	4	
Abscess ...	17	196	6	213	17	
Gangrene ...	1	7	4	8	2	
Elephantiasis ...	3	3	...	6	1	
Other Diseases ...	...	2	...	2	1	
DISEASES OF THE SKIN.						
Eczema ...	2	65	...	67	8	
Boil ...	...	31	...	31	...	
Carbuncle ...	...	9	1	9	...	
Shingles ...	...	2	...	2	...	
Pemphigus ...	1	3	...	4	1	
Psoriasis ...	2	2	...	4	...	
Whitlow ...	...	7	...	7	...	
Ulcer ...	71	782	1	853	54	
Other Skin Diseases ...	...	17	1	17	2	
GENERAL INJURIES.						
Burns and Scalds ...	2	48	8	50	1	
Heat Stroke ...	...	2	...	2	...	
Suffocation ...	...	1	...	1	...	
Starvation ...	...	2	...	2	...	
Shock ...	...	5	1	5	...	
Local Injuries ...	46	844	27	890	10	
INJURIES OF ANATOMICAL REGIONS.						
Head and Neck ...	...	127	22	127	8	
Trunk and Abdomen ...	...	98	...	98	8	
Upper Extremities ...	...	34	14	34	1	
Lower " ...	1	46	...	47	7	
POISONS.						
Chlorodyne ...	...	1	...	1	...	
Mercury ...	1	2	1	3	...	
Opium ...	...	9	7	9	...	
Acid, Sulphuric ...	...	1	...	1	...	
Alcohol ...	...	2	...	2	...	
Jeyes Fluid ...	...	1	...	1	...	
Other Poisons ...	...	2	...	2	...	
PARASITES.						
Ringworm ...	...	2	...	2	...	
Roundworm ...	...	4	...	4	1	
Scabies ...	7	107	...	114	4	
Ankylostomum Duodenale...	...	29	16	29	2	
OBSERVATIONS. ...	4	197	...	201	5	
NO APPRECIABLE DISEASE ...	2	94	...	96	3	
TOTAL SINGAPORE ...	1,108	13,754	2,170	14,862	1,102	

Return of Diseases and Deaths in 1907 at the Singapore Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
OPERATIONS PER- FORMED IN 1907.						
Excision of Tumours (Non- malignant)	1	...	...	...
Excision of Tumours (Malignant)	1	...	...	...
Enucleation of Sebaceous Cyst	5	...	...	...
Incision of Abscess	30	...	...	...
Removal of Foreign Bodies	1	...	...	...
Ligature of common Carotid Amputation, Finger	2	...	...	...
Ligature of Arteries for Hæmorrhage	3	...	...	...
Removal of Lymphatic Glands	7	...	...	...
Skin Grafting (Thiersch)	12	...	...	...
Curretting Ulcer	1	...	...	...
Osteoclasis	3	...	...	...
Passive Movement of Joints.	1	...	...	...
Incision & drainage of Knee Amputations	2	...	...	...
Trephining	3	...	...	...
Lumbar Puncture	16	...	...	...
Hare lip	3	...	...	...
Excision Uvula	1	...	...	...
Extraction, Teeth	1	...	...	...
Tracheotomy	2	...	...	...
Empyæma with resection of rib	1	...	...	...
Laparotomy	7	...	...	...
Excision of Appendix	2	...	...	...
Opening and draining Appen- dix, Abscess	2	...	...	...
Strangulated Hernia (inguin- al)	3	...	...	...
Radical Cure, Ing. Hernia (Baisini)	2	...	...	...
Liver, Abscess	5	...	...	...
" (Exploration)	3	...	...	...
Imperforate Anus	3	...	...	...
TOTAL	125	...	...	...

PENANG.

(INCLUDES DINDINGS.)

Return of the Statistics of Population for the Year 1907.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1907 ...	935	1,790	36,615	77,290	18,337	1,987	136,954
.. Births during the year 1907	38	36	1,116	924	319	25	2,458
.. Deaths .. " 1907	14	40	1,069	2,943	912	49	5,027
.. Immigrants .. 1907	} No data available.						
.. Emigrants .. 1907							
Number of inhabitants in 1906 ...	1,058	1,762	36,669	76,463	18,443	1,933	136,328
Increase ... ..	...	24	...	...	...	30	...
or Decrease	99	...	7	1,192	699	...	1,943

Race or nationality should be specified, as nearly as possible, in accordance with the above model.

Meteorological Return for the Year 1907.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January	°F 149.4	°F 70.2	°F 88.3	°F 72.9	°F 15.4	°F 79.9	Inches. 1.54	% 73	N	Miles. 251.5	
February	152.3	68.5	90.6	71.9	18.7	79.5	.80	70	N	269.1	
March	154.6	71.1	90.8	74.0	16.8	80.9	6.43	74	NE	254.7	
April	153.3	79.3	93.9	75.1	18.8	83.9	1.43	72	NE	292.3	
May	140.2	72.0	91.7	75.0	16.7	85.4	5.94	79	E	246.2	
June	144.3	69.8	88.9	74.4	14.5	83.4	4.18	78	NE	263.6	
July	140.0	72.1	88.1	73.6	14.5	79.5	8.01	82	N	242.3	
August	142.3	67.7	88.0	72.9	15.1	79.3	4.68	82	N	245.2	
September	148.1	61.2	88.5	73.7	14.8	79.6	8.07	79	N	298.1	
October	147.8	51.1	88.1	73.3	14.8	79.1	12.63	81	N	283.2	
November	145.4	...	86.9	72.8	14.1	78.3	17.16	83	N	254.5	
December	143.1	...	86.3	73.0	13.3	78.3	7.42	82	N	263.4	
Mean	146.7	68.3	89.2	73.5	15.7	80.3	Total 78.29	78	...	263.7	

PENANG.

Return of Diseases and Deaths in 1907 at the following Institutions:—General, District, Lock, Criminal Prison, Quarantine Camp Jelutong, European Small-pox, Balik Pulau, Leper Hospital Pulau Jerejak, Lumut Hospitals and Female Leper Ward, Jelutong.

DISEASES.	Remain- ing in Hospital at end of 1906.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Anthrax ...	...	3	...	3	...	
Beri-beri ...	32	195	45	227	41	
Chicken-pox ...	5	31	...	36	...	
Cholera ...	...	2	1	2	...	
Dengue ...	...	1	...	1	...	
Dysentery ...	18	337	136	355	16	
Enteric Fever ...	1	22	7	23	1	
Erysipelas ...	...	3	...	3	...	
Gonorrhœa ...	5	79	...	84	7	
" Arthritis ...	1	21	2	22	1	
" Rheumatism ...	1	...	...	1	...	
Leprosy ...	350	202	114	552	369	
Mycetoma ...	...	2	...	2	...	
Malaria Tertian ...	6	161	2	167	4	
" Aestivo Autumnal ...	10	196	37	206	9	
" Cachexia ...	11	151	19	162	5	
Malaria not classified ...	3	300	8	303	3	
Malaria Intermittent ...	1	...	...	1	...	
Measles ...	...	8	...	8	...	
Mumps ...	...	2	...	2	...	
Osteo Myelitis ...	1	1	...	2	...	
Phagedœna ...	7	28	4	35	4	
Pneumonia ...	1	68	26	69	3	
Pyæmia ...	...	1	...	1	...	
Pyrexia of uncertain origin ...	...	56	1	56	1	
Rheumatism ...	36	6	...	42	...	
" Sub-acute ...	...	195	7	195	27	
Septicæmia ...	...	1	1	1	...	
Small-pox ...	...	7	1	7	8	
Syphilis Primary ...	10	111	1	121	8	
" Secondary ...	43	430	16	473	63	
" Tertiary ...	2	6	1	8	1	
Tetanus ...	...	3	3	3	...	
Tuberculosis ...	1	39	14	40	3	
INTOXICATIONS.						
Alcoholism ...	1	45	...	46	...	
Mercury, ch. Poisoning by ...	...	2	...	2	...	
Opium habit ...	4	18	7	22	...	
GENERAL DISEASES.						
Anæmia ...	9	230	42	239	26	
Diabetes Mellitus ...	...	1	...	1	...	
Lymphadenoma ...	...	1	...	1	...	
Arthritis Rheumatoid ...	...	4	...	4	2	
Scurvy ...	...	3	2	3	...	
Debility ...	7	207	44	214	9	
Old Age ...	5	7	1	12	...	
CERTAIN MORBID CONDI- TIONS INCIDENT TO VARIOUS PARTS.						
New-growth, non-Malignant ...	...	7	...	7	1	
" Malignant ...	3	14	5	17	1	
Cyst ...	...	4	...	4	...	
DISEASES, NERVOUS SYSTEM.						
Neuritis ...	...	19	...	19	1	
" Multiple ...	2	9	...	11	1	
Meningitis ...	...	5	5	5	...	
<i>Carried forward...</i>	576	3,244	552	3,820	607	

Return of Diseases and Deaths in 1907 at the Penang Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	576	3,244	552	3,820	607	
DISEASES, NERVOUS SYSTEM.—Continued.						
Myelitis ...	1	1	1	2	1	
Locomotor Ataxia ...	3	7	1	10	1	
Lateral Sclerosis ...	1	1	...	2	2	
Apoplexy ...	...	1	...	1	...	
Paraplegia ...	...	2	1	2	...	
" Spastic ...	1	3	1	4	1	
Hemiplegia ...	6	30	12	36	8	
Local Paralysis ...	...	2	1	2	1	
Convulsions ...	...	3	1	3	...	
Epilepsy ...	...	2	1	2	...	
Tetany ...	1	1	...	2	...	
Headache ...	...	5	...	5	...	
Parasthesia ...	...	1	...	1	...	
Neuralgia ...	...	12	...	12	1	
Hysteria ...	...	1	...	1	...	
Melancholia ...	2	1	...	3	...	
Dementia ...	8	30	11	38	4	
DISEASES OF THE EYE.						
Conjunctivitis, Catarrhal ...	1	17	...	18	1	
" Purulent ...	4	15	...	19	1	
" Gonorrhœal..	4	26	...	30	11	
" Granular ...	1	33	...	34	7	
Pterygium ...	1	...	...	1	1	
Keratitis ...	2	7	...	9	...	
Ulcer Cornea ...	3	16	1	19	1	
Opacity Cornea ...	2	19	...	21	5	
Staphyloma ...	2	1	...	3	2	
Iritis ...	2	14	1	16	3	
Choroiditis ...	...	1	...	1	...	
Glaucoma ...	1	...	1	1	...	
Optic Atrophy ...	...	6	...	6	2	
Cataract ...	5	8	1	13	1	
Pan-ophthalmitis ...	...	1	...	1	...	
Shrunken Eyeball ...	3	...	1	3	2	
Amaurosis ...	...	15	1	15	11	
Blindness ...	12	2	...	14	...	
Hypermetropia ...	...	1	...	1	...	
Obstruction Lacrymal Duct.	...	1	...	1	...	
Blepharitis ...	1	...	...	1	...	
Sty ...	...	3	...	3	...	
Entropion ...	...	1	...	1	...	
Ptosis Right Eye ...	...	1	...	1	...	
DISEASES OF THE EAR.						
Inflammation Ext. Meatus ...	...	4	...	4	...	
Accumulation of Wax ...	...	1	...	1	...	
Inflammation, Middle Ear ...	...	4	1	4	...	
Disease, Middle Ear ...	...	3	...	3	...	
DISEASES OF THE NOSE.						
Coryza ...	...	3	...	3	...	
Sinus ...	2	13	1	15	1	
DISEASES, CIRCULATORY SYSTEM.						
Endocarditis ...	...	2	1	2	...	
Valvular Disease ...	12	61	22	73	1	
" Aortic ...	1	...	...	1	...	
Dilatation Heart ...	...	2	1	2	...	
<i>Carried forward...</i>	658	3,628	614	4,286	676	

Return of Diseases and Deaths in 1907 at the Penang Hospitals.—Continued

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	658	3,628	614	4,286	676	
DISEASES, CIRCULA- TORY SYSTEM.—						
<i>Continued.</i>						
Phlebitis ...	...	2	2	2	...	
Cerebral Thrombosis ...	...	1	1	1	...	
DISEASES, RESPIRA- TORY SYSTEM.						
Asthma ...	...	44	1	44	2	
Laryngitis ...	...	9	1	9	...	
Bronchitis Acute ...	...	4	...	4	...	
" Chronic ...	4	80	3	84	5	
Hæmorrhage ...	...	3	1	3	...	
Broncho: Pneumonia ...	...	2	1	2	...	
Phthisis ...	10	182	108	192	11	
Emphysema ...	...	1	...	1	...	
Pleurisy ...	...	20	4	20	2	
Empyema ...	...	5	4	5	1	
Pyo: Pneumothorax ...	..	1	...	1	...	
DISEASES, DIGESTIVE SYSTEM.						
Gumboil ...	...	1	1	1	...	
Caries Tooth ...	...	1	...	1	...	
Alveolar Abscess ...	...	2	...	2	...	
Glossitis Acute ...	...	1	...	1	...	
Tylosis ...	...	7	...	7	...	
Sore-throat ...	...	11	...	11	...	
Tonsillitis ...	1	2	...	3	...	
" Ulcerative ...	...	1	...	1	...	
Pharyngitis ...	...	12	...	12	...	
" Septic ...	...	9	1	9	3	
Pharyngitis Ulcerative ...	...	4	...	4	...	
Gastritis ...	...	10	...	10	...	
Indigestion ...	...	63	...	63	2	
Gastralgia ...	...	1	...	1	...	
Enteritis ...	5	70	25	75	...	
Appendicitis ...	...	3	...	3	1	
Colitis ...	...	50	2	50	4	
Fæcal Accumulation ...	...	1	...	1	...	
Sprue ...	2	8	2	10	1	
Hernia Inguinal ...	1	13	3	14	...	
Hernia Femoral ...	...	1	...	1	...	
Diarrhoea ...	...	184	48	184	16	
Constipation ...	...	30	...	30	1	
Colic ...	...	16	...	16	...	
Ischio Rectal Abscess ...	...	4	...	4	...	
Ulcer Rectum ...	...	3	...	3	...	
" Anus ...	1	...	...	1	...	
Ischio Rectal Fissure ...	...	1	...	1	...	
Fistula in Ano ...	...	12	...	12	...	
Hæmorrhoids Internal ...	...	3	...	3	...	
" External ...	...	6	...	6	...	
Prolapse Ani ...	...	1	...	1	...	
" Rectum ...	...	1	...	1	...	
Inflammation Liver ...	...	6	...	6	...	
Abscess Liver ...	1	5	3	6	...	
Cirrhosis Liver ...	3	39	15	42	6	
Conjestion Liver ...	1	7	...	8	1	
Jaundice ...	...	6	1	6	...	
Toxic Jaundice ...	...	8	4	8	...	
Peritonitis ...	...	5	5	5	...	
Ascites ...	...	2	...	2	...	
<i>Carried forward ...</i>	687	4,592	850	5,279	732	

Return of Diseases and Deaths in 1907 at the Penang Hospitals.—Continued

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	687	4,592	850	5,279	732	
DISEASES, LYMPHATIC SYSTEM.						
Splenitis Chronic ...	...	9	...	9	...	
Perisplenitis ...	...	1	...	1	...	
Inflammation Glands ...	...	7	...	7	...	
Suppuration " ...	3	17	...	20	4	
Bubo ...	5	49	1	54	4	
Lymphangitis ...	...	5	...	5	...	
Elephantiasis ...	...	5	...	5	1	
DISEASES, THYROID GLAND.						
Goitre ...	...	1	...	1	...	
DISEASES, URINARY SYSTEM.						
Acute Nephritis ...	...	2	...	2	1	
Bright's Disease Chronic ...	5	38	18	43	1	
Vesical Calculus ...	...	1	...	1	...	
Cystitis ...	...	8	2	8	...	
Retention of Urine ...	...	3	...	3	1	
Incontinence of Urine ...	...	1	...	1	...	
Chyluria ...	...	1	...	1	...	
DISEASES, GENERATIVE SYSTEM. MALE.						
Stricture of Urethra ...	2	9	...	11	...	
Imperforate Urethra ...	1	...	...	1	...	
Phimosis ...	...	14	...	14	...	
Paraphimosis ...	2	2	...	4	...	
Balanitis ...	...	3	...	3	...	
Ulcer Penis ...	4	26	...	30	1	
Gangrene Penis ...	1	2	1	3	...	
Soft Chancre ...	7	95	2	102	5	
Cellulitis Scrotum ...	...	1	...	1	...	
Abscess " ...	...	4	...	4	...	
Sloughing " ...	...	4	1	4	...	
Ulcer " ...	2	7	1	9	...	
Hydrocele ...	1	5	...	6	...	
Orchitis ...	...	11	...	11	...	
" Suppurative ...	...	1	...	1	...	
Epididymitis ...	...	9	...	9	...	
Hernia Testis ...	...	9	...	9	2	
DISEASES, GENERATIVE SYSTEM. FEMALE.						
Granular Erosion Cervix ...	...	8	...	8	2	
Fibroma Labium ...	1	...	...	1	...	
Hydrops Amnii ...	...	1	...	1	...	
Abortion ...	...	3	...	3	...	
Tedious Labour ...	...	2	...	2	1	
Premature Birth ...	...	1	...	1	...	
Puerperal Sapræmia ...	...	2	1	2	...	
DISEASES, ORGANS OF LOCOMOTION.						
Periostitis ...	...	10	...	10	...	
Caries ...	2	8	...	10	3	
Necrosis ...	6	17	2	23	3	
Arthritis ...	...	3	...	3	...	
" Suppurative ...	...	3	...	3	...	
" Synovitis ...	1	26	...	27	4	
Psoas Abscess ...	...	3	1	3	...	
<i>Carried forward ...</i>	730	5,029	880	5,759	765	

Return of Diseases and Deaths in 1907 at the Penang Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	730	5,029	880	5,759	765	
DISEASES, ORGANS OF LOCOMOTION.—Contd.						
Myalgia ...	...	41	...	41	1	
Lumbago ...	...	6	...	6	...	
Periaical Abscess ...	...	1	...	1	...	
Thecal Abscess ...	...	1	...	1	...	
DISEASES, CONNECTIVE TISSUE.						
Cellulitis ...	...	24	4	24	1	
Abscess ...	7	106	3	113	7	
" Perineal ...	...	1	...	1	...	
Elephantiasis ...	...	9	...	9	1	
DISEASES OF THE SKIN.						
Erythema ...	76	623	9	699	77	
Urticaria ...	...	1	...	1	...	
Eczema ...	3	39	...	42	1	
Impetigo ...	...	2	...	2	...	
Boil ...	...	11	...	11	...	
Carbuncle ...	...	10	...	10	1	
Gangrene ...	...	2	1	2	...	
Bed-sore ...	...	2	2	2	...	
Herpes Zoster ...	...	2	...	2	...	
Pemphigus ...	1	...	...	1	...	
" Contag. ...	...	4	...	4	...	
Keratosis Pilaris ...	...	1	...	1	...	
Corn ...	...	2	...	2	...	
Mycosis ...	...	1	...	1	...	
Onychia ...	...	9	...	9	...	
Whitlow ...	...	1	...	1	...	
INJURIES.						
General ...	2	41	7	43	1	
Local ...	14	449	13	463	19	
SURGICAL OPERATIONS						
Circumcision ...	1	1	...	2	...	
Extract of Lens ...	1	...	...	1	...	
Abscess Liver ...	...	1	1	1	...	
Inguinal Hernia ...	...	2	...	2	...	
POISONS.						
Cannabis Indica ...	...	1	...	1	...	
Morphine ...	...	1	1	1	...	
PARASITES.						
Ringworm ...	...	10	...	10	...	
Itch ...	6	80	2	86	5	
Tinea Imbricata ...	1	8	...	9	...	
" Circinata ...	1	2	...	3	...	
Pityriasis Versicolor ...	...	1	...	1	...	
Ankylostomiasis ...	1	30	10	31	3	
Tape-worm ...	...	1	...	1	...	
Ascaris Lumbricoides ...	...	1	...	1	...	
Microsporan Audouini ...	...	2	...	2	...	
OBSERVATION ...	2	115	1	117	4	
NO APPRECIABLE DISEASE ...	3	130	...	133	...	
TOTAL ...	849	6,804	934	7,653	886	

PROVINCE WELLESLEY.

Return of the Statistics of Population for the Year 1907.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1907 ...	217	320	69,022	28,236	21,185	1,450	120,430
.. Births during the year 1907	8	8	2,673	543	486	29	3,747
.. Deaths 1907	1	5	1,585	803	690	25	3,109
.. Immigrants .. 1907	} No data available.						
.. Emigrants .. 1907							
Number of inhabitants in 1906 ...	212	314	68,990	28,000	20,782	1,345	119,652
Increase	12	9	1,120	...	199	109	1,416
or							
Decrease ... ..	...	...	...	33	...	...	...

Race or nationality should be specified, as nearly as possible, in accordance with the above model.

Meteorological Return for the Year 1907.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
	°F	°F	°F	°F	°F	°F	Inches.	o/o			
January	149.4	70.5	93.9	71.8	22.1	80.6	2.31	74	Not registered.	Not registered.	
February	152.6	70.2	96.4	71.7	24.7	81.2	3.13	72			
March	154.6	72.3	95.8	73.3	22.5	81.8	7.97	76			
April	154.6	73.4	97.1	76.6	20.5	83.2	7.45	74			
May	144.0	74.0	94.2	75.1	19.1	83.7	4.65	72			
June	144.0	73.2	95.4	74.8	20.6	83.1	5.86	74			
July	140.9	72.1	93.2	73.9	19.3	81.6	4.90	76			
August	141.8	72.3	94.4	74.4	20.0	81.3	1.74	74			
September	142.0	72.7	93.9	73.9	20.0	81.1	5.93	76			
October	142.8	72.5	92.2	73.5	18.7	80.2	12.22	79			
November	137.2	71.5	90.6	72.1	18.5	79.0	20.05	81			
December	138.1	71.5	90.5	72.3	18.2	79.0	6.67	78			
Mean	145.1	72.1	93.9	73.6	20.3	81.3	Total 82.58	75			

PROVINCE WELLESLEY.

*Return of Diseases and Deaths in 1907 at the following Institutions:—
Butterworth, Bukit Mertajam, and Sungei Bakap Hospitals.*

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	8	47	6	55	2	
Chicken-pox ...	...	5	...	5	1	
Dysentery ...	5	99	32	104	7	
Enteric Fever ...	...	4	...	4	...	
Gonorrhœa ...	1	36	...	37	7	
" Ophthalmia ...	...	2	...	2	...	
" Rheumatism ...	...	15	...	15	1	
" Orchitis ...	...	1	...	1	...	
Leprosy ...	...	2	...	2	...	
Malarial Fever (B. T.) ...	8	137	2	145	2	
" (Malignant)..	1	46	5	47	1	
" Cachexia ...	...	16	2	16	...	
Enlarged Spleen ...	...	8	...	8	1	
Intermittent Fever ...	...	10	...	10	...	
Febricula ...	...	22	...	22	1	
Phagedœna ...	1	7	2	8	1	
Pneumonia ...	...	16	5	16	...	
Rheumatism ...	6	43	...	49	...	
Sapremia ...	...	1	1	1	...	
Small-pox ...	...	1	1	1	...	
Syphilis, Primary ...	...	7	...	7	...	
" Secondary ...	6	141	2	147	4	
" Tertiary ...	1	10	...	11	...	
Tetanus ...	...	2	2	2	...	
Tubercular Glands ...	...	2	...	2	...	
" Arthritis ...	...	1	...	1	1	
Yaws ...	...	1	...	1	1	
INTOXICATIONS.						
Alcoholism ...	...	7	...	7	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	3	55	8	58	5	
Lymphadenoma ...	...	1	1	1	...	
DISEASES OF THE NERVOUS SYSTEM.						
Sciatica ...	...	3	...	3	...	
Neuritis ...	2	8	...	10	...	
Multiple Neuritis ...	...	1	...	1	...	
Myelitis ...	...	2	...	2	...	
Locomotor Ataxy ...	...	2	...	2	...	
Meningitis ...	...	1	1	1	...	
" Tubercular ...	...	1	1	1	...	
Hæmorrhage ...	...	1	1	1	...	
Facial Paralysis ...	...	2	...	2	...	
Spastic Paraplegia ...	1	4	...	5	1	
Hemiplegia ...	1	5	1	6	1	
Epilepsy ...	...	3	...	3	...	
Migrane ...	...	5	...	5	...	
Hysteria ...	...	1	...	1	1	
DISEASES OF THE EYE.						
Conjunctivitis ...	...	3	...	3	...	
Catarrhal Ophthalmia ...	...	3	...	3	1	
Purulent Ophthalmia ...	...	5	...	5	...	
Granular " ...	...	3	...	3	...	
Keratitis ...	...	2	...	2	1	
<i>Carried forward ...</i>	44	800	73	844	40	

*Return of Diseases and Deaths in 1907 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	44	800	7	844	40	
DISEASES OF THE EYE.—Continued.						
Ulcer Cornea	7	...	7	...	
Opacity	1	...	1	1	
Staphyloma	3	...	3	...	
Iritis ...	1	4	...	5	...	
Cataract	4	...	4	...	
Pan-ophthalmitis	1	...	1	...	
Entropion	2	...	2	...	
DISEASES OF THE EAR.						
Otitis Externa	1	...	1	...	
Otorrhoea ...	1	...	...	1	...	
Abscess External Meatus	1	...	1	...	
DISEASES OF THE CIR- CULATORY SYSTEM.						
Pericarditis	1	...	1	...	
Valvular Disease Heart Mitral	1	58	11	59	1	
DISEASES OF THE RES- PIRATORY SYSTEM.						
Asthma ...	1	13	...	14	...	
Abscess Larynx	1	1	1	...	
Bronchitis	32	1	32	2	
Broncho-pneumonia	1	1	1	...	
Phthisis ...	6	64	35	70	2	
Pleurisy	5	...	5	...	
Empyema	2	1	2	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis	4	...	4	...	
Alveolar Abscess	1	...	1	...	
Pharyngitis	1	...	1	...	
" Septic	3	...	3	...	
Gastritis	5	...	5	...	
Ulcer, Stomach	1	...	1	...	
Dyspepsia	36	...	36	...	
Enteritis	22	6	22	3	
Colitis	1	1	1	...	
Sprue	1	...	1	...	
Inguinal Hernia	3	...	3	...	
Diarrhoea ...	9	81	32	90	1	
Constipation	10	...	10	...	
Colic	20	...	20	...	
Ulcer, Rectum	1	...	1	...	
" Anus	2	...	2	...	
Fissure	1	...	1	...	
Fistula in Ano	2	...	2	...	
Ischio Rectal Fistula	1	...	1	...	
Piles	4	...	4	1	
Cirrhosis of Liver ...	1	20	8	21	1	
Hepatitis	3	...	3	...	
Hepatic Abscess	1	1	1	...	
Congestion, Liver	2	...	2	...	
Jaundice	1	...	1	...	
Peritonitis	3	2	3	...	
Other Diseases	1	...	1	...	
<i>Carried forward ...</i>	64	1,232	173	1,296	52	

*Return of Diseases and Deaths in 1907 at the Province Wellesley
Hospitals.—Continued.*

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	64	1,232	173	1,296	52	
DISEASES OF THE LYMPHATIC SYSTEM.						
Splenitis ...	...	2	...	2	...	
Bubo ...	3	19	...	22	2	
Lymphangitis ...	...	1	...	1	...	
Other Diseases ...	...	1	...	1	...	
DISEASES OF THE URINARY SYSTEM.						
Bright's Disease ...	1	19	7	20	1	
Cystitis, Chronic ...	...	4	...	4	1	
Calculus Bladder ...	...	1	...	1	...	
Hæmaturia ...	...	1	...	1	...	
Albuminuria ...	...	1	...	1	...	
DISEASES OF THE GENERATIVE SYSTEM.						
MALE ORGANS.						
Urethritis ...	...	1	...	1	...	
Stricture Urethra ...	...	10	...	10	...	
Urethral Fistula ...	...	1	...	1	...	
Phimosis ...	1	4	...	5	1	
Paraphimosis ...	...	5	...	5	...	
Ulcer, Penis ...	1	1	...	2	...	
Gangrene, Penis ...	...	3	...	3	...	
Chancroids ...	3	52	...	55	3	
Abscess, Scrotum ...	...	2	...	2	...	
Sloughing ...	...	2	...	2	...	
Hæmatocele ...	...	1	...	1	...	
Orchitis ...	...	4	...	4	...	
Hernia Testis ...	...	1	...	1	...	
Other Diseases ...	...	2	...	2	...	
FEMALE ORGANS.						
Oophoritis ...	...	2	...	2	...	
Endometritis ...	...	1	...	1	...	
Prolapse Uteri ...	...	1	...	1	...	
Abscess Labium ...	...	1	...	1	...	
Dysmenorrhœa ...	...	2	...	2	...	
Menorrhagia ...	...	1	...	1	...	
Leucorrhœa ...	...	2	...	2	...	
Hypertrophy of Labia ...	...	1	...	1	...	
AFFECTIONS CONNECTED, PREGNANCY.						
Abortion ...	...	1	...	1	...	
AFFECTIONS CONSEQUENT ON PARTURITION.						
Puerperal Septicæmia ...	...	1	1	1	...	
Pelvic Abscess ...	1	...	1	1	...	
DISEASES OF THE ORGANS OF LOCOMOTION.						
Periostitis ...	1	3	...	4	...	
Caries (Bone) ...	...	1	...	1	...	
Necrosis ...	1	5	...	6	...	
Synovitis ...	...	10	...	10	1	
<i>Carried forward ...</i>	76	1,402	182	1,478	61	

Return of Diseases and Deaths in 1907 at the Province Wellesley
Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	76	1,402	182	1,478	61	
DISEASES OF THE ORGANS OF LOCOMOTION.— <i>Contd.</i>						
Hip-joint Disease ...	1	...	...	1	1	
Caries Spine ...	...	1	...	1	...	
Ankylosis Fibrous ...	...	1	...	1	...	
Psoas Abscess ...	...	3	2	3	1	
Potts Disease ...	...	2	...	2	...	
Myalgia ...	...	16	...	16	1	
Lumbago ...	...	5	...	5	...	
Scoliosis Spine ...	...	1	...	1	...	
Bursitis ...	...	1	...	1	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis ...	1	11	...	12	...	
Abscess ...	3	38	...	41	4	
" Pyæmic ...	...	1	1	1	...	
Gangrene Foot ...	...	2	1	2	...	
DISEASES OF THE SKIN.						
Eczema ...	...	26	...	26	1	
Boil ...	...	2	...	2	...	
Carbuncle ...	...	4	...	4	1	
Ulcers ...	14	258	...	272	15	
Impetigo ...	...	1	...	1	...	
Urticaria ...	...	1	...	1	...	
Onychia ...	1	2	...	3	...	
GENERAL INJURIES.						
Burns and Scalds ...	...	10	2	10	...	
Heat-Stroke ...	...	1	...	1	...	
Multiple Injury ...	...	13	...	13	...	
Shock ...	...	1	...	1	...	
LOCAL INJURIES.						
Sprains Back ...	1	...	...	1	...	
" U. E. ...	1	...	...	1	...	
" L. E. ...	...	2	...	2	...	
Scalp Wound ...	...	24	...	24	2	
Incised Wound Skull ...	...	1	...	1	...	
Concussion Brain ...	...	2	...	2	...	
Contusion Face ...	...	1	...	1	...	
Wound Face ...	...	6	...	6	...	
" Ear ...	...	1	...	1	...	
" Lip ...	...	1	...	1	...	
Cut-Throat ...	...	2	2	2	...	
Contusion Chest ...	...	2	...	2	...	
Penetrating Wound Lung and Pleura ...	...	1	1	1	...	
Penetrating Wd. Abdomen... Lacerated Wound Scrotum... Contusion U. E. ... Wound U. E. ... Wound Fore-arm ... Contusion L. E. ... Wound L. E. ... Wound back ... Gun-Shot Wound Thorax ...	... ... ... ... 1 ... ... ... ... ... ... ... ...	... ... 2 13 27 7 38 2 1	... ... ... ... ... ... ... ... 1	... ... 2 13 27 7 38 2 1	... ... ... ... 1............	...........................
<i>Carried forward ...</i>	99	1,937	192	2,036	87	

Return of Diseases and Deaths in 1907 at the Province Wellesley Hospitals.—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	99	1,937	192	2,036	87	
FRACTURES.						
Compd. depressed Fracture Skull	1	1	1	...	
Fracture Ribs	1	...	1	...	
" " c Injury to Lungs	1	1	1	...	
" Humerus (Simple)	3	...	3	1	
" Radius (")	1	...	1	1	
" Ulna (")	1	...	1	...	
" Radius and Ulna (Simple)	1	...	1	...	
" " (Compd.)	1	...	1	...	
" Ulna (Compd.)	1	...	1	...	
" Rt. 2nd Meta-carpal bone	1	...	1	...	
" Phalanx (Simple)	1	...	1	...	
" " (Compd.)	3	...	3	...	
" Intracapsular Femur	1	...	1	...	
" Femur (Simple)	3	...	3	...	
" Patella (Simple)	2	...	2	...	
" Tibia (Compd.)	1	...	1	...	
" Tibia & Fibula (Simple)	1	...	1	...	
" " (Compd.)	4	...	4	...	
" Rt. 2nd Meta-Tarsal bone	1	...	1	...	
" Humerus (ununited)	1	...	1	...	
Dog Bite	2	...	2	...	
Alligator Bite	4	...	4	...	
Monkey Bite	1	...	1	...	
Buffalo Gore	2	...	2	1	
PARASITES.						
Anchylostomiasis ...	14	58	23	72	2	
Round Worm	6	...	6	...	
Scabies	24	...	24	...	
Guinea Worm	3	...	3	...	
Ringworm	4	...	4	...	
Tænia Imbricata	1	...	1	1	
OBSERVATION	27	...	27	3	
NO APPRECIABLE DISEASE	19	...	19	1	
OPERATIONS.						
Forceps Delivery (Dystocia)	1	...	1	...	
For Phimosis	2	...	2	...	
" Circumcision	1	...	1	...	
" Removal Tumour	1	...	1	...	
" Lacrymal	1	...	1	...	
Amputation Fore-arm	1	...	1	...	
" Fingers	1	...	1	...	
" Symes ...	1	...	...	1	...	
" Foot Lisfranc	1	...	1	...	
" Right Tibia and Fibula ...	1	...	...	1	...	
NEW GROWTHS MALIGNANT.						
Sarcoma	3	2	3	...	
" Lung	1	1	1	...	
Carcinoma-neck ...	1	...	...	1	...	
" Intestine	1	1	1	...	
Condyloma	7	...	7	...	
CYSTS.						
Cyst	2	...	2	...	
Debility ...	3	43	8	46	...	
Old Age ...	2	8	5	10	...	
Total ...	121	2,192	234	2,313	97	

MALACCA.

Return of the Statistics of Population for the Year 1907.

	Europeans.	Eurasians.	Malays.	Chinese.	Tamils.	Other Nationalities.	TOTAL.
Number of inhabitants in 1907 ...	57	1,518	74,686	20,332	1,089	80	97,762
„ Births during the year 1907	1	67	592	3,438	47	57	4,202
„ Deaths „ „ 1907 ...		46	1,123	2,373	117	84	3,743
„ Immigrants „ „ 1907	} No data available.						
„ Emigrants „ „ 1907							
Number of inhabitants in 1906 ...	58	1,529	74,410	20,191	1,118	81	97,387
Increase or Decrease ...	...	10	...	1,206	...	...	834
Decrease ...	...	...	255	...	99	28	...

Race or nationality should be specified, as nearly as possible, in accordance with the above model.

Meteorological Return for the Year 1907.

	TEMPERATURE.						RAINFALL.		WINDS.		REMARKS.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
	°F	°F	°F	°F	°F	°F	Ins.	%		Miles.	
January ...	141.8	62.6	90.1	74.6	15.5	81.4	4.68	68	NW	197	
February ...	139.0	71.8	86.5	74.0	12.2	78.9	1.29	80	W	191	
March ...	144.3	71.2	88.3	74.0	14.5	80.1	3.38	78	NW	190	
April ...	155.7	69.1	91.3	73.6	18.0	81.1	3.20	91	NE	184	
May ...	145.0	69.9	88.7	73.6	14.8	80.4	11.39	93	NW	195	
June ...	147.6	69.6	88.7	73.3	15.3	80.2	12.37	93	NW	188	
July ...	148.6	69.2	88.3	72.9	14.8	80.0	11.05	93	NW	186	
August ...	149.6	68.7	88.5	72.7	15.3	80.2	5.66	93	SW	203	
September ...	148.6	67.9	89.2	70.5	18.7	79.9	10.02	93	NW	190	
October ...	151.0	65.8	87.9	68.7	19.2	79.1	10.03	93	W	181	
November ...	153.8	69.5	87.1	72.5	14.5	79.1	7.64	93	W	179	
December ...	149.9	69.8	86.7	73.7	12.9	78.3	12.31	94	N	187	
Mean ...	147.9	68.8	88.4	72.9	15.5	79.9	Total 93.02	88	...	189	

MALACCA.

Return of Diseases and Deaths in 1907 at the following Institutions:—General, Pauper, Contagious Disease, Prison, Alor Gajah and Jasin Hospitals.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
INFECTIVE DISEASES.						
Beri-beri ...	79	518	57	597	67	
Chicken-Pox ...	...	4	...	4	...	
Dengue ...	...	9	...	9	...	
Dysentery ...	5	105	33	110	5	
Erysipelas ...	...	1	...	1	...	
Gonorrhoea ...	5	55	...	60	2	
" Gleet ...	...	2	...	2	...	
" Orchitis ...	...	9	...	9	1	
" Purulent Ophth ...	2	2	...	4	...	
Leprosy ...	...	3	...	3	...	
Malaria						
<i>a. & b.</i> ...	18	767	18	785	18	
<i>d. Chronic</i> ...	2	113	3	115	3	
Phagedæna ...	5	22	6	27	1	
Pneumonia ...	...	22	13	22	1	
Pyæmia ...	...	1	1	1	...	
Pyrexia ...	...	2	...	2	...	
Syphilis						
<i>a. Primary</i> ...	3	9	...	12	3	
<i>f. Secondary</i> ...	20	260	1	280	28	Includes Tertiary.
" Optic Neuritis ...	2	2	...	4	1	
" Ulceration Larynx ...	...	1	...	1	...	
Tuberculosis ...	1	7	...	8	...	
INTOXICATIONS.						
Alcoholism ...	...	1	...	1	...	
GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS.						
Anæmia ...	...	23	...	23	6	
CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS.						
New Growth, Non-malig. ...	...	1	...	1	...	
" Malignant ...	...	2	2	2	...	
DISEASES OF THE NERVOUS SYSTEM.						
Chronic Myelitis ...	...	1	1	1	...	
Hemiplegia ...	5	9	...	14	...	
Infantile Convulsions ...	...	1	1	1	...	
Vertigo (Aural) ...	...	1	...	1	...	
Neuralgia ...	...	1	...	1	...	Trigemina .
Hiccup ...	...	3	...	3	...	
DISEASES OF THE EYE.						
Catarr. Conjunctivitis ...	...	5	...	5	1	
Opacity Cornea ...	...	2	...	2	...	
Staphyloma ...	...	1	...	1	...	
Iritis ...	1	3	...	4	...	Syphilitic both eyes.
Lenticular Cataract ...	...	1	...	1	1	
Shrunken Eyeball ...	2	4	...	6	1	
Abscess of Orbit ...	...	1	...	1	...	
<i>Carried forward...</i>	150	1,974	136	2,124	139	

Return of Diseases and Deaths in 1907 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	150	1,974	136	2,124	139	
DISEASES OF THE EAR.						
Acute Inflammation of Ear..	...	3	...	3	...	
DISEASES OF THE CIRCULATORY SYSTEM.						
Valvular Disease of Heart, Mitral ...	...	1	1	1	...	
" " Aortic ...	...	6	2	6	2	
Aneurysm ...	...	1	1	1	...	
DISEASES OF THE RESPIRATORY SYSTEM.						
Asthma ...	3	16	...	19	1	
Acute Laryngitis ...	...	1	1	1	...	
Bronchitis ...	1	28	1	29	4	
Phthisis ...	3	100	66	103	6	
Acute Pleurisy ...	...	4	...	4	2	
DISEASES OF THE DIGESTIVE SYSTEM.						
Stomatitis ...	...	1	...	1	...	
Catarrh. Sore throat ...	1	5	...	6	...	
Dyspepsia ...	2	20	...	22	...	
(3) Colitis ...	...	1	...	1	...	
(5) Hernia ...	...	4	...	4	...	
Diarrhoea ...	3	226	107	229	18	
Constipation ...	...	1	...	1	...	
Colic ...	...	20	...	20	3	
Ulceration of Rectum ...	...	1	...	1	1	
Fissure of Anus ...	...	2	...	2	...	
Fistula in Ano ...	...	2	...	2	...	
Piles ...	...	2	...	2	...	
Prolapse Ani ...	...	3	...	3	...	
a. Abscess Liver ...	...	2	1	2	...	
b. Cirrhosis Liver ...	2	16	9	18	3	
Gall Stones ...	...	1	...	1	...	
DISEASES OF THE LYMPHATIC SYSTEM.						
Bubo ...	2	24	...	26	1	
Elephantiasis ...	...	1	...	1	1	
DISEASES OF THE URINARY SYSTEM.						
Bright's Disease ...	1	67	17	68	6	
Calculus ...	...	1	...	1	...	
DISEASES OF THE GENERATIVE SYSTEM.						
Stricture ...	...	4	...	4	3	
Cong. Phimosi ...	...	1	...	1	...	
Paraphimosi ...	...	1	...	1	...	
Soft Chancre ...	1	9	...	10	2	
Abscess Scrotum ...	1	2	...	3	...	
Sloughing " ...	...	5	...	5	...	
Hydrocele ...	...	3	...	3	...	
Ulcer of Vulva ...	5	15	...	20	...	
<i>Carried forward ...</i>	175	2,574	342	2,749	192	

Return of Diseases and Deaths in 1907 at the Malacca Hospitals.—Continued.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward...</i>	175	2,574	342	2,749	192	
DISEASES OF THE ORGANS OF LOCO- MOTION.						
Periostitis	1	...	1	...	
Synovitis ...	2	5	...	7	...	
DISEASES OF THE CONNECTIVE TISSUE.						
Cellulitis	7	...	7	...	
Abscess ...	4	29	3	33	4	
DISEASES OF THE SKIN.						
Eczema ...	5	41	...	46	5	
Boil	1	...	1	...	
Carbuncle	2	...	2	...	
Wart	4	...	4	...	
Ulcer ...	37	720	...	757	41	
INJURIES.						
GENERAL.						
Burns and Scalds	5	1	5	...	
LOCAL.						
Wound a. Incised	19	1	19	...	
c. Lacerated	2	...	2	1	
Contusion Shoulder	1	...	1	...	
" Thigh	3	...	3	1	
" Scalp	2	...	2	1	
Wound Scalp	19	...	19	...	
Fracture of Skull	1	...	1	...	
" Base of Skull	1	1	1	...	
Wound Skull	1	...	1	1	
Gun Shot Wound	1	...	1	...	
Contusion Nose	1	...	1	...	
" Lip	2	...	2	...	
Wound Forehead	1	...	1	...	
" Chin	1	...	1	...	
Contusion Eyelid	2	...	2	...	
Wound Cornea	1	...	1	...	
Contusion Chest	4	...	4	...	
Fracture Rib	1	...	1	...	
Wound Chest ...	1	...	...	1	...	
Contusion Back	3	...	3	...	
Wound Back	1	...	1	...	
Contusion Abdomen	3	...	3	...	
Wound Hand	3	...	3	...	
" Wrist	1	...	1	...	
" Finger	1	...	1	...	
Fracture Humerus	1	...	1	...	
" Radius	4	...	4	...	
Contusion Knee	5	...	5	...	
" Forearm	1	...	1	...	
Wound Knee ...	1	...	...	1	...	
" Leg ...	1	5	...	6	1	
" Foot	2	...	2	...	
Fracture Femur	1	...	1	...	
" Tibia	1	...	1	...	
<i>Carried forward...</i>	226	3,484	348	3,710	247	

Return of Diseases and Deaths in 1907 at the Malacca Hospitals:—Concluded.

DISEASES.	Remain- ing in Hospital at end of 1906.	YEARLY TOTAL.		Total Cases Treated.	Remain- ing in Hospital at end of 1907.	REMARKS.
		Admis- sions.	Deaths.			
<i>Brought forward ...</i>	226	3,484	348	3,710	247	
PARASITES.						
Ringworm ...	...	2	...	2	...	
Scabies ...	2	37	...	39	2	
Ascaris Lumbricoides ...	...	8	...	8	...	
Ankylostoma Duodenale ...	1	4	...	5	...	
Tinea Cruris ...	...	8	...	8	1	
OBSERVATION ...	3	63	...	66	2	
NO APPRECIABLE DISEASE. ...	5	37	...	42	6	
Total ...	237	3,643	348	3,880	258	
OPERATIONS.						
Removal of Tumour ...	...	...	...	1	...	
Incision Abscess Cheek ...	...	...	...	2	...	
" Neck ...	...	...	...	1	...	
" Hand ...	...	...	...	6	...	
" Finger ...	...	...	...	2	...	
" Back ...	...	...	...	4	...	
" Abdomen... ..	...	...	...	2	...	
" Liver ...	...	1	...	2	...	
" Scrotum ...	...	...	...	3	...	
" Leg ...	...	...	...	12	...	
Ligature of Artery on proxi- mal side ...	...	...	...	1	...	
Skin Grafting ...	...	...	...	2	...	
Amputation Leg ...	...	...	...	1	...	
Incision of Knee Joint with Drainage ...	...	...	...	1	...	
Trephining Skull ...	...	...	...	1	...	
For Hypopyon ...	...	...	...	1	...	
Paracentesis Abdominis ...	...	...	...	18	...	
For Fistula in Ano ...	...	...	...	2	...	
For Phimosis ...	...	...	...	4	...	Elephantiasis.
For Paraphimosis ...	...	...	...	1	...	
Removal of Vulva ...	...	...	...	1	...	
For Hydrocele ...	...	...	...	3	...	
				71		

