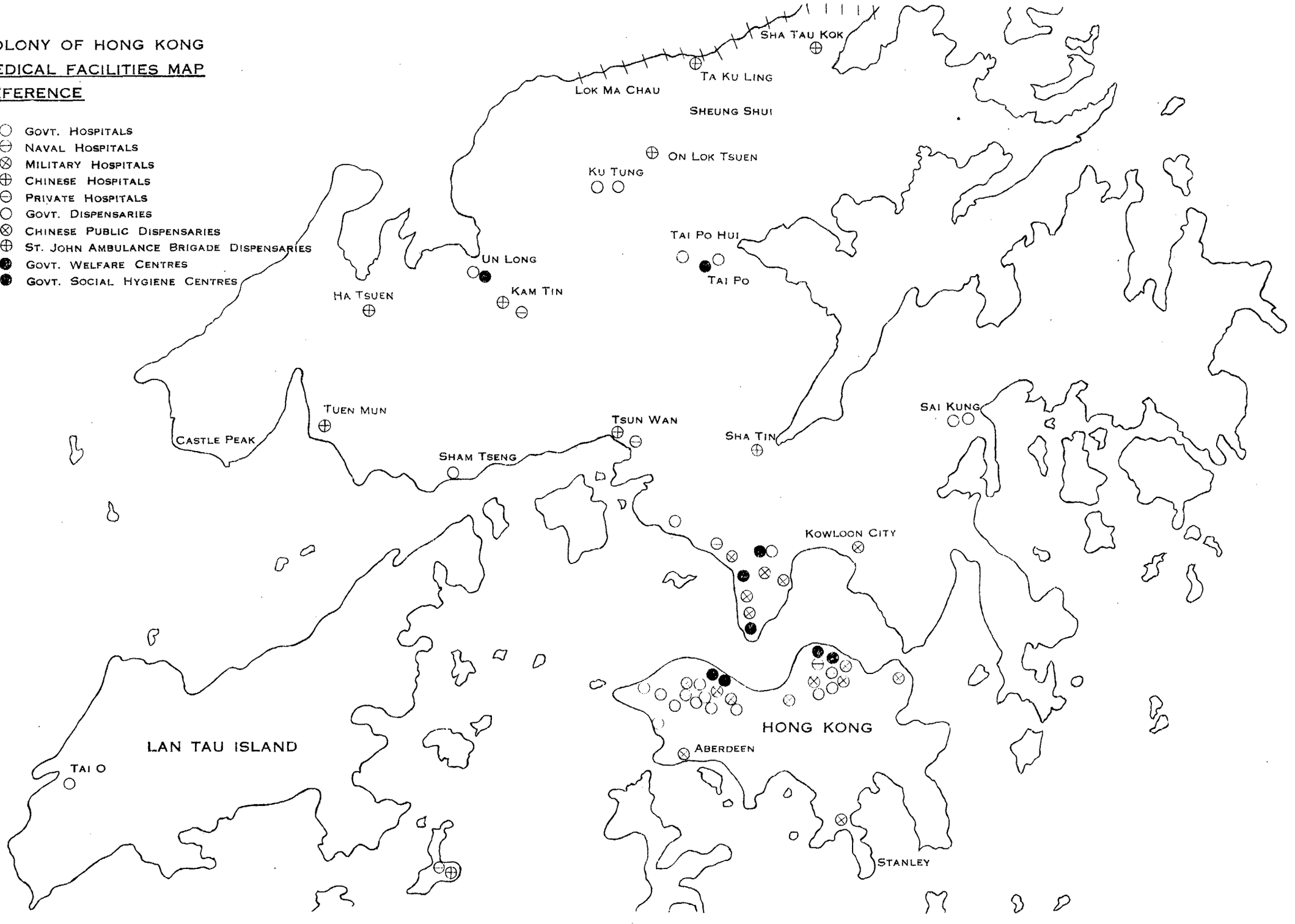
COLONY OF HONG KONG

MEDICAL FACILITIES MAP

REFERENCE

1 ○ Govt. Hospitals
2 ⊖ Naval Hospitals
3 ⊗ Military Hospitals
4 ⊕ Chinese Hospitals
5 ⊖ Private Hospitals
6 ○ Govt. Dispensaries
7 ⊗ Chinese Public Dispensaries
8 ⊕ St. John Ambulance Brigade Dispensaries
9 ● Govt. Welfare Centres
10 ● Govt. Social Hygiene Centres



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ANNUAL MEDICAL REPORT FOR THE YEAR 1939.

I.—Administration.

(A.) Staff—Medical, Health and Laboratory Divisions.

(*a*) Administrative Division.

Appointment.

Deputy director health services: Dr. N. C. Macleod.

(*b*) Medical Division.

(i) *Appointments.*

European.

Medical officers: Dr. S. Tomlinson, Dr. L. J. Honeywill, Dr. A. H. Barwell.

Masseuse: Miss A.M.M.E. Halliday.

X-Ray Sister: (Temporary) Mrs. G. Weir.

Nursing sisters: Miss E. E. Chart, Miss A. M. Harrington, Miss E. M. Hill, Miss V. E. Lyne, Miss B. L. Willcox, Miss D. M. Evans. (Temporary) Mrs. S. G. Merriman, Mrs. C. Godfrey.

Local.

Medical officers: Dr. E. L. Gosano,
(Temporary) Dr. L. Tillinger.

Asiatic.

Medical officers: Dr. H. H. Tai, Dr. H. S. Tai,
(Temporary) Dr. Teng Pin Hui, Dr. E. S. Tai, Dr. Woo Wei Chuan, Dr. Hua Tse Jen, Dr. Ong Ewe Hin.

(ii) *Promotions.*

European.

Matron: Miss M. A. Wilson.

Senior nursing sisters: Miss E. Riley, Miss D. Robinson, Miss A. I. Smith, Miss K. E. Gordon, Miss A. S. Rogers, Miss C. B. Robinson, Miss A. Williams, Miss N. Chandler.

(iii) *Retirements and Resignations.*

Medical officer: Dr. L. J. Honeywill (died on 17th September, 1939).

Senior nursing sister: Miss E. C. Maclaren.

X-Ray Sister: Miss G. Waugh.

Nursing sisters: Miss C. C. Denley, Miss H. E. Gray, Miss S. M. Harper, Miss C. McNevin, Miss K. A. Milne, Miss M. K. Murray, Miss D. E. Purtill, Miss A. M. Thomas, Miss M. S. Thompson, Miss M. West.

Assistant attendant: Mr. C. W. Haynes.

(*c*) Health Division.

(i) *Appointments.*

European.

Lady medical officer: Dr. (Mrs.) L. Fehily.

School sanitary inspector: Mr. W. C. Walker.

Port health inspector: Mr. E. Maxwell-Holroyd.

Asiatic.

Lady medical officer: Dr. (Miss) Ko Kit Tak.

Secretary to the Nutrition Research Committee (Temporary): Mr. Liu Kuang Tun.

(ii) *Retirements and Resignations.*

Lady medical officers: Dr. (Mrs.) L. O. Hunter, Dr. (Mrs.) A. F. Stout.

(*d*) Laboratory Division.

Appointment.

Local assistant bacteriologist: Dr. R. E. Alvares.

(B) Ordinances affecting the public health.

The following is a list of Ordinances, Rules, Regulations, By-laws and Government Notifications affecting public health or medical matters which were enacted, made or published during 1939:—

(*a*) Ordinances.

(i) Asiatic Emigration Amendment, 1939.

(ii) Criminal Procedure Amendment, 1939.

(iii) Prevention of Cruelty to Animals Amendment, 1939.

(iv) Town Planning, 1939.

(v) Births and Deaths Registration, 1939.

(vi) Urban Council Amendment, 1939.

(vii) Prevention of Eviction, 1939.

(*b*) Rules, Regulations and By-laws.

(i) Public Health (Food). (Order regarding the enforcement of the by-laws relating to the pasteurization and sale of milk).

(ii) Public Health (Food). (Amendment of by-laws re markets and market stalls in the Schedule to the Ordinance).

(iii) Public Health (Food). (Amendment of by-laws re sale of milk generally and dairies and milk shops).

(iv) Quarantine and Prevention of Disease. (Tuberculosis declared as an infectious disease).

(v) Quarantine and Prevention of Disease. (Quarantine (Measures on Departure) Regulations).

(vi) Quarantine and Prevention of Disease. (Quarantine (Measures on Arrival) Regulations).

(vii) Pharmacy and Poisons. (Regulations for appointment of examiners for the purpose of chemists and druggists qualifying examination).

(viii) Pharmacy and Poisons. (Regulations (Poisons)).

(ix) Adulterated Food and Drugs. (Amendment of Regulations made thereunder).

(C) FINANCE.

As may be seen in Table I total expenditure (excluding such items as cost of repairs to buildings, water supply, etc.) and revenue showed increases in 1939 over 1938 figures.

Table I.

Year.	Expenditure.			Revenue.
	Ordinary recurrent.	Special.	Total.	
1938.....	$2,218,236.61	$189,111.31	$2,407,347.92	$431,034.17
1939.....	$2,445,877.14	$40,721.67	$2,486,598.81	$466,054.72
Increase....	$227,640.53	—	$79,250.89	$35,020.55
Decrease...	—	$148,389.64	—	—

The increase in expenditure was caused by the expansion of medical and health services and the larger number of patients due to the influx of refugees.

On the introduction of an official form of certificate for cholera and vaccination, revenue showed an increase of some $54,500.00. Following the appointment of an almoner a further increase of nearly $10,000.00 was recorded for fees for medical treatment in hospitals. As against these outstanding increases there was a decrease of some $37,493.60 for fees charged for medical examinations of emigrants owing to restrictions being enforced on the quota of emigrants to the Straits Settlements.

To obtain more accurate figures of public health expenditure items such as water and drainage works, Urban Council cleansing services, etc., have been included in the following table of expenditure:—

Table II.

Motor ambulance service	$	28,360.84
Police Department		407.50
Public Works Department		1,182,597.23
Sanitary (Urban Council) Department		1,183,030.29
Subsidies to charities		1,172,545.97
Medical Department		2,486,598.81
		$6,053,540.64

The total revenue for the Colony from all sources in 1939 was $41,478,052.24 and the expenditure on medical services therefore formed 14.59 per centum of the general revenue as compared with 14.66 per centum in 1938.

II.—Public Health.

(A) General Remarks.

(a) Refugees.

The state of public health in the Colony of Hong Kong during the year 1939 was conditioned principally by the refugee factor. The extension of the Sino-Japanese conflict culminating in the landing at Bias Bay in October, 1938, the capture of Canton in November and mopping-up operations in Kwangtung close to the Colony's frontier led to a great increase in the number of refugees who sought shelter in Hong Kong.

2. Accurate figures are only available in respect of arrivals and departures by rail—a method of communication which ceased after the Japanese landing in Kwangtung—and by recognized steamship lines; hence, it is difficult to indicate even approximately the balance of immigration over emigration during 1939.

3. All that can be said is that the surplus of arrivals over departures by the methods named above in 1938 amounted to 188,039.

4. At the end of 1939, the corresponding figure was about a further 73,000 making approximately 261,600 by these routes for the twenty-four months ended 31st of December, 1939. The peak was reached at the beginning of July, 1939, when arrivals over departures by recognized steamship lines amounted to 327,833. Thereafter, the figure diminished somewhat with the threat of extension of hostilities to Hong Kong itself and a blockade of the land frontiers in July, August and September.

Hong Kong Government Refugee Camps on Kwangtung—New Territories Border.

Living Huts and Dormitories at Pat Heung Camp

Railway trucks used as temporary shelters for refugees
at Cha Hang and Fan Ling

5. It is hardly necessary to point out that refugees arrived in large numbers by other routes than those named. For example, in the bombing and mopping-up operations by the Japanese on the frontier (and, accidentally, in British territory) on the 21st of February, 1939, it was estimated that upwards of 50,000 refugees came over on foot and sought shelter in the Government camps and villages in British territory.

6. Experienced statisticians estimated the population as ±10% of 2,000,000 at June, 1939. By extrapolation methods the normal population at that period was just over a million, consequently, the Colony was called upon to find food and shelter for almost double its normal population.

7. The main portion of the burden of caring for refugees who were without means was borne by Government, the Medical Department being entrusted with the planning and operation of the refugee camps. The Department received valuable assistance from certain charitable bodies in the form of clothes, blankets, educational materials, etc.

8. Apart from three semi-permanent urban camps capable of holding rather over 5,000, five rural camps were established with a capacity for about 10,000 persons. Actually, the maximum number of persons cared for by the Medical Department in the camps at any one time during 1939 was 12,297 (in April, 1939). The main object behind these camps was to provide shelter, food, medical, welfare and educational services and clothing, and to encourage the inmates to carry on industrial and agricultural work until arrangements could be made for their repatriation to relatively safe parts of China not directly involved in hostilities.

9. In many instances, refugees were assisted by free passages and small compassionate grants from Government to return to their homes or to places in unoccupied China.

10. During August, when the possibility of extension of hostilities to the Colony was manifest, every effort was made to persuade the occupants of the Government refugee camps to make their way back to China and the total in the camps fell to 7,379. The wave of refugees definitely receded during the second half of the year and the surplus of emigrants over immigrants by recognized shipping lines amounted to 72,570 for the year 1939. There were two main reasons for this partial exodus. Firstly, those with funds decided that they and their families might be better placed to meet any clash in the Philippines, French Indo-China or Macao; secondly, others in receipt of salaries paid in National currency were no longer able to meet the combination of the fall in the National dollar and the rise in the cost of living.

11. When the problem of refugees is under consideration it is necessary to recall that there are several main classes. A relatively small group with financial backing who have transferred their commercial interests from occupied China to this Colony. Several hundred factories, workshops, printing presses and the like have been established in Hong Kong by such persons since July, 1937.

12. A larger group consists of those artisans, small merchants and others who have managed to save their tools, some of their stock in trade and a portion of their savings and are able to maintain themselves at least for a time and, later, if they fail to make good, have to fall back on relief.

13. The third and by far the largest group are those with little if any savings which are rapidly exhausted. Members of the third group become destitute and are forced to sleep on the pavements until a Medical Department ambulance collects them from the streets and takes them to one of the Government camps under the supervision of the Medical Department.

14. Before leaving the subject, it might be of interest to mention two ancillary matters.

15. Firstly, during mopping-up operations by the Japanese Army on the frontier in November, 1938, a number of Chinese soldiers sought safety in the Colony and were interned, first on board ship and later in a portion of a camp built by Government for refugees and destitutes. During the year Government received, from the Chinese Government through the Director of Medical Services, a gift of H.K.$80,000 towards the cost of a new camp for these interned sodiers in order to release the first-mentioned camp for civilian use. At the end of 1939, 740 remaining out of the original 1,213 interned were transferred to the new camp completed at a total cost of about H.K.$120,000—one third of the cost being borne by the Hong Kong Government. The balance of the men had been released, had escaped or had died during the year.

Secondly, at the commencement of the European War in September, 1939, a number of enemy aliens living in Hong Kong were interned in an institution used for educational purposes. By the end of 1939 the numbers of such interned had fallen to below thirty as the result of releases to employers in Hong Kong and elsewhere well able to vouch for the persons concerned.

(*b*) *Malnutrition.*

16. The flooding of the urban market by refugees and the very heavy demand on accommodation with consequent high rentals for tenements, cubicles and even bed spaces, have resulted in a considerable reduction in the proportion of wages available for the purchase of food. Combined with ignorance of the right quality or quantity of food to be consumed, this gives rise to a serious incidence of malnutrition amongst the poorer sections of the population. This is especially noticeable in the young mother after she has delivered. Over 200 beds in one hospital of 300 beds had to be devoted to the treatment of beri beri alone.

17. Just as in the case of the refugees, Government furnished shelter for many thousands, so in the case of the hungry it also provided several hundred thousand meals at camps and welfare centres during the year. Assistance was given in regard to free meals by certain voluntary organizations, notably the Hong Kong Refugee & Social Welfare Council and Hong Kong Red Swastika Society.

18. One of the avowed aims of the Nutrition Research Committee (newly constituted under the chairmanship of the director of medical services) was to devise an economic but satisfactory dietary within the means of even the poorer class and to bring this to the notice of those concerned through the medium of the Chinese press and the radio.

19. Using the Government camps as experimental fields and keeping a careful check on the health and weights of the occupants, the Medical Department was able to introduce an adequately balanced diet costing 11.3 cents per day for those over seven years and 8.2 cents per day for those up to seven years of age (11.3 cents is equal to rather less than $1\frac{3}{4}$d). For details of dietary see Appendix I (*b*).

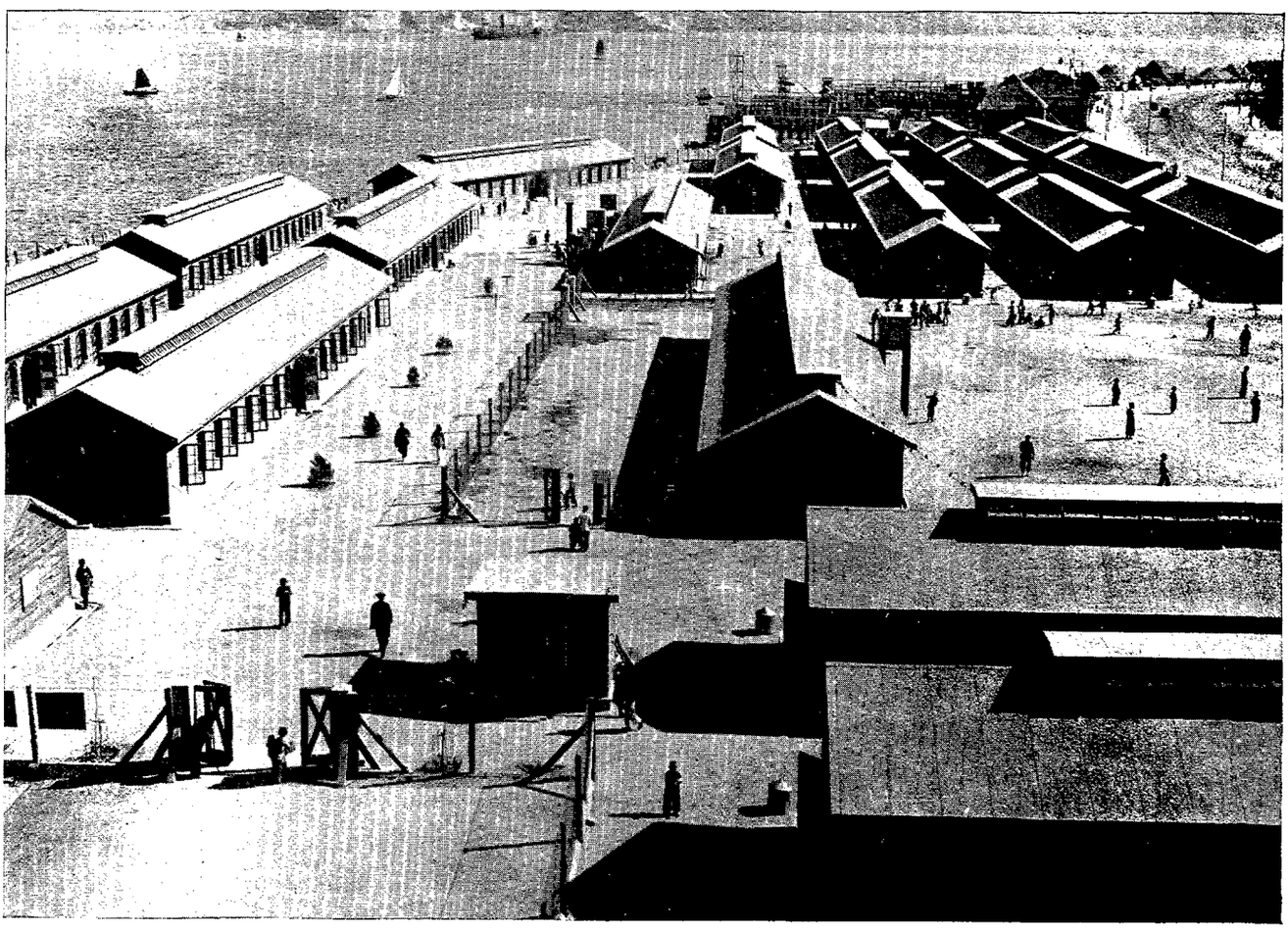
(*c*) *Housing and Overcrowding.*

20. Next after malnutrition, the most serious problem which Hong Kong had to face in 1939 was shortage of housing and dangerous overcrowding.

21. It has already been pointed out that the population of the Colony has almost doubled as the result of the influx of refugees since the start of the Sino-Japanese Incident in July, 1937.

North Point Government Refugee Camp

Birds-eye view of camp, with Hospital Hut in centre



Hospital Hut—Children's Ward

Bed time in the Living Hut

Children's meal time in the Dining Hut

22. Building operations have been actively undertaken but have affected better class residences, factories, workshops and the like rather than tenements. In consequence, there has been a dearth of accommodation for the lower ranks of society and many thousands—including women and children—were driven to sleeping out on the street pavements until room was found for them in the Government camps.

23. Concurrently, there has been a spate of building of unauthorized, matshed hovels, without any pretence of alignment, without fire-breaks, drainage, sanitary arrangements, and so on. To curb these measures which bid fair to destroy the amenities of the Colony, apart from giving rise to a very definite health danger, steps were taken during the year to set aside sites on the Island and on the mainland where temporary matshed camps could be built on approved lines. Here, those in need of shelter and able to erect it, could do so in proper alignment with fire-breaks, under the supervision of the Medical Department, water and sanitary services being supplied free on a communal basis. Some measure of protection against exploitation of certain sections of the community (not the tenement dweller, however,) was afforded by the Prevention of Eviction Ordinance which Government decided to continue in force for another period of a year.

24. Taking a long view of the housing and town-planning problem, Government appointed a Town Planning Board in June, 1939, with powers to advise on such matters as zoning, town-planning and housing. It is feared that the intervention of the war in Europe and the doubt regarding the financial situation are likely to affect the activities of the Board somewhat adversely for the time being.

(*d*) *Epidemic diseases.*

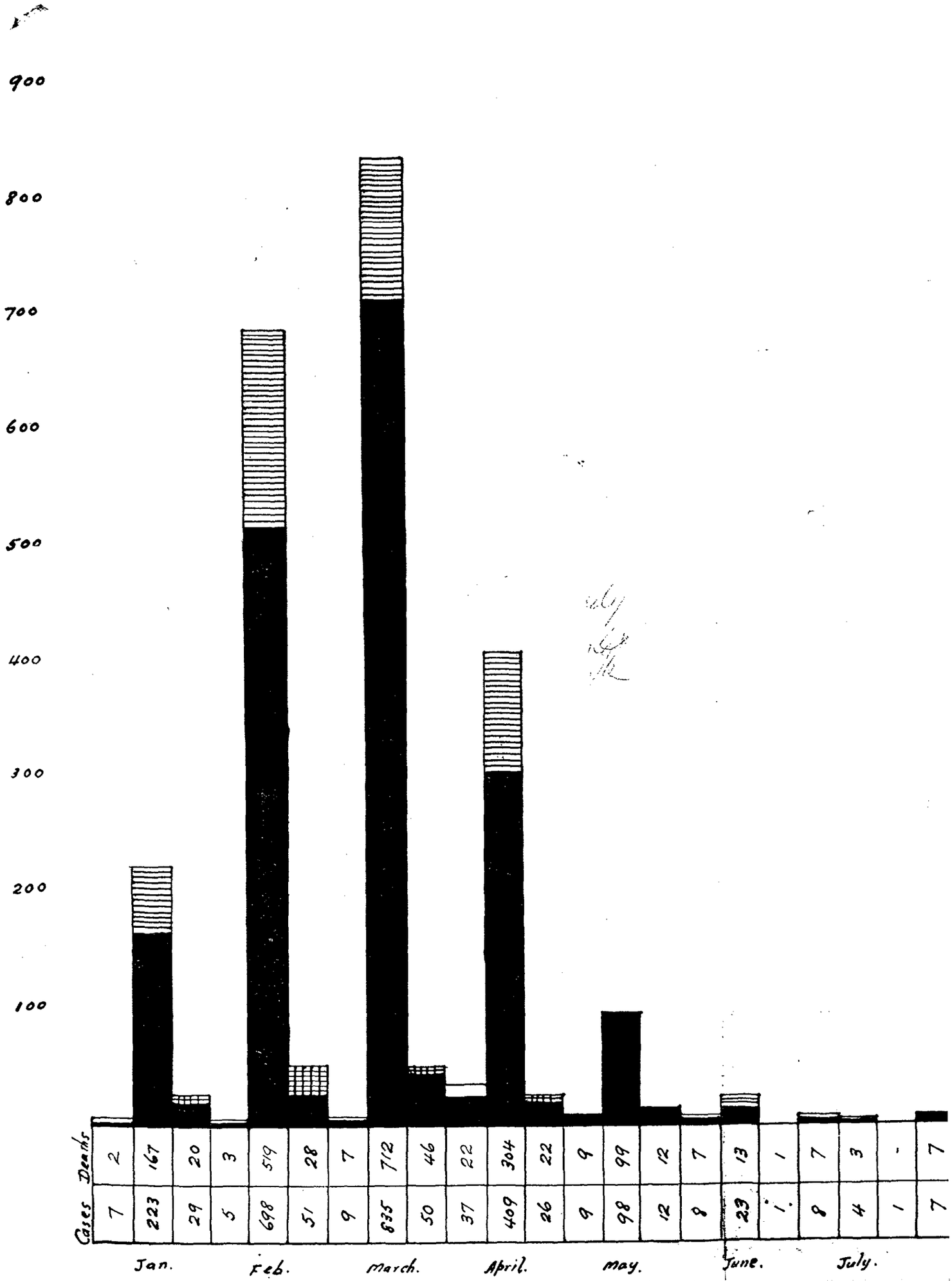
25. (*i*) *Smallpox.* The arrival in Hong Kong of large numbers of undernourished refugees from war areas where a complete disruption of health services had occurred and epidemic disease was rife had obvious repercussions locally, although all possible measures were taken to prevent the spread of infection so introduced. The vaccination campaign which had been placed on a compulsory footing during the grave epidemic of 1938 was pressed vigorously during 1939. Only 198 cases and 153 deaths from smallpox were recorded (a case mortality of 77%) as compared with 2,327 cases and 1,833 deaths in 1938. Some 1,125,871 anti-smallpox vaccinations were carried out in 1939, the services of the majority of the temporary staff recruited in 1938 being retained for the purpose.

26. (*ii*) *Cholera.* Cholera reappeared in May, 1939, and special measures were introduced to ensure that passengers leaving Hong Kong for certain ports were in possession of certificates of having received anti-cholera inoculation during the previous five months and not less than six days prior to embarkation.

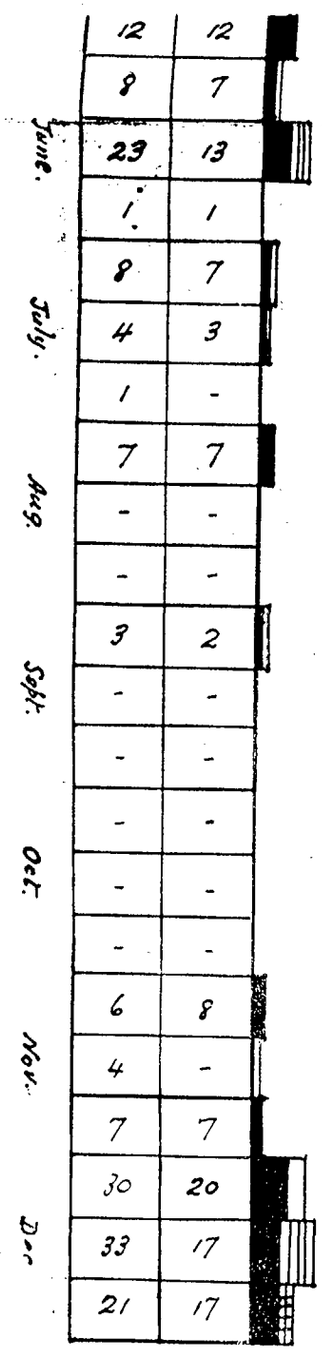
27. Extensive use was made of propaganda. An additional measure introduced to Hong Kong for the first time was the distribution of hundreds of coloured posters kindly drawn by a local artists' guild, depicting the disease in all its stages, and calculated to be clear to the dullest of minds. One picture was so horribly realistic that a senior Government official craved its removal from his office doorway because, to use his own words, he "couldn't face it". In spite of all these efforts on the part of the health authorities the epidemic mounted gradually until it reached its peak in the last week of June during which 100 cases were recorded, with a second peak in the month of August. The epidemic waned towards the latter part of the year, the first "nil" return being rendered for the week ending November 25th. The total number of cases recorded was 708, and deaths 448, as compared with 547 cases and 363 deaths in 1938. The number of anti-cholera inoculations performed at Government hospitals and dispensaries and at several special centres opened for the purpose amounted to 320,748.

28. (*iii*) *Cerebro-spinal meningitis.* As might be anticipated, the increase of the normal population of a single floor of a tenement building from fifteen to twenty to as much as sixty tended to aggravate the situation in so far as concerns cerebro-spinal meningitis.

SMALLPOX



	Jan.		Feb.		March.		April.		May.		June.		July.			
Deaths	2	167	20	3	519	28	7	712	46	22	304	22	9	99	12	7	13	1	7	3	-	7
Cases	7	223	29	5	698	51	9	835	50	37	409	26	9	98	12	8	23	1	8	4	1	7



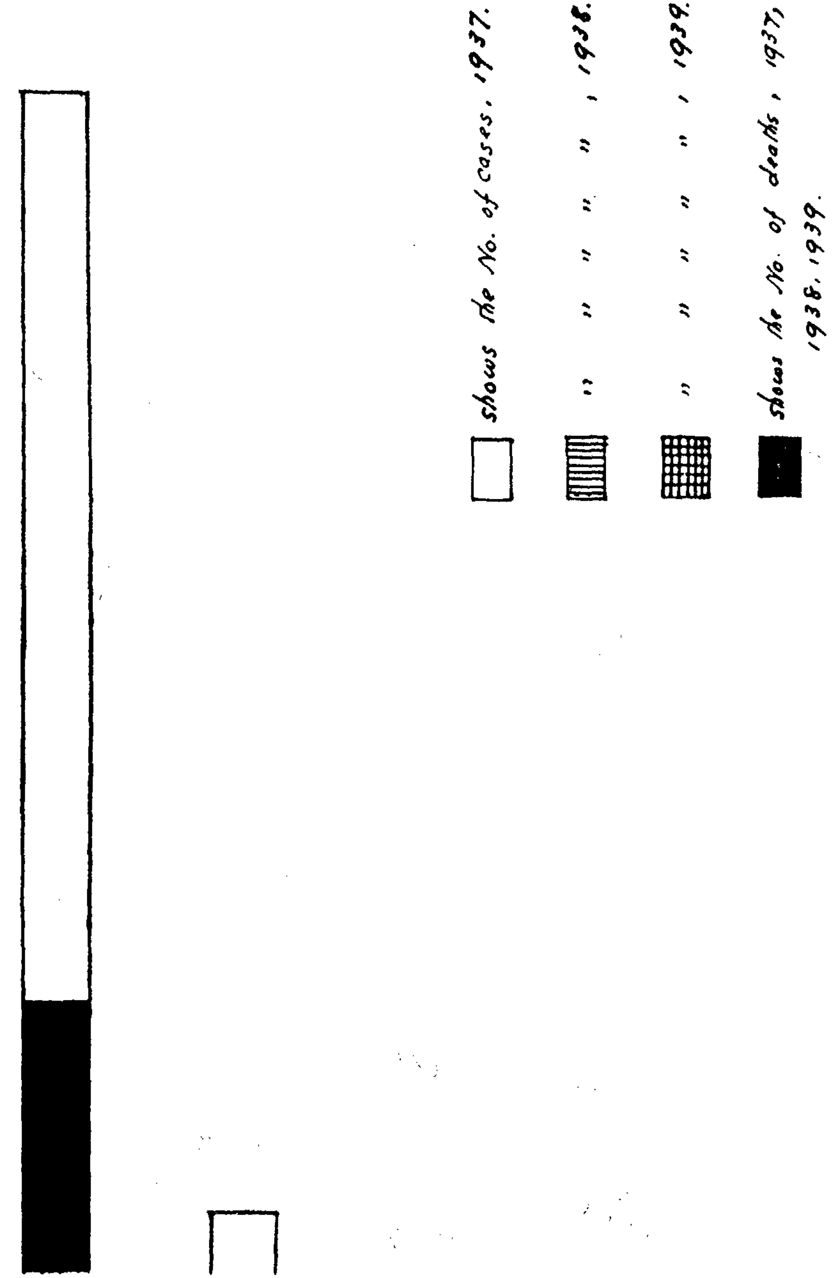
Shows the No. of cases, 1937.

" " " " " , 1938.

" " " " " , 1939.

Shows the No. of deaths, 1937, 1938, 1939.

CHOLERA.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CHOLERA.

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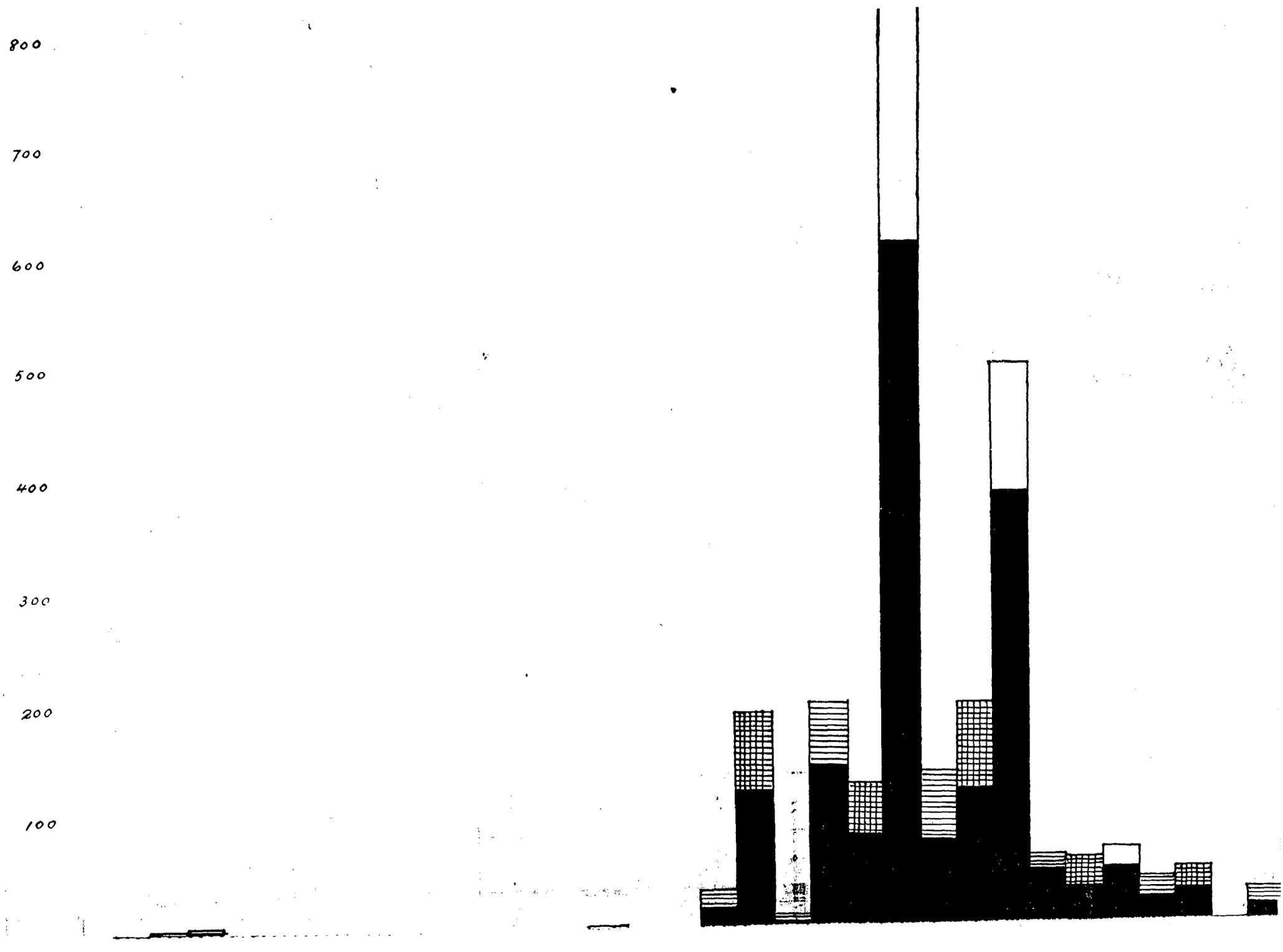
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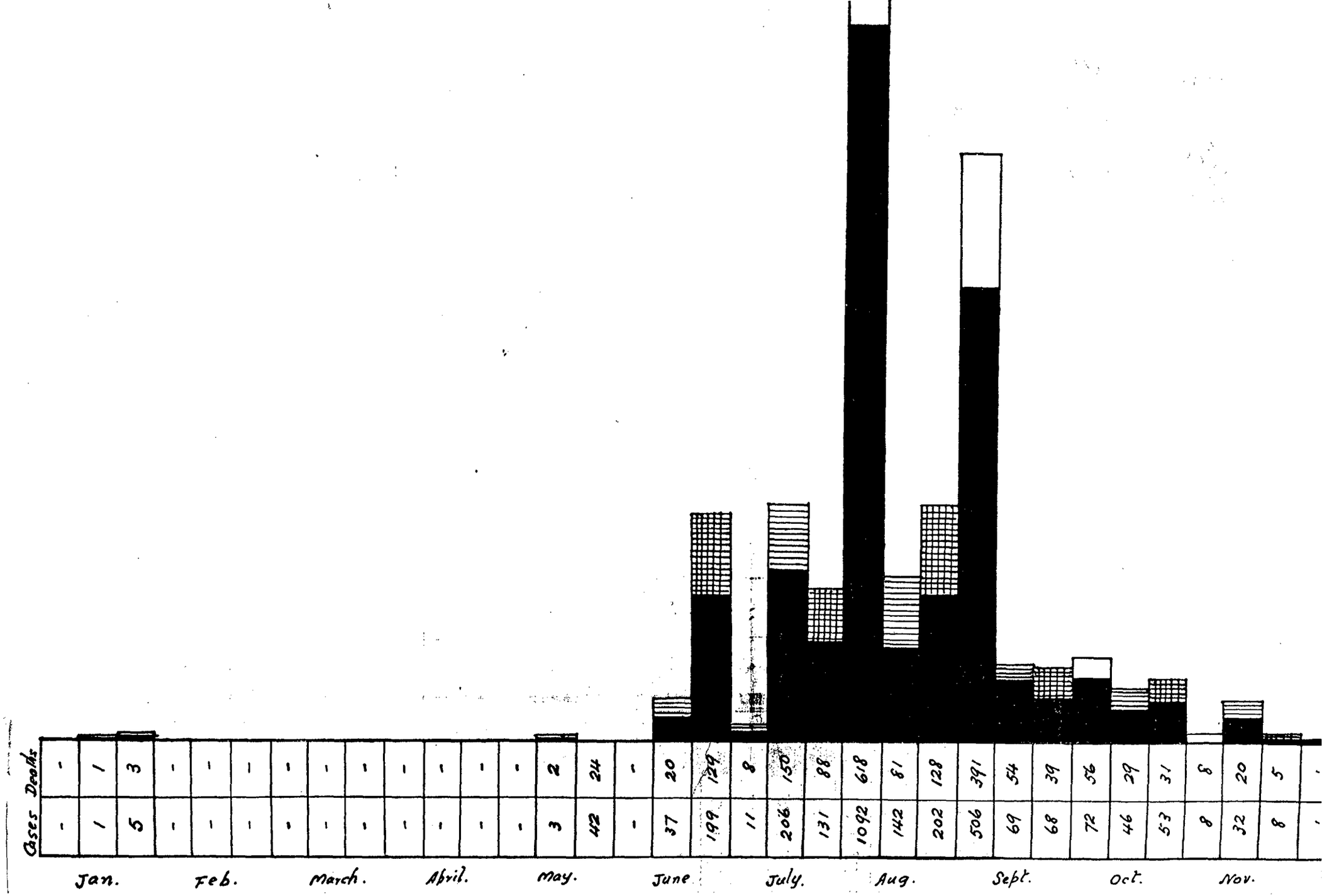
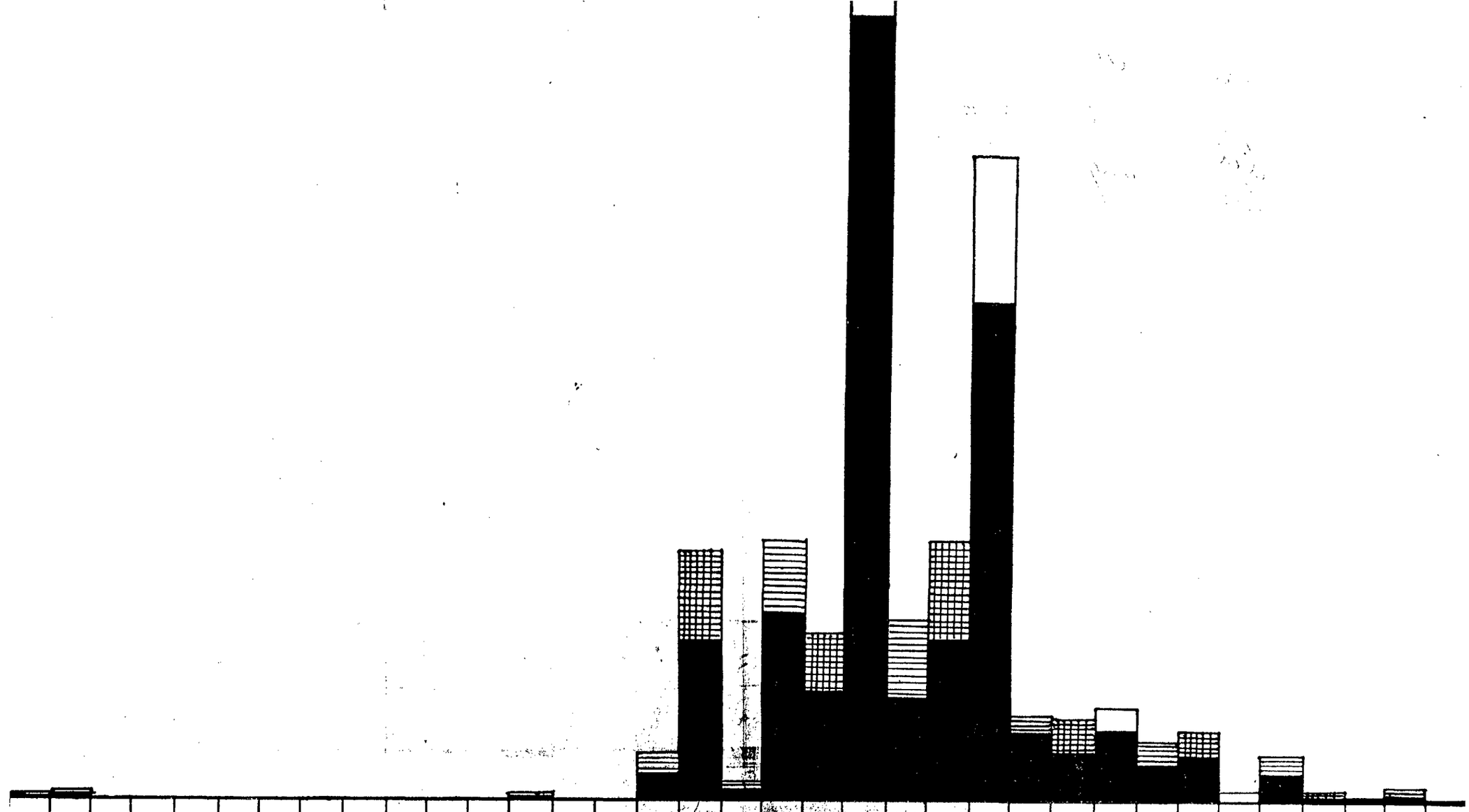
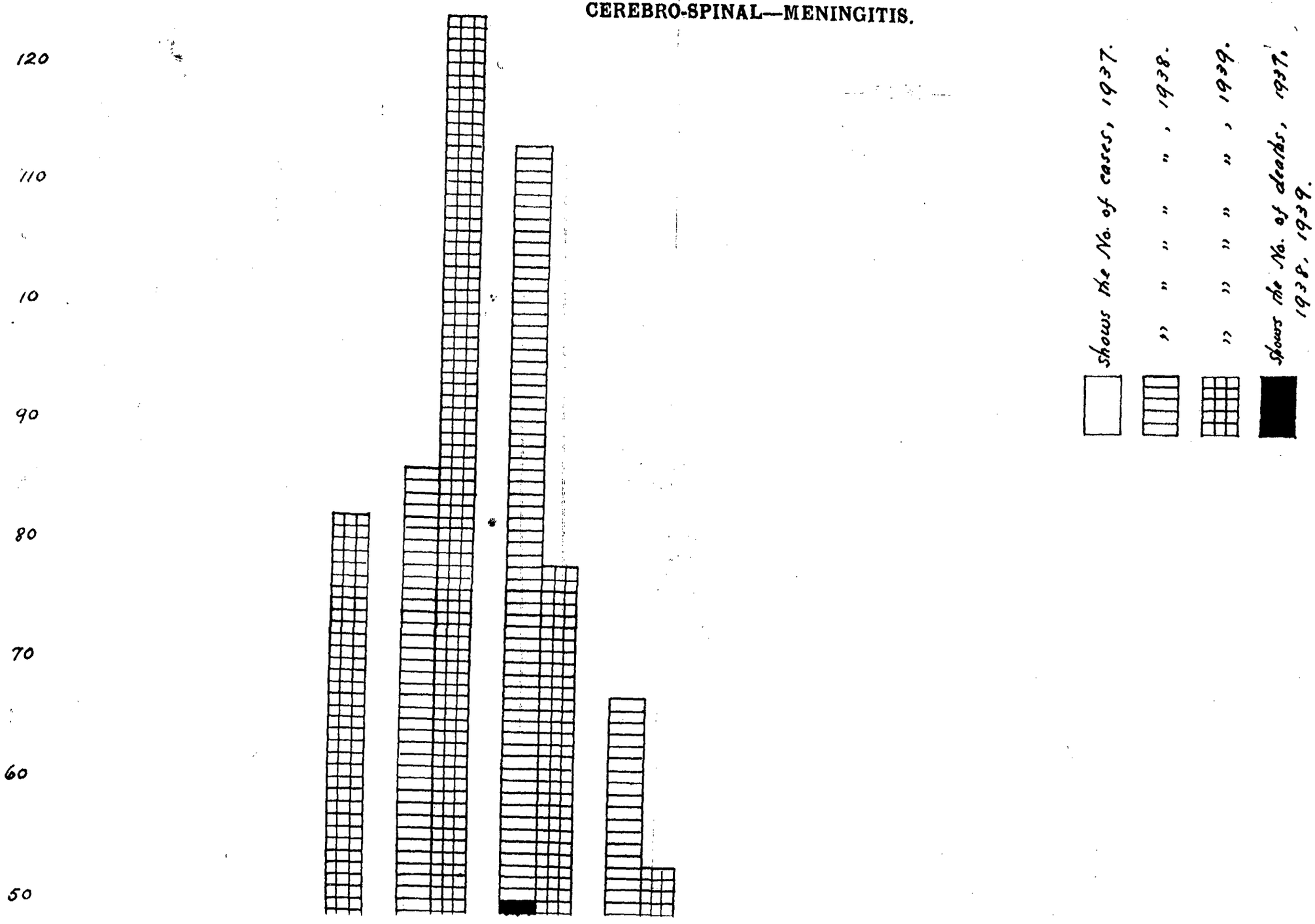


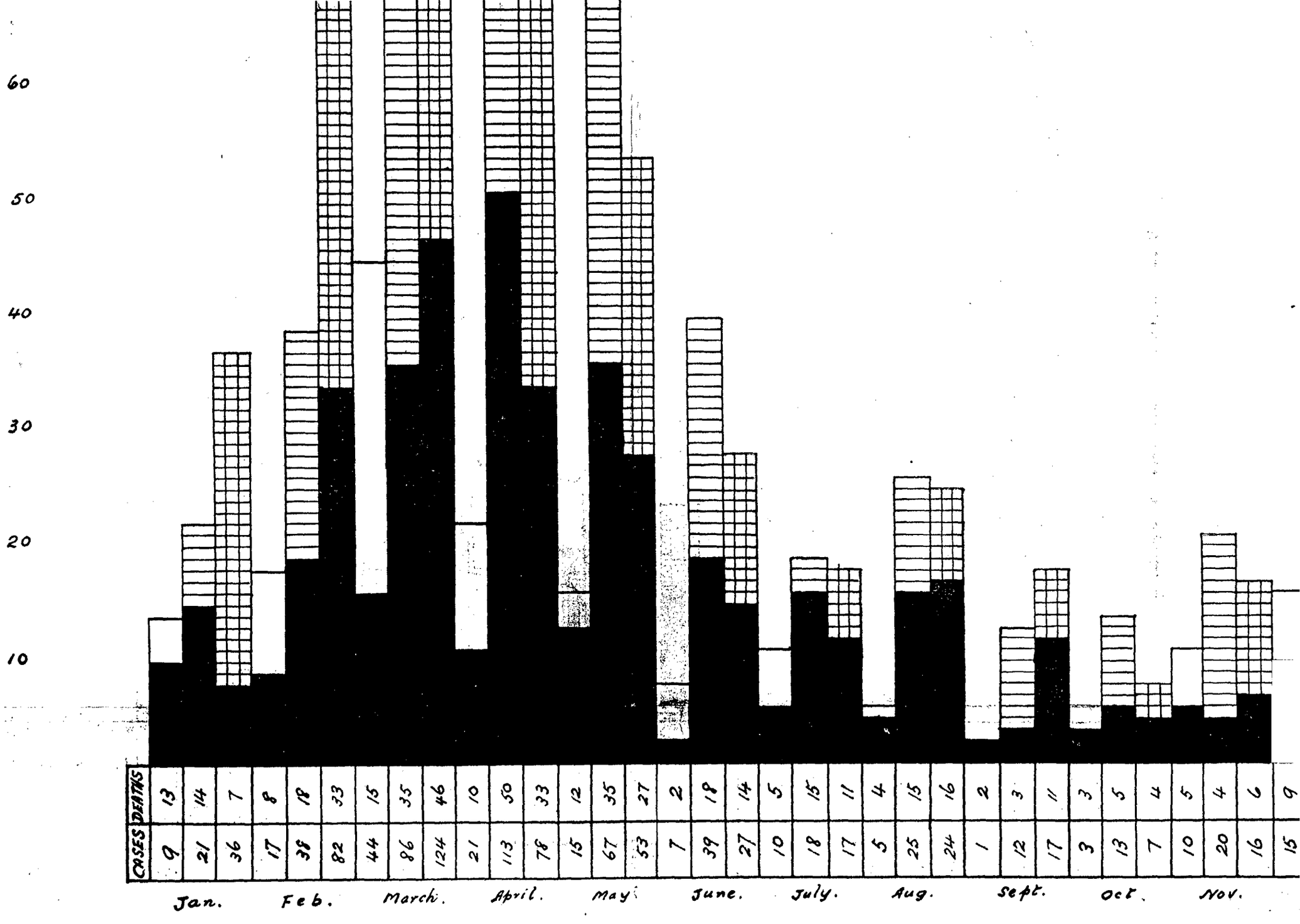
	Jan.		Feb.		March.		April.		May.		June		July.		Aug.		Sept.		Oct.		Nov.		
Cases	-	1	5	-	-	-	-	-	-	-	-	3	42	-	37	199	11	206	131	1092	142	202	506	69	68	72	46	53	8	32	8	
Deaths	-	1	3	-	-	-	-	-	-	-	-	2	24	-	20	129	8	150	88	618	81	128	391	54	39	56	29	31	8	20	5	



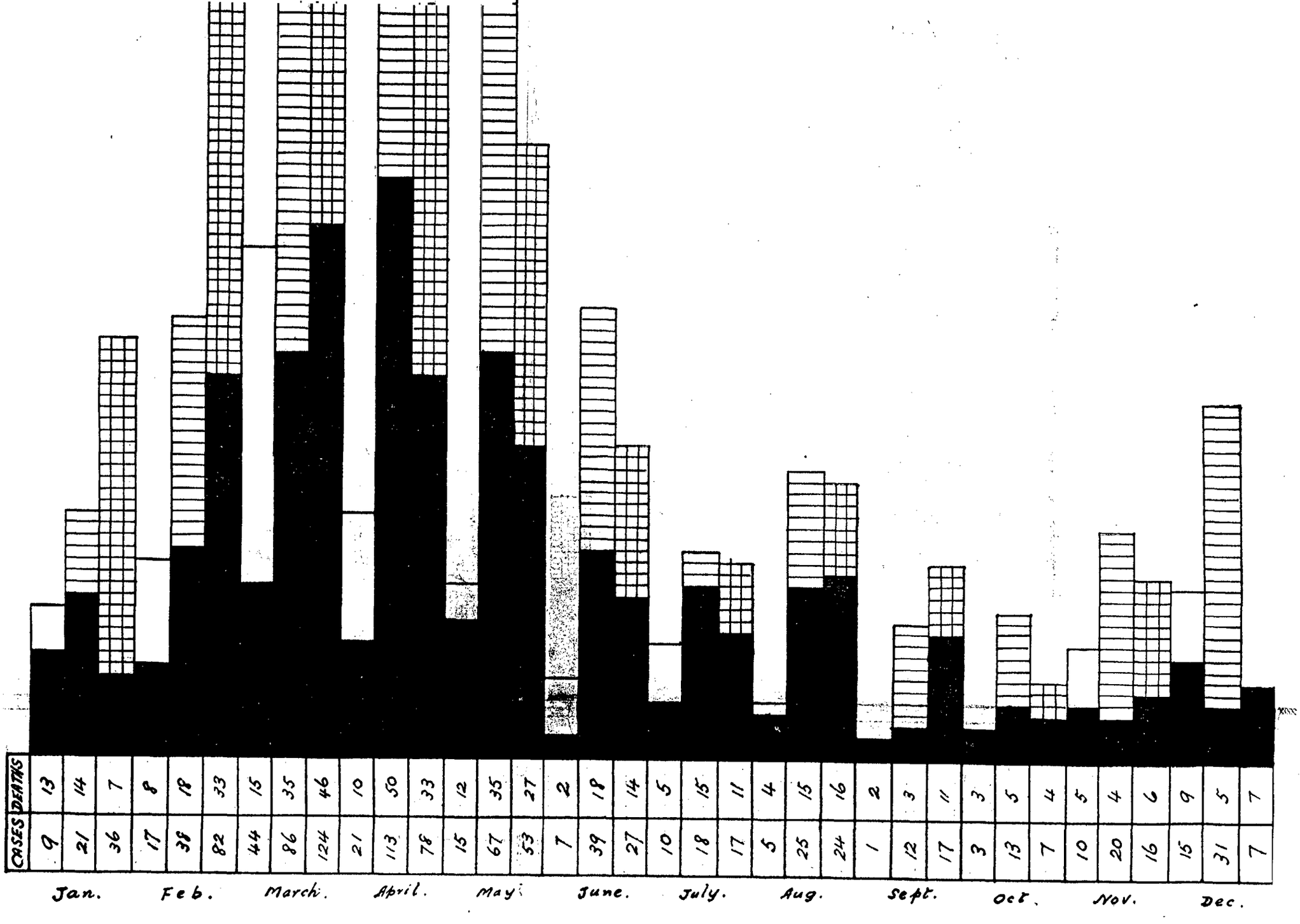
	Jan.		Feb.		March.		April.		May.		June		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
	1	1	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	24	42	-	-
	20	37	129	199	8	11	150	206	88	131	618	1092	81	142	128	202	391	506	54	69	39	68	56	72
	29	46	31	53	8	8	20	32	5	8	1	1	7	10	1	-								

CEREBRO-SPINAL—MENINGITIS.



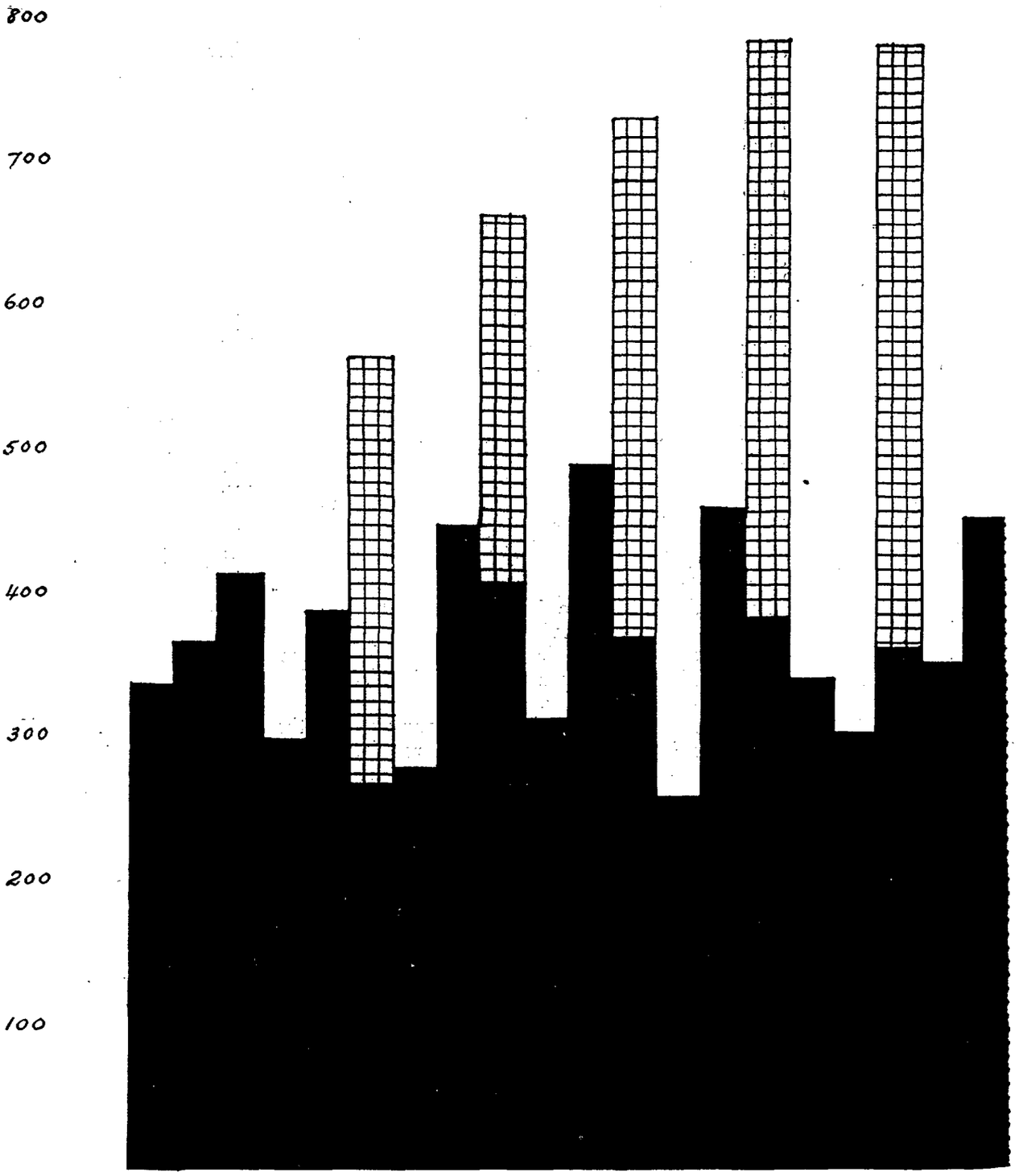


	Jan.		Feb.		March.		April.		May		June.		July.		Aug.		Sept.		Oct.		Nov.		
CASES	9	21	36	17	38	82	44	86	124	21	113	78	15	67	53	7	39	27	10	18	17	5	25	24	1	12	17	3	13	7	10	20	16	15
DEATHS	13	14	7	8	18	33	15	35	46	10	50	33	12	35	27	2	18	14	5	15	11	4	15	16	2	3	11	3	5	4	5	4	6	9

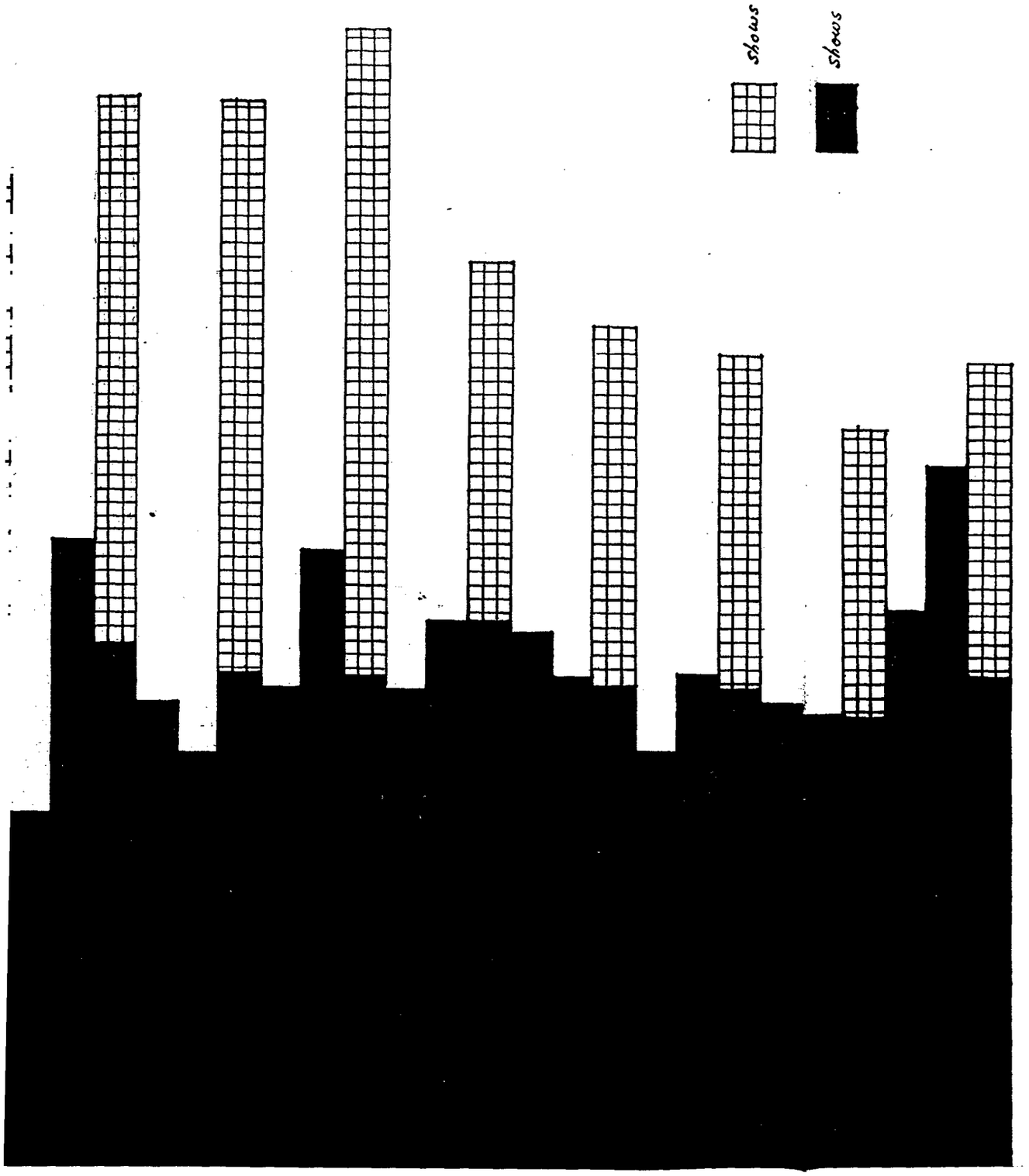


	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
CASES	9	21	36	17	38	82	44	86	124	21	113	78	15	67	53	7	39	27	10	18	17	5	25	24	1	12	17	3	13	7	10	20	16	15	31	7
DEATHS	13	14	7	8	18	33	15	35	46	10	50	33	12	35	27	2	18	14	5	15	11	4	15	16	2	3	11	3	5	4	5	4	6	9	5	7

TUBERCULOSIS.



BERCULOSIS.


Shows the No. of cases, 1939.
Shows the No. of deaths, 1937, 1938, and 1939.

29. During 1939, 488 cases and 214 deaths were recorded, a case mortality of 44%. This compares with 483 cases, 223 deaths and a case mortality of 46% in 1938. A certain amount of success was obtained from the exhibition of drugs of the sulphanilamide group in such patients, although those receiving the drug and serum appeared to do better than those on the former alone.

30. (*iv*) *Tuberculosis.* More serious than any of the three acute infectious diseases mentioned above was the incidence of tuberculosis. This constituted a major killing disease in 1939 and was responsible for 4,443 deaths or 9.2 per centum of all deaths registered. Active measures were taken to combat the disease. Compulsory notification of cases was introduced in January, 1939, and by the end of the year some 7,591 cases had been reported to the health authorities. Pasteurization of milk became compulsory in April, 1939, and bacteriological standards for pasteurized milk were introduced in December, 1939.

31. An anti-tuberculosis campaign was started in the Chinese and English press and on the radio at the end of the year to rouse public interest in the cause and prevention of the disease.

(*e*) *Hospitals.*

32. The very heavy increase in the population from the advent of refugees, many ill-nourished and diseased, from devastated areas threw a serious burden on hospital accommodation.

33. The Chinese hospitals in particular became seriously overcrowded and had to accommodate twice their official number of in-patients. In one of the three main hospitals temporary straw matsheds had to be erected to accommodate over 200 beds to deal in part with the heavy burden thrown upon this institution. Out-patient facilities also suffered from lack of space and staff and this resulted in rather long delays before patients were attended and in the staff being able to devote but little time to individual patients. Full use was, of course, made of the services of registered medical practitioners who volunteered to work in an honorary capacity.

34. The Technical Committee for the reorganization and improvement of existing official hospital and clinical facilities appointed by His Excellency Sir Geoffry Northcote on the 13th of May, 1938, under the chairmanship of the director of medical services concluded their deliberations on the 1st of May, 1939, and submitted their report. Details of the findings and recommendations of this Committee are given in Appendix II.

35. The Committee's inquiries ranged over the whole field of the public health question, hospitalization facilities and requirements, laboratory facilities, medical, education and co-operation between the Government Medical Department and private medical practitioners. The findings and recommendations contained in this report have received the careful consideration of Government and have recently formed the subject of a despatch to the Secretary of State for the Colonies.

36. An important step was taken in connexion with the control of the three large Chinese hospitals in Hong Kong during the year by the appointment of a medical committee under the chairmanship of the director of medical services.

Hitherto, the hopitals had been operated by a lay body of Chinese directors—mostly busy business men with little time to devote to such matters.

The need for very much larger financial assistance* from Government served as a means of introducing a certain measure of control by the Committee referred to above. Generally speaking, the first year of the committee's work showed satisfactory progress and solid foundations were laid which will, it is believed, have a very real ameliorative effect on the care of the sick poor.

*The Government subvention to the Tung Wah Hospital in 1939 amounted to $400,000.

(*f*) *Special war measures.*

37. Mention should be made of the scheme for the medical defence of the Colony which was brought up to date during 1939. This involved the planning of first aid posts, casualty clearing and relief hospitals, the recruitment and training of personnel and the collecting of ambulances, stretchers, instruments, dressings, and so on. Under the Compulsory Service Ordinance, 1939, some 1,225 British subjects were medically examined for the purpose of the Ordinance. The tabulated results are as follows :—

Table III.

Age group.	Total	A Fit for general service.		B Fit for duties on lines of communication including guards.		C Fit for sedentary duty only.		D Unfit for service.	
18-41	727	527	72.49	98	13.48	83	11.42	19	2.61
42-55	498	238	47.79	84	16.87	164	32.93	12	2.41
	1,225	765	62.45	182	14.86	247	20.16	31	2.53

This compares with the following figures published in relation to similar examinations for the Militia in the United Kingdom in the summer of 1939 :—

Table IV.

Total	Grade I.		Grade II.		Grade III.		Grade IV.	
49,586	41,297	83.3	4,553	9.2	2,443	4.9	1,293	2.6

A voluntary blood donor system was inaugurated in readiness for eventualities and a very satisfactory response was obtained to an appeal for donors—chiefly from members of the European community.

(*g*) *Miscellaneous items.*

38. A deputy director of health services was appointed at the end of 1939. This brings a stage nearer the much needed reorganization of the Health Division of the Medical Department, particularly vis à vis the sanitary inspectorate which has been independent of the health authorities so far.

(*h*) *Social hygiene.*

39. An important report was drawn up early in 1939 by a committee under the chairmanship of the Crown Counsel (Mr. M. J. Abbott). Inter alia, the committee recommended additional clinical facilities for the treatment of prostitutes. It is hoped to develop these in 1940 by an expansion of the staff of the Social Hygiene Sub-division of the Medical Department, by the opening of new centres and by domiciliary visits by trained health visitors.

(*i*) *Co-operation with the Hong Kong University and private practitioners.*

40. Further links were forged in the chain joining up the Medical Department and the Hong Kong University and local medical practitioners, to the mutual benefit of all concerned and of the community at large. Sir Richard Needham's report to the General Medical Council following his visit to Hong Kong speaks in favourable terms of this satisfactory relationship.

(B) Vital Statistics.

41. The report of the registrar-general of births and deaths which forms Appendix C to the main report should be consulted by those desiring detailed information on the subject.

(*a*) *Population.*

42. Briefly, the population at mid-year 1939 calculated by extrapolation methods was 1,050,256 of whom only 23,611 were non-Chinese. This figure takes no account of the refugee element and a more accurate estimate would bring the total on the 30th of June, 1939, to approximately 1,750,256.

(*b*) *Births.*

43. As might be expected, the very considerable increase in the population of the Colony was reflected in the number of births registered.

44. In 1925, birth registrations amounted to 3,654. In 1932, when the Medical Department assumed responsibility for registration, the figure rose to 13,597. In the year 1936 which preceded the outbreak of the present Sino-Japanese hostilities 27,383 births were recorded.

The figures for 1937, 1938 and 1939 are tabulated below :—

Table V.

1937.	1938.	1939.
32,303	35,893	46,625

46. The crude, uncorrected birth-rate was 44.4 per thousand of the population estimated by extrapolation and 26.7* per thousand on a basis of normal population taken together with the refugee element.

(*c*) *Deaths.*

47. In 1925 and 1932, deaths numbered 14,991 and 19,829 respectively. In 1936, 26,356 deaths were registered. In the following three years the numbers were as in the table :—

Table VI.

1937.	1938.	1939.
34,651	38,847	48,317

48. The crude, uncorrected death rate was 46 or 27.6† according as to whether the refugee element in the population is excluded or included in the figure for the population as a whole.

39. The large number of burials resulted in a rapid exhaustion of cemetery space within the urban area and two avenues were investigated during 1939 in an effort to deal with the problem; firstly, sites for new burial grounds were surveyed outside the urban area near Fanling in the New Territories, and, secondly, trials were made on a small scale of the cremation of abandoned bodies of persons dying of smallpox, cholera and other dangerous infectious diseases dumped in the street. (Apart from effecting an economy in land for burial, this measure should act as a deterrent against a reprehensible local custom).

(*d*) *Infant mortality rate.*

50. The cumulative effect of malnutrition, bad housing and overcrowding, and insanitary environment was clearly seen in the heavy loss of life in infants, 345‡ per thousand living births dying before attaining one year of age.

* 15.1 in England and Wales for 1938.
† 11.6 in England and Wales for 1938.
‡ 53. in England and Wales for 1938.

This rate compares with one of fifty-eight per thousand live births for the non-Chinese sections of the population.

(*e*) *Morbidity and mortality rates for European officials.*

51. The following table gives some indication of the somewhat better health enjoyed by European officials in 1939 as compared with that prevailing in the preceding years.

Table VII.

	1937.	1938.	1939.
Total number of officials resident	940	1,042	1,093
Average number resident	918	833	871
Total number on sick list	453	435	392
Total number of days on sick list	6,134	7,367	5,643
Average daily number on sick list	17	20	15
Percentage of sick to average number resident	49%	52%	45%
Average number of days on sick list for each patient	14	17	14
Average sick time (in days) to each resident	7	7	5
Total number invalided	12	5	7
Percentage of invalidings to total residents	1.28%	0.48%	0.64%
Total deaths	3	5	5
Percentage of deaths to total residents	0.32%	0.48%	0.46%
Percentage of deaths to total average number resident	0.33%	0.60%	0.57%

III.—Hygiene and Sanitation.

(A) General review of work done and progress made.

(I) *Preventive measures.*

(*a*) *Mosquito and insect-borne diseases.*

52. (i) *Malaria.* A report on the activities of the Malaria Bureau during 1939 is given under Section IX, Scientific.

53. The influence of the large number of refugees on the incidence of malaria in the Colony can be seen in the increase in the number of deaths from malaria, 1,492 as compared to 733 in 1938. The infection rate of twenty-five per centum amongst the inhabitants of one of the refugee camps gives ample proof of the danger of refugees as a source of infection for the local anopheles.

53. The permanent canalization of 2,160 feet of streams in the vicinity of the Queen Mary Hospital, at a cost of $17,580, is an important measure towards safeguarding that locality. It must, however, be pointed out that the Colony's comparative freedom from malaria in the urban areas is due to temporary anti-malarial measures, such as draining of streams and regular oiling, carried out by the staff of the Malaria Bureau. Owing to critical times, uncertain finances and heavy costs permanent anti-malarial drainage can only be introduced gradually over a period of years.

55. (ii) *Yellow fever.* No case of this disease has been recorded nor can its introduction be regarded as likely to occur while the present stringent control measures are maintained.

56. (iii) *Filariasis.* As in previous years the incidence of filariasis is negligible.

(*b*) *Epidemic disease.*

57. (i) *Plague.* No case of plague occurred during the year. Anti-rodent measures, such as systematic trapping and house cleansing were continued.

221,200 rats were trapped, 24,447 of them alive.

Spleen smears from a certain number were examined daily but in no case was P. pestis found.

58. Measures to prevent the introduction of plague from shipping were maintained.

59. An investigation of the local flea population, carried out by the Malaria Bureau, shows that, of 4,496 fleas examined, eighty-nine per centum were Xenopsylla cheopis. Details are given in the malariologist's report (Section IX, Scientific).

60. (ii) *Cholera.* In addition to what has been said about cholera in an earlier part of this report, it is of interest to note that thirty-four cases were imported from various districts in China. There is little doubt that the constant stream of immigrants to the Colony and the consequent overcrowding is largely, if not solely, responsible for the disease attaining epidemic proportions.

61. The pipe-borne water supply is filtered and chlorinated but one exposed service reservoir, referred to in last year's report, remains uncovered. An undertaking has been obtained that a start will be made on this essential work in 1940.

62. (iii) *Smallpox.* The epidemic, as happened last year, attained its peak in March. Despite the fact that vaccination is compulsory, and the strenuous efforts of the department to ensure that all babies are vaccinated soon after birth, it has to be admitted that the Chinese custom of postponing vaccination until the second year of a child's life is proving difficult to overcome. The result is that, as in 1938, the majority of smallpox victims in 1939 were babies and children under five years of age.

(*c*) *Other diseases.*

63. (i) *Leprosy.* As mentioned in the 1938 report Government acquired the former Tung Wah Smallpox Hospital for the accommodation of lepers. The buildings, which are in a dangerous and dilapidated condition, were declared a leper settlement early in 1939 and measures for the proper control and discipline of lepers were instituted. The settlement is now surrounded by a barbed wire fence which is patrolled by police. In this manner the annoyance previously caused in the town by wandering lepers has been overcome and the risk of spreading the disease is lessened.

64. It is of interest to note that, according to the Chinese traditional conception of leprosy, it is possible for lepers to "sell their unfortunate disease to others" by sexual intercourse, total and partial cure being supposed to result in the case of females and males, respectively.

65. In order to maintain discipline and cleanliness in the settlement, two male and one female heads were chosen from the lepers and paid $5 each per month. This measure of self-government has proved very satisfactory in practice.

66. There is no doubt that, despite the poor buildings, lepers now live under conditions which are a great improvement on previous years. In addition to treatment, they are provided with beds and a properly balanced diet and their necessarily restricted and monotonous lives are brightened by indoor games, newspapers, magazines and a wireless receiving set.

67. The following table gives the figures for the settlement during 1939 :—

Table VIII.

Remaining from 1938	133
Admitted during 1939	295
Transferred to Sheklung, Swatow and Pakhoi	165
Escaped	67
Died	21
Discharged	3
Remaining at end of 1939	172

68. (ii) *Tuberculosis.* Climatic, social and economic conditions all tend towards fostering this disease and the combination works only too well. The task of controlling and eradicating tuberculosis in the Colony presents a most difficult problem but, nevertheless, one which can be tackled sucessfully if approached in a spirit of

patience and hopefulness combined with energy and tenacity. The present overcrowding resulting from the influx of large numbers of refugees seriously aggravates the situation and a major and essential step in the control of tuberculosis would be effected by the restoration of peaceful conditions in the Far East and the return of refugees to their homes in China.

69. The tragic need for sanatoria for "open" cases is more than ever a necessity in view of the overcrowded conditions already referred to.

70. Towards the end of the year steps were taken to introduce legislation to make spitting in public places an offence.

(*d*) *Helminthic diseases.*

71. Inspection of meat and foodstuffs, control of night-soil and refuse and a continued war against flies constitute the main prophylactic measures against helminthic diseases.

72. The war against flies was strengthened during 1939 by a ban on the use of raw manure in the urban areas. The use of manure rendered non-attractive to flies by processing is allowed.

(*e*) *Seasonal prevalence of diseases.*

73. The seasonal incidence of certain diseases is given in the histograms which show no change from previous years.

(*II*) *General measures of sanitation.*

(*a*) *Sewage disposal.*

74. There was no change during 1939 in the very unsatisfactory method of sewage disposal in Hong Kong, but it is hoped that a committee appointed by His Excellency the Governor to investigate the position will be able to put forward acceptable proposals and that these will be carried out. The seriousness of the situation and the urgent need for improvement cannot be over-emphasized in a port of the importance of Hong Kong where the major enteric diseases are prevalent.

75. The shortage of water makes it impossible at present to extend the water-carriage system generally throughout Victoria and Kowloon. Where such a system is employed untreated sewage is discharged direct into the harbour, a method which is open to grave objection on hygienic grounds.

76. Where the bucket system is used, and a survey reveals that there are 65,000 bucket latrines, the onus for delivering night-soil to the removal contractor rests on the house-holder who has to employ a sweeper privately for the purpose. The danger to the public health from a system so vulnerable to carelessness and abuse is obvious and a conservancy organization under the direct control of the Urban Council, or perhaps delegated to a contractor of repute, is an urgent necessity.

(*b*) *Refuse disposal.*

77. An average of 552 tons of refuse is collected daily on twenty-four lorries, each lorry averaging ten trips and twenty-three tons of load daily. The fleet of lorries requires to be increased by fifty per centum in order to deal with the work expeditiously and to prevent the accumulation of garbage in open baskets and in the streets which is at present inevitable. The addition of 200 coolies to the cleansing staff during 1939 was a welcome step which is reflected in the increased cleanliness of the town.

78. Refuse is at present used for reclamation purposes but the question of adopting the Indore process of treatment, at least for part of it, is being investigated. Although the refuse has but little value for reclamation, it may well prove entirely useful as a fertilizer.

(*c*) *Drainage.*

79. Permanent anti-malarial drainage costing $17,580 and general drainage costing $168,583 was carried out by the Public Works Department.

(*d*) *Water supplies.*

80. The enormous increase in the population severely taxed the supply during the year necessitating a reversion to the intermittent system. The daily consumption of water per capita is surprisingly high, being approximately fifteen gallons based on an estimated population of 1,750,000.

81. Regular examination of the water supply showed that a satisfactory standard of purity was maintained.

(*e*) *Domiciliary visiting and inspections.*

82. This work was carried out by health officers and sanitary inspectors as in previous years. There was no change in the organization mentioned in last year's report whereby sanitary inspectors worked under the control of the chairman, Urban Council. But, with the arrival at the end of the year of a deputy director of health services, steps to reorganize the system were immediately taken and arrangements are now advanced for the transfer of the inspectorate to the Medical Department where, under the direct control of the health officers, they will be able more effectively to use their training and experience in the promotion of hygiene generally in the Colony.

83. In the urban areas there are 23,728 Chinese-type houses, most of them having three storeys.

229,385 floors were cleansed with kerosene oil emulsion during the year.

(*f*) *Offensive trades.*

84. During the year 187 premises were licensed for offensive trades in Kowloon and Hong Kong. The trades were as follows:—

Table IX.

	1938.	*1939.*
Bone boiling and storing	20	20
Chromium plating	5	6
Cleaning and storing of shark's fins	27	26
Fat boiling and soap making	40	41
Feather drying, cleaning, sorting	14	16
Hair drying, sorting	6	5
Lard boiling	2	2
Manganese crushing and battery manufacture	34	32
Packing of skins and hides	1	1
Pig roasting	23	21
Rag sorting and packing	10	9
Resin boiling	2	2
Tanneries	6	6

85. The making of lamp-black was added to the list of offensive trades but otherwise there is nothing to add to previous reports.

(III) School Hygiene.

86. The schools of the Colony are controlled by the Education Department, and may be grouped into three categories :—

	Number of schools.	*Number of pupils in attendance.*
(a) Government schools	21	4,705
(b) Schools in receipt of a grant from Government	19	9,681
(c) Private schools subsidized and unaided ...	1,251	102,076

87. With few exceptions, the Government and grant schools are conducted in buildings specially planned for school purposes. Reports from health officers and from private practitioners show that these schools are generally satisfactory in matters of hygienic importance.

88. The vast majority of private schools are conducted in tenement flats or in buildings that were never intended to be used as schools, and most of them leave much to be desired from a health point of view. Children are taught at these schools from their earliest years of school life, or at a period when they are most likely to be affected by unhygienic circumstances. Plans to improve health standards will become effective in 1940 as the result of legislation enacted in 1939.

89. The school hygiene branch is advisory to the Education Department on matters relating to the health of school children. Its staff consists of one health officer, two Chinese health officers, one sanitary inspector (appointed in September) and five nurses. Two members of the medical staff and one nurse are engaged in other duties during part of each week, namely, the conduct of ophthalmic clinics at Government hospitals.

90. The main duty of the school hygiene branch is the inspection of premises proposed for school purposes: such inspections are followed by reports to the Education Department indicating whether premises are suitable or not, or stating the circumstances under which they ought to be registered as schools. During the latter part of the year, a number of visits were made to existing schools—the total number of inspections being 1,416.

Plans to include all existing schools in the system of inspection and report during 1940 are complete.

91. Legislation affecting the hygienic control of schools was revised during the year, and an improved set of health regulations became effective on the 1st of January, 1940. It will be applied by the Education Department to all new schools, and, as time goes on, to all existing schools.

92. The school hygiene branch undertakes the examination of scholars attending Government schools, and, where necessary, their care at general and special clinics. 5,887 examinations (including re-examinations and visual tests) were made during the year.

93. Dental disease forms the largest group of defects. Plans are in readiness for the establishment of a school dental service whenever funds permit.

94. Short-sight is next in frequency. A scheme for the care of myopes has been in existence for some years. All pupils attending Government schools are examined subjectively, and selected cases are examined by refraction, and, if necessary, provided with spectacles.

95. Attendances at the school clinics were as follows :—

Table X.

Ellis Kadoorie general clinic	1,899
Violet Peel Health Centre	404
Yaumati general clinic	655
Special refraction clinic	464
Ear, nose and throat clinic	270

96. The nurses paid 204 visits to the homes of school children to advise parents about minor ailments.

97. 7,860 anti-cholera inoculations and 527 vaccinations against smallpox were carried out during the year.

98. Physical education has been greatly extended in the Government and is spreading among the vernacular schools.

In the Government schools, all postural defects are referred to the supervisor of physical training who makes every effort to give these cases special attention. A system of recording physical measurements three times in each session has been introduced.

99. The system of the teaching of hygiene adopted by private schools has been the subject of adverse criticism, and the education authorities are co-operating in the establishment of a modern system.

(IV) Labour conditions.

100. The conditions, referred to in last year's report, governing the employment of labour in the New Territories, or by Government departments, were more generally adopted during 1939 but, otherwise, no improvement can, unfortunately, be reported nor can any substantial improvement be expected until some control over immigration from China is exercised and regulations covering the employment of labour are introduced. While labour employed by Government and firms of repute is generally well cared for it must be admitted that the majority of the Colony's working class exist under deplorable conditions at rates of pay which can hardly be regarded as a "living wage". As an example of the attitude adopted by many employers towards their labour, it may be recorded that recently a contractor, employing several hundred coolies, on being asked what the sick rate was amongst them replied that there was none as all sick coolies were dismised!

101. The introduction of a code to prevent exploitation of the cheap labour market to the detriment of the health of the Colony's working classes, is a matter of great urgency and it is hoped it will not be much longer delayed.

102. While it is difficult to form an accurate estimate of average wages and hours of work, it may be confidently stated that they follow generally the figures given in last year's report.

(V) Housing and town planning.

103. The conditions described in the 1938 report regarding housing and overcrowding continue unabated and no marked progress can be expected until more normal conditions are re-established and Hong Kong's population reverts to approximately pre-"Incident" figures. While tenements are literally packed with human beings, who pay dearly for sleeping space, thousands sleep on the streets and in insanitary hovels on the outskirts of the towns. Those who are found to be destitute are removed to refugee camps and those of the hovel occupants who are self-supporting are being given an opportunity to build temporary houses to a modest standard, under the control of the Medical Department, on sites set aside for that purpose. Such squatters' camps will, of course, be demolished when normal conditions are restored.

104. A Town Planning Committee was appointed in 1939 but no marked achievement can, as yet, be placed to its credit. It is hoped that progress will be made when the Colony's town planning expert returns from home leave in 1940.

105. Building is controlled by the Public Works Department and in the past the Health Division of the Medical Department was consulted about plans purely as a matter of courtesy and had no guarantee that its recommendations were adopted.

106. It is satisfactory to record that by the instructions of His Excellency the Governor, all plans of Government buildings must now have the approval of the deputy director of health services before building commences. An extension of this system to ensure reference of plans for private buildings to the health officers concerned is desirable.

107. The appended table gives details of improvements effected in connexion with housing during the year.

Table XI.

Nature of work.	No. in 1938.	No. in 1939.	By whom supervised.
1. Obstructions removed from open spaces	1,109	2,520	Sanitary Department.
2. Obstructions to light and ventilation removed	1,936	1,946	do.
3. Houses demolished (domestic)	50	45	Public works Department.
4. Houses demolished (non-domestic) ...	7	12	do.
5. Houses erected (domestic)	184	345	do.
6. Houses erected (non-domestic)	37	164	do.
7. Houses reconstructed (domestic)	184	121	do.
8. Houses reconstructed (non-domestic).	13	27	do.

(VI) Food in relation to health and disease.

108. The new Central Market in Victoria was completed and must be regarded as a sanitary measure of major importance.

Unfortunately, the menace from hawkers of foodstuffs continued but it is hoped to introduce legislation to control this trade during 1940.

109. The legislation enacted during the cholera epidemic last year is still in force nor can there be any prospect of its relaxation as long as present conditions continue.

110. Under the Adulterated Food and Drugs Ordinance the following analyses were carried out during the year:—

Table XII.

Food or drug.	No. of samples analysed.	No. found adulterated.
Butter	23	—
Cheese	15	1
Coffee	31	—
Fat	3	3
Milk (pasteurized)	34	—
Milk (condensed)	44	—
Milk (fresh)	154	3
Milk (unsweetened, evaporated)	35	—
Milk (dried)	5	1
Peanut oil	18	1
Powder boracic acid	14	—
Powder quinine pills	2	2
Tea	58	8
	436	19

111. The following foods were seized and destroyed:—

Table XIII.

Foods.	Weight.
Fish	3¼ lbs.
Fruit	2 lbs.
Fruit juice	20½ pints
Tea	246 lbs.
Vegetables	312 lbs.

112. The following foods were voluntarily surrendered and destroyed:—

Table XIV.

Foods.	Weight.
Bread	1 lb.
Cereals	66 lbs.
Condiments	95./1/8 lbs.
Confectionery	1,430 lbs.
Cheese	240 lbs.
Eggs	2 packets 1,100 lbs.
Fish	670¼ lbs.
Flour	407 lbs.
Fruit	1,637 lbs.
Fruit juice	100 lbs.
Meat	6,527.1/16 lbs.
Milk (condensed, powder and evaporated)	15,887¾ lbs.
Tea	1,120 lbs.
Vegetables	622 lbs.

113. While every endeavour has been made by the management of the large dairy farm near the Queen Mary Hospital to overcome the dangerous fly-nuisance, the situation referred to in last year's report, although improved, cannot be regarded as satisfactory. The presence of cattle, manure and feeding material almost inevitably attracts flies and leads to fly-breeding, and the removal of the dairy farm to a more suitable site appears to be the only solution of the problem. Such a site is now under consideration.

114. The amount of foodstuffs grown in the Colony is very small in comparision to requirements and, in order to explore the possibility of an increase, a special commissioner was appointed in 1939 to investigate the question of agricultural development in the New Territories. His report is now under consideration by Government.

115. There was a marked increase in the number of animals slaughtered at the abattoirs during 1939 as may be seen from the following table.

Table XV.

	Cattle.	Sheep and goats.	Swine.
1938	78,277	15,657	510,297
1939	114,534	21,129	607,855

116. The position in regard to food and deficiency diseases was under investigation during the year by the Nutrition Research Committee appointed in 1938. Its report for the year is given as Appendix I.

(B) Measures taken to spread the knowledge of hygiene and sanitation.

117. An improved system for the teaching of hygiene in schools was under the consideration of the Education Department and the School Hygiene Branch of the Medical Department towards the end of the year and it is hoped that modern methods of teaching this important subject will be introduced in 1940. This will apply especially to the private schools which have been open to criticism in this respect in the past.

118. Very useful work is being carried out in spreading knowledge of hygiene by the nurses from health centres who spend their afternoons visiting the homes of mothers and children and advising them on mothercraft and personal and domestic hygiene. Lectures and demonstrations are also given at the centres by medical officers and nurses. Midwives, also, in addition to their obstetric duties, are proving a valuable means of improving conditions in the homes of their patients.

119. Propaganda is carried out through broadcasting and the press and by means of pamphlets and posters.

Lectures on hygiene are given by members of the Medical Department and by the staff of the Chinese public dispensaries. A course of ten lectures on hygiene is given each year to school teachers in training at the University and this should eventually have beneficial results.

120. With the forthcoming transfer of the sanitary inspectorate to the direct control of the Health Division of the Department, it will be possible to make use of the inspectors' training and knowledge in spreading the principles of hygiene amongst the population.

(C) Training of sanitary personnel.

121. There was no change in the system of training outlined in the Report for 1938 but it is hoped that certain improvements will be effected during 1940.

122. An examination for the Sanitary Inspector's Certificate of the Royal Sanitary Institute was held in Hong Kong in 1939 and thirteen candidates were successful.

(D) Recommendations for future work.

123. In connexion with items enumerated under this heading in the Report for 1938 the following information may be of interest:—

(*a*) The deputy director of health services arrived in the Colony at the end of 1939 and, now that steps are advanced for the transfer of the sanitary inspectorate to the direct control of the health officers, the much-required reorganization of the health services of the Colony and improvement in the training of sanitary personnel can take place.

(*b*) Two Chinese health officers were appointed in 1939 and arrangements were made to appoint two European health officers early in 1940. This increase in staff will allow of the division of the island area into three health districts instead of two, thus enabling health officers to devote more personal attention to the many problems with which they are faced.

(*c*) There is no improvement in the main sewerage system and in the case of Kowloon progress must await the report of experts who are expected from England to advise on reclamation work at the typhoon shelter.

(*d*) There is no change in the system of refuse disposal but the adoption of the Indore process for the conversion of the town's refuse into useful fertilizer is under consideration.

(*e*) The housing problem appears to be no nearer a solution or even amelioration.

(*f*) It is expected that the Albany Road Reservoir will be covered and arrangements made for the filtration and sterilization of water in the Pokfulam area during 1940.

(*g*) Arrangements have been made to bring a school dental service into operation early in 1940. To begin with, this service will be confined to Government schools.

(*h*) The purchase of a suitable building on a suitable site near the University for the purpose of housing a large welfare centre and a school of hygiene came under the consideration of Government towards the end of the year. Such an institute, by providing post-graduate training in public health, would be of inestimable value in providing adequately trained staff for the Colony's health services.

(*i*) One new health centre was opened in the western district of Victoria in July, 1939, and is performing excellent work.

(*j*) The question of transferring the Chinese public dispensaries, now conducted on a semi-charitable basis, to the Medical Department with a view to their eventual development as health centres has been considered and it is expected that steps will be taken to carry out the transfer of certain of the more suitable centres in 1940.

(*k*) Owing to the unsatisfactory condition of the present infectious diseases hospital at Kennedy Town, the provision of a new hospital to replace it is a matter of great urgency, calling for priority in Government's building programme.

(*l*) A proper system of nightsoil collection and disposal is overdue and its introduction should not be allowed to await a devastating cholera epidemic.

The present system of disposing of water-borne sewage by discharging untreated into the harbour is so manifestly contrary to the principles of hygiene that Government would be justified in engaging the services of a consulting engineer to advise on a problem which is a constant danger to the health of the community.

It is, of course, appreciated that the disposal of nightsoil cannot be regarded as really satisfactory until an adequate supply of pipe-borne water is provided for flushing purposes and all bucket latrines are abolished within the urban areas.

(*m*) Health visitors in the United Kingdom are fully trained nurses and midwives who must possess in addition a health visitor's certificate. Facilities for training in health visiting are not at present available in Hong Kong, a deficiency which should be remedied if this essential part of the health services is to be developed in a satisfactory manner. The appointment of a nursing sister, with a health visitor's certificate, to the post of superintendent of health visitors is recommended. She would be responsible for the training and supervision of all health visitors in the Colony.

IV.—Port Health Work and Administration.

124. In 1939, 3,664 British vessels entered and cleared the harbour as compared with 3,996 in 1938. To this number must be added 3,743 foreign vessels, which had totalled 3,132 in the previous year. The figures for river steamers, launches and foreign trade junks were 7,614, 960 and 7,900 respectively. The total tonnage fell from 29,530,384 in 1938 to 28,840,566 in 1939. 3,698 inward bound ocean-going vessels were boarded by port health officers.

125. Vessels from Canton, Macao and West River ports are visited when information is received of sickness or deaths on board. Periodic inspections of these vessels are carried out to check the vaccinal condition of incoming passengers and crews, as well as to promote higher standards of cleanliness on board and to decide on the necessity for deratization.

126. Owing to the incidence of cholera in Hong Kong and Macao, incoming and outgoing passengers from and to Macao were inspected from 16th June to 16th November. From 28th June, 1939 to 12th October, 1939, passengers proceeding to Macao were required to possess "official" cholera immunization certificates.

127. During the year seventy-six special visits were made to ships to see people suffering from infectious diseases, etc., nineteen out of thirty-eight bodies landed from vessels were examined at the public mortuary.

128. 1,988 bills of health were issued during the year.

129. Eight "infected" ships were quarantined in 1939 and ten "healthy" vessels carrying deck passengers were kept in quarantine for observation for varying periods. Excluding arrivals from Macao, 373,708 persons were medically examined on arrival, making an average of 1,024 a day.

130. 115,599 people were inoculated against cholera by port health officers, owing to the epidemic conditions prevailing in Hong Kong and neighbouring ports.

131. The Vaccination Ordinance of 1923 is rigorously enforced, and all passengers arriving in Hong Kong have to be vaccinated, unless they either show satisfactory evidence of vaccination against smallpox within the previous five years, or have suffered from smallpox. 67,360 persons were vaccinated on board ship or at the vaccination centre staffed by the vaccinators working under the port health officers.

132. The Quarantine (Measures on Departure) Regulations, 1939, and the Quarantine (Measures on Arrival) Regulations, 1939, provide for the medical inspection of outward bound passengers, when deemed advisable by His Excellency the Governor-in-Council, and for the specification of conditions concerning the validity of inoculation and vaccination certificates in the case of both incoming and outgoing passengers.

133. All emigrants from the Colony are medically examined, and vaccinated if necessary, before leaving. 80,611 emigrants were examined in 1939, of whom 79,967 paid for their passages while 644 had their passages paid for them. 401 emigrants were rejected, 16,107 were vaccinated.

134. The following table shows the number of emigrants leaving Hong Kong and the proportion proceeding to the Straits Settlements during the past five years:—

Table XVI.

	1935	1936	1937	1938	1939	Average for period
To Straits Sattlements	102,674	101,499	165,177	61,405	30,170	92,185
Total to all ports	158,300	164,077	245,488	124,186	80,611	154,532

135. The fumigation bureau of the port health authority is responsible for disinfecting ships and ridding them of rats. Deratization certificates and deratization exemption certificates numbered 109 and 110 in 1939, as compared with ninety-one and eighty-eight in 1938. The details of the methods employed in the disinfection and disinfestation of ships are given in the report of 1937.

136. Sanitary control of aerial traffic is enforced under the Quarantine and Prevention of Diseases Ordinance, No. 7 of 1936, and regulations governing air-craft which were issued in 1937.

137. Six companies make regular calls at Hong Kong. No cases of infectious disease were discovered in passengers or crews arriving by air, nor were any reports received of such illnesses occurring in persons who had left Hong Kong by air.

138. This table gives details of Hong Kong's air-traffic:—

Table XVII.

Nationality of aircraft	Arrivals			Departures		
	Aircraft	Passengers	Crew	Aircraft	Passengers	Crew
American	42	420	336	42	386	336
British	145	276	290	148	315	296
Chinese	236	2,436	950	237	1,462	954
French	52	468	210	54	383	218
German	4	11	20	4	4	20
Total	479	3,611	1,806	485	2,550	1,824

V.—Maternity and Child Welfare.

139. The Colony provides 390 maternity beds but the majority of cases are accommodated in private maternity homes which are periodically inspected by the supervisor of midwives who is a qualified lady medical officer. Ninety-four inspections were carried out during the year and, while many homes were found not to be entirely satisfactory, it can be recorded that much improvement has resulted from the supervisor's visits and recommendations.

140. One of the difficulties encountered in dealing with maternity cases concerns the stay in hospital or nursing home after delivery as, largely owing to economic reasons, the majority leave by the third day. A recent survey of 891 cases delivered in a group of nursing homes over a certain period gave the following figures:—

20 patients left on the day of delivery.

43 patients left on the first day after delivery.

241 patients left on the second day after delivery.

323 patients left on the third day after delivery.

189 patients left on the fourth day after delivery.

25 patients left on the fifth day after delivery.

37 patients left on the sixth day after delivery.

8 patients left on the seventh day after delivery.

Only five patients stayed more than seven days. Every endeavour is being made to persuade patients to stay in the nursing homes for a minimum of seven days after childbirth to enable them to regain their strength before returning to their own homes, usually in overcrowded tenements.

141. At the end of the year there were 765 names on the Midwives Register. The supervisor of midwives inspected their bags, appliances, registers and premises when visiting them. Fifty-three candidates satisfied the examiners at the examinations carried out under the auspices of the Midwives Board.

142. The Medical Department employs sixteen midwives who are posted to government and Chinese public dispensaries as detailed in last year's report. They continued to carry out extremely useful work not only as midwives but also as missionaries of hygiene in the homes of their patients.

143. Visits to expectant mothers numbered 2,339 and to puerperal mothers 19,731. During the year under review 19,544 mothers attended demonstrations on the feeding and general care of babies.

144. 3,666 mothers were visited during the year, an increase of 804 on the figure for 1938. The majority of the mothers visited had enjoyed normal labours, but this number comprised eighteen abortions, twenty miscarriages, forty premature births and sixty-three still-births. In ninety-six instances the mothers were taken by ambulance to hospital, usually on account of delayed labour and usually after the medical officer from the nearest dispensary had been called in. Apart from deaths amongst those complicated cases, only three mothers attended by Government midwives died.

145. A new welfare centre was opened in May at the former Government Civil Hospital, Queen's Road in the western district of Victoria and by the end of the year the centre was being attended by an average of seventy cases daily.

146. Arrangements were completed for the transfer of the Kowloon Centre early in 1940 to a more satisfactory building, which was formerly the Central British School.

147. While child welfare work is carried on at a large number of hospitals and dispensaries the following figures are confined to attendances at the welfare centres at Wanchai, Kowloon and Queen's Road.

148. The total number of attendances at the three centres during the year was 161,157 and, for purposes of comparison, it may be stated that 153,283 attendances were received at Kowloon and Wanchai, an increase of 29,237 over the 1938 figures. The average number of attendances at the three centres was 589 for each day in which they were open.

149. The average age of the infants at their first attendance was three months as compared with eight months in 1938. This appears to indicate increased confidence by the mothers in the work of the welfare centres.

150. Synthetic milk for the children and nursing mothers continued to be given and, in conjunction with approximately 300 meals given daily at the centres' soup kitchens, provided welcome nourishment to poor and badly-nourished women and children.

151. As recorded last year the Society for the Protection of Children provided, through the centres, free milk for the children of impoverished mothers.

152. About eighty per centum of infants required medical treatment on first attendance. The following were the most common diseases in the order given:—

Malnutrition, digestive disturbances, respiratory diseases, conjunctivitis, skin diseases, thrush.

153. During 1939, 7,723 anti-cholera inoculations were given to mothers and older children and 1,086 vaccinations were performed against smallpox at the health centres.

154. Of 270 bloods tested, thirty-nine gave a positive Wassermann reaction.

155. 3,126 home visits were paid by nurses from the centres during the year to the homes of babies attending.

156. Special gynaecological clinics for Indian women were continued during the year. The following table gives details of numbers:—

Table XVIII.

Name	Clinics held	Cases			Average attendance
		New	Revisits	Total	
Stanley Jail Indian Clinic	45	68	550	618	13.7
Kowloon Hospital Indian Clinic	51	213	680	893	17.5
Violet Peel Indian Clinic	50	227	1,005	1,232	24.6

157. The Eugenics League continued its activities and, as can be seen from its report—Appendix III—has made steady progress.

There are now three main clinics carried on in close association with other welfare work. The number of mothers availing themselves of the facilities provided increased from 291 in 1938 to 574 in 1939. The average age of the mothers advised was thirty-one and pregnancies amongst them averaged six.

Clinics have also been started at three refugee camps.

The necessity for an extension of the work of this League amongst an impoverished population where the infantile mortality rate is approximately one in three is so obvious as to need no comment.

N. C. MACLEOD,
Deputy Director of Health Services.

VI. Hospitals, Dispensaries and Social Hygiene Clinics.

158. Return B appended to this report provides details of Naval, Military, Government Civil, Chinese and private hospitals in Hong Kong. Reference has been made in an earlier section of this report to the findings and recommendations of the Technical Committee for the Reorganization and Improvement of Existing Official Hospital and Clinical Facilities of the Colony of Hong Kong and these are given as Appendix II.

159. Certain important additions to hospital accommodation effected during 1939 are worthy of record.

(*a*) The levelling of the site for the new infectious diseases hospital and, later, the new general hospital on the Kowloon Medical Centre made good progress and should be completed in the early autumn of 1940.

(*b*) A small six-bed infectious diseases block was opened early in 1939 at Kowloon Hospital to house cases most in need of isolation.

(*c*) Accommodation was provided for the staff and for sixty-nine female patients in the former sisters quarters at the Government Civil Hospital and effected a very great improvement in the overcrowded condition of the Mental Hospital.

(*d*) New quarters for the matron and midwives in training were provided on the roof of the Tsan Yuk Government Maternity Hospital. Hospital huts were built in all four of the urban camps for refugees, destitutes and internees, each capable of taking twelve children, four women and two men patients.

(*e*) Temporary matsheds were built with Government funds in the garden of the Kwong Wah (Chinese) Hospital to take the place of marquees borrowed from the Military Authorities to house some two hundred patients overflowing from the wards.

(*f*) Government purchased for the sum of $50,000 from the Tung Wah directorate, a dilapidated building built at the beginning of the present century as a smallpox hospital but used for some time past as a leper settlement. This enabled Government to take over complete control of the settlement at the beginning of 1939 and greatly facilitated its management by the Medical Department.

(*g*) A start was made on the construction of decontamination centres at the Queen Mary and Kowloon Hospitals as a precautionary measure against the possibility of local hostilities and gas warfare.

(*h*) Mention might be made here appropriately to the medical defence scheme for the Colony designed to bring into being at the shortest possible notice arrangements for the collection, transport and treatment of casualties from high explosive, incendiary or gas bombs if the Colony became involved in hostilities.

To this end, plans were drawn up for the conversion of existing Grade A hospitals into casualty clearing hospitals and for utilizing the University buildings, large hostels and other places as relief hospitals, schools and similar institutions being earmarked for use as first aid posts. The recruiting and training of personnel for the various tasks and the provision of reserve stores of ambulances, stretchers, instruments, drugs, dressings, oxygen, and so on, went, of course, hand in hand with these arrangements.

(*i*) An agreement was reached with the Trustees of the War Memorial Nursing Home for the admission of Government officials under the "panel" system to be introduced at the beginning of January, 1940.

(*j*) In accordance with the recommendation contained in the Interdepartmental (Athlone) Report of the Ministry of Health and Board of Education, the ninety-six hour fortnight was introduced into all Government hospitals during the year under review and encouragement was given by Medical Headquarters to both Government sisters and nurses to form a Whitley council which, it is hoped, will help to smooth over difficulties between the staff and administration to the benefit of all concerned—not excepting the hospital patients and the community.

(*k*) An important milestone in the development of the medical services of this Colony in relation to the general public was reached during 1939 when an Almoner's Division of the Medical Department was inaugurated in July. As yet the staff is limited to an almoner (Miss M. S. Watson, B. Sc.) trained in England and two Chinese assistant almoners trained locally by the almoner. A report on the six months' work of this division is appended and is deserving of careful study—*see* Appendix IV.

The almoner was appointed to carry out the following duties as far as time and staff permitted :—

Duties. The main duties of the post are as follows :

(1) *Administrative.*

(i) Prevent attendance of cases capable of being dealt with by private general practitioners.

(ii) Assess payments by patients.

(iii) Collect fees from in-patients in paying wards.

(iv) Ensure smooth working of any contributory scheme which may be established.

(2) *Co-operation with medical staffs of Government hospitals.*

(i) Arrange facilities for convalescence in suitable cases.

(ii) Arrange for supply of surgical instruments and see that they are kept in order by patients to whom issued.

(iii) Arrange for attendance of nurse at patients' homes if needed.

(iv) Assist patients in matter of diet.

(v) Report to medical staff home circumstances of patients and their history.

(vi) Deal with patients' difficulties at home.

(vii) Facilitate carrying out of treatment; follow up cancer-radium cases, etc.

(viii) Investigate malnutrition and assist in public health education.

(ix) Serve as link between patients and relatives and staff.

(3) *Co-operation with outside bodies.*

(i) Co-operate with Public Health Authorities in tuberculosis, leprosy, etc.

(ii) Co-operate with School Authorities in children of school age.

(iii) Enlist help of charitable societies in necessitous cases.

(*l*) A start was made during 1939 on a costing system for the Government hospitals in order to ascertain the approximate cost of each in-patient and to check waste.

Preliminary figures obtained to date indicate a wide variation and suggest certain channels to eliminate waste.

(A) *Queen Mary Hospital.*

160. Comparative tables are given to show the increase in the amount of work being carried out at the Queen Mary Hospital where Dr. D. J. Valentine, M.C., acted as medical officer in charge for most of the year.

Table XIX.

	1938	*1939*
(i) *In-patients* :—		
General	10,117	9,564
Maternity	702	1,085
Total	10,819	10,649
Daily average	362	451
Chinese	7,477	7,144
European	1,219	1,061
Indian	1,260	1,259
Russian	44	29
Other nationalities	177	71
Treated by Government officers	8,677	8,150
(ii) *Treated by University staff* :—		
Medical	562	474
Surgical	450	509
Gynaecological	428	431
(iii) *Nationality of maternity cases* :—		
British	75	62
Chinese	571	963
Indian	41	46
Japanese	2	4
Portuguese	8	4
Russian	2	1
Other nationalities	3	5

(iv) *Operations* :—		
By Government officers	1,269	1,468
University staff	1,162	1,188
Total	2,431	2,656
(v) *Deaths* :—		
General in-patients	686	820
Maternity cases	3	10
Total	689	830
Still-births	30	27
(vi) *Mortality rates per thousand* :—		
General in-patients	67.8	85.7
Maternity cases	4.0	9.2
Combined	63.7	77.9

161. In 1939, in-patients in Government hospitals on the Island numbered 16,079. This compares with 10,819 in 1938. The daily average was 253 in 1937, 362 in 1938 and 791 in 1939. A corresponding increase occurred in the number of out-patients treated in certain of the more important Government clinics during the year. In this connexion, the increase of work at the welfare centres has already been noted in a previous section.

162. The relevant figures for new cases were as follows :—

Table XX.

OUT-PATIENTS (NEW CASES) QUEEN MARY HOSPITAL.

	Queen Mary Hospital	Former Government Civil Hospital		Total in 1938	Total in 1939
		C. block	Queen's Road clinic		
General	10,506	51,642	—	44,575	62,148
Medical (University) Unit	—	—	1,644	2,501	1,644
Surgical (University) Unit	—	—	2,912	4,515	2,912
Gynaecological (University) Unit	—	—	1,934	2,783	1,934
Children (University) Unit	—	—	583	—	583
Eye clinic (Government)	1,229	3,189	—	3,622	4,418
Venereal diseases (Government)	—	1,888	—	1,627	1,888
Dental clinic	1,063*	—	—	—	1,063
Ear, nose and throat clinic	218	—	1,515	—	1,733
Ante-natal clinic	1,492	—	—	—	1,492
Total	14,508	56,719	8,588	59,623	79,815

* Including fifty-two general anaesthetics.

163. Two innovations at the Queen Mary Hospital during the year under review are worthy of note. By agreement with the Faculty of Medicine of the University of Hong Kong (as sanctioned by the Senate), the responsibility for the instruction of pupil midwives and nurses in midwifery in the maternity department of the hospital was handed over to the Professor of Obstetrics and Gynaecology of the University. The scheme involved the transferrence of the control and supervision of the twenty-bed ward for third class patients to the University Obstetrical Unit. It enables the care of ante-natal cases, and the theoretical and practical instruction in this ward to be carried out as one complete unit. Although it was arranged that this scheme should be tried for a period of a year in the first instance, the satisfactory results already obtained in securing continuity and better correlation between theoretical and practical work afford good grounds for the belief that the arrangement will be continued on a permanent basis at the end of the trial stage.

164. The second change introduced during the year was to hand over the control of a children's ward of 13 cots and 8 beds to the Medical Unit of the University.

A Chinese medical officer who had specialized in paediatrics was appointed by the University to take charge of this ward under the supervision of the Professor of Medicine. The need for specialized instruction in paediatrics in a country with the high birth and infant mortality rates that prevail in Hong Kong hardly needs stressing. There is reason to believe that this scheme will also benefit both medical students and the children affected and that it will be possible to confirm the arrangement at the end of the period of trial.

165. The above changes may not appear to be of great importance but they are indicative of the spirit of co-operation that happily exists between the authorities of the University of Hong Kong and the Government Medical Department.

(B) *Kowloon Hospital.*

166. Kowloon Hospital was seriously overcrowded throughout the year, as can be seen by referring to the subjoined table.

This hospital has 135 official beds, but many more are usually required to cope with the sick and accidents applying for care. The relevant figures for 1938 and 1939 are tabulated.

Table XXI.

(i) *In-patients* :—	*1938*	*1939*
General	3,524	3,924
Maternity	1,905	2,131
Total	5,429	6,055
Daily average	139	149
Chinese	2,509	2,845
European	661	689
Indian	17	26
Russian	66	38
Other nationalities	271	326
Treated by Government officers	5,429	6,055

	1938	1939
(ii) *Nationality of maternity cases* :—		
British	109	115
Chinese	1,750	1,956
Indian	10	25
Japanese	—	—
Portuguese	17	15
Russian	—	3
Other nationalities	19	17
(iii) *Operations* :—		
By Government officers	1,253	1,133
(iv) *Deaths* :—		
General in-patients	292	334
Maternity cases	3	7
Total	295	341
Still-births	34	53
(vi) *Mortality rates per thousand* :—		
General in-patients	82.86	85.11
Maternity cases	1.57	3.28
Combined	54.33	56.31

Table XXII.

OUT-PATIENTS (NEW CASES) KOWLOON HOSPITAL.

	1938	1939
General	34,107	42,511
Ear, nose and throat clinic	1,017	1,105
Eye clinic	1,900	3,221
Gynaecological clinic	—	564
Venereal diseases	1,163	1,302
Ante-natal clinic	2,254	2,733
	40,441	51,436

(*a*) *Anaesthetics.*

167. The Government medical officer acting as a specialist in anaesthetics continued to devote much of his time to this aspect of medical work during the year and to the training of medical students and a relief to take over during his absence from the Colony.

168. Owing to the outbreak of war in September, 1939, it became increasingly difficult and expensive to obtain supplies of evipan and this very useful form of anaesthesia had to be reserved for a relatively small number of specially selected cases.

169. Comparative figures for anaesthetics administered in the two main Government hospitals are given below, the figures in brackets being those in 1938 :—

Table XXIII.

	Queen Mary Hospital		Kowloon Hospital		Total	
Chloroform	15	(16)	5	(18)	20	(34)
Ether alone or + ethyl chloride	922	(811)	571	(486)	1,493	(1,297)
Ether + evipan induction ...	90	(99)	161	(120)	251	(219)
Nitrous oxide + oxygen	97	(47)	2	(46)	99	(93)
Spinal	437	(237)	1	(—)	438	(237)
Evipan	310	(501)	376	(552)	686	(1,053)
Other methods (including local)	230	(195)	17	(31)	247	(226)
Total	2,101	(1,906)	1,133	(1,253)	3,234	(3,159)

(*b*) *Radiology, electro-therapeutics and massage.*

170. The staff of this sub-department was depleted during the year owing to three members being absent on home leave. In addition, the Massage Section suffered a severe loss on the 1st of February, 1939, by the death of Miss M. H. Hughes, one of the two masseuses. Miss A. M. M. E. Halliday arrived in the Colony on the 27th September to fill the death vacancy.

Owing to shortage of staff and to the heavy demand for films for other purposes, it was decided in May, 1939, to suspend the routine radiological examination of all entrants into the Government service and, instead, to rely upon the more usual clinical examinations until the end of the probationary period of service and then only to confirm the absence of tuberculous lesions by skiagrams.

171. The dislocation of shipping and interruption in the regular shipments of films from the Crown Agents during the last four months of the year resulted in a shortage of films and many investigations had to be forgone.

172. Data for the past four years are given in Table XXIV.

Table XXIV.

	1936	1937	1938	1939
Massage and electrical treatment	10,465	11,775	19,680	16,248
Radiological examinations	5,511	6,690	9,703	10,231
Films exposed	9,193	12,784	15,272	18,631

The radiological examinations referred to in the above table were carried out at the request of the following :—

Government medical officers (in-patients)	4,374
Government medical officers (out-patients)	3,176
Officers of the University Units	2,101
Medical officers at Chinese hospitals and private practitioners	580

173. The radium which had been generously loaned to the Government Medical Department by the Trustees of the Granville Sharp Estate was returned to the Trustees on the 23rd of March, 1939.

Fifty-two and a half milligrammes of new radium were purchased in "cells" holding 7.5 milligrammes and were brought into use at the Queen Mary Hospital on the 28th of September, 1939. The flexibility of this method of packing which is a great improvement upon that previously held is such that, within the limits of the small amount available, any method of radium treatment can be undertaken.

174. When funds are available to effect further purchases—and it is to be noted that the price has risen very considerably since the outbreak of the European war—it should be possible to lessen the amount of "handling" of any individual case.

175. The radium now available has been used almost entirely for cancer of the uterus and for supplementary irradiation of surface cancer. Thirty-seven treatments were given, the supply being in use for 60 per centum of the time from the 28th of September to the 31st of December.

176. The installation of the deep X-ray therapy plant was completed in January, 1939, and was put into use in the following month. Treatment was given to some 149 cases. The physical measurement of the output could not be determined very accurately; but a start was made during the year to equip a radiation physics laboratory. Little could be done in connexion with the physical side of the work until the return to the Colony of Mr. D. F. Davies, M.A., of the University of Hong Kong who had kindly volunteered his services and who spent part of 1939 in special studies at the Royal Cancer Hospital, London.

177. Cases treated by radio-therapy included the following :—

Table XXV.

(i) *Malignant disease* :—

Nasopharyngeal carcinoma	17
Other cancer of upper air passages	12
Carcinoma of breast	16
Ditto—sterilization only	2
Carcinoma of uterine cervix	14
Carcinoma of body of uterus	2
Other carcinoma of female genital organs	7
Skin, epithelioma	2
Skin, basal cell carcinoma	1
Sarcoma, various	4
Bone tumours	2
Epithelioma of penis	2
Carcinoma of stomach (malignant peritonitis)	1
Lymphepithelioma	1
? Lymphosarcoma (? branchial carcinoma)	1

(ii) *Non-malignant* :—

Keloids	19
Hæmangiomata	7
Boils	7
Carbuncles of the face	8
Skin lessions, various	7
Sepsis, various	3
Salivary glands	2
"Hong Kong foot"	2
"Cystic hygroma"	2
Papilloma of tongue	1
Erosion of cervix	1
Sterilization	1
Pruritus ani	1
Spondylitis	1
Ethmoiditis	1
Myositis ossificans	1
Bromidrosis	1
Total	149

178. The majority of the cases of malignant disease were far advanced before they were sent for treatment, and only palliative results could be expected. Even in many of the cases which, from a consideration of the stage of the malignant process, could be considered hopeful, the general condition was so poor that the prognosis was very doubtful. In consequence, the recognized techniques of irradiation were modified in a large number of cases to avoid over-taxing the debilitated patient. Only one death occurred which was directly caused by the irradiation, an extremely feeble case of epithelioma of the palate.

(C) *Tsan Yuk Maternity Hospital.*

179. This hospital continued to maintain its record of service to the general public in 1939. The general administration is in the hands of the deputy director of medical services and the professional work is under the direct control of the professor of obstetrics and gynaecology, University of Hong Kong.

180. The activities of the hospital are indicated below, those in brackets relate to 1938 :—

Table XXVI.

(i) *In-patients.*

Remaining at end of 1938	36	(49)
Admissions in 1939	3,377	(2,400)
Total treated	3,413	(2,449)
Maternity cases	3,413	(2,096)
Deliveries	3,218	(2,272)
Maternal deaths	16	(10)
Maternal death-rate per 1,000 live births	4.7	(4.4)
Infant deaths	69	(88)
Still-births	99	(82)

(ii) *Out-patients.*

	New cases.	Return visits.	Total attendances.
Ante-natal	966 (575)	1,019 (489)	1,985 (1,064)
Infant welfare	746 (1,346)	372 (1,783)	1,118 (3,129)
Total	1,712 (1,921)	1,391 (2,272)	3,103 (4,193)

(D) *Infections Diseases Hospital.*

181. Mention has already been made of the progress made in 1939 on the preparation of the site for the much-needed new infectious diseases hospital on the Kowloon Medical Centre.

182. As in 1937 the accommodation in the existing Infectious Diseases Hospital at Kennedy Town proved too small and use had to be made of the upper portion of the Lai Chi Kok Relief Hospital where, in addition to 268 sick soldiers from the Ma Tau Chung Internment Camp, 234 cases of cholera were hospitalized.

183. Some 402 cases of cerebro-spinal meningitis, 392 of cholera, eighty-one of smallpox, forty-six of chickenpox and three each of measles and mumps received treatment in the Infectious Diseases Hospital proper. Thirty-one of the cases in question were carried over from the previous year.

184. Details of actual admissions of and deaths from the three more important diseases are as follows :—

Table XXVII.

Month.	Cerebro-spinal meningitis.	Cholera.	Smallpox.
January	30	3	14
February	71	—	19
March	91	—	18
April	62	—	10
May	41	48	5
June	25	150	1
July	11	2*	1
August	21	110	—
September	15	38	—
October	3	36	—
November	11	4	—
December	4	1	2
Total	385	392	70
Deaths	177	264	31
Mortality per 100 cases ...	44	67.3	38.2

*Upper wards of Lai Chi Kok Hospital opened and all cases admitted there instead of to the Infectious Diseases Hospital.

185. Details of the treatment of the cases of cerebro-spinal meningitis and of cholera are given in Appendix V.

(E) *Social Hygiene Centres.*

186. Following upon the receipt of representations from the Naval and Military Authorities with regard to the prevalence of venereal diseases in Hong Kong, His Excellency appointed a committee in 1938 to investigate and report upon the situation and to submit recommendations.

187. The report was completed early in 1939 and received very careful consideration by Government.

One of the decisions arrived at was to strengthen the medical services available to the general community and, more especially, to the prostitute class. Additional staff and accommodation will be available for this work early in 1940.

188. The activities at the existing social hygiene centres are indicated in the two succeeding tables :—

Table XXVIII.

NEW CASES TREATED IN 1939.

	Chinese		European		Indian		Others		Total	
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
Queen's Road (old Government Civil Hospital)	1,325	561	—	—	—	1	1	—	1,326	562
Violet Peel Health Centre	1,377	766	163	3	126	2	14	1	1,680	772
Kowloon Docks (Tsimshatsui)	1,995	579	210	1	80	—	35	1	2,320	581
Kowloon Hospital	537	753	5	4	—	1	2	—	544	758
Taipo Centre	9	5	—	—	10	—	—	—	19	5
Un Long Centre	2	1	—	—	3	—	—	—	5	1
Total	5,245	2,665	378	8	219	4	52	2	5,894	2,679

Table XXIX.

NUMBER OF ATTENDANCES IN 1939.

	Chinese		European		Indian		Others		Total	
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
Queen's Road (old Government Civil Hospital)	7,155	2,887	—	—	—	2	3	—	7,158	2,889
Violet Peel Health Centre	6,953	5,130	856	29	2,141	37	61	3	10,011	5,199
Kowloon Docks (Tsimshatsui)	9,721	3,112	1,398	16	1,619	7	91	11	12,829	3,146
Kowloon Hospital	2,582	4,596	34	24	—	1	4	—	2,620	4,621
Taipo Centre	84	86	3	—	443	—	—	—	530	86
Un Long Centre	26	2	—	—	177	—	—	—	203	2
Total	26,521	15,813	2,291	69	4,380	47	159	14	33,351	15,943

189. These totals compare with 5,379 male and 2,542 female (7,921 persons) treated in 1938 and 26,902 attendances of male patients and 12,349 of females (39,251 persons) in the same year.

190. The health officer, social hygiene, and his assistants took 13,887 specimens of blood for the Wassermann test and examined 5,289 smears for gonococci.

(F) *Dispensaries and health activities in the New Territories.*

191. In a Colony like Hong Kong which serves as a great entreport for the Far East and where more than three quarters of the population is to be found in an industrialized urban area, it is understandable that the rural areas forming the New Territories leased from China in 1898 for a period of ninety-nine years should have been treated as a cinderella up to comparatively recently.

192. The importance of agricultural development to a Colony so dependent as Hong Kong on imported foodstuffs has, however, received strong emphasis as the result of hostilities in neighbouring territories during the past year or so.

193. Guidance for the population of the New Territories in health matters was obviously of paramount importance.

To this end, early in 1939 Government approved the appointment of three whole-time Chinese sanitary inspectors under the supervision of a senior Chinese health officer and of the addition of three sanitary foremen and nineteen scavenging-coolies to the existing all too small cadre of twenty-eight coolies hitherto working under the two district officers. The role of these sanitary inspectors was largely educational, the object being to explain to the inhabitants of the townships and villages in the New Territories the benefits to be derived from a higher standard of hygiene.

194. In support of this health propaganda, steps were taken to organize the collection and disposal of household refuse, more particularly in the larger townships of Cheung Chau, Sai Kung, Shek Wu Hui, Tai O, Taipo, Tsun Wan and Un Long, three incinerators being constructed in the first three places. In addition, a number of public, salga latrines with fly-traps—similar to those used in large numbers in the West African colonies—were built in crowded areas where there existed an obvious need for such conveniences.

195. A start was made on the improvement of water supplies and the construction of hygienic wells.

196. Markets came in for a good deal of attention and steps were taken to earmark sites for Government markets at Shek Wu Hui, Taipo and Un Long. The system of allowing markets to be controlled by private individuals or guilds for their own profit is not in the interests of the community and it is to be hoped that the day of large, clean, public markets in the New Territories operated for the benefit of the people as a whole is not far off. The change over will not be effected without a certain amount of disturbance of vested interests, but it is believed that this difficulty will be overcome to a considerable extent by means of rural health boards, sanitary committees or similar bodies whose membership will include public-spirited citizens willing to put the common weal before their own private interests.

197. Mention of markets calls to mind the need for the control of foodshops and food factories in the New Territories which are springing up in all directions. The products of these factories are not only brought into the urban area for disposal but are even sent abroad to the Straits Settlements and elsewhere—hence the urgent need for some form of control as that which exists in the urban area proper.

Legislation to this end was drafted in 1939 and it is hoped may be enacted in 1940.

198. Housing also claimed attention and strenuous efforts had to be taken during the year to prevent large areas of the New Territories being covered with insanitary hovels constructed by refugees from across the border, and others.

Accommodation was offered in the Government camps for those who were homeless.

A reasonable measure of success attended these endeavours and most of the not unattractive Chinese villages retained their pleasing character instead of being swamped with matshed hovels.

199. Constant vigilance had to be exercised over Chinese contractors engaged in military and other works in the New Territories and the regulations for labourers lines were enforced when necessary. Legal measures had to be instituted against several contractors whose interest in the health of their labour force not infrequently left a great deal to be desired.

200. Periodical inspections of village school premises were carried out and improvements were effected with the cooperation of the officers of the Education Department.

201. Quarterly meetings were held at Medical Headquarters between the district officers, North and South, and the health authorities at which problems were discussed in a highly cooperative spirit with outstanding benefit to all concerned.

202. The influx of refugees across the border on many occasions following hostilities in the Po On and Wai Yeung Districts of Kwangtung gave rise to special difficulties which were met to a very large extent by directing the flow towards the Government rural refugee camps—with the valuable help of the officers of the Police Department—where many thousands were housed until they could be persuaded to return once more to their villages and townships.

203. Apart from health activities, medical (including maternity) work increased considerably as the result of the much larger number of persons at risk.

The two Chinese medical officers and their dressers and midwives working under the supervision of the senior Chinese health officer, New Territories, were busily engaged throughout the year as may be seen from the table given below.

204. One of these medical officers has his headquarters at Taipo where there is a dispensary and small maternity hospital accommodating five beds. This officer tours the northern and eastern section of the peninsula visting Government dispensaries at Fanling (the Lady Ho Tung) and at Sai Kung and villages off the main road.

205. The second medical officer has his headquarters at Un Long where there is also a dispensary—without beds—and visits Government dispensaries at Sham Tseng (the Ruttonjee) and Tai O and various townships and villages with the travelling dispensary.

206. The number of cases attended at the New Territory Government dispensaries rose from 89,918 in 1938 to 107,243 in 1939. St. John Ambulance Association continued to operate a number of dispensaries at various villages in the New Territories where no Government dispensary existed. The possibility of coordinating these activities under the general supervision of the Medical Department was advocated during the year and there is reason to believe that this may eventuate some time in the future to the advantage of those whom these institutions are designed to serve. Steps were taken during 1939 to earmark sites for health centres at Taipo, Tsun Wan and Un Long in preparation for the construction when funds become available.

Table XXX.

Dispensaries	General cases		Maternity cases		Total number of cases	Vaccinations	Anti-cholera inoculations	Malarial cases (included in general cases)		Surgical dressings (included in general cases)
	New	Old	On district	In dispensary				New	Relapses	
Ho Tung	5,200	6,352	151	131	11,834	2,507	936	630	298	9,400
Sai Kung	3,101	3,731	73	90	6,995	3,369	370	767	517	1,955
Tai O	3,232	2,695	129	—	6,056	928	965	383	584	2,555
Tai Po	21,383	26,106	121	460	48,070	6,476	1,912	2,055	2,898	25,305
Un Long	7,816	9,336	224	—	17,376	6,179	1,114	715	704	8,236
Travelling	10,014	2,956	—	—	12,970	5,929	2,303	1,737	781	3,786
Ruttonjee	956	2,960	26	—	3,942	392	187	34	392	2,336
Total for 1939	51,702	54,136	724	681	107,243	25,780	7,787	6,321	6,174	53,573

	1938.	1939.
Total number of cases	89,918	107,243
Total number of vaccinations	18,319	25,780
Total number of anti-cholera inoculations	2,568	7,787

Table XXXI.

Refugee camps	General cases		Total number of cases	Vaccinations	Anti-cholera inoculations	Malarial cases (included in general cases)		Surgical dressings (included in general cases)
	New	Old				New	Relapses	
Fanling, North	638	2,043	2,681	1,658	989	57	38	626
Fanling, South	1,143	1,808	2,951	2,121	1,256	114	41	1,011
Gill's Cutting (Cha Hang) ...	2,286	3,480	5,766	795	713	687	959	1,021
Pat Heung	19,871	27,103	47,974	8,375	8,215	1,680	716	13,610
San Uk Ling	8,526	973	9,499	3,526	1,250	1,810	980	3,809
Total for 1939	32,464	35,407	67,871	16,475	12,423	4,348	2,734	20,077

(G) *Chinese Hospitals and Dispensaries.*

207. These institutions are situated entirely in the urban area of the Colony. They have been responsible, in the main, for the care of the sick poor amongst the Chinese community for many years. For details regarding the history and development of these hospitals and dispensaries, the reader is invited to refer to the Annual Reports for 1937 and 1938. Two facts are deserving of special mention.

208. Firstly, the Medical Committee of the Tung Wah Hospitals appointed by the Governor at the close of 1938 functioned as the executive committee of the hospitals in 1939. As might be expected, the first year of operation was hardly devoid of difficulties, for, up to the time of the appointment of the committee, the Board of Directors had exercised sole control and it was not altogether easy for the directorate to delegate its powers to another body—even though this body had a strong representation of members of the Board upon it. In spite of this, however, there can be no doubt whatsoever that the general efficiency of the hospitals improved to a marked extent.

Time, patience and forebearance will show whether this experiment is going to be successful. It is rather early yet to judge, but every endeavour will be made to achieve success in this regard.

209. Secondly, the question of the status of the Chinese public dispensaries was raised during the year, the initiative being taken in this matter by the secretary for chinese affairs, chairman of the committee, to whose insight, guidance and cooperation in matters affecting the health and wellbeing of the community, officers of the Medical Department owe so much. Briefly, the tentative suggestion was that the committte should hand over the control of these dispensaries, whose sphere of usefulness could be considerably widened, to the Medical Department subject to certain conditions. The value of such a step is sufficiently apparent not to need any emphasis. It would make it possible for the institutions to be converted into health centres where the general public—or, at any rate, those unable to pay the fees of private practitioners—could not only obtain treatment for all minor maladies but where the work could be extended to include maternal and child welfare services, care of the school child, diagnosis and treatment of cases of ophthalmic disease, tuberculosis and venereal disease, and where public health museums and propaganda could be arranged.

210. The three tables which follow provide statistical evidence of the very considerable services accorded to the general community by the Tung Wah group of hospitals and by Chinese public dispensaries.

Table XXXII.

Admitted in 1939	Tung Wah	Tung Wah Eastern	Kwong Wah	Total
In-patients.				
Chinese treatment	5,074	2,271	4,144	11,489
Western treatment	13,737	6,911	20,657	41,305
Maternity cases	2,220	1,074	4,913	8,207
Combined	21,031	10,256	29,714	61,001
Remaining from 1938	693	252	602	1,547
Total in-patients	21,724	10,508	30,316	62,548
Operations	572	527	829	1,928
Deaths in hospital	5,773	3,306	9,492	18,571
Brought in dead	1,607	1,016	2,577	5,200
Death-rate per 1,000	265	314	313	296
Out-patients.				
Chinese treatment	223,056	95,094	514,554	832,704
Western treatment	24,217	27,777	24,677	76,671
Combined	247,273	122,871	539,231	909,375
Eye clinic	14,648	1,251	3,838	19,737
Baby clinic	1,443	—	464	1,907
Ante-natal clinic	—	—	486	486
Anti-smallpox vaccinations	16,607	3,646	10,647	30,900
Anti-cholera inoculations ..	7,080	5,066	2,919	15,065

Table XXXIII.

WORK DONE IN GYNAECOLOGICAL CLINICS OF CHINESE PUBLIC DISPENSARIES IN 1939.

Dispensary	No. of clinics		Total number		New cases		Old cases		Average attendance per day	
	New 1938	Old 1939	1938	1939	1938	1939	1938	1939	1938	1939
Central	47	49	888	1,014	331	410	557	604	18.9	20.69
Eastern	44	44	1,584	1,698	591	609	993	1,089	36.0	38.6
Shaukiwan	96	98	2,628	3,002	929	1,088	1,699	1,914	27.3	30.6
Aberdeen	45	48	688	798	355	397	333	401	15.3	16.6
Yaumati	96	98	3,263	4,119	1,425	1,618	1,838	2,501	34.0	42.0
Shamshuipo	94	94	2,525	3,282	959	1,171	1,566	2,111	27.0	34.9
Hung Hom	48	47	963	1,346	430	504	533	842	20.6	28.64
Kowloon City	50	49	1,651	1,930	616	739	1,035	1,191	33.0	39.3
Kwong Wah Hospital	47	47	1,368	1,748	497	664	871	1,084	29.1	37.2
Total	567	574	15,558	18,937	6,133	7,200	9,425	11,737	27.4	33.00

Table XXIV.

SUMMARY OF WORK DONE IN THE CHINESE PUBLIC DISPENSARIES DURING 1939.

Dispensaries	Patients		Certificates of cause of death issued	Patients sent to hospital	Patients removed to hosp. by ambulance	Corpses removed to hosp. or mortuary	Dead infants brought to dispensary	Vaccination	Gynaecological cases		Cholera inoculation
	New cases	Old cases							New cases	Old cases	
Central	37,402	29,312	4	2	—	77	58	12,704	410	604	7,347
Eastern	23,962	35,753	8	1	1	377	370	13,715	609	1,089	9,733
Western	36,487	13,397	254	33	16	518	497	7,902	—	—	2,382
Shaukiwan	35,512	48,396	115	48	—	471	450	14,503	1,088	1,914	7,429
Aberdeen	12,427	11,533	204	60	2	—	—	2,537	397	401	3,927
Harbour & Yaumati	68,741	57,474	56	36	—	267	263	27,861	1,618	2,501	12,914
Shamshuipo	38,177	41,550	31	78	7	610	597	33,785	1,171	2,111	10,590
Hung Hom	20,682	9,702	70	149	2	315	307	19,199	504	842	4,448
Kowloon City	24,292	23,658	66	125	1	412	377	16,610	739	1,191	7,784
Total for 1939 ..	297,682	270,775	808	532	29	3,047	2,919	148,816	6,536	10,653	66,554
Total for 1938 .	275,423	250,907	265	624	49	178	2,242	159,205	5,683	8,640	

(H) *Lai Chi Kok (Relief) Hospital.*

211. Lai Chi Kok Hospital was opened in May, 1938, to afford some relief for the overcrowded conditions of the Tung Wah group of hospitals. The intention was to transfer from the other hospitals convalescents and others who could be returned to civil life after a relatively short course of treatment.

212. The hospital has certainly proved its value and many hundreds have already passed through its portals and have been able to go home and start life afresh.

213. The medical officer in charge of the hospital (Dr. T. J. Hua) reports as follows :—

"Based on the principles concerning admission and discharge, out of the 1841 cases treated, 1238 curable invalids were returned to civil life after an average stay in the hospital of sixty-one days. Guided by the hospital motto—patients first, hospital second and self last, efforts have been made to avoid retransfer of patients back to the Chinese hospitals unless a diagnosis has been well established and the case has proved to be unsuitable, or when there is definite indication to the benefit of the patient. Not uncommonly, moribund patients suffering from pneumonia, typhoid or chronic cardiac disease were received and treated so as to avoid unnecessary disturbance to the patients. By so doing, the general mortality rate of the hospital was inevitably raised.

Towards the later part of the year a room of the medical officers' office was used as an operating theatre. Minor operations in the nature of correction of deformity, skin grafts for extensive ulcerations or restoration of locomotive function had also been comtemplated.

An improved canvas shade for the solarium of the tuberculous children's ward was completed towards the end of this year. Although it is still early to produce results in the treatment of these surgical tuberculous children, the improvement made during this period was gratifying. Owing to the repairs to the mosquito-proof screening on the doors and windows, malaria ceased to be a menace to the patients and staff of the hospital, although sporadic cases, chiefly of the subtertain type, occurred before the work was completed.

Clinical investigations on the result of the treatment of beri-beri cases have also been made.

The recipe of the bean extract and rice polishing has been proved to be most economical and sufficiently effective towards the treatment of all types of cases, except the pernicious, wet cardiac type which is fortunately rarely seen in this hospital. All cases discharged from the hospital were advised about their dietary and a follow-up clinic was organized at the close of the year."

214. Beri beri constituted by far the most important proportion of diseased conditions treated in the hospital and the results of an interesting investigation carried out by the medical officer to the hospital are included in Appendix VI to this report. One ward at this hospital was devoted to the care of tuberculous children who until then had been accommodated in a somewhat dark and dismal portion of one of the Chinese hospitals.

215. The upper blocks of Lai Chi Kok Hospital—sometimes called the Lai Chi Kok (Cholera) Hospital proved to be invaluable in accommodating 234 cases of cholera during the height of the epidemic in 1939. They also served as a hospital for interned Chinese troops who had to be specially guarded (in accordance with international agreement).

(I) *Leper Settlement.*

216. The Leper Settlement at Kennedy Town is housed in buildings erected at the beginning of the present century by the Tung Wah Hospital Committee for cases of smallpox under herbal or Chinese "Medicine" treatment.

217. Later, the Government Medical Department took over the care and treatment of smallpox patients partly on public health grounds — since herbalists possess somewhat heterodox views on the method of dissemination of the disease— and partly in order to provide skilled nursing for the afflicted.

218. The Tung Wah Smallpox Hospital then became an institution where lepers could be housed. By arrangement with the Tung Wah Hospital Committee the treatment of these cases was carried out by a Government medical officer and Government paid $9 per head per month and the wages of cooks, amahs and coolies to the Tung Wah Committee.

219. This system of dual control was unsatisfactory and uneconomic and had a still greater disadvantage in that the leper patients came and went as they wished.

220. By agreement with the Tung Wah Hospital Committee, the Government paid the sum of $50,000 for the site and buildings comprising the settlement and took over the rationing and management entirely from the Committee as from the 1st of February, 1939, when the settlement was duly proclaimed as such under the Leper Ordinance.

221. An immediate saving of about $4 per head per month was effected thereby and a complete change took place in the matter of discipline. True, sixty-seven lepers escaped from the premises in spite of a small police guard, but there was a cessation of the former custom of regarding the place as a convenient institution in which to avoid paying rent and from which to sally forth to streets, markets, tea-houses, restaurants, cinemas, etc., at will and to "sell" their disease to others.

222. The change in administration was not altogether popular as might be expected. Every effort was made, however, to counteract the boredom resulting from this restricted freedom. Gifts of a radio set, pingpong, cards, mahjong, dominoes, daily newspapers, monthly magazines, and so on, were obtained through the generosity of a Chinese sympathizer—Mr. Ho Kom Tong, O.B.E.

223. Occupational therapy in the form of gardens was started with seedlings gifted by the Botanical and Forestry Department.

224. In addition, careful thought was given to the comfort and well-being of the lepers, each inmate being provided with a bed—instead of having to lie on the floor as before—and the dietary was overhauled and placed on a sound physiological basis.

225. That the conditions were generally appreciated by the inmates is proved by the fact that twenty out of forty lepers transferred to a settlement on the Island of Ching Wei near Swatow walked (some with perforating ulcers of the feet) for twenty days over land and sought readmission to the Hong Kong Settlement. The transfer had been effected by arrangement with the Mayor of the Municipality of Swatow and similar transfers took place to St. Joseph's Leper Asylum at Shek Lung under the Sisters of the Immaculate Conception and to the Pakhoi Settlement with the consent of the authorities of the Church Missionary Society. In all cases, the Hong Kong Government guaranteed to meet the costs of maintenance at the rate of H.K. $4 per head per month.

226. Those transferred were Chinese nationals who had crossed into British territory with other refugees.

227. The Hong Kong Leper Settlement is not designed to take more than 144 in all and it is imperative that it should be reserved as far as possible for Hong Kong citizens who fall victim to the disease.

228. Moreover, the premises acquired from the Tung Wah Hospital Committee are in a dilapidated and dangerous condition and steps will have to be taken in 1940 to demolish them or to effect very costly repairs; hence every effort has to be made to prevent undue overcrowding.

229. Medical treatment consisted chiefly of weekly intramuscular injections of the iodised esters of chaulmoogra oil, the average attendance which was voluntary being forty-nine.

230. Two births took place and with the written consent of the mothers the babies were removed to homes outside the settlement where it is hoped that they will grow up free from the disease.

231. The numbers of cases dealt with can be seen from the table given below :—

Table XXXV.

Remaining at the end of 1938	133
Admitted during 1939	295
Transferred to Shek Lung Asylum	100
Transferred to Ching Wei Settlement	40
Transferred to Pakhoi Settlement	25
Escaped	67
Died	21
Discharged	3
Remaining at end of 1939	172

VII.—Prisons and Mental Hospital.

(A) *Prisons.*

232. The admissions to the Hong Kong Prison during 1939 numbered 11,964. In addition, 1,428 were admitted to Lai Chi Kok Female Prison. Sixty-three deaths, not including eleven legal executions, were recorded in the male prison and none took place in the female prison. Over one third of these deaths were due to tuberculosis, mostly of the pulmonary type.

233. Overcrowding of the Hong Kong Prison was a serious feature, about twice the number of prisoners being accommodated than the prison was designed to hold.

234. Certain improvements were effected in connexion with the disposal of human wastes.

Further details are included in appendix VII.

235. 922 boys were admitted to the remand home for boys in 1939 and 141 girls were admitted to the corresponding home for girls.

236. Both the homes were visited regularly by Government medical officers.

(B) *Mental Hospital.*

237. The occupation of Canton by the Japanese Army and the closing of the river to shipping towards the end of 1938 made it impossible to transfer Chinese nationals from the Mental Hospital to the Fong Chuen Insane Asylum in Canton. It should be explained that the Mental Hospital in Hong Kong has a very limited capacity and is intended for Hong Kong citizens only, foreign patients and Chinese nationals being transferred as often as may be necessary to their country of origin or to Canton.

238. After the invasion of Canton the asylum there came under the kindly care of the Sisters of the Immaculate Conception and the Hong Kong Government undertook to pay (for the duration of Sino-Japanese hostilities) the sum of $4 per head per month for all patients admitted there from this Colony. As might be expected, the extension of military operations to Southern Kwangtung resulted in large numbers of mentally afflicted persons crossing the border for safety.

239. The Mental Hospital became very overcrowded and Government authorized the conversion of the former sisters quarters at the old Government Civil Hospital into wards for women patients and for the European staff and mental attendants.

240. This very welcome addition to the Mental Hospital greatly relieved the overcrowded condition and made it possible to carry out a certain amount of mental therapy on individual cases which has not been practicable hitherto.

241. Later in 1939, the Japanese Military Authorities courteously gave permission for transfers of patients to the Canton asylum and the congested state of the Mental Hospital was further relieved to a considerable extent. Steps were taken during the year under review to extend the amount of occupational therapy, at any rate amongst the women's section.

242. Patients were encouraged to knit, sew and mend, and sweep and clean their rooms. It is intended to extend this list of occupations in 1940.

243. The following table gives particulars of admissions, transfers, deaths in the hospital in 1939 :—

Table XXXVI.

RETURN OF PATIENTS TREATED DURTING 1939.

Remaining in from 1938	115	
Admitted during 1939	436	
Total		551
Discharged apparently cured	85	
Discharged relieved	105	
Transferred to other general hospitals	9	
Transferred to Canton Insane Asylum	174	
Died	36	
Remaining at end of 1939	142	
Total		551

Daily average, 1939— 122

VIII.—METEOROLOGY.

244. Some notes on the climate of Hong Kong will be found in the Report of 1938. During 1939, the highest monthly average temperature—87.8°—was recorded in July and the lowest—56.8°—in January; the lowest absolute minimum (49.9°) being registered in January. May was the wettest month with 20.9 inches of rain and from March to September 79.3 out of the total of 86.7 inches of rain fell. The relative humidity was highest in March when it rose to 89 and lowest in December with 62. The appended table gives further details :—

Table XXXVII.

THE FOLLOWING TABLE GIVES THE MEANS, TOTALS OR EXTREMES OF THE METEOROLOGICAL DATA FOR THE SEVERAL MONTHS OF THE YEAR 1939.

Month	Barometer at M.S.L. Mean	Temperature					Humidity		Cloudiness	Sunshine	Rain	Wind	
		Absolute max	Mean max	Mean	Mean min	Absolute min	p.c.	Abs.				Direction	Velocity
	inches	°F	°F	°F	°F	°F	Rel.	inches	p.c.	hours	inches	Points	Miles p.h.
January	30.18	73.6	65.5	60.4	56.8	49.9	79	0.42	69	130.2	1.100	E/N	9.2
February	30.15	76.1	67.8	62.7	59.2	53.9	79	0.45	63	138.2	0.020	E	10.8
March	30.00	78.1	68.4	64.6	61.9	53.7	89	0.55	94	44.1	3.540	E	12.1
April	29.97	80.6	72.5	68.4	65.0	50.4	82	0.59	83	91.3	15.800	E/N	9.8
May	29.82	89.0	80.8	75.9	72.5	67.5	85	0.76	79	131.6	20.985	E	11.0
June	29.78	89.5	85.7	81.5	78.2	70.9	85	0.91	83	133.7	8.645	SSW	9.1
July	29.63	94.0	87.8	82.3	78.3	73.9	84	0.92	71	197.6	12.695	SW	5.3
August	29.65	93.2	87.2	81.6	77.4	72.0	83	0.89	65	206.8	12.820	E/S	7.2
September	29.86	92.3	86.0	80.9	77.1	68.9	77	0.81	61	185.7	4.865	E/N	8.4
October	29.96	91.8	83.2	77.7	74.3	64.7	73	0.69	55	203.8	1.410	E/N	8.5
November	30.06	87.0	76.6	71.2	67.4	53.8	75	0.59	75	123.6	4.825	ENE	9.5
December	30.27	73.2	68.8	61.9	56.9	52.0	62	0.34	24	269.2	0.000	NE/E	7.3
Mean total or extreme	29.94	94.0	77.5	72.4	68.7	49.9	79	0.66	69	1855.8	86.705	E	9.0

IX.—SCIENTIFIC.

(A) Annual Report of the Government Bacteriological Institute.

(*a*) *Introductory.*

245. (i) *Administrative* :—The government bacteriologist, Dr. A. V. Greaves, was absent on long leave from January until October 1939; his duties during this period were performed by the assistant government bacteriologist, Dr. R. S. Begbie.

Dr. R. E. Alvares was appointed to the staff as an assistant at the end of January, and one additional technical laboratory assistant was also added to the staff at the same time.

246. (ii) *Buildings and equipment* :—(*a*) There were no alterations to the existing buildings.

(*b*) One new pony was added to our stock for the production of anti-meningococcic serum, and has been in steady use since.

(*c*) A new incubator was purchased. This is supposed to add to our incubator space in view of increased vaccine production. Actually, it merely helps to keep the existing space, as the two other large ones are frequently out of action for repairs at different times due to causes connected with age.

(*d*) A new refrigerator was purchased. This too merely helps to take the place of a very old machine which is frequently out of action for repairs.

247. (iii) *Library* :—The following books were added during the year :—

"Muir's Bacteriological Atlas," By C. E. Van Rooyen, M.D. (Edin.)

"Muir and Ritchie's Manual of Bacteriology," Revised. By C. H. Browning and T. J. Mackie (Tenth Edition).

"Hand Book of Practical Bacteriology" By T. J. Mackie, M.D., D.P.H. J. E. McCartney, M.D., D.S.C.

"Standard Methods for the Examination of Dairy Products."

248. (iv) *General* :—The development and extension of the work of the Medical Department as a whole is reflected vividly in the activities of the Institute. It should hardly be necessary to mention such an obvious point, but it is one, nevertheless, which is apt to be overlooked. It has always been taken for granted, for example, that diagnostic material of any type and in any quantity referred to the Institute will always result in complete and reliable reported results. This is quite reasonable when applied to an organization equipped and staffed on a liberal scale. To a laboratory housed, equipped and financially supported on the modest scale which is the lot of the Bacteriological Institute, however, it is an entirely different matter, and it becomes increasingly difficult year by year to respond unquestioningly to such demands. The volume of work has reached a figure at which obvious advantages would occur from a definite splitting up into different divisions, but with the small technical staff at our disposal this is impossible. The figures for the year reveal that a total of over twenty thousand blood sera were subjected to the Kahn test for syphilis, this means an average of over four hundred tests weekly. There can be no question that a separate serological division is indicated to take care of a volume of work of one special type of such magnitude. The increase in the staff mentioned in the first paragraph has helped in taking care of the increased load of work, but hardly more than this, and I am not looking forward to the coming year with an altogether easy mind, more especially as Dr. R. S. Begbie is due for long leave.

The total number of tests recorded is 60,790; this compares with 44,710 in 1938.

The preparation and distribution of anti-cholera vaccine continues to occupy much of our time.

(*b*) *Protozoology and Helminthology.*

249. (v) *Blood films for Malaria*:—Fourteen thousand, eight hundred and forty blood films were examined for malarial parasites. Seven thousand, nine hundred and eighty contained parasites. While the appended table shows the classification of the parasites found, it is somewhat incomplete owing to the fact that the number of films for diagnosis became so great that during the latter months of the year species diagnosis was only carried out on special cases instead of routinely, consequently the figure for "unclassified" is unduly large.

BLOODS EXAMINED FOR MALARIA.

Table XXXVIII.

	European.	Indian.	Chinese.	Total.
Sub-tertian	51	211	3,384	3,646
Benign-tertian	64	115	2,727	2,906
Quartan	1	3	300	304
Unclassified	19	45	885	949
Multiple infection	4	5	166	175
Negative	464	298	6,098	6,860
Grand total	603	677	13,560	14,840

250. (vi) *Filaria*:—Eighteen films were examined for filarial embryos and seven positives found. M. bancrofti was the infecting species.

251. (vii) *Faeces*:—Three thousand stools were searched for parasites and the presence or absence of the typical cytological picture of bacillary dysentery. Two points are of interest in the table appended: firstly, the increase in positive findings of all kinds, and secondly, the continued steady increase in the number of stools containing entamoeba histolytica.

EXAMINATION OF STOOLS FOR INTESTINAL PARASITES.

Table XXXIX.

	European.	Indian.	Chinese.	Total.
Ascaris	18	12	258	288
Clonorchis	6	—	223	229
Trichuris	8	4	99	111
Ankylostoma	1	8	75	84
Enterobius	1	—	1	2
E. histolytica	7	—	55	62
Fasciolopsis	—	—	6	6
Multiple infestation	9	1	241	251
Negative	367	104	1,496	1,967
Grand total	417	129	2,454	3,000

(*c*) *Serology.*

252. (viii) *The Kahn reaction* :—Twenty thousand, three hundred and twenty-eight sera were tested. The results are shown in the table.

EXAMINATION OF BLOOD SERA FOR SYPHILIS.

Table XL.

	European.		Indian.		Chinese.		Total.
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	
Strong positive..	38	3	95	—	2,201	994	3,331
Positive	31	1	41	—	1,111	469	1,653
Weak positive...	20	2	24	—	692	237	975
Doubtful	16	3	34	—	752	271	1,076
Negative	574	72	696	16	7,387	4,548	13,293
Grand total	679	81	890	16	12,143	6,519	20,328

253. (ix) *Agglutination tests* :—Three thousand one hundred and thirty sera were examined for the presence of agglutinins against various organisms. Eight hundred and twenty nine were positive for some specific organism.

AGGLUTINATION TESTS.

Table XLI.

Origanism	European			Indian			Chinese			Total
	Pos.	Neg.	Doubtful	Pos.	Neg.	Doubtful	Pos.	Neg.	Doubtful	
B. typhosus.....	37	76	—	5	19	—	701	2,177	—	
B. para A.....	1	112	3	—	24	1	9	2,869	33	
B. para B.....	3	110	—	—	24	—	4	2,874	—	3,121
Enteric fever (type undetermined) ...	7	—	—	2	—	—	60	—	—	
B. melitensis	—	—	—	—	—	—	—	2	—	2
B. abortus	—	—	—	—	—	—	—	1	—	1
Weil Felix reaction	—	4	—	—	—	—	—	2	—	6
Total for each race		127			27			2,976		3,130

(*d*) *Bacteriological Examinations.*

254. (x) *Faeces* :—Three thousand, nine hundred and fifty-eight stools were cultured for pathogenic organisms. In addition, seven hundred and eleven were microscopically examined for the presence or absence of the cytological picture indicative of bacillary dysentery.

STOOLS EXAMINED FOR ORGANISMS.

Table XLII.

Organisms	European		Indian		Chinese		Total
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
B. typhosus	2	29	—	3	11	239	284
B. dysenteriae (group)	—	240	—	75	—	1,398	1,713
Cytology typical of B. dysenteriae	40	—	14	—	657	—	711
B. dysenteriae (Flexner)	6	—	1	—	15	—	22
B. dysenteriae (Shiga)	—	—	—	—	—	—	—
B. dysenteriae (Schmitz)	—	—	—	—	—	—	—
V. cholerae	1	30	—	11	694	1,203	1,939
Grand total	49	299	15	89	1,377	2,840	4,669

255. (xi) *Sputum* :—Three thousand, five hundred and fourteen sputa were examined for the presence of the tubercle bacillus. The relatively enormous increase in these figures over those of last year (822) is probably accounted for by the fact that during 1939 tuberculosis was made a notifiable disease.

SPUTA EXAMINED FOR TUBERCULOSIS.

Table XLIII.

	European	Indian	Chinese	Total
Positive	25	17	1,251	1,293
Negative	118	75	2,028	2,221
Grand total	143	92	3,279	3,514

256. (xii) *Urine* :—Five hundred and nine cultural examinations were made for pathogenic organisms.

257. (xiii) *Urethral and cervical smears* :—One thousand, one hundred and eighty-five urethral and cervical smears were examined for the presence of the gonococcus.

258. (xiv) *Nasal and other scrapings for M. leprae* :—Nine hundred and thirteen examinations were carried out for the detection of this organism. Three hundred and eighty-six positive results were recorded.

259. (xv) *Throat swabs* :—Two thousand, three hundred and seventy-seven throat swabs were cultured for C. diphtheriae.

THROAT SWABS EXAMINED FOR DIPHTHERIA

Table XLIV.

	European	Indian	Chinese	Total
Positive	114	5	492	611
Negative	461	23	1,282	1,766
Grand total	575	28	1,774	2,377

260. (xvi) *Cerebro-spinal fluid* :—Two thousand, two hundred and fifteen fluids were examined for the presence of the meningococcus and other pathogenic organisms.

CEREBRO-SPINAL FLUID EXAMINED FOR MENINGOCOCCI AND OTHER ORGANISMS.

Table XLV.

	European	Indian	Chinese	Total
Meningococcus	—	—	298	298
Pneumococcus	3	—	87	90
Negative	7	3	1,817	1,827
Grand total	10	3	2,202	2,215

261. (xvii) *Rat spleen smears* :—Three hundred and sixty four rat spleens were smeared and stained for P. pestis. No positive findings are recorded.

(*e*) *Clinical Pathological Procedures.*

262. (xviii) *Friedmann test for pregnancy* :—Twenty-four Friedmann tests were performed during the year.

263. (xix) *Urine examinations* :—Seven hundred and eighty routine chemical and microscopic examinations of urine were carried out.

264. (xx) *Miscellaneous tests* :—Six hundred and ninety-two tests of a miscellaneous nature were performed. Among them were three hundred and ninety-nine blood-groupings, fourteen virulence tests for K.L.B. and one Paul-Bunnell test.

(*f*) *Preparation of Vaccine Lymph.*

265. (xxi) The preparation of lymph was again carried out on a large scale, although not in the enormous quantity of the previous year.

Table XLVI.

Amount of lymph prepared	29,850	c.c.
Amount of lymph issued	28,363	c.c.
Amount of lymph in stock at end of year	32,692	c.c.
No. of buffalo calves scraped for pulp	42	
Total pulp collected	6,883	g.
Average per buffalo calf.	163.8	g.

(*g*) *Preparation of Vaccines and Sera.*

266. (xxii) *Antimeningococcus serum* :—A large amount of serum was used again this year, 45,560 c.c. Part of this was purchased as we were unable to keep up with the demand. Only 25,400 c.c. was prepared from our own ponies.

267. (xxiii) *Gonococcus vaccine* :—The total amount prepared and issued was 15,959 c.c. made up as follows :

5,660 c.c.	100 million per c.c.
10,299 c.c.	1,000 million per c.c.

268. (xxiv) *Autogenous vaccines* :—Forty - three autogenous vaccines were prepared.

268. (xxv) *Cholera vaccine* :—Vaccine was used this year in unprecedented quantity. The Institute was able to keep up with the demand successfully.

Quantity prepared	268,860 c.c.
Quantity issued	344,150 c.c.

270. (xxvi) *Anti-rabic vaccine* :—Seven animal brains were examined for rabies. None of them was found to be rabid. Two thousand, two hundred and seventy-one doses of anti-rabic vaccine were issued.

Table XLVII.

Nationality	Treatment completed	Treatment not completed	Total
British	15	21	36
Chinese	32	175	207
Portuguese	1	3	4
Indian	3	1	4
Russian	1	—	1
American	—	2	2
Eurasian	—	1	1
German	—	1	1
Outport	15	—	15
Grand total	67	204	271

Total number of doses issued ..... 2,271.

(*h*) *Examination of Water and Milk.*

271. (xxvii) *Bacteriological analysis of water*:—One thousand, six hundred and eighty samples of water from various sources, chiefly public supplies, were examined.

Table XLVIII.

Unfiltered raw water	123
Filtered raw water	183
Filtered and chlorinated water from service taps throughout the Colony	1,340
Well Water	8
Water from other than public supplies	26
Total	1,680

272. (xxviii) *Bacteriological analysis of milk*:—One hundred and thirty-three samples of milk were examined, chiefly at the instance of the Health Division.

(*i*) *Medico-Legal Investigations.*

273. (xxix) Sixty-seven investigations were carried out on materials brought in by the Police.

They were of the following character:

Blood stains	31
Seminal stains	28
Miscellaneous	8

(*j*) *Morbid Histology.*

274. (xxx) Two hundred and forty-six sections of tissues were prepared for histological examination. Forty-one were malignant growths and forty-three benign. One hundred and twenty-five were of general pathological importance and the remainder, thirty-seven, were from post-mortem cases.

ANALYSIS OF CLINICAL AND OTHER EXAMINATIONS.

Table XLIX.

Nature of Examination		Total for 1939	Total for 1938
Agglutination reaction	B. typhosus B. paratyphosus A B. ,, B	3,121	2,091
	Weil Felix reaction	6	13
	B. dysenteriae	—	—
	B. melitensis	2	3
	B. abortus	1	2
Serological reaction for syphilis		20,328	17,111
Blood smears	Malaria	14,840	8,716
	Filaria	18	13
	Blood count, etc.	80	51
Cultural examinations	Naso-pharyngeal swabs (C. diphtheriae)	2,377	1,612
	Spinal fluid (meningococcus)	2,215	1,208
	Faeces (typhosus, paratyphosus, cholera, etc.)	4,669	4,139
	Blood	34	569
	Urine	509	265
Faeces	Intestinal parasites	3,000	3,632
	Occult blood	182	58
	Tubercle bacillus	8	14
Tissue Sections		246	381
Friedmann test for pregnancy		24	33
Miscellaneous examinations	Sputa	3,514	822
	Pus	113	110
	Urine	780	501
	Smear for gonococcus	1,185	1,115
	,, ,, M. leprae	913	178
	Animals for rabies	7	12
Medico-legal examinations		67	81
Bacteriological examination of milk		133	133
,, analysis of water		1,680	1,521
Rideal-Walker test of disinfectants		3	6
Autogenous vaccine prepared		43	18
Miscellaneous		692	302
Total		60,790	44,710

A. V. Greaves, m.b. (Tor.), m.c.p. & s., (Ont.), d.t.m. (Liverpool).

Government Bacteriologist.

(B) Annual Report of the Malaria Bureau, 1939.

275. Dr. J. B. Mackie was appointed malariologist on 4th January, and Mr. M. R. Deb departed on leave on 6th May.

276. The present report deals entirely with new work done by the Malaria Bureau during the year 1939, and makes no reference to previous research or the extensive routine anti-malarial work. Those details can be found by those interested in the Annual Reports of 1930-1936.

277. Deaths ascribed to malaria were 1,492, or 3.09 per centum of deaths registered from all causes. The corresponding figures for 1938 were 733 and 1.9 per centum respectively.

278. As in 1938, the influx of a large number of refugees from the rural districts of Kwangtung, whose resistance had been lowered by exposure and under nourishment, again raised the incidence of malaria. This is reflected in the figures obtainable from the Chinese public dispensaries. From the Western and Central Dispensaries located in the heart of the city where no malaria occurs, 1,844 cases of malaria were reported.

In the New Territories the influence of refugees is most strikingly seen from the analysis of the police returns for the New Territories. In the border district between Lo Wu and Sha Tau Kok, which bore the brunt of the invasion of refugees, it will be seen from the figures below that the five police stations, Lo Wu, Sheung Shui, Ta Ku Ling, Lin Ma Hang and Sha Tau Kok, with a combined establishment of 104, had 224 cases of malaria—compared with the whole of the remainder of the New Territories force of 176 which had 177 cases. This increase of over 100% in the border stations can only be accounted for by the higher local infection rate of the mosquitos, as conditions favourable to anopheline breeding are more or less uniform over the whole New Territories.

In November, an out-of-season typhoon accompanied by very heavy rainfall flooded large tracts in the New Territories, and opened up potential breeding places on the Island, which are normally dry at this time of the year. A warm and sunny December following gave rise to ideal conditions for the breeding of A. jeyporiensis with the result that the peak of malaria, which usually occurs in November was continued well into December. This is well seen in the malaria figures for the Police Force.

Military works in the year necessitating the housing of heavily infected coolie labour on the outskirts of residential areas undoubtedly gave rise to a certain number of cases in districts in which malaria does not normally occur, and in which it had not been previously considered necessary to undertake anti-malarial work.

279. The local army strength figures are not available, but malaria amongst the troops in the New Territories was fairly high in view of the extensive operations in areas outside the control of the Bureau on the out-break of war. There were 351 cases amongst British troops. At Lyemun, there was a slight reduction in the number of cases of malaria in 1939. The Air Force, situated inside the area controlled by the Malaria Bureau, had only three cases of malaria in the year. No cases of malaria were recorded from the 500 Indian and European staff of the Stanley Gaol or the Government Civil Hospital.

280. Night catching was discontinued in 1939, as inspectors previously working in the Laboratory were needed for field work under the expansion of the anti-malaria programme. One inspector only was retained in the Laboratory.

281. No new species were discovered in 1939. Identification of the species found gave the following results :—

A. minimus, A. jeyporiensis var. candidiensis, A. maculatus, A. hyrcanus var. sinensis, A. fluviatilis, A. aitkenii var. bengalensis, A. splendidus, A. karwari and A. vagus.

282. The first two species are responsible for serving as vectors in the major number of cases of malaria that occur.

283. In September, 1939, it was found possible to spare an inspector to take charge of a field station in connexion with anti-malarial work at the Refugee Camp at Kam Tin. With the funds available, it was impossible to engage a labour force adequate to deal with the surrounding paddy. A species control of A. minimus and A. jeyporiensis only, therefore, in the surrounding half mile area, was attempted. This involved the routine clearing and oiling of all streams and irrigation ditches. Propaganda amongst the villagers to obtain weekly draining off of the paddy was partly successful.

A blood survey amongst the 1,500 refugees showed an infection rate of 24.59%.

The Kam Tin Valley is a favourable breeding place for A. vagus which is not easily found in other parts of the Colony. The opportunity of catching and dissecting this species in considerable numbers was therefore taken. From the attached tables, it will be seen that of the 688 dissected, no stomach or gland infections were found. In surveys in the surrounding country, its larval breeding places namely, grassy pools, hoof-marks, wet cultivations, paddy fields and furrows between crops were verified. Dissection of other species confirmed previous research work, incriminating A. minimus and A. jeyporiensis as good carriers and A. hyrcanus as a poor one.

284. Routine checking catches of adult mosquitos at stations under control of the Bureau were carried out. Few anophelines were caught, and none of those obtained were found to be infected.

285. The anti-malarial programme carried out in 1938 was maintained. This work involving, as it did, clearing and oiling of some 84,000 yards of streams, and inspection of 24 square miles of territory, was carried out by the seven inspectors of the Bureau and a coolie labour force of 105.

In addition, the following new anti-malarial work was carried out :—

(*a*) Kowloon City.

Control of a large area of wet cultivation and its concomitant network of streams and irrigation ditches was obtained between Kowloon City and the R.A.F. Barracks at Kai Tak. In addition to routine anti-malaria measures, propaganda was carried out in the villages and schools to educate the inhabitants in dryer and tidier methods of cultivation. The mosquito nuisance at the Kowloon City airport subsequently entirely disappeared, and no cases of malaria were recorded from the civil airport personnel.

(*b*) A few cases of malaria occurred amongst the troops at the Sham Shui Po Barracks. Work was undertaken by the Bureau in the surrounding area with a labour force provided by the Army. No further cases of malaria occurred.

(*c*) The H. B. Brewery situated at Sham Tseng in the New Territories requested assistance at the beginning of this year. Anti-malaria work was carried out for half mile round the brewery. The cost of the work was borne by the management, its supervision was undertaken by the Malaria Bureau. The local village population co-operated well in the weekly drainage of paddy and the care of irrigation ditches.

(*d*) Anti-malarial work was undertaken round the Volunteer Camp at Fanling from October to December.

(*e*) Permanent anti-malarial drainage was carried out by the Public Works Department by the training of 2,160 feet of stream channels at Queen Mary Hospital site, the channels varying in size from 45″ to 12″ in diameter. The total expenditure was $17,580.00.

(*f*) An experimental "Ceylon Flushing Syphon" was installed by the Public Works Department at Mount Cameron. This tank worked satisfactorily during the dry season and enabled the "De Villiers" tank, constructed the previous year, to function normally throughout the winter.

(*g*) Tables are appended of work of an entomological nature undertaken by the Bureau during the year. From March to December, 4,496 fleas were examined at the Bureau. Of these, 89.13% were Xenopoylla cheopis; 9.99% Leptopsylla segnis and 0.88% Ctenocephalus felis. There was little monthly variation in the cheopis percentage, but from the tables, it would appear that the rats appear to be more heavily infested in the damper months of April, May and June.

A fly nuisance was investigated during the year at the Queen Mary Hospital. 2,404 flies caught at the Hospital were identified at the Bureau. Investigations round the hospital proved that the large proportion of Musca domestica were undoubtedly breeding in the manure used in the cultivation of grass at the Dairy Farm. Recommendations in regard to the destruction of Musca larvae in the manure produced a drop in the figures in July, and it is hoped that this, combined with tidier methods of cultivation will completely eradicate the nuisance in 1940.

286. Mosquito nuisances were investigated at :—

(*a*) Barker Road, (*b*) Mount Cameron Road, (*c*) The Peak, (*d*) Leighton Hill, (*e*) North Point, (*f*) Shaukiwan, (*g*) Repulse Bay, (*h*) Queen Mary Hospital, (*i*) Kowloon Tong, (*j*) Prince Edward Road, (*k*) Argyle Street, (*l*) Ho Man Tin, (*m*) Water Police Station, (Tsim Sha Tsui), (*n*) Railway Quarters (Hunghom).

287. Teaching of Mosquitology.

(*a*) Demonstrations in collecting mosquito larvae and adults and instruction in the elements of malaria prevention were given to two classes of Royal Army Medical Corps men. Captain Curran, R.A.M.C., engaged in anti-malarial work for the Army made use of the resources of the laboratory, and the knowledge and experience of the staff were placed at his disposal.

(*b*) Lectures and demonstrations were given to Teachers Association at King's College.

(*c*) Lectures to probationer sanitary inspectors on mosquitology and prevention of malaria were delivered, and demonstrations on field work given.

(*d*) Lectures on mosquito prevention were given at schools in the Kowloon City and at Kam Tin.

(*e*) Material for the teaching of mosquitology was supplied to the R.A.M.C. College, Millbank, the Lester Institute, Shanghai, the Lingnan University and the Peiping University.

288. Seven tables are appended. The first gives details of 2,701 anopheline larvae examined microscopically for identification purposes, the second relates to some 322 adults hatched out from larvae and pupae, the third summarizes the results of catches and dissections for malaria infection of anophelines caught at the Pat Heung Refugee Camp, the fourth of a blood survey to determine the parasite infection rate amongst the refugees at the Camp, the fifth gives an analysis of malaria cases occurring in New Territory police stations, the sixth of fleas identified at the laboratory and the seventh of flies caught at Queen Mary Hospital identified at the laboratory.

J. B. MACKIE,
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Government Malariologist.

ANOPHELINE LARVAE IDENTIFIED MICROSCOPICALLY.

1939.

Table L.

Month.	A. maculatus.	A. minimus.	A. jeyporiensis.	A. hyrcanus.	A. vagus.	A. aitkenii.	Total.
January	16	5	14	7	—	—	42
February	275	280	18	274	—	51	898
March	23	4	—	—	—	—	27
April	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—
June	—	—	—	12	—	—	12
July	—	—	—	—	—	—	—
August	—	—	—	—	—	—	—
September	—	—	—	67	224	—	291
October	112	—	—	428	—	—	540
November	120	34	2	353	2	—	511
December	31	57	3	214	75	—	380
TOTALS...	577	380	37	1,355	301	51	2,701

ANOPHELINE ADULTS HATCHED OUT FROM PUPAE AND LARGE LARVAE AND IDENTIFIED MICROSCOPICALLY, 1939.

Table LI.

Month.	A. maculatus.	A. minimus.	A. jeyporiensis.	A. hyrcanus.	A. aitkenii.	Total.
January	7	—	8	2	—	17
February	100	66	—	25	26	217
March	6	1	—	—	—	7
April	—	—	—	—	—	—
May	—	—	—	—	—	—
June	—	—	—	—	—	—
July	—	—	—	—	—	—
August	—	—	—	—	—	—
September	—	—	—	—	—	—
October	—	—	—	—	—	—
November	14	4	—	4	—	22
December	4	21	—	34	—	59
TOTALS.....	131	92	8	65	26	322

RESULTS OF CATCHES AND DISSECTIONS FOR MALARI INFECTION OF ANOPHELINES CAUGHT AT PAT HEUNG REFUGEE CAMPS, DURING THE YEAR 1939.

Table LII.

Month.	Species	No. caught.	No. dissected.	No. with infected glands only.	No. with infected midgut only.	No. with infected glands & midgut.	Percentage of infection.
September	A. hyrcanus	983	466	—	—	—	—
	A. vagus	683	311	—	—	—	—
	A. maculatus	1	—	—	—	—	—
	A. minimus	2	—	—	—	—	—
October ...	A. hyrcanus	2,085	652	—	—	—	—
	A. vagus	841	326	—	—	—	—
November.	A. hyrcanus	732	316	—	—	—	—
	A. vagus	80	43	—	—	—	—
	A. minimus	31	23	—	1	—	4.35
	A. jeyporiensis	32	27	—	—	—	—
December.	A. hyrcanus	42	44	—	—	—	—
	A. vagus	9	8	—	—	—	—
	A. maculatus	1	1	—	—	—	—
	A. minimus	30	25	1	1	—	8.00
	A. jeyporiensis	43	36	2	—	—	5.56
TOTALS..	A. hyrcanus	3,842	1,478	—	—	—	—
	A. vagus	1,613	688	—	—	—	—
	A. maculatus	2	1	—	—	—	—
	A. minimus	63	48	1	2	—	6.25
	A. jeyporiensis	75	63	2	—	—	3.17

RESULTS OF BLOOD SURVEY DONE AT THE PAT HEUNG REFUGEE CAMPS IN DECEMBER, 1939.

Table LIII.

Camp No.	No. of blood-films taken.	No. of blood-films found positive.	Percentage of positive films.
1	294	82	28
2	226	53	23
3	229	44	19
4	260	53	20
5	253	70	28
6	263	73	28
TOTALS	1,525	375	25

MALARIA CASES REPORTED FROM POLICE STATIONS IN THE NEW TERRITORIES FOR THE YEAR 1939.

Table LIV.

	Sha Tau Kok.	Sheung Shui.	Ta Ku Ling.	Lin Ma Hang.	Lo Wu.	Total.	Total No. for rest of the New Territories.
January	2	2	3	4	—	11	4
February	1	1	3	—	—	5	7
March	1	—	1	—	—	2	4
April	—	—	6	1	—	7	2
May	—	1	3	3	1	8	3
June	—	1	1	2	1	5	7
July	1	1	21	4	1	28	20
August	—	3	9	5	—	17	22
September	4	4	3	5	—	16	25
October	6	8	7	5	1	27	40
November	10	12	13	8	3	46	21
December	13	15	14	8	2	52	22
Total No. of cases for the year ...	38	48	84	45	9	224	177
Total No. of establish-ment	25	29	34	8	8	104	176

RESULTS OF EXAMINATION OF FLEAS, 1939.

Table LV.

Month.	Total No. of rats examined.	Total No. of fleas obtained.	Classification.			Percentage of X. cheopis.
			X. cheopis.	L. segnis.	C. felis.	
March	26	393	325	67	1	83
April	58	816	661	146	9	81
May	94	874	761	97	16	87
June	102	685	665	16	4	97
July	93	342	333	6	3	97
August	85	313	313	—	—	100
September	87	240	233	4	3	97
October	60	163	150	13	—	92
November	61	288	254	34	—	88
December	82	382	313	66	3	82
TOTAL	748	4,496	4,008	449	39	89
PERCENTAGE			89.14	9.99	0.87	

EXAMINATION OF FLIES CAUGHT AT QUEEN MARY HOSPITAL DURING THE YEAR 1939.
(Captured in Japanese fly-traps).

Table LVI.

Month.	Total No. caught.	Classification.				
		Muscidae.		Calliphoridae.		
		M. vicina.	M. sorbena.	Sarcophaga.	Chrysomyia. megacephala.	Lucilia. cuprina.
June	468	455	4	3	4	2
July	509	488	6	8	3	4
August	430	389	16	3	21	1
September	299	295	—	2	2	—
October	258	255	—	3	—	—
November	239	234	—	4	1	—
December	201	198	—	2	1	—
TOTAL...	2,404	2,314	26	25	32	7
PERCENTAGE ...		96.26	1.08	1.04	1.33	0.29

(C) Annual Report of the Government Analytical Laboratory, 1939.

289. The work of the Hong Kong Government Laboratory differs from that usually associated with a sub-department of this type, in that a very considerable amount of work, usually done by consulting analysts, is carried out here, and for which fees are paid into the Treasury. This non-government work comes under two heads.

(*a*) Analyses of stores, etc., for the Naval, Military, and Air Force Authorities, described below as semi-official work and for which, in the majority of cases, full fees are now charged.

(b) Analyses carried out for local firms and individuals in the Colony, the majority of which are the testing of exports of China produce, e.g., tin and oils, and for which full fees are charged.

290. The year 1939 was an exceptional year in regard to the work done in the Government Laboratory. In spite of a large decrease in the amount of unofficial work, the total number of samples (5,265) dealt with was greater than in any previous year. This is due to the very large increase in government work which took place during the year.

(*a*) *Official work—i.e., government work.*

Table LVII.

	1938	*1939*
Chemico-legal samples, from the Police & Medical Departments	358	414
Food & drugs samples, under the Ordinance, from the Sanitary Department	294	431
Water samples, from public supplies	2,198	2,387
Dangerous goods under the Ordinance, from the Police Department & Fire Brigade	5	3
Bio-chemical examinations, from Medical Department and University	374	1,189
Materials from various departments for testing :—		
Oils from Public Works Department	4	9
Coals from Public Works Deparment, Harbour Department and Kowloon-Canton Railway	215	207
Building materials from Public Works Department	0	13
Foodstuffs from Medical Department, Police Department, etc	138	83
Pharmaceutical samples from government apothecary	20	20
Chemicals from Medical Department, Public Works Department, etc.	34	30
Battery acids from Public Works Department	6	1
Minerals and metals	10	7
Miscellaneous samples	23	10
	3,679	4,804

291. The value of work done for government departments, as determined under the Tariff of Charges (Government Notification No. 510 of 1938), was $76,142.00 as against $59,114.00 for 1938. This represents an increase of nearly 30% over 1938 and is due possibly to the increase in population of the Colony.

292. Members of the laboratory attended court in connexion with official work on twenty-three occasions during the year.

(*b*) *Chemico-legal samples.*

293. The following table shows the nature of the work done under this head.

Table LVIII.

	1938	*1939*
Toxicological examinations (including post mortem materials from fifty-four persons in 1938 and seventy-two in 1939)	177	254
Counterfeit coins and materials	54	36
Forged notes and materials	32	0
Bombs and explosives	19	14
Articles for acid stains	18	30
,, ,, powder stains	0	4
,, ,, fire inquiries	4	3
,, connected with larceny	0	5
,, ,, ,, murder	10	5
,, ,, ,, attempted murder	3	0
,, ,, ,, armed robbery	3	0
,, ,, ,, explosion	0	2
,, ,, ,, robbery with violence	27	26
Medicines connected with abortion cases	0	14
Urine for alcohol	9	16
Other examinations	2	5

294. Pepper was used for causing temporary blindness in eight cases of robbery with violence and there were five cases of corrosive acid throwing.

295. In one counterfeit coin case an ingenious method was used to copy the new safety rim in a mould.

TOXICOLOGICAL EXAMINATIONS.

Table LIX.

Nature of poison	*No. of samples.*
No poison found	70
Opium	74
Phenolic or cresolic compounds	28
Crude alkaloids of Gelsemium elegans Benth	13
Adalin	6
Adalin & amidopyrin	1
Carbon monoxide	3
Hydrocyanic acid	1
Sulphuric and nitric acids	1
Sodium cyanide	3
Liniment of camphor and turpentine	2
Caustic soda solution	3
Mercuric chloride	6
Arsenic	2
Alcohol	2
Barbituric acid derivatives	8
Caffeine	2
Strychnine	4
Cyanide	4
Amidopyrine	1
Nitric acid	2
Sodium silicate and sodium carbonate	3
Lead	1
Calamine lotion	4
Morphine and alcohol	2
Kai Po Yu	8
Total	254

296. All the poison cases investigated were the result of suicide, no case of murder by poison occurring during the year.

297. The consumption of Kai Po Yu, a poisonous fish, was the cause of three deaths as well as serious symptoms in several other cases. Much work was done in trying to isolate the poisonous principle, but again without success.

298. The herb, Gelsemium elegans Benth, was again used for suicide in the year under review on three occasions, each with fatal results. Work is being carried out at present to separate the alkaloids in a pure condition.

299. An unusual case of poisoning occurred, happily without fatal results. A patient was admitted into hospital after partaking of peanut oil. This oil on examination was found to contain hydrocyanic acid and further samples from the shop where the oil was purchased were also found to contain the poison. The acid was in a combined state and it is probable that a cyanogenetic glycoside was present, due either to admixture with another oil, or to the presence of foreign seeds in the original peanuts from which the oil was made.

300. Concentrated nitric acid was used for suicidal purposes in one case, with terrible effects on the internal organs.

301. A small child drank a solution of sodium silicates, "water glass", and died some days afterwards. The stomach walls were very much corroded.

FOOD AND DRUGS.

Table LX.

Substance.	*No. of samples examined.*	*No. found genuine.*	*No. found adulterated*
Boracic acid	14	13	1
Butter, fresh	21	21	0
,, tinned	2	2	0
Cheese	18	18	0
Coffee	31	31	0
Milk, condensed	55	55	0
,, dried full-cream	6	5	1
,, evaporated	17	17	0
,, fresh	190	187	3
,, reconstituted	3	3	0
Pea-nut oil	17	17	0
Tea	57	47	10
Total	431	416	15

302. A large increase in the amount of this work is to be reported, and it will be noted that no serious amount of adulteration was detected. There were no cases of watered milk but many cases of exhausted tea occurred. This is due to the demand for a very cheap tea, which is supplied by drying used tea-leaves obtained from Chinese tea-houses and restaurants.

303. The phosphatase test for pasteurized milk was used as a routine check on milk supplied to the public.

(*c*) *Water & Sewage Samples.*

304. Routine analyses of the public supplies were carried out during the year.

305. Samples of water from water boats were examined periodically for presence of sea-water. This contamination occurred much less frequently than in 1938.

(*d*) *Biochemical Examinations.*

306. There has been a very large increase in this branch of work, as a result of which it has been decided to engage another junior assistant.

Table LXI.

Blood for blood urea nitrogen	137	samples.
,, ,, ,, sugar	105	,,
,, ,, ,, calcium	6	,,
,, ,, ,, van den Bergh tests	11	,,
,, ,, ,, sodium chloride	1	,,
Calculi	12	,,
Fluid taken from cyst	1	,,
A black lump from cyst	1	,,
Faeces	22	,,
Cerebrospinal fluid	2	,,
Urine	102	,,
Gastric contents	629	,,
Blood samples in connexion with air raid precaution tests	112	,,
Urine samples in connexion with air raid precaution tests	48	,,

(*e*) *Materials from Government departments for testing.*

307. In order to determine the price to be paid to the contractors, routine tests were carried out of all consignments of coal supplied to government. Government departments generally made more use of this laboratory than in previous years.

308. Fumigation of books by means of hydrocyanic acid gas was again carried out in several government buildings.

(f) Semi-Official & Unofficial Work.

309. After the falling off of unofficial work following the Japanese occupation of Canton in the autumn of 1938, improvement was seen in the spring of 1939, until in the summer of that year the amount dealt with was normal, but, following the European crisis in August, a very bad slump occurred and no improvement had taken place up to the end of the year. However, the large increase in Government work more than made up for the loss of unofficial work.

Table LXII

	Semi-official work.	*Unofficial work.*
Examination of steamer tanks for inflammable vapour ...	2	21
Foodstuffs and fertilizers	18	19
Oils (including fuel, kerosene & petrol)	36	80
Battery acids	23	0
Water samples	0	19
Chemicals	7	1
Minerals and metals	0	196
Biochemical examinations	0	1
Dangerous goods	0	12
Pharmaceutical samples	0	6
Miscellaneous samples	6	14
Total	92	369
Value of work done	$1,562.00	$19,784.00

(g) Sampling.

310. The following list gives the amount of sampling done by the sampler attached to the laboratory.

Table LXIII.

	1938		*1939*	
Tin	3,751	tons	2,530	tons
Lard	43,203	cases	18,108	cases
Wolfram ore	15	tons	—	
Cassia oil	30	drums	3	drums
Firecrackers	1,699	cases	2,301	cases
Aniseed oil	—		20	drums
Brandy	—		25	cases
Water	2,010	samples	2,102	samples

(h) Special Investigations.

311. A new method for the estimation of alcohol in urine has been adopted. This method avoids the large amount of manipulation of an expensive apparatus previously necessary. Another method, which has been suggested in the laboratory here and which, if successful, will reduce the time and manipulation still further, is being investigated. Preliminary tests indicate that there are possibilities in this suggested method.

312. As stated above, work is being carried out on the alkaloids of Gelsemium elegans Benth.

313. Work in connexion with the estimation of tin and arsenic in wolfram was completed and the new methods adopted.

314. In order to determine the effect of air raid precaution work on typical Hong Kong citizens of various nationalities, a series of bio-chemical examinations were made in conjunction with the Medical (Defence) Sub-Committee.

(*i*) *Staff & Equipment.*

315. Mr. J. Redman proceeded on long leave on the 6th. of March and returned on the 23rd. of December.

(*j*) *Revenue.*

316. The fees paid into the Treasury during the year amounted to $20,702.50 as against $30,085.00 in 1938. The value of work done, both Government and commercial, as determined from the Tariff of Charges was $97,488.50 as against $89,709.00 in 1938.

(*k*) *Expenditure for 1938 & 1939 compared.*

Table LXIV.

	1938	*1939*
	$	$
Personal emoluments	52,450.25	56,423.77
Other charges :—		
Apparatus & chemicals	4,113.19	4,059.97
Books & journals	369.24	254.87
Conveyance allowance	166.27	175.61
Fuel & light	1,299.47	1,257.95
Incidental expenses	311.39	297.56
Uniforms	99.14	104.69
Total other charges	6,358.70	6,150.65

V. C. BRANSON, M.C., A.R.C.S., D.I.C., B.SC., F.I.C.

Government Chemist.

(D) Report of the University Professorial Units.

UNIVERSITY CLINICAL UNITS AT THE QUEEN MARY HOSPITAL.

MEDICAL UNIT

(a) Report by the Professor of Medicine.

317. After Professor W. I. Gerrard's departure on leave in March, 1939, the department came under the charge of Dr. P. B. Wilkinson. The staff during the remainder of the year included a first and second assistant, a clinical assistant and a house physician.

318. The acting professor has given a course of systematic lectures throughout the year to the fourth and sixth year students and to some of the fifth year students, in addition to which he takes two teaching rounds a week at the Queen Mary Hospital, and two out-patient clinics a week at the old Government Civil Hospital. The first assistant takes one teaching round a week at the Queen Mary Hospital and the second assistant gives a course of systematic lectures in therapeutics.

319. One new post was created during the year, that of lecturer in childrens' diseases. Dr. Lee Hah Liong was appointed in July, 1939, and he has since been in charge of the childrens' clinic in out-patients on Thursday mornings, in addition to which he takes two teaching rounds a week in the childrens' ward. He also makes a round with the professor once a week.

320. Considerable attention has been paid throughout the year to the specific infectious diseases, and the practice of taking groups of students to the Infectious Diseases Hospital for teaching at the bedside has been begun and maintained. It has proved possible to fit in a teaching round once a week at the Infectious Diseases Hospital and in addition to this one of the set lectures each week is now devoted to an infectious disease. It is obviously important that those who intend to practise medicine in China should be intimately acquainted with smallpox, cholera and the purulent meningitides, the diseases which constitute the bulk of the material at the Infectious Diseases Hospital.

321. Investigations have been carried out on the effect of the sulphanilamide preparations in various infections, the three most important being lobar pneumonia, typhoid and meningococcal meningitis. The number of cases treated in any one group thus far is too small to enable definite results to be drawn, but it seems that streptocide is of little use in typhoid infections, and the incidence of sequelae such as empyema and lung abscess appears to be increased slightly by the use of M. and B. 693. A method of estimating the concentration of the sulphanilamide drugs in the body fluids has recently been adapted from Marshall's diazo colorimetric method, and has already proved of considerable use in the accurate treatment of those diseases which respond to this group of drugs.

322. Some work has also been done on the vitamin C content of the tissues, using Rotter's dichlorophenolindophenol test, and the results obtained have been published in the Caduceus. A more direct attack on the problem of beri-beri has been initiated, in cooperation with the department of physiology, by the employment of a colorimetric method for the estimation of the vitamin B_1 content of various foodstuffs. It is hoped that by the use of this method an assay of locally occurring products which contain vitamin B_1 may be made.

323. The incidence of beri-beri remains high and it is curious to note how slow the therapeutic response is to B_1 rich diets. Even when these are supplemented with parenteral administration of the vitamin the clinical response is usually slow.

324. Investigations have been made on the Mantoux reactions of a group of in-patients chosen at random, and they show clearly that the percentage of positive reactions rises with age, only 15% of the one to five year group being positive whereas over 80% of the above twenty groups give a positive reaction. These results seem to indicate that it is a waste of time and material to Mantoux test adults of over twenty.

325. The provision of after-care for cases of tuberculosis and cardiovascular disease constitutes a formidable problem. The position as regards tuberculosis will not improve until the disease is attacked from the social side for the simple reason that there is not hospital accommodation in the Colony for a fiftieth of the cases which exist. The cardiac cripples are in equally unhappy cases and are compelled to eke out their existence by alternating between hospital and slum home. The majority of the children who suffer from cardiac disease are classified as cases of rheumatic carditis, but it is worthy of note that Sydenham's chorea and rheumatic nodules are never seen clinically, nor is it common to find Aschoff's nodes when the myocardium is examined.

326. The two outstanding aetiological problems which confront us here at the moment are the carditis of children and the cirrhosis of the liver which is so common in young adult males. The former is not distinctively "rheumatic" in the European sense of the term, and whatever the latter is, and no factor has yet been incriminated, it is certainly not alcoholic.

327. Cases treated as inpatients in the university teaching medical wards :—

Men	211	344
Women	133	
Children (under 12 years old)		130
Total		474

Number of cases died during the year.

Adults	36
Children	28
Total death	64

328. Cases treated as out-patients at the university medical out-patient clinics :—

(*a*) *Afternoon clinic* (general medical cases)
Mondays and Thursdays :

1,646 new cases seen and treated : many of these cases attended more than once, bringing to a total of 4,395 attendances.

(*b*) *Children's clinic.*

Thursday mornings :

461 new cases seen and treated : many of these cases attended more than once, bringing to a total of 1,286 attendances.

The total number of cases seen and treated by the medical unit at out-patients department both general and children during the year 1939 was 5,681 (this figure included old and new cases, men, women and children).

329. The following special tests have been carried out :

Table LXV.

Blood urea	30
Blood sugar	6
Fractional test meal	25
Blood sedimentation rate	153
Urea clearance test	3

330. *Classification of Diseases (in-patients) 1939.*

Table LXVI.

ADULTS.

SPECIFIC INFECTIOUS DISEASES :	
Bacterial :	
Cerebro-spinal meningitis	1
Diphtheria	1
Dysentry :	
Amoebic dysentery	2
Bacillary dysentery	1
Leprosy	1
Pneumonia :	
Lobar pneumonia = 9 Resolving ,, = 1	10
Typhoid fever	10
Tuberculosis :	
Acute miliary (generalized) tuberculosis	7
Peritoneal tuberculosis	5
Pulmonary tuberculosis	31
Protozoan :	
Malaria :	
B. T. malaria	4
B.T. & S.T. malaria	8
Clinical malaria	7
S.T. malaria	6
Black water fever	1

Metazoan :

Ankylostomiasis	15	
Ascariasis	6	
Taeniasis	3	
Spirochaetes :		
Syphilis :		
Cerebral syphilis	3	
Latent syphilis	1	
Diseases of doubtful etiology :		
Rheumatic fever	1	
Whooping cough	1	
		125
INTOXICATIONS :		
Opium addiction	9	
		9
DISEASES OF METABOLISM AND OF DEFICIENCY :		
Beri-beri	22	
Diabetes mellitus	3	
Obesity	1	
		26
DISEASES OF DIGESTIVE SYSTEM :		
Diseases of teeth, gums, mouth & salivary glands :		
Acute tonsillitis	1	
Epithelioma of oesophagus	1	
Diseases of stomach & duodenum :		
Carcinoma of stomach	1	
Dyspepsia	1	
Peptic ulcer = 8 Duodenal ulcer 5	13	
Diseases of intestines :		
Constipation	4	
Intestinal colics	1	
New growth of colon	2	

Diseases of liver and gall bladder :

Carcinoma of liver	3	
Cirrhosis of liver	9	
Jaundice	2	
		38

DISEASES OF RESPIRATORY SYSTEM :

Broncho-pneumonia	5	
Bronchial asthma	3	
Empyema	1	
Pleurisy :		
Acute pleurisy	1	
Pleurisy with effusion	7	
		17

DISEASES OF KIDNEY AND URINARY TRACT :

Chyluria	2	
Haematuria	3	
Nephritis :		
Acute nephritis	1	
Chronic parenchymatous nephritis	3	
Sub-acute nephritis	7	
Pyelitis	2	
		18

DISEASES OF BLOOD AND SPLEEN :

Banti's syndrome	2	
Hypochromic anaemia	5	
Purpura	2	
Splenomegaly	3	
		12

DISEASES OF ENDOCRINE GLANDS :

Carcinoma of thyroid	2	
Diabetes insipidus	1	
Exophthalmic goitre	3	
		6

DISEASES OF CIRCULATORY SYSTEM :

Disturbances of the cardiac rhythm :

Auricular fibrillation	3

Affection of myocardium :

Cardiac insufficiency	6

Endocarditis :

Aortic incompetence	4
Mitral incompetence	1
Mitral stenosis	7
Chronic endocarditis	6
Rheumatic endocarditis	2

Syphilitic cardiovascular diseases :

Syphilitic aortitis	1
Syphilitic aneurysm of the aorta	1

Congenital affections of heart :

Congenital heart disease (undetermined)	1
	32

DISEASES OF NERVOUS SYSTEM :

Diseases of the cranial nerves :

Facial paralysis	1
Trigeminal neuralgia	2

Syphilis of central nervous system :

G.P.I.	1
Syphilitic meningo-myelitis	3
Tabes dorsalis	3

General nervous diseases of indefinite origin :

Epilepsy	2
Post encephalitic parkinsonism	3

Vascular lesions of the brain :

Cerebral haemorrhage	1
Cerebral thrombosis	1
Hemiplegia	2
Psychoneurosis	3
	22

DISEASES OF MUSCLES, JOINTS AND BONES :

Rheumatic arthritis	2	
Osteo-arthritis	2	
		4

DISEASES OF SKIN :

Blue pigmentation of skin	1	
Dermatitis	1	
Elephantiasis	1	
		3

OBSERVATION :

Cases under observation	12	
Cardiac diseases	3	
Debility	2	
Epistaxis	1	
Pyrexia of undetermined origin	5	
Occupational cramp	1	
Miscellaneous eye diseases	2	
,, gynaecological diseases	3	
,, surgical diseases	3	
		32
Total	=	344 cases

P. B. WILKINSON,
M.B., B.S., M.R.C.P.

SURGICAL UNIT

(b) Report of the Professor of Surgery.

331. *Cases treated* :—

Table LXVII.

Treated in surgical wards (Horsley, Hilton and Lister)	509
Out-patients department	2,912
Ear, nose and throat department	1,515
Eye clinic (in-patients)	210
Eye clinic (out-patients)	2,819
Total	7,965
Operations under general anaesthesia	737

332. The following papers were published :—

"A Case of Old Ununited Fracture of the Patella With Wide Separation of Fragments—Excision of Patella—Musculo-aponeurotic Transplant to Close Gap."

By K. H. Digby, and Wm. Lai Fook, Caduceus, Vol. 18, No. 1. February, 1939.

"A Case of Fracture of the Neck of the Right Femur with Anterior Dislocation of the Head (also Fracture of the Shaft of the Left Femur) illustrating the Importance of the Retinacula."

By K. H. Digby and T. K. Lien, Caduceus, Vol. 18, No. 1. February, 1939.

"A Method of Raising Bone Flaps in Cranial Surgery."

By K. H. Digby.

333. Investigations have been carried out in connexion with a new kidney incision, with an apparatus to aid in ventricular puncture; and the study of nasopharyngeal carcinoma has been continued.

334. The weekly staff rounds from 5 p.m. to 6 p.m. on Mondays (which general practitioners and other qualified men are invited to attend) have been continued throughout the year.

KENELM H. DIGBY,
O.B.E., M.B., B.S.; F.R.C.S. (ENG.)

OBSTETRICAL AND GYNAECOLOGICAL UNIT.

(*c*) *Report by the Professor of Obstetrics and Gynaecology.*

OBSTETRICAL UNIT.

335. During the year the following numbers of cases were treated :—

Table LXVIII.

Attendances at antenatal clinics :—

New cases	966
Return visits	1,019
Total	1,985

Admissions to Tsan Yuk Hospital :—

Delivered in hospital :

	Booked.	Emergency.	Total.
(*a*) Discharged	222	2,918	3,140
(*b*) Transferred	1	5	6
Born before arrival	—	9	9
Discharged undelivered	13	143	156
Died, (*a*) after delivery	—	15	15
(*b*) undelivered	—	2	2
Totals	236	3,092	3,328

336. *Booked and emergency cases.* It will be noticed that the booked cases only number 236, or slightly less than 8% of the total number of cases admitted. It is also noteworthy that there were no maternal deaths among the booked cases, whereas seventeen deaths occurred among the emergency cases.

Of the 236 booked cases, 85 were primigravidae and 151 were multigravidae.

Of the 3,092 emergency cases, 983 were primigravidae and 2,109 were multigravidae.

337. *Antenatal clinics.* During the year an effort has been made to increase the attendances at the antenatal clinics. The number of clinics has been increased from two to four per week, and the total number of attendances has risen from 1,064 last year to 1,985 in the present year. A special leaflet indicating the advantages of antenatal care is distributed to every patient attending the clinic for the first time.

338. *Deliveries in hospital.* In the Tsan Yuk Hospital, during the year under review, 3,161 mothers were delivered of 3,191 infants. These figures include thirty cases of twin delivery, and constitute a record number since the hospital was founded. The various presentations are classified as follows :—

Table LXIX.

Vertex presentations	3,016
Persistent occipito-posterior	64
Breech	96
Face	3
Brow	2
Shoulder	10
Total	3,191

339. *Operative deliveries.* Of the above cases a total of eighty-seven or 2.7%, were delivered by operative means. The measures used for delivery were as follows :—

Table LXX.

Forceps	64
Internal version	13
Embryotomy	1
Caesarean section	7
Caesarean hysterectomy	2
Total	87

340. *Maternal morbidity.* There were 116 cases in the maternity wards who showed a temperature of 100.4°F. or over on two or more occasions during the puerperium. In addition there were fourteen maternal deaths without pyrexia. This gives a maternal morbidity rate of 4.1%.

341. *Maternal Mortality.* There were seventeen maternal deaths during the year, giving a maternal mortality rate of 0.51%. The causes of death are classified as follows :—

Table LXXI.

Causes of death.

Pre-eclampsia, cardiac failure (one died undelivered) ...	4
Acute beri-beri, cardiac failure	3
Obstructed labour, shock	2
Post-partum haemorrhage	2
Cerebro-spinal meningitis	1
Advanced pulmonary tuberculosis	1
Typhoid, pyelitis	1
Suppurative pyelo-nephritis	1
Congenital polycystic kidneys	1
Total	16

342. *Infant statistics.* During the year 3191 infants were born in the Tsan Yuk Hospital. The results are classified as follows :—

Table LXXII.

Macerated foetus	28
Stillbirths	61
Neo-natal deaths	69
Living infants	3,023
Total	3,191

Still-birth rate (including macerated foetus)	3.10%
Neo-natal death-rate	2.16%

343. *Infant welfare clinics.* During the year much of the infant welfare work formerly done at the Tsan Yuk Hospital has been transferred to the newly opened Government clinics at the former Government Civil Hospital, thus enabling additional antenatal clinics to be held in the Tsan Yuk Hospital. Attendances at the infant welfare clinics have been as follows :—

Table LXXIII.

Infant welfare clinics :—

New cases	746
Old cases	372
Total	1,118

344. *Post-natal clinic.* During the latter half of the year a post-natal clinic has been organized in the hope that follow-up work may be done on all cases discharged from the hospital. One of the special objects of this clinic is to provide contraceptive advice to suitable cases, and to this end close co-operation with the Hong Kong Eugenics League has been established. Another aim is to follow up all cases of pregnancy toxaemia, as a special study of this subject has been commenced.

GYNAECOLOGICAL UNIT.

345. During the year the following numbers of cases were treated :—

Table LXXIV.

Gynaecological out-patients :—

New cases	2,909
Old cases	2,660
Sterility clinic	129

Gynaecological in-patients :—

Admissions to Queen Mary Hospital	413
Number of operations performed	302
Number of cases subjected to Deep X-ray or radium therapy	18
Deaths	8

346. *Sterility clinic.* A special clinic for the investigation of female sterility has been started and is held once weekly. There have been 129 attendances and utero-tubal insufflation by the kymographic method has been carried out in all cases.

347. *Deep X-ray and radium therapy.* Considerable use has been made of the new facilities for treating malignant and other diseases by means of deep X-ray therapy, and the results shown have so far been distinctly encouraging. Since the supply of radium again became available during the latter part of the year four cases of carcinoma of the cervix have received full courses of treatment, and a long waiting list has been built up.

348. *Department laboratory.* With the approval of the director of medical services, a room has now been set aside in the Queen Mary Hospital as a department laboratory. The room is adjacent to the university gynaecological ward, and has already proved to be of the utmost value to staff and students alike. Space is also available in the laboratory for the collection of pathological slides which is being built up, and for the storage of the gynaecological records, which are now being filed according to a new system.

GORDON KING,
F.R.C.S. *(Eng.)*, F.R.C.O.G., L.R.C.P., *(Lond.)*.

P. S. SELWYN-CLARKE,
Director of Medical Services.

APPENDICES.

APPENDICES.

Return A.

MEDICAL, HEALTH AND LABORATORY SERVICE STAFF.

(i) Administrative Staff.

The director of medical services	1
Deputy director of medical services	1
Secretary to the Nutrition Research Committee (temporary)	1

Clerical Staff.

Secretary	1
Accountant	1
Assistant secretary	1
Stenographers	2
Class II Local Section	1
Class III Local Section	1
Clerk, Class II	1
Clerks, Class III	3
Clerks, Class IV	4
Clerks, Class V	3
Clerks, Class VIa	5
Clerks, Class VIb	41
Special Class Clerks	2

(ii) Investigative Division.

Bacteriological Institute.

Bacteriologist	1
Assistant bacteriologist	1
Local assistant bacteriologist	1
Senior laboratory assistant	1
Laboratory assistants	5
Probationer laboratory assistant	1

Malaria Bureau.

Malariologist	1
Assistant to malariologist	1
Malarial inspectors	7
Probationer malarial inspector	1

(iii) Chemical Division.

Government chemist	1
Assistant government chemists	2
Assistant chemists	3

(iv) Health Division.

Administrative—Urban.

Deputy director health services	1
Senior health officer (vacant)	1
Health officers (2 vacancies)	4
Chinese health officer, senior grade	1
Chinese health officers	2
Lady medical officer	1

Port Health Branch.

Port health officer and inspector of emigrants	1
Second port health officer and inspector of emigrants	1
Chinese port health officers	2
Port health inspectors	2
Chinese health inspector	1
Public vaccinators (1 vacancy)	12
Public vaccinators (temporary) (1 vacancy)	24

Fumigating and Disinfecting Bureau.

Fumigator	1

Social Hygiene Branch.

Health officer, social hygiene	1
Chinese health officer, social hygiene	1
Technical assistant, social hygiene	1
Charge dressers, Class I	2
Staff dressers	2
Social hygiene nurse	1

Maternity and Child Welfare Branch.

Lady medical officer	1
Chinese lady medical officers	2
Infant welfare nurses	10
Infant welfare nurse (temporary)	1

School Hygiene Branch.

Health officer for schools	1
Chinese medical officers for schools	2
School nurses	5
School sanitary inspector	1

Chinese Hospitals and Dispensaries Branch.

Visiting medical officer	1
Lady visiting medical officer	1
Chinese resident medical officer, senior grade	1
Chinese resident medical officers	2
Chinese lady medical officers	3
Stenographer	1
Interpreter and assistant	1
Tutor sister	1
Dispensary nurse	1
Midwives	8

(v) Medical Division.

Clinical Branch (General).

Government consultants	3
Senior medical officer	1
Medical officers	11
Chinese medical officers	6
House officers	8
House surgeons	2

Nursing Staff (General).

Principal matron	1
Matrons	3
Senior nursing sisters	11
Nursing sisters	50
Nursing sisters (temporary)	2
Charge nurses (vacant)	3
Staff nurses	18
Probationer nurses	101
Charge dressers, Class I	2
Charge dressers, Class II	6
Staff dressers	5
Probationer dressers	32
Linen maid	1

Nursing Staff (Mental Hospital).

Head attendant	1
Assistant attendant	1
Mental nurses	3
Probationer dressers	3

Kennedy Town Hospital (Infectious Diseases).

Charge nurse	1
Staff nurse	1
Probationer nurse	1
Charge dressers, Class II	2
Staff dresser	1
Steward	1

Kowloon Hospital Infectious Diseases Block.

Probationer nurses	3
Probationer dressers	2

Tsan Yuk Maternity Hospital.

House medical officers	2
Matron	1
Assistant matron	1
Midwives	6
Pupil midwives	16

Stewards.

Chief steward	1
Steward	1
Steward (temporary)	1

Pharmacy Branch.

Chief pharmacist	1
Pharmacists	2
Pharmacist (temporary)	1
Storekeeper	1
Charge dispensers, Class I	3
Charge dispensers, Class II	4
Staff dispensers	3
Probationer dispensers	5

Radiological Branch.

Radiologist	1
Radiographers	2
Masseuses	2
X-Ray sister	1
Staff masseuse	1
Probationer masseuses	2
Staff radiographic assistants	2
Radiographic assistants	2

New Territories Branch.

Health officer	1
Chinese medical officers	2
Midwives	8
Staff dresser	1
Chinese sanitary inspectors	3

Miscellaneous.

Steward's storeman	1
Storeman	1
Electrician	1
Installation mechanic	1
Fitters	4
Motor drivers	2
Office attendants, messengers, wardboys, amahs, coolies, etc.	531

Lai Chi Kok Temporary Chinese Hospital.

Chinese medical officers	3
Matron	1
Assistant matron	1
Nurses (1 vacancy)	16
Probationer dispenser	1
Steward, boys, amahs and coolies	37

Almoner Service.

Almoner	1
Assistant almoners (vacant)	2

Return B.

LIST OF CHINESE CHARITABLE, GOVERNMENT, NAVAL, MILITARY AND PRIVATE HOSPITALS, ETC.

Chinese charitable hospitals.

Chinese Eastern Maternity Hospital.
Kwong Wah Hospital.
Tung Wah Eastern Hospital.
Tung Wah Hospital.

Government hospitals.

Female Prison Hospital, Lai Chi Kok.
Hong Kong Prison Hospital at Stanley.
Infectious Diseases Hospital.
Kowloon Hospital.
Ku Tung Maternity Ward.
Lai Chi Kok (Cholera) Hospital.
Lai Chi Kok (Relief) Hospital.
Leper Settlement.
Mental Hospital.
Queen Mary Hospital.
Sai Kung Maternity Ward.
Tai Po Maternity Ward.
Tsan Yuk Hospital.

Naval hospitals.

Naval Hospital, Wanchai.
Royal Naval Sanatorium.

Military hospitals.

Combined Military Hospital, Kowloon.
Military Hospital, Bowen Road.

Private hospitals.

Alice Memorial and Affiliated Hospitals.
Babington Hospital and Sanatorium.
Canossa Hospital.
Haw Par Hospital.
Hong Kong Sanatorium and Hospital.
Kam Tin Maternity Hospital.
Majima Hospital.
Matilda Hospital.
Precious Blood Hospital.
St. Francis Hospital.
St. Paul's Hospital.
Tsuen Wan Maternity Hospital.
War Memorial Hospital.

Appendix I.

FIRST ANNUAL REPORT

OF

THE EXPANDED NUTRITION RESEARCH COMMITTEE, HONG KONG.

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1. *Meetings.*

Nine meetings of the committee were held during the year at the Medical Headquarters.

2. *Membership* :—

Hon. Dr. P. S. Selwyn-Clarke, M.C.,	Chairman.
His Honour Sir Atholl D. A. MacGregor, K.C.,	Member.
Dr. (Mrs.) A. L. J. Dovey,	,,
Mr. F. Flippance, Supt. Botanical and Forestry Dept.	,,
Professor W. I. Gerrard, O.B.E.,	,,
Dr. G. A. C. Herklots,	,,
Mr. F. H. Loseby,	,,
Dr. Li Tsoo-yiu,	,,
Professor L. T. Ride (Dr. E. Q. Lim as proxy),	,,
Dr. K. H. Uttley,	,,
Professor P. B. Wilkinson,	,,
Dr. (Miss) F. Y. C. Woo, M.B.E.	,,

3. *Appointment of Secretary.*

Mr. Kuang T. Liu was appointed as Secretary of the Committee at a salary of $200 in May, 1939. At the end of the year the Committee acceded to a request of the University of Hong Kong that Mr. Liu should act as part-time lecturer in biochemistry during the absence from the Colony of Professor Ride. This arrangement was approved by Government.

4. *Subcommittees.*

Three subcommittees were appointed during the year, namely :—

(1) Scientific —Professor Gerrard, Professor Ride and Professor Wilkinson.

(2) Sociological—His Honour Sir Atholl MacGregor, Dr. (Mrs.) Dovey, Mr. Loseby and Dr. (Miss) Woo.

(3) Publicity —Hon. Dr. Selwyn-Clarke, Dr. Herklots, Dr. Li and Dr. Uttley.

5. *Dietary Survey.*

A questionaire was drawn up for use in the collection of material for a dietary survey among the Chinese population. The survey was started by thirty third year students of the University under Professor Ride in the Autumn. Eighty to one hundred families were investigated by each student. The data are now being analysed.

6. *Soya bean.*

The nutritive value of soya bean milk was recognized and publicity given in the press to the use of these products and information sent to the Society for the Protection of Children, the Hong Kong Refugee and Social Welfare Council and to other relief organizations.

7. *Unpolished rice.*

The use of unpolished rice in preference to polished rice was recommended. Biscuits containing rice polishing were tested, but clinical trials had to be relinquished because of failure of the supply of biscuits.

Unpolished rice in the proportion of one quarter to three quarters of white rice was issued in all Government camps for refugees and destitutes during the year as an anti-beri beri measure.

8. *Activities of Subcommittees.*

(A) Scientific—

(*a*) A number of beds were put aside in the Queen Mary and Lai Chi Kok Relief Hospitals for the investigation of persons suffering from B_1 deficiency and for treatment of such cases with various articles of diet containing the anti-beri beri factor.

(*b*) An investigation into the calorie value of the diets given at the Government Refugee Camps showed that they had the following approximate values :—Men, 3,200; Women, 2,600; Children seven to fourteen years old, 2,000; Children under seven years, 1,300 calories. The proportions were correct, but the quantities were somewhat on the generous side. It was decided that it was desirable to continue giving these quantities because many of the refugees were undernourished on admission to the camps.

(*c*) Another investigation showed that patients deficient in vitamin C do not progress favourably on the ordinary diet.

(*d*) A number of investigations have been started but have not yet been completed, including the following :—

(*i*) Blood-pressure changes during the treatment of beri beri with intravenous vitamin B_1.

(*ii*) A comparison of the growth and development of children on controlled diets in camps with that of poor children in their homes, and the children on controlled diets in the Physical Culture Institution.

(*iii*) An investigation to ascertain whether the oedema of pregnancy is due to mal-nutrition or to other causes.

(*iv*) The effect on the neuro-muscular system of the administration of betabion to beri beri patients.

(*v*) The vitamin B_1 content of local foodstuffs and excretions.

(*vi*) The relation between callous formation and vitamin C deficiency.

(*e*) An investigation of 150 lower and middle class Chinese has shown that 60% had no deficiency of vitamin C, as shown by an intradermal test.

(B) Sociological—

This subcommittee investigated the relation, if any, between the influence of rents for market stalls on the price of foodstuffs and ancillary matters, such as transport charges, likely to affect the price of food. The subcommittee came to the somewhat surprising conclusion that there was no correlation between the two.

The subcommittee also went into the question of employers of labour providing meals for their employees, and also the conditions under which they are supplied.

(C) Publicity—

The subcommittee arranged for a series of broadcast talks and lectures to clubs, schools and other institutions, and to nurses and midwives.

The following took part in these lectures :—

(*i*) Dr. Au King to University students;

(*ii*) Dr. S. Y. and H. Y. Cheng over the radio on "What the expectant mother should eat", "Infant feeding" and "The correct diet for children from two to five years of age".

(*iii*) Mr. Flippance to the Press on "The home cultivation of vegetables".

(*iv*) Dr. Herklots to the Rotary and Press on "The value of fish as food".

(*v*) Dr. J. Lanchester over the radio on "What to eat".

(*vi*) Dr. Li Tsoo-yiu to the Chinese Y.M.C.A. on "Nutrition in relation to health and disease".

(*vii*) The Chairman to the Press on "Soya bean milk", "Soya bean cake", "Suggestions for home vegetable cultivation in Hong Kong" and "Emergency rations".

(*viii*) Dr. F. I. Tseung to the Press on "The Nutrition of expectant mothers", "The problem of infant feeding", "Principles of feeding of pre-school child" and "Nutrition of the school child and young adult".

(*ix*) Dr. Li also prepared a list of vegetables favoured by northern Chinese which was forwarded to the New Territories Agricultural Association and the Hong Kong Refugee and Social Welfare Council for their guidance, and on vitamins for the New Territories Agricultural Association annual show. Pamphlets in Chinese on the feeding of babies, children and expectant mothers were distributed in the New Territories by the District Officers.

9. *Summary.*

The first full year of the expanded Nutrition Research Committee was characterized by satisfactory progress in and development of the activities of this body. Important investigations were undertaken both from the scientific and sociological standpoint and a considerable amount of useful propaganda was carried out on dietaries suitable for the bulk of the population living near, on or below the poverty line.

Appendix I (a).

SUMMARY OF A REPORT AND THE MAIN FINDINGS OF THE SURVEY ON THE ORAL AND DENTAL CONDITIONS OF CHINESE CHILDREN IN HONG KONG.

Realizing the fact that dental disease is one of the most common disabilities and, besides the immediate inconvenience or suffering it brings, undoubtedly contributes greatly to the onset of other forms of ill health and in a great variety of ways to an incalculable total of economic and human loss; and realizing the apparent prevalence of dental disease among Chinese children, it was decided that a survey should be carried out in order to determine the actual extent to which they are affected by dental disease, in order that proper measures could be taken to cope with the problem intelligently. The investigator was instructed by the director of medical services to undertake the task, which has recently been completed.

In this survey special emphasis is laid on the incidence of dental caries and on the time of eruption of permanent teeth of Chinese children; and appropriate consideration was given to the incidences of malocclusion, arrested caries, hypoplasia and gingivitis. This survey has revealed facts that are of definite value. The summary of the results are as follows :—

(1) The children furnishing the statistics are refugees in the emergency refugee camps. The total number examined was 1,131, out of this number about a thousand of them are from Hong Kong and its vicinity, and 120 of them are from Central China. It was found that 90.8 per centum of children from South China have carious teeth. The total number of permanent teeth examined = 13,414, out of this number 2,418 or 16.01 per centum are carious; the total number of deciduous teeth examined = 9,899 and out of this number 3,896 or 39.35 per centum of them are carious.

(2) Most caries in permanent teeth among children of South China starts on the occlusal surface—90.54 per centum of all caries in permanent teeth is among the molars, and 96.87 per centum of caries in the molars starts on the occlusal surface. This seems to indicate that structural defects, in forms of pits and fissures to be the main predisposive cause of caries in children's permanent teeth.

(3) The incidence of caries affecting the occlusal surface of deciduous teeth is higher than that affecting the other surfaces, while the lingual surface is least affected. Concerning caries affecting these surfaces, Chinese children show higher incidence than English children. The buccal and lingual surfaces of deciduous teeth of Chinese children have a higher incidence, while their proximal surface have a lower incidence of caries in comparision with those of English children in England.

(4) Permanent teeth of the right side of the jaws are slightly less affected by caries than those on the left side. This seems to suggest that adequate usage of teeth would promote development and avoid caries to a certain extent.

(5) Upper anterior deciduous teeth are affected more by caries than the lower. Deciduous teeth of the left and right sides are affected by caries with about equal frequencies; and caries affecting deciduous teeth is observed in more or less bilaterally symmetrical manner.

(6) Permanent lower first molars when first erupted is found to take a slightly distal position, then slide slightly forward, after the shedding of the deciduous second molars mesial to them.

(7) Dental caries is found to be more prevalent among children of South China than among those from Central China. Permanent teeth of children from Central China grow more regularly, and they erupt in better order.

(8) The mean eruption time and the order of eruption of permanent teeth of Chinese children of South China correspond quite closely to that of English children. Those teeth that erupt before the age of nine appear earlier among the English, while those that erupt after that age appear earlier among the Chinese. (See following table and chart.)

(9) Arrested caries affecting deciduous teeth is about twenty times more frequent than that affecting permanent teeth.

(10) The several observed types of hypoplasia on teeth are found to affect teeth less frequently among Chinese children than among English children in England. The ratios are about 1 to 7 for permanent teeth, and 1 to 3 for deciduous teeth.

(11) Salivary calculus around permanent teeth is found to be more common among children from Central China than among children in South China.

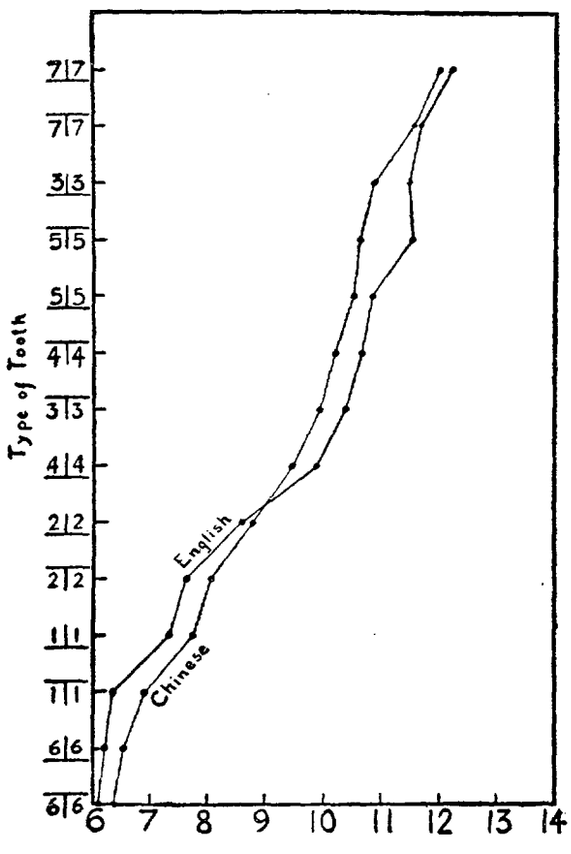
From this survey it is concluded that dental caries among Chinese children is prevalent beyond doubt. In order to improve the situation, preventive measures in ways of operative dental treatments, prophylaxis and dietetic adjustment should urgently be resorted to.

Table on time of eruption of permanent teeth.

Table showing the ages at which fifty per centum of the several types of teeth are found in any stage of eruption for both sexes together.

Type of tooth	English Age in years	Chinese Age in years
$\frac{6}{6}$	6.10± .51	6.39± .55
$\frac{6}{6}$	6.23± .50	6.54± .35
$\frac{1}{1}$	6.36± .50	6.92± .70
$\frac{1}{1}$	7.31± .49	7.74± .73
$\frac{2}{2}$	7.61± .53	8.03± .87
$\frac{2}{2}$	8.59± .69	8.78± .70
$\frac{4}{4}$	9.87± .94	9.46± .84
$\frac{3}{3}$	10.35± .75	9.91± .83
$\frac{4}{4}$	10.61± .94	10.19± .71
$\frac{5}{5}$	10.81±1.04	10.50± .94
$\frac{5}{5}$	11.51±1.09	10.71± .98
$\frac{3}{3}$	11.47± .82	10.87± .90
$\frac{7}{7}$	11.69± .78	11.56± .63
$\frac{7}{7}$	12.20± .77	12.00± .73

Graph showing the variation of eruption time of permanent teeth between English and Chinese children.



In the table each age + or—the adjacent fraction of a year gives the age limits within which fifty per centum of the teeth erupt. These limiting ages are the ages at which twenty-five per centum and seventy-five per centum respectively are, in the stages of eruption, considered.

T. C. Lau, D.D.S.

Appendix I (b).

DIETARIES FOR REFUGEES WHICH INCLUDES THE PREPARATION AND SUPPLY OF STIPULATED DIETS.

Table I.

DIETS.

FULL DIETS.

Foodstuff.	Weight in ounces.			
	Men.	Women.	Children 7—14.	Children 1—7.
*Rice	18 ozs.	16 ozs.	12 ozs.	8 ozs.
†Pork or beef or fresh fish or salted egg	1 oz.	1 oz.	¾ oz.	½ oz.
Salted fish or vegetables...	1½ ozs.	1½ ozs.	1 oz.	1 oz.
Fresh vegetables	10 ozs.	6¾ ozs.	5 ozs.	3.375 ozs.
Soya beans	1½ ozs.	1½ ozs.	1 oz.	¾ oz.
Oil	1 oz.	1 oz.	¾ oz.	½ oz.
Salt	¼ oz.	¼ oz.	¼ oz.	⅜ oz.
Tea	¼ oz.	¼ oz.	—	—

*Rice: 75% whole white rice; 25% whole red rice.

†Meat: 3 days in a week; Monday, Wednesday, and Friday:

On meatless days the adults shall be given salted fish and/or Chinese cheese (foo yee). The children from 1-14 shall be given salted egg up to the scheduled weight on the four meatless days per week. Fresh green leafy vegetables shall form 70% or more of the total daily weight of vegetables. Onions, potatoes, carrots, tomatoes and melon for the balance.

The items for beans or products are as follows:—Soya bean cheese, fresh bean curd, dried bean curd slices, sweet bean curd slices, soya bean milk and dried fresh bean cake. No whole soya beans will be served. In addition to the above a pint of congee containing two ounces of white rice shall be given to each person and soya bean milk prepared in accordance with the specifications of the Medical Department to all children and to any others recommended by the medical officer in charge.

Price per adult per meal (two meals per day) ..... 5.65 cents.

Price per child of 7 years and under per meal (two meals per day) 4.10 cents.

Table II.

PARTIAL DIETS.

Rice (75 broken and 25% red)	16 ozs.
Meat	$\frac{1}{3}$ oz.
Salt foods	$\frac{3}{4}$ oz.
Fresh vegetables	6 ozs.
Beans	1 oz.
Cooking oil	2/3 oz.
Sauces	$\frac{1}{4}$ oz.
Salt	$\frac{1}{4}$ oz.

Note. Meat to be supplied three times and salt foods to be supplied in eleven meals in each week.

Price : Per day (2 meals) ..... 9.3 cents per head.

The prices for both diets include the provision by the contractors at each of the camps of the following, viz. :—

1. Kitchen staff.
2. Kitchen and cooking utensils.
3. Feeding utensils including chopsticks, bowls, plates, etc.
4. Fuel for cooking the dietaries.

Appendix II.

EXTRACT FROM REPORT OF THE TECHNICAL COMMITTEE FOR THE REORGANIZATION AND IMPROVEMENT OF EXISTING OFFICIAL HOSPITAL AND CLINICAL FACILITIES OF THE COLONY OF HONG KONG, 1938-1939.

CHAPTER XII. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

A.—Summary.

164.—I. We have completed an inquiry into the existing hospital accommodation of the Colony and into existing official hospital and clinical facilities.

II. We have given reasons for the somewhat liberal interpretation which we have thought fit to place on the terms of reference.

III. and IV. We have detailed geographic and demorgraphic considerations.

V. We have furnished reasons for the standards of accommodation, facilities and services required.

VI-X. We have described the existing medical, surgical, obstetrical and investigational facilities, including provision for the aged and infirm.

X. We have dealt with the question of closer co-operation between the Government Medical Department, the Faculty of Medicine of the University of Hong Kong, and private registered medical practitioners.

B.—Conclusions.

165.—1. We have satisfied ourselves that it would not be unreasonable to base our recommendations upon a population of not less than 1,250,000 during the next five years.

2. We have arrived at a series of standards which we consider might well be adopted as a guide in determining the deficiencies that exist in the existing hospital accommodation, clinical facilities, etc.

3. We have arrived at the conclusion that at the most conservative estimate, Hong Kong suffers from a deficiency in general hospital beds of no less than 3,311, the Chinese population being far more in need of such additional beds than the non-Chinese elements who form a comparatively unimportant proportion of the community from the numerical standpoint.

4. We share the views of Government that the lack of adequate accommodation for infectious fevers is a very real one, the actual deficiency amounts to about 950 beds.

5. We have come to the conclusion that tuberculosis is one of the most important causes of ill-health and premature death in this Colony and that the time has arrived for steps to be taken to deal with the problem on a generous scale.

6. We are satisfied that the provision of accommodation for sick children which amounts to little over 300 beds at present is deficient, the deficiency being 325 cots or beds on a basis of five cots per 10,000 persons living in the community.

7. We have been impressed with the need for further accommodation for women in child-birth. The deficiency amounts to at least 180 beds at the very lowest estimation or twice this number if consideration is given to the high birth-rate and the serious overcrowding which renders home midwifery largely impracticable.

We are also of the opinion that home midwifery is carried out under distinctly unsatisfactory conditions in many instances owing to the low standards of environmental hygiene and the overcrowding prevailing; hence, we conclude that efforts to improve the midwifery service should be towards hospitalization of cases.

8. We are impressed by the large number of aged and infirm persons in the Colony who are in need of institutional care of some kind if it is impracticable to send them back to their ancestral villages—since the majority are not Hong Kong-born citizens. We are satisfied that at least two thousand homeless and destitute aged persons, many of them with chronic bronchitis and similar conditions need to be catered for.

9. We are satisfied that the serious overcrowding that exists at the Mental Hospital at present is due in large part to the interruption that has taken place in the normal system of transferring mental patients who are Chinese nationals to the Fong Chuen Asylum in Canton. We are aware that the Director of Medical Services is negotiating with the Japanese Authorities to allow this procedure to be resumed once more and that Government has given permission for certain buildings to be taken over temporarily for the housing of surplus mental patients. Whilst we share the view that it is a wise policy to transfer mentally afflicted nationals to their countries of origin and to regard the Hong Kong Mental Hospital as being reserved mainly for transients, we regard the existing facilities for the care of this class of patient as inadequate, segregation according to type and effective treatment being quite impossible.

10. We are satisfied that the policy adopted by Government in 1938 towards the leprosy problem in these territories is the only feasible one, bearing in mind the vast reservoir of lepers in South China who might enter these territories if the decision had been to build a leper settlement here. This policy entails the maintenance of a small "collecting station" for lepers here and the transfer of the bulk to mission settlements in Kwangtung sub-subsidized by the British Government.

11. In spite of the almost astronomical figures of attendances at the out-patient departments in the Government hospitals and dispensaries and in the Chinese hospitals, we are satisfied that the facilities available, particularly at the Chinese hospitals, are in urgent need of expansion.

12. In view of the high proportion of accident cases and, to a lesser extent, of emergencies brought to the Government and other hospitals, we have arrived at the conclusion that this branch of medical service is capable of improvement. We couple with this our view that insufficient training in the practice of minor surgery and in the treatment of casualties is given to the medical undergraduate.

13. We consider that the existing laboratory services are on too small a scale to carry out the very heavy burden of diagnostic work, manufacture of biological products, etc., that the staff of the Government Bacteriological Institute is called upon to bear at present. At the same time, we are satisfied that a certain amount of avoidable overlap occurs at present between the Government Institute and the Department of Pathology of the University of Hong Kong. As a matter of secondary importance we are also of the opinion that the medical student at the University might be given a more satisfactory and balanced course in pathology than is possible under the conditions now existing.

14. We are satisfied that the facilities available for the inhabitants living in the New Territories and on the numerous islands—other than Victoria itself—now call for augmentation and co-ordination under the Government Medical Department.

15. We have come to the conclusion that a good deal of valuable talent as regards specialist officers willing and able to serve in an honorary capacity in the Government and Chinese hospitals is not being made wide enough use of at present.

C.—Recommendations.

(*a*) General hospital accommodation.

166. On the basis of a population of 1,250,000 during the next five years, we recommend that efforts be made to build up general hospital accommodation to a standard of at least five beds per thousand living persons. Meanwhile, we recommend the adoption of the principle of Grade A and Grade B hospitals mentioned in the body of the Report.

We further recommend the provision of at least eighty beds for 2nd and 3rd class non-Chinese patients in a new general hospital on the mainland.

We also recommend that the Trustees of the War Memorial Hospital be consulted as to the practicability of extending that hospital by at least another eighteen beds. At the same time we recommend that consideration be given to the re-opening of the former Victoria Hospital (Maternity Block) which would provide accommodation for about forty children's cots and beds. If the other portion of the hospital now used as flats could also be utilized for a similar purpose the premises as a whole could house between sixty and eighty children.

We are, however, principally concerned with the serious deficiency in general hospital beds for the Chinese population and we recommend the early construction of a 500—600 bed hospital on the Kowloon Medical Centre and a further 600 beds to be divided amongst the Tung Wah group of hospitals.

(*b*) Infectious fevers.

We endorse the recommendation which the Director of Medical Services has already made to Government for the erection of a 300-bed infectious diseases hospital (capable of expansion to 500 beds) on the Kowloon Medical Centre.

(*c*) Tuberculosis.

We do not consider that we are in a position to recommend any considerable provision in the nature of sanatoria at the moment, since it is necessary for a much larger body of data on the subject to be obtained.

In the meantime, however, we feel justified in recommending that a ward unit of thirty to fifty beds divided between the two sexes be constructed for tubercular patients on the roof of the Queen Mary Hospital.

This will enable full use to be made of heliotherapy and, incidentally, will release beds in the main wards of the hospital for the treatment of cases of venereal disease which are needed at present.

We also recommend that special pavilions be constructed at each of the three Tung Wah hospitals with about 100 beds in each for tubercular cases.

At the same time, we consider that it would be an advantage if a start could be made in the training of Tuberculosis Officers for work at the Health Centres which it is hoped to establish throughout the urban and rural areas.

Before leaving the subject, we recommend that all hospitals treating infective cases of tuberculosis be advised to do so in wards specially set aside for the purpose into which no healthy person should be allowed to go unless effectively protected by a mask.

(*d*) Sick children.

We recommend the re-opening of the Victoria Hospital which will furnish accommodation for forty children's beds or cots (sixty to eighty if the flats are reabsorbed too) pending funds being available for a children's hospital in pleasant, open surroundings.

(*e*) Lying-in cases.

We recommend that consideration be given to the utilization of the existing Kowloon Hospital as a maternity hospital when the new general hospital has been erected on the Kowloon Medical Centre. Since this will take some years and will not meet the demand on the Island, we also recommend that a seventy-six bed hospital be erected on land near to the Tung Wah Eastern Hospital. Thirdly, we recommend the erection of an isolation block at the Ysan Yuk Hospital where the existing beds for infectious cases are inadequate.

(*f*) Aged and infirm.

We recommend that as many as possible of this class of destitute be assisted to return to their ancestral homes.

For those whose homes have been destroyed and who are destitute and homeless, we recommend that two courses be taken. Firstly, if found to be free from signs of any active disease requiring treatment, they should be housed in one of the Government camps; secondly, if requiring medical attention, such patients should be housed in a simply equipped and staffed section of the Tung Wah group of hospitals.

(*g*) Mental disease.

We recommend that the policy of transferring Chinese nationals suffering from mental disease to Canton and of Europeans and others to their various countries should be maintained.

We also recommend that a new hospital for mental diseases of about 150 beds capable of expansion later to 200 be erected on an open site where the different types can be segregated where occupational therapy can be used—the project to start in four or five years' time.

(*h*) Leprosy.

As in the case of mentally afflicted, so with lepers we recommend the continuance of the wise policy adopted by Government of sending lepers to settlements in Kwangtung and of maintaining them there at the expense of this Government—providing grants-in-aid for the actual buildings.

We also recommend the erection of four fly-proof huts in the compound of the Leper Settlement similar to those built in a few days at the height of the smallpox epidemic in the compound of the Infectious Diseases Hospital adjoining.

The premises occupied by the lepers which are dangerous and dilapidated should be demolished at an early date.

(*i*) Out-patient facilities.

We recommend that out-patient facilities be improved in these ways. Firstly, we advise that a system of Health Centres should be established at different sites in the urban and rural areas and that, apart from public health and educational work, such centres should provide for the treatment of infants, pre-school children, school children, mothers, persons suffering from tuberculosis, eye diseases and venereal diseases. In the case of the centre at, we suggest, old St. Peter's Church, the possibility of a general polyclinic might be considered, alternatively, a new and enlarged out-patient department on the site of the former Government Civil Hospital would prove very useful. Secondly, we recommend that the out-patient departments of the Tung Wah group of hospitals should be improved both as regards accommodation and staff. These departments are largely taken up by herbalist "doctors" at the moment.

(*j*) Treatment of casualties and emergencies.

We are of the opinion that, when funds become available for the purpose, it would be a definite advantage if a traumatic surgery unit could be organized.

Meantime, much can be done by the introduction of a system of casualty dresserships. Under this, senior medical students will be posted to the Casualty Department of the Queen Mary Hospital to see and learn how to treat minor surgical conditions, burns, scalds, fractures, surgical and other emergencies, and the like. In order that this scheme can become operative it is essential to provide sleeping accommodation in the grounds of the Queen Mary Hospital. We recommend that a students hostel be built to house nine students (capable of being enlarged as and when funds permit), and a refectory for about thirty students. Until a hostel has been built, the Director of Medical Services has arranged for a flat to be converted for the use of five or six students to be appointed to casualty dresserships.

(*k*) Laboratory facilities.

We recommend the construction of a second laboratory at the Kowloon Medical Centre, the building of a biological products laboratory on the outskirts of Kowloon and that the University Authorities be asked to take over full responsibility —with minor reservations—of the diagnostic and investigational work at present carried out at the Government Bacteriological Institute in return for a subsidy.

(*l*) Medical facilities in the New Territories.

We recommend that the Government Medical Department should take over the dispensary work at present carried out by St. John Ambulance Association and Brigade in the New Territories whenever that Association is prepared to relinquish this work.

We further recommend that as and when funds become available Health Centres should be built at Taipo, Tsun Wan and Un Long.

(*m*) Co-operation with private registered medical practitioners.

We recommend two lines of action along which a greater degree of co-operation can be secured between private practitioners and the Government Medical Department.

Firstly, efforts should be made to elicit the help of private practitioners possessing specialist knowledge and qualifications to serve in an honorary capacity at one or other of the hospitals subject to certain definite provisions or, on the recommendation of the University Authorities, in the capacity of a salaried University lecturer.

Secondly, we recommend as a practicable proposition that Government officials entitled to free medical attendance who live on the Peak above the Bowen Road level should enjoy the privilege of selecting a private practitioner resident on the Peak who is willing to serve on a panel in return for a capitation grant from Government to be arranged between Government and the private practitioners concerned.

Chapter XIII. Financial considerations.

167. We attach in the form of a schedule with items arranged more or less in order of priority the capital cost of carrying out such of the recommendations as may find favour with Your Excellency.

168. We should like to be allowed to stress the point that we have purposely erred on the conservative side in order to make it the more certain that our recommendations may be regarded, in the main if not entirely, as reasonable and practicable.

169. Having discharged our commission and in the hope that our labours may help, if only in a small way, to bring about an improvement in hospital and clinical facilities, more especially for the sick and indigent Chinese.

Sd. G. D. R. Black,
Member,

Sd. Edward W. J. Sun,
Member,

Sd. Chau Shiu Ng,
Member,

Sd. S. Seguin Strahan,
Member,

Sd. W. I. Gerrard,
Member,

Sd. P. S. Selwyn-Clarke,
Chairman.

Schedule of institutions, etc., recommended, with very approximate estimates of initial costs.

This list has been drawn up as far as possible in order of urgency, although where so many vital needs are to be met too much attention should not be paid to the order which we have thought fit to choose.

Institution	*Approximate cost of construction and equipment.*
(1) INFECTIOUS DISEASES HOSPITAL—	
(300 beds capable of increasing to 500)	$ 1,900,000
(2) GENERAL HOSPITAL—	
(500-600 beds)	4,500,000
(3) LEPER SETTLEMENT—	
(Four wards with thirty beds in each to replace existing dangerous buildings)	16,000
(4) HOSPITAL FOR SICK CHILDREN—	
(Forty to eighty beds and cots in reopened Victoria Hospital until new hospital for children available)	30,000
(5) (*a*) ISOLATION BLOCK AT TSAN YUK HOSPITAL—	
(Six beds)	20,000
(*b*) MATERNITY HOSPITAL—	
(Seventy-six beds)	100,000
(6) TUBERCULOSIS WARD—	
(*a*) QUEEN MARY HOSPITAL	
(Thirty to fifty beds on roof of existing structure)	40,000
(*b*) PAVILIONS AT THREE CHINESE HOSPITALS—	
(100 beds at each)	600,000
(7) STUDENTS HOSTEL, QUEEN MARY HOSPITAL—	
(Nine beds capable of extension and refectory for fifty)	72,000
(8) OUT-PATIENT FACILITIES—	
(*a*) Health Centre for West Central District	300,000
(Maternity and child welfare, school children, tuberculosis, venereal diseases, etc.). Additional for general polyclinic at this Centre	150,000
(*b*) Health Centres for Tsun Wan and Shamshuipo	200,000
(*c*) Later Health Centres for Cheung Chau, Taipo and Un Long in the New Territories, three each on the Island and in Kowloon and New Kowloon	900,000

Institution	*Approximate cost of construction and equipment.*
(9) LABORATORY FACILITIES—	
(*a*) General laboratory, Kowloon Medical Centre	82,500
(*b*) Biological products laboratory, Kowloon	150,000
(10) "INFIRMARY" ACCOMMODATION FOR AGED AND INFIRM—	
(600 beds for the group of three Chinese Hospitals)	1,000,000
(11) MENTAL DISEASES—	
(150 beds capable of expansion to 200 beds)	300,000
Total	$10,360,500

N.B.—The figures given are only approximate and should not be regarded as final or official P.W.D. estimates.

Appendix III.

HONG KONG EUGENICS LEAGUE.

Annual Report 1939-1940.

The Hong Kong Eugenics League has continued to make progress during its fourth year. The number of patients has increased, and, as will be seen from the medical report, there is a marked improvement in those returning for re-examination.

There are now three clinics, each holding one session per week; the Violet Peel Health Centre, under Dr. A. L. Forbes, on Thursday afternoons; the Kowloon Health Centre, under the direction of Dr. P. Ruttonjee, on Monday afternoons; and the Tsan Yuk, under the direction of Dr. B. Chu, on Tuesday afternoons. Clinics have also been started in the North Point, King's Park and Ma Tau Chung Refugee Camps, through the initiative of Dr. T. J. Hua and with the co-operation of the Medical Department.

Co-operation in the Health Centres :

The increase in service during the last year has been the result in a large measure of the sympathetic attitude of the Hong Kong Government, since all three sessions take place either in the Infant Welfare and Maternity Centres or the Maternity Hospital and although the number of mothers benefitted through the Eugenics League is still small, the relationship of the birth control work to the Maternity and Infant Welfare work is on a sound basis. The majority of the patients attending the birth control sessions are mothers whose babies are being treated in the Infant Welfare departments, and it is therefore possible for the doctors and nurses to have an all-round knowledge of their patients and to know which mothers are most in need of advice on birth control.

This linking up of birth control with infant welfare and maternity work is in line with the policy of the Ministry of Health in Great Britain. In 1937 the Ministry of Health issued a circular to the Local Authorities explaining the urgent necessity of giving birth control advice at the Gynaecological Clinics, which care for mothers in the post-natal period.

In November 1939 a meeting was held at which the Chairman, Professor Gordon King, explained to those present doctors, matrons and nurses of the Queen Mary, Kowloon, Kwong Wah, Tung Wah and Tung Wah Eastern Hospitals,—the work and aims of the League, and at which the Honourable Director of Medical Services spoke on the importance of the birth control sessions as an integral part of the pre-natal, post-natal and infant welfare work carried out through the Health Centres.

Appliances :

Up till the outbreak of war in September 1939, the League had been able to purchase appliances from Great Britain at clinic prices, but after that date the imposition of import and export restrictions have prohibited the purchase of occlusive caps from London. After some delay contraceptives were bought from New York, but at an increased cost. However, at the suggestion of the Chairman, a second type of cap was obtained from New York, which costs the League only eighty cents and is considered as reliable as the occlusive cap previously used at a cost of $1.10.

Thanks to the generosity of supporters in Hong Kong, it has been possible for the League to continue giving appliances to those mothers who are too poor to pay for them, even at cost price; that is, where the family income is under or about $30 per month and there are children to provide for, no charge is made.

The Family Planning Association in Great Britain :

The League has maintained contact with the parent body in Great Britain, the National Birth Control Association. In May, 1939, the Association held an Extraordinary General Meeting, with Lord Horder in the chair, and unanimously agreed that the name of the Association should be changed to The Family Planning Association and that the objects of the Association should be :—

(1) To advocate and promote the provision of facilities for scientific contraception so that married people may space or limit their families and thus mitigate the evils of ill-health and poverty.

(2) To advocate and promote the establishment of Women's Health Centres at which, in addition to advice on scientific contraception, women can get advice on, and where necessary treatment for, any or all of the following :—

(*a*) involuntary sterility,

(*b*) minor gynaecological ailments,

(*c*) difficulties connected with the marriage relationship.

(3) To examine such other problems as are relevant to the above and to take such action as may be considered advisable.

It is appreciated that in Hong Kong for the time being our work must be mainly concerned with the first object, but we print later in the report a study that has been carried out by Dr. T. J. Hua in the refugee camps, which will be of great interest to gynaecologists in the Far East and at home.

A small service has been rendered to the Association by sending to London a prescription previously used by our Chairman in his work in China, which is now being used in Hong Kong, for making contraceptive jelly, the price of which is less than half that of the jelly made in Great Britain. The Association hope that this jelly may be suitable for contraceptive work in India, where they maintain an organizer and where great progress has been made.

Experimental work is also being carried out at the Tsan Yuk Clinic with a contraceptive paste, a new product which the Birth Control Investigation Committee hopes may eliminate the use of caps.

Birth Control Work in China.

A number of patients at the clinics have been women who have left Hong Kong to work in China with their husbands and who were therefore anxious not to have children under war conditions.

Appliances have also been sent to Shanghai, Hainan and Kweiyang as a result of requests received by the League.

The Executive Committee

The Executive Committee has continued to meet regularly during the past year at the offices of Messrs. Lo and Lo, to whom the League is most grateful.

The Committee report with much regret the resignation of Mr. W. A. Zimmern, owing to his departure from Hong Kong. Three new members have been co-opted on the Executive Committee, Mrs. D. E. Davis, Dr. T. J. Hua and the Rev. J. R. Higgs, whose services will greatly strengthen the League. The Executive Committee is also very grateful to Dr. I. Frommer, who for some time has given her services both at the Violet Peel and at the Kowloon Clinic.

Future Activities.

The organization of the three clinics in the Violet Peel Health Centre, the Kowloon Health Centre and the Tsan Yuk Maternity Hospital and the three clinics in North Point, King's Park and Ma Tau Chung Refugee Camps has been completed during the year. The task before the League is that of educating the Chinese and European communities so that co-operation can be secured and the maximum benefit obtained from the clinics. Progress in this part of the League's work is very slow partly because of the lack of organization of the poorer class women, which makes it extremely difficult to make contact with those most in need.

Housing conditions in Hong Kong have steadily deteriorated during the past year; food prices have risen since the outbreak of the war in Europe and Japanese activities in China have resulted in frequent shortages of vegetables and other necessities. These economic factors have the inevitable result of lowering the standard of life with the consequent increase in malnutrition, tuberculosis and other poverty diseases. It becomes not only desirable but essential for the health of the next generation that there should be spacing and limiting of families. The infant mortality rate for Great Britain is fifty-eight, for Sweden thirty-eight, for Hong Kong 345. Nearly six babies die in Hong Kong for one baby in Great Britain. The differences in economic conditions and education account largely for this wastage of child life but a contributory cause is most certainly the wide-spread birth-control movement of Great Britain and Sweden and the lack of interest found in Hong Kong. To awaken the public to the importance of this issue should be the main task of the Eugenics League.

Medical Report

1939-1940.

The clinics at the Violet Peel Health Centre and at the Kowloon Infant Welfare Centre have been in operation throughout the period under review, and since the end of May, 1939, a third clinic has been opened at the Tsan Yuk Hospital. The attendances at the three clinics from 1st April, 1939 to 31st March, 1940, have been as follows :—

Table I.

	First visits	*Repeat visits*	*Total visits*
Violet Peel Clinic	338	270	608
Kowloon Clinic	164	164	328
Tsan Yuk Clinic	72	40	112
Totals	574	474	1,048

The number of first visits shows an increase of seventy-three per centum over the figures for last year, and the aggregate total of 1,048 visits shows an increase of eighty-four per centum over last year.

An analysis of the 574 new cases reveals the following facts regarding the type of patient for whom the clinics cater :—

Average age :—30.9 years.

Number of children :—Six, of whom only four survive in the average case.

Family Income :—The overall average was $46 per month. In fifteen per centum of the patients the income was over $100 per month. If these patients are excluded, it was found that the average income of the remaining eighty-five per centum was only $22 per month.

Contraceptive methods :—The greatest reliance has been placed, as in previous years, on the use of the diaphragm and jelly. The sponge and foam powder method has been mainly reserved for those cases unable to learn the technique of the diaphragm method.

Payment :—The majority of the patients have paid either the whole or a part of the cost of the apparatus provided. In 123 cases, however, the patients were unable to afford any payment and were given completely free treatment.

Results :—So far as it is possible to judge from the return visits, the results have been satisfactory on the whole. Four cases of failure have been reported, and on investigation it was found that in each case the patient had discarded the use of the cap.

The advent of the war created certain difficulties over the obtaining of supplies, but these have fortunately been surmounted, and the League has now a good stock of the necessary equipment.

In reviewing the present status of our work the situation can best be expressed by an extract from R. L. Dickinson's recent volume on the "Control of Conception" : "Better results from better adaptations; bettered detail of technique; further extension of protection to those with just claims to protection: franker facing of medical issues; organised study ..... these, rather than new discoveries, are the chief conditions to be chronicled." Another statement from the same source is in entire agreement with our experience : "Clinics everywhere thought they had a method so generally applicable that the movement required merely multiplication of centres. Pessary-jelly looked effective enough to be exclusive. New follow-up gives this comfortable belief a jolt. The *protection rate* is high, but the *refusal rate* is somewhat disconcerting when, except for selected groups, a considerable proportion of those instructed decline to begin or to continue with this method..... As protection, contraceptive methods can fairly claim a very large and increasing measure of success by a variety of means. But we shall not be content merely with a large proportion of users of such means completely protected. We seek entire security and simplicity for all who need such safely."

Notes on a few cases of interest are appended. They are illustrative of many treated at the clinics.

Case No. 1.—Woman aged 44 years. Married 27 years, with a total of 15 pregnancies, including one twin pregnancy and 2 miscarriages. Now has 6 children living. Husband is a sailor earning $15 per month. Patient was given free treatment.

Case No. 2.—Woman aged 31 years. Married 14 years, with 9 pregnancies and of which 3 were miscarriages. 5 children now living. Husband is a casual carpenter earning $7 per month. Had sponge and foam powder given her previously in Hong Kong after the 8th pregnancy. Was given cap and jelly free.

Case No. 3.—Woman aged 31 years. Married 11 years with 10 pregnancies. 5 children now living. Fitted with diaphragm and jelly.

Case No. 4.—Woman aged 34 years. Married 15 years with 8 pregnancies. 7 children born alive, but only one now living. Mother showed evidence of tuberculosis, nephritis and mitral stenosis. Father unemployed.

Case No. 5.—Woman aged 37 years. Married 19 years, with 11 pregnancies, of which there were 4 miscarriages. 7 children were born alive, 6 are now living. Husband is a coolie, earning $5 per month. Given free treatment.

Case No. 6.—Woman aged 44 years. Married 25 years, with a total of 14 pregnancies, of which 3 were miscarriages. Now has 7 children living, of whom she has given away one. Is desperately anxious to avoid further pregnancies. Husband is unemployed, and has been taking Chinese pills to render himself sterile. Patient was examined and diagnosed as (?) early pregnancy, and advised to return after one month for confirmation. Unfortunately she did not return, until two months later but informed us that she had succeeded in aborting herself after taking some concoction of wild flowers boiled with rusty nails, putrefied eggs and urine. Had now returned for contraceptive advice. Her general health was very poor and she was referred to hospital for general treatment.

Case No. 7.—Woman aged 38 years. Married 24 years, with 11 pregnancies, of which 10 were born alive and 1 miscarried. Now has 7 children living, of which she has given away 3 owing to extreme poverty. Husband is a tailor earning $12 per month. Patient was in very bad health, anaemic and suffering from general debility. She was referred to hospital for further treatment.

Case No. 8.—Woman aged 37 years. Married 19 years with a total of 10 pregnancies, of which 6 are now living. Husband out of work. Has been using some vaginal tablets to ensure contraception without effect. She desired complete sterilization and objected to our methods as entailing too much bother. Patient was not treated.

Appendix IV.

REPORT ON THE ALMONER'S DEPARTMENT FOR 1939.

The Almoner's or Social Service Department was founded in July and work began immediately at the Queen Mary Hospital. In November, four Chinese training almoners were appointed on three month's probation with a view to at least two of them being employed in government hospitals.

The administrative duties of the almoner are chiefly concerned with the assessment of patient's payments towards the cost of maintenance in hospital, and with the prevention of abuse of the hospital by those patients who are in a position to pay for the services of private practitioners. Much of this abuse is due to ignorance and an effort is being made to advise such patients of their suitable means of obtaining treatment, with due consideration of medical needs and financial position. Similarly, the poorer hospital patients are advised to attend medical centres near their homes and advice is given them with regard to attendance at welfare centres, special clinics, etc., so that they may obtain the maximum benefit from the existing medical facilities with the minimum of effort and expense.

The Almoner's Department as a Social Service Unit is concerned with the social aspect of disease. Poverty and ignorance with the attendant evils of bad housing, faulty nutrition, and insanitary habits bear a heavy toll on the health of the Colony. At the same time, so many of the hospital services can be wasted if expended on patients whose conditions of living are such as to render them incapable of obtaining any permanent benefit therefrom. By acting as a link between the patient and those social organizations capable of ameliorating these conditions, the almoner can best serve the interests of public health.

The following are examples of the problems which are met in the wards of the Queen Mary Hospital.

1. *The Tuberculosis Wards.*

While the hospital accommodation for tuberculosis patients remains so totally inadequate, the existing beds have to be reserved for those cases who are considered to be capable of relatively permanent improvement. A certain number of patients, however, are found after a time to be running a chronic course, and these have to be discharged. Here is a vital problem of after-care. If they go home they are often a source of active infection in crowded surroundings; the Chinese hospitals cannot guarantee to house them for more than a limited period. The only adequate solution so far has been in the case of patients with relatives in the country districts where conditions are more favourable. With the aid of voluntary societies a few such patients have been helped with fares and clothes. But there still remains a great deal which should and could be done in the way of 'after-care', and 'following-up' of tuberculous patients discharged from the hospital.

2. *The Children's Ward.*

A visit to this ward is encouraging yet at the same time distressing. Young children are brought in with all manner of debility diseases; they are made strong and well and then the time arrives for them to be sent back to their homes which may be the street, or at best a bed-space, where amidst poverty and neglect so much of the hospital's good work is immediately undone. Many of the children require a long period of institutional treatment, but under present conditions this is impossible. They can however be referred for advice to such valuable organizations as the Society for the Protection of Children and the welfare centres where they can get free congee and milk.

Another problem connected with children is the abandonment by parents of girl babies who have been admitted to the ward for treatment. Generally the parents cannot be traced and such children are found homes either by adoption, or with various orphanages in the Colony, the Italian Convent Foundling Home, the Door of Hope at Taipo, and so on.

3. *The attempted suicide cases.*

While many of these patients are temperamental young girls from good homes, there are a certain number of men and women who are brought to this pitch of desperation by poverty and destitution. Since the hospital expends so much skill in bringing these unfortunate people back to life, there seems little point if circumstances will force them to repeat their efforts on discharge from the wards. One old man, for exampe, who had attempted to take his life by throwing himself from a second floor balcony was kept in the hospital for several months until he was well enough to go to the Home for the Aged at Kowloon. Other patients have been referred to the Social Service Centre for the Churches and vacancies obtained in the Refugee Camps.

With the extension of the Almoner's Department to other government hospitals it is hoped to be able to offer some medico-social solution to these problems and the many others which will arise.

M. S. WATSON, B.SC., (Econ.),
Almoner.

Appendix V.

REPORT ON TREATMENT OF CEREBRO-SPINAL MENINGITIS AND CHOLERA AT THE INFECTIOUS DISEASES HOSPITAL IN 1939.

A. Cerebro-spinal meningitis.

Three methods were given a trial coincidently in order to lessen the effect of random sampling and of a fall in the virulence of the meningococcus as the epidemic progressed and meteorological conditions varied.

The first series were treated by a daily lumbar puncture and with a dose of two grammes of "streptocide" by the mouth on admission, followed by one gramme four hourly until one week after the temperature became normal and the clinical symptoms had disappeared. The second series received anti-meningoccal serum daily with the lumbar puncture.

The third series were given both "streptocide" and serum, in addition to lumbar puncture.

Eliminating all cases other than those in whom bacteriological proof of the condition was forthcoming the results of the three series are as follows:—

Table I.

	1st series.	*2nd series.*	*3rd series.*
Cures	8	13	18
Deaths	9	13	11
Percentage mortality rate ...	52	50	38

The numbers are too small to be of any real importance from the statistical value, but there is some indication that cases treated with "streptocide" and serum do best. The experiment will be continued.

B. Cholera.

In this instance, the routine treatment adopted consisted of giving patients a hypodermic injection of 1/100 of a grain of atropine sulphate on admission, intravenous infusions of three pints of normal saline and of a two per centum solution of sodium bicarbonate as often as necessary, drinks of Kaolin emulsion during the acute stage to the extent tolerated by the patient and a pill containing three grains of potassium permanganate hourly until the clinical symptoms had disappeared.

Careful attention was paid to the temperature of the patient before and during the actual time of the infusion and the temperature of the solution varied accordingly.

As a rough guide the following rule was followed :—

Table II.

Rectal temperature of patient.	*Temperature of infusion.*
95°— 97°F.	102 — 104°F.
97 — 100°F.	98 — 99°F.
100 — 102°F.	94 — 95°F.
102 or over.	Unwarmed at room temperature.

At the suggestion of the dean of the London School of Hygiene and Tropical Medicine—based on certain research work carried out on animals at the School—"streptocide" was exhibited in a series of fifty unselected cases with fifty controls in addition to the usual routine treatment outlined above. Two grammes of "streptocide" were given to alternate cases on admission followed by one gramme four hourly for four days.

The mortality rates for both series showed no variation of any statistical significance. The number, of course, was too small and the experiment will be repeated.

H. F. Tai,
Chinese Medical Officer in charge
Infectious Diseases Hospital.

Appendix VI.

CLINICAL INVESTIGATIONS ON SOME AETIOLOGICAL FACTORS OF BERI-BERI.

I. Age, occupation and sex incidence of beri-beri patients.

Table I.

(*a*) *Age.*		(*b*) *Sex.*	
Under 1 year	Nil.		
From 2 to 5	Nil.		
From 6 to 15	21	Male	799
From 16 to 30	507	Female	207
From 31 to 60	446		
61 and over	32		
Total	1,006	Total ...	1,006

Table II.

(*c*) *Occupation.*

'Group A'. *Occupation which requires hard labour.*

Blacksmith	19	Farmer	60
Boiler-maker	5	Hawker	75
Boat-builder	12	Miner	8
Brick-maker	5	Mason	52
Carpenter	60	Stone-cutter	10
Coolie	203	Sailor	36
Fisherman	9	Soldiers (Chinese)	14
		Total	568

Table III.

'Group B'. *Occupation which requires manual labour.*

Amah	19	Gardener	4
Barber	8	Laundryman	6
Butcher	3	House-wife	144
Baker	3	Printer	5
Bamboo goods-maker	4	Painter	16
Cook	18	Rattan goods-maker	12
Conductor	2	Shoe-maker	7
Dyer	3	Trunk-maker	4
Fitter	40	Weaver	16
		Total	314

Table IV.

'Group C'. *Sedentary occupation.*

Fortune-teller	3	Tailor	17
Watchman	4	Shop-assistant	29
Student	4		
		Total	57

Table V.

'Group D'. *Unclassified.*

Other workmen	34	Unemployed	33
		Total	67
		Grand total	1,006

Table VI.

II. Average dietary history of the patients.

Occupation group	Time of meal	Items of diet per day	Occasional luxuries or accessaries during festival	Approximate cost
A.	6.30 a.m. 1.00 p.m. 6.00 p.m.	White rice ..... 1½ to 1¾ lbs. Noodle or congee ..... 4 ozs. Beef or fish (alternate days) ... 3 ozs. Shrimp sauce ..... 2 ozs. Salted fish ..... 2 ozs. or Salted egg ..... 1 piece Vegetable-fresh or preserved .. 6 ozs. Salt ..... ¼ oz. Oil ..... 2 ozs.	Herb tea (leong cha)—consists of green leaves of various plants, sugar cane and roots. Red bean porridge, Green bean porridge Chinese cakes	25-28¢
B.	6.30 a.m. 1.00 p.m. 6.00 p.m.	White rice ..... 1½ lbs. Noodle or congee ..... 4 ozs. Beef or fish daily ..... 3-4 ozs. Dried bean cream ..... 2 ozs. Salted egg ..... 1 Vegetable-fresh or preserved .. 6 ozs. Salt ..... ½ oz. Soya bean sauce ..... ⅛ oz. Cooking oil ..... 2 ozs.	Herb tea Red bean porridge Green bean porridge Chinese cakes	28-30¢
C.	8.30 a.m. 1.00 p.m. 6.00 p.m.	White rice ..... 1 lb. Beef, pork, fish, chicken or duck ..... 4-6 ozs. Fresh vegetables ..... 6 ozs. Salt ..... ¼ oz. Cooking oil ..... 4 ozs. Fruit (seasonal) ..... 3 ozs.	Chinese cakes Almond tea Bean porridge Sometimes midnight meals noodles or pudding	35¢

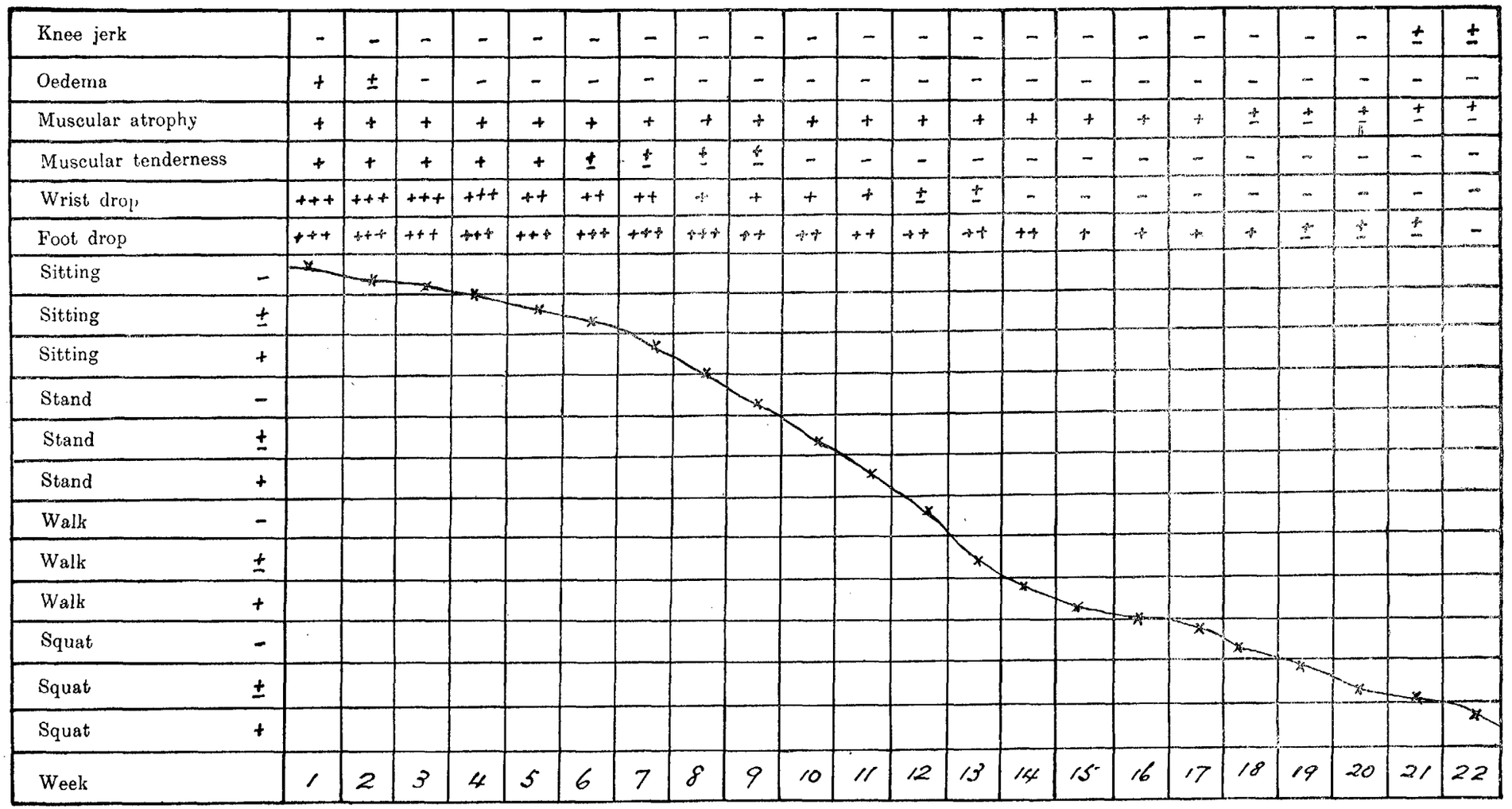
The above is an outline of the average dietary of the patients when they were active at work. It is note-worthy that invariably they all used white rice as the chief ingredient for carbohydrate, and their vitamin B_1 reserve is very much limited. Most patients when advised of their diet on discharge can afford to eat red rice which is slightly more expensive than the white rice. Those who work in factories, mines or as an apprentice in small work shops, however, find difficulty in following the advice. It would help a great deal if some rule could be enforced from the Labour Office on the dietary of these institutions.

III. Influence of various aetiological factors on the rate of recovery.

Rate of recovery is best and most constantly gauged clinically by the degree of recovery of motor functions. As the patients on admission are of various degrees of functional loss, it is conveniently divided into stages as bedridden, able to sit, able to walk, and able to perform the squatting test. Owing to the difference of time required to promote from one stage to the other the shortest time used is noted from the stage of sitting to stand or from stand to walk. This time is taken as one unit rate of recovery. It is experienced that the units required for the various stages can be roughly calculated from the progress chart as shown on the opposite page.

Table VII.

PROGRESS CHART OF BERI-BERI CASES.



	Week 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Knee jerk	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	±	±
Oedema	+	±	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
Muscular atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	±	±	±	±	±
Muscular tenderness	+	+	+	+	+	±	±	±	±	−	−	−	−	−	−	−	−	−	−	−	−	−
Wrist drop	+++	+++	+++	+++	++	++	++	+	+	+	+	±	±	−	−	−	−	−	−	−	−	−
Foot drop	+++	+++	+++	+++	+++	+++	+++	+++	++	++	++	++	++	++	+	+	+	+	±	±	±	−
Sitting −																						
Sitting ±																						
Sitting +																						
Stand −																						
Stand ±																						
Stand +																						
Walk −																						
Walk ±																						
Walk +																						
Squat −																						
Squat ±																						
Squat +																						

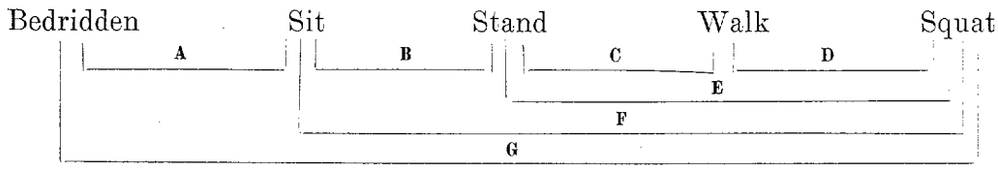
From the above chart it is seen that the unit distribution should be:—

Bedridden to sitting requires two units;

sitting to stand requires one unit;

stand to walk requires one unit;

walk to squat requires two units.



A=2, B=1, C=1, D=2, E=3, F=4, G=6, etc.

If the length of stay in hospital is divided by the number of units the patients passed through, an average unit rate is obtained.

ANALYSIS.

1006 case-records had been reviewed out of which 563 complete records were analysed with the following result:—

(a) INFLUENCE OF EXCITING CAUSE ON RATE OF RECOVERY.

(i) Beri-beri due to increased metabolic rate from pyrexia.

Table VIII.

Type	Incidence	Average hospital days	Hospital days per unit of recovery
Post-pneumonia	1	57	57
Post-typhoid	4	71	35
Post-malarial	121	61	32
Post-febrile	55	62	30

(ii) Beri-beri due to fluid tissue loss; disturbed intestinal absorption and increased metabolic rate.

Table IX.

Type	Incidence	Average hospital days	Hospital days per unit of recovery
Post-partum	66	127	56
Post-dysenteric	9	78	53
Post-enteric	1	45	45
Post-haemorrhagic	1	38	38
Post-diarrhoea	16	83	37
Post-operative	6	62	31
Post-cholera	1	15	15

(iii) Beri-beri with no obvious exciting cause.

Table X.

Type	Incidence	Average hospital days	Hospital days per unit of recovery
Insidious	282	66	31

As it is shown in the above table, the beri-beri symptoms were in the majority of cases, manifested after an attack of malaria, next being post-partum and post-febrile cases with unidentified origin. The rate per unit of recovery as shown in the 3rd. column of the table is 38 days.

(b) INCIDENCE OF DIFFERENT TYPES OF BERI-BERI WITH ITS BEARING ON AGE AND SEX.

Table XI.

Type	Degree	Age	Sex	Incidence	Average hospital days	Hospital days per unit of recovery
Dry neuritic type	Severe	6 —15	M.	2	93	46
			F.	1	338	84
		16—30	M.	111	81	32
			F.	46	141	60
		31—60 and over	M.	57	88	34
			F.	20	98	39
		Total		237		
	Moderate	6 —15	M.	1	76	38
			F.	1	50	25
		16—30	M.	68	51	26
			F.	11	50	37
		31—60 and over	M.	59	59	31
			F.	14	67	35
		Total		154		
	Mild	6 —15	M.	—	—	—
			F.	—	—	—
		16—30	M.	55	35	29
			F.	3	66	40
		31—60 and over	M.	46	48	38
			F.	3	60	45
		Total		107		
Wet cardiac type	Severe	6 —15	M.	—	—	—
			F.	—	—	—
		16—30	M.	5	84	42
			F.	5	151	42
		31—60 and over	M.	5	107	54
			F.	1	12	4
		Total		16		
	Moderate	6 —15	M.	—	—	—
			F.	—	—	—
		16—30	M.	13	54	33
			F.	2	24	16
		31—60 and over	M.	13	52	31
			F.	2	43	17
		Total		30		
	Mild	6 —15	M.	1	27	27
			F.	2	37	37
		16—30	M.	4	43	22
			F.	2	80	53
		31—60 and over	M.	9	39	35
			F.	1	21	21
		Total		19		
		Grand Total		563		

From the above analysis it is shown that the severe dry neuritic types are prominent, but this might be false information as it is chiefly this type of case which is transferred to this hospital. The data for certain age and sex influence on the rate of recovery are not sufficiently large to be treated as conclusive. However, it is a personal impression that the middle-aged males are more frequently affected and the younger the patient the quicker he recovers. This might be explained by the comparatively high metabolic rate of the male adults and the high regenerative power of the children.

IV. *Few points on observation of symptoms.*

(1) It is interesting to note that sensory nerves were less extensively affected than the motor nerves but took longer to recover.

(2) The great majority of cases lost the knee jerk reflex which was the last to recover. In most cases the ligamentum patellae is sunken and is undoubtedly the cause of frequent falls—a point to be remembered when work is recommended to patient on discharge.

(3) Fits and convulsions of tetanic type in post-partum beri-beri cases were too frequently seen to be regarded as incidental and in one case the blood calcium was estimated as eighty-five milligrammes.

T. J. Hua,
Medical Officer in charge,
Lai Chi Kok Relief Hospital.

Appendix VII.

(*a*) HONG KONG PRISON.

Staff :—

Dr. G. I. Shaw carried out the duties of medical officer till the fourth of August, 1939, when he went on home leave. He was relieved by Dr. A. H. Barwell.

2. During the year a series of lectures were given to the Indian staff by the medical officer, hospital supervisor and his assistant. An improvement has been seen in the Indian staff during the year, in consequence of these lectures.

3. Total admissions to Hong Kong Prison, Stanley, during 1939 were 11,964. Of these 824 were fifty years of age and over.

4. Total admissions to the prison hospital during the year were 2,467, daily average of hospital patients being forty-seven. This figure does not include patients kept under observation in "G" Block now attached to the hospital.

5. Total number of prisoners reporting sick was 16,772, making a daily average of fifty-four.

6. Total number of prisoners on outdoor treatment during the year was 38,856. These prisoners attended hospital twice daily for treatment making a daily average of 213.

7. On admission to prison 204 prisoners were directly admitted to hospital, 2,174 placed untasked in cell, and 1,816 on half-labour.

8. Following were principal diseases prisoners were suffering from on admission to prison :—

Table I.

Chronic tuberculosis	572
Chronic opium poisoning	2,720
Heroin	1,020
Scabies	2,171
Venereal disease	360
Hernia	136
Tinea	151
Myocarditis	123

9. During the year there were sixty-three deaths, causes of deaths were :—

Table II.

Typhoid fever	1
Bacillary dysentery	4
Pulmonary tuberculosis	20
Generalized tuberculosis	2
Tuberculous enteritis	2
Syphilitic aortitis	2
Streptococcal septicaemia	1
Ankylostomiasis	1
Carcinoma of the mediastinum	1
Tumour of the brain	1
Abscess of brain	1
Cerebral haemorrhage	3
Acute dilatation of heart	1

Myocarditis	8
Acute cardiac asthma	2
Heart failure due to coronary thrombosis	1
Lobar pneumonia	2
Hypostatic pneumonia	1
Broncho-pneumonia	1
Perforation of gastric ulcer	1
Cirrhosis of liver	4
Liver abscess	1
General debility	1
Senility	1
Total	63

10. The following transfers took place during the year :—

Table III.

To Queen Mary Hospital	12
To Mental Hospital	7
To Infectious Diseases Hospital	2

Twenty cases were sent to Queen Mary Hospital for X-ray returning the same day and one case for artificial pneumo-thorax treatment was sent on three occasions.

11. Seven prisoners were released on medical grounds suffering from leprosy. On completion of the isolation quarters (at present under construction) leper prisoners will be isolated, and treated as prisoners until termination of their sentence, before being sent to a suitable institution, if required.

12. Only one case of cholera was reported to the Health Department : there were 610 cases of other infectious diseases also reported, mostly tuberculosis and dysentery.

13. 596 inoculations against cholera were carried out on officers and families and 10,478 on prisoners from May to December, 1939.

14. 12,553 prisoners and remands were vaccinated during the year.

15. 160 operations were performed during the year comprising :—hernia, hydrocele, circumcision, haemorrhoids and removal of cysts, etc.

16. 198 teeth were extracted.

17. 559 officers (inclusive of office staff) reported sick and were seen by the medical officer.

18. 883 officers' wives, children and Chinese government servants were seen by the medical officer in his consulting rooms. An Indian lady medical officer attends every Tuesday afternoon to see gynaecological and other cases.

19. Fairly intensive treatment of venereal diseases has been carried out during the year. Prisoners whose sentence did not permit a full course, i.e., under two months were treated (in the event of gonorrhoea) with irrigations and injections of gonacrine and in some cases streptocide was given, and in the case of syphilis and chancroid were given local treatment and advised to attend a government clinic on discharge from prison.

622 cases of venereal diseases were treated,—this number does not include cases where sentence has been too short for full treatment.

1,165 injections of acriflavine derivative were given.

1,460 injections of novarsenobillin.

148 injections of metallic bismuth.

263 bloods were sent to the Bacteriological Institute for a Wassermann test.

20. 75 post-mortem examinations were carried out during the year by the prison medical staff.

21. The following examinations were carried out in the Prison Hospital during the year.

Table IV.

3,567 stools for dysentery, ova, etc.

2,476 blood slides for malaria.

176 sputa for tuberculosis.

366 other for M. leprae, pus cells, cocci, etc.

26 blood counts were carried out.

22. 352 floggings were witnessed during the year.

23. During the year there were eleven executions which were carried out satisfactorily.

24. *Sanitation.* As in previous years the precincts of the gaol have been kept scrupulously clean. A new septic tank has been built adjoining the main tank of the prison—this was completed in the middle of December. This tank should be of great service, as the main septic tank was previously built to serve 1,500 men whereas it had been serving almost 3,000 men until recently, and had been occasionally going out of action. Routine examinations of prisoners employed in the cookhouse were carried out. Of the total of 132 examinations twenty - three were found to be unfit to be employed, of these :—

7 stools shewed Morgan's bacillus.

3 stools shewed B. flexner.

11 stools shewed positive to bacteriological typhosum.

2 Widals were positive to enteric group.

25. *Public Health.* There have been no cases of malaria during the year amongst the prison staff and their families. General health of the prison staff has been good.

The accommodation in the gaol remains the same as stated in last year's report, *i.e.*, approximately 3,000—which is twice the number for which the gaol is designed.

Table V.

HONG KONG PRISON, STANLEY, 1939.

Total prisoners admitted	11,964
Daily average of inmates	2,832
Total admissions to hospital	2,467
Daily average of prisoners in hospital	46.96
Total number of prisoners reporting sick	16,772
Average number of prisoners reporting sick daily	64.10
Total number attending treatment twice daily	38,856
Average daily number attending treatment (106.45 A.M. and P.M.)	212.90
Deaths due to disease	63
Death rate, i.e. percentage of deaths to total admission to prison	0.526

A. H. BARWELL,

M.O., Hong Kong Prison, Stanley.

(*b*) LAI CHI KOK FEMALE PRISON.

Three Chinese medical officers of the Lai Chi Kok Hospital performed the duty of medical officer during the year under review.

2. The total number of female prisoners admitted was 1,428.

3. The admission to hospital was 200, a decrease of 33 over that of 1938, the daily average consequently falling to4.51 as compared with 5.47 of 1938.

4. There was no death in this year.

5. Two cases were transferred to Queen Mary Hospital and one to Kowloon Hospital.

Four cases were referred to Queen Mary Hospital for eye examination, amongst which two were convicts and two wardresses.

6. One prisoner, was transferred to Mental Hospital on 17th March, 1939.

7. There were six normal labours and one breech during the year as compared with eight in 1938.

8. All prisoners were vaccinated and inoculated against cholera during the cholera epidemic.

Number of vaccinations	1,066
Number of inoculations	1,212

9. It is a pleasure to remark that an air of peace and cleanliness is found in the cells and compound. The surroundings not only improve the health of the prisoners, but also creates a soothing effect on the mental strain of the female prisoners.

Table VI.

LAI CHI KOK FEMALE PRISON, 1939.

Total prisoners admitted to prison	1,428
Daily average number of inmates	182.75
Total admitted to hospital	200
Daily average number in hospital	4.51
Total out-patients	593
Daily average number of out-patients	24.8
Death due to disease	Nil
Death-rate, *i.e.*, percentage of deaths to total admission to prison	Nil

T. J. HUA,

M.O., Lai Chi Kok Female Prison.

Appendix VIII.

THE CONTROL OF DANGEROUS DRUGS IN HONG KONG AND TREATMENT OF ADDICTS.

(*a*) CONTROL.

Raw and prepared opium are controlled by the Opium Ordinance (No. 7 of 1932), and dangerous drugs by the Dangerous Drugs Ordinance (No. 35 of 1935), and regulations made under both ordinances. There were no changes in these legal requirements in 1939.

2. There were no modifications in administration during the year. There is evidence of wholesale addiction to (*a*) prepared opium, and (*b*) heroin pills. There were no important irregularities in the controlled import or sale locally. There is no export of opium or dangerous drugs from Hong Kong except,

(*a*) in transit under proper international documents, and

(*b*) special "Relief Purposes", dangerous drugs in transit to China.

Letters of warning were sent in a few cases for minor offences to local medical practitioners and chemists. As a general rule the Hong Kong licit traffic under both heads is controlled on approved lines and there is no evidence of legal opium or drugs passing into illicit channels.

3. The international system has worked satisfactorily. No diversion certificates were issued and transit was only allowed when the drugs or opium were under valid international documents. There were no cases which involved forged documents of any kind.

4. Close contact is made direct by the superintendent of imports and exports (the officer in charge of opium and dangerous drug operations) with Far Eastern colonial authorities connected with the opium and drug traffic and with the United States Treasury Department's representatives in Hong Kong and Shanghai. Other contacts are made in the normal course through diplomatic channels. Seizures were made as the result of these contacts and much useful information was passed on without delay in order that it might arrive at the other end in time to be of value.

5. There is an enormous illicit traffic in opium and heroin pills and the total number of seizures under each head were:

Table I.

Drug	*No. of cases*	*Total amount seized.*
Raw opium	180	13,476 ounces
Prepared opium	1,460	13,640 ounces
Heroin pills	794	3,741,914 pills
Heroin	11	115.9/10 ounces

There were many seizures of opium on ships, but usually under conditions which indicated that the opium was intended for Hong Kong consumption. In two large cases, however, opium was seized under conditions which showed that it was intended for consumption elsewhere.

The heroin pills were in all cases of local manufacture and no evidence was obtained of the import or export of these pills. In one case the heroin seized was imported from Macao and in the others there was no indication as to its origin.

6. The extent of the traffic in opium and dangerous drugs in Hong Kong is enormous, but during the year under review the export aspect of the traffic in opium decreased considerably owing to (*a*) the China Incident, and (*b*) the European War. The former cut off the supplies of Chinese raw and prepared opium, and as a result the price of the illicit commodities increased considerably during the year. The latter produced an effective control of all shipping which considerably hampered the illicit traffic.

In addition, the strict censorship established over cable and postal matter tightened up the control of the illicit traffic in opium and drugs.

7. No raw materials are cultivated in Hong Kong.

8. There is no manufacture of opium or dangerous drugs in Hong Kong. Prepared opium sold by the Government Monopoly is manufactured in Singapore, from stocks of raw opium in Singapore owned by the Hong Kong Government, under the Bangkok Agreement.

9. Two types of prepared opium are sold in Hong Kong by the Government Monopoly, (*a*) Kam Shan and (*b*) Singapore blend. The former is the balance of the stock of a luxury type made in Hong Kong in 1932. It is sold to registered and rationed smokers and no new names are added to the register. There are fifty-two of these smokers and they consumed 102 kilograms during the year. They pay H.K.$80 for a three tael (four ounces) tin of this opium. The Singapore blend is sold through thirteen Government and eleven licenced shops at H.K.$12 per tael. No smoking of opium is allowed in these shops and 3,048 kilograms were sold through them during the year. There is no rationing of sales from these shops and the number of purchasers or smokers of this opium is unknown but 5,505 individual purchases were counted on three consecutive days in December. The gross revenue from the sales of opium was H.K.$1,028,269.76 and the profit on the year's working of the monopoly shown on a detailed balance sheet in a form approved by the Permanent Central Opium Board of the League of Nations was H.K.$300,709.44. It should be noted however that raw opium used to prepare the opium sold was purchased some years ago and is shown at no book value in this account. Purchases of raw opium will be made in 1940 which will considerably reduce this profit. The 1939 sales of prepared opium were much higher than in recent years—in fact there has been no profit on sales for a long period.

10. Imports and Exports Department and Police Department prosecutions for opium and drugs were as follows :—

Table II

	Opium	*Dangerous drugs.*
Number of cases	2,837	2,196
Number of persons charged	3,265	2,336
Fines imposed	H.K.$271,236.20	H.K.$364,651.00
Fines paid	H.K.$ 11,883.82	H.K.$ 1,800.81
Persons committed for trial	—	66
Persons imprisoned by magistrates	2,903	2,114
Persons deported	263	769

Of the sixty-six persons committed for trial in dangerous drugs cases sixty-three were convicted. Of the above cases 2,196 involved opium and or heroin pill divans in which :—

5,983 opium pipes,
5,236 heroin pill pipes, and
11,786 lamps

were seized. During the year under review 155,205 days in gaol were served by opium prisoners and 258,105 days were served by dangerous drug (heroin) prisoners.

NOTE.—The information in the above report was kindly compiled and furnished by Mr. E. W. Hamilton, superintendent of imports and exports, Hong Kong.

(*b*) TREATMENT.

Medical Services.

Opium addicts were treated in the Queen Mary Hospital and at the Tung Wah Eastern Hospital.

In the former institution nine patients were dealt with by the professor of medicine, University of Hong Kong.

The patients were all Chinese. Eight were relieved, and one was still under treatment at the close of 1939.

Those under treatment spent an average of fourteen days in hospital, the longest stay being twenty-seven days and the shortest three days.

Gradual withdrawal of opium and auto-serotherapy were the lines of treatment adopted.

The 187 addicts seen at the Tung Wah Eastern Hospital were also Chinese.

The average duration of stay was nine days, the longest stay being twenty-five and the shortest one day.

The treatment followed the same lines as at the Queen Mary Hospital.

The ward was closed on the 15th of May, 1939, to make room for patients suffering from acute diseases.

Of those treated, 100 were stated to have been relieved of their habit, sixty-nine improved and eighteen showed no result. In view of the very short average stay, it is doubtful whether the claim made regarding relief from addiction rests on sound foundations.

During the period from 1st January to 15th May, 1939, the Government made a grant to the Chinese hospital authorities of fifty cents (about 7½d) per day for every addict treated in the Tung Wah Eastern Hospital.

Appendix A.

Table I.

QUEEN MARY
MENTAL
KOWLOON
TSAN YUK
KENNEDY TOWN
LEPER SETTLEMENT
LAI CHI KOK

} GOVERNMENT HOSPITAL

RETURN OF DISEASES FOR THE YEAR 1939.

Appendix B.

Table II.

TUNG WAH
TUNG WAH EASTERN
KWONG WAH

} CHINESE HOSPITAL

RETURN OF DISEASES FOR THE YEAR 1939.

Note:—The returns for the Government hospitals are given separately from those of the Chinese hospitals although both treat Chinese patients. The reason for this separation lies in the fact the Chinese hospitals are, for the most part, so overcrowded and short of qualified staff that it is very difficult to secure an accurate diagnosis of the cases of disease in a large proportion of those treated.

Appendix A. Table I.

Appendix B. Table II.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
I.—*Infectious & Parasitic Diseases.*										
1. Typhoid fever	12	108	22	120	5	4	280	130	284	12
2. Paratyphoid fevers	—	3	—	3	1	—	3	—	3	1
3. Typhus fever	—	—	—	—	—	—	—	—	—	—
4. Relapsing fever	—	—	—	—	—	—	—	—	—	—
5. Undulant fever	—	—	—	—	—	—	185	6	185	—
6. Small-pox :—										
(*a*) Variola major	11	70	31	81	1	—	7	3	7	—
(*b*) Variola minor (alastrim)	—	—	—	—	—	—	—	—	—	—
7. Measles	1	53	3	54	—	4	539	200	543	2
8. Scarlet fever	1	4	—	5	—	—	—	—	—	—
9. Whooping cough	—	9	2	9	—	1	13	3	14	—
10. Diphtheria	8	108	24	116	12	1	124	90	125	1
11. Influenza	1	390	1	391	3	20	2,606	246	2,626	34
12. Cholera	3	624	365	627	—	—	174	5	174	—
13. Dysentery :—										
(*a*) Amoebic	—	15	1	15	—	4	39	14	43	—
(*b*) Bacillary	7	158	18	165	3	29	622	303	651	19
(*c*) Other or unspecified.	3	10	—	13	1	—	9	—	9	—
14. Plague :—										
(*a*) Bubonic	—	—	—	—	—	—	—	—	—	—
(*b*) Pneumonic	—	—	—	—	—	—	—	—	—	—
(*c*) Septicaemic	—	—	—	—	—	—	—	—	—	—
15. Erysipelas	—	7	—	7	—	2	19	—	21	1
16. Acute poliomyelitis	4	1	—	5	—	—	—	—	—	—
17. Encephalitis lethargica	—	4	1	4	—	—	4	2	4	—
18. Cerebro-spinal fever	19	412	183	431	3	—	—	—	—	—
19. Glanders	—	—	—	—	—	—	—	—	—	—
20. Anthrax	—	—	—	—	—	—	—	—	—	—
21. Rabies	—	—	—	—	—	—	—	—	—	—
22. Tetanus	—	9	5	9	—	—	6	4	6	1
23. Tuberculosis of the respiratory system	36	376	96	412	59	111	3,266	2,084	3,377	186
24. Tuberculosis of the central nervous system	—	25	20	25	—	1	124	120	125	—
25. Tuberculosis of intestines and peritoneum	—	12	5	12	—	1	22	21	23	—
26. Tuberculosis of vertebral column	16	31	2	47	19	—	15	10	15	1
Total carried forward	122	2,429	779	2,551	107	178	8,057	3,241	8,235	258

Appendix A. Table I. **Appendix B. Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	122	2,429	779	2,551	107	178	8,057	3,241	8,235	258
I.—*Infectious & Parasitic Diseases.—(Contd.)*										
27. Tuberculosis of other bones and joints	16	38	2	54	17	18	21	24	39	6
28. Tuberculosis of skin and subcutaneous tissues	2	1	—	3	1	2	2	—	4	—
29. Tuberculosis of the lymphatic system	1	21	2	22	4	—	18	4	18	2
30. Tuberculosis of genito-urinary system	—	7	—	7	4	—	1	1	1	—
31. Tuberculosis of other organs	—	—	—	—	—	—	14	7	14	—
32. Disseminated tuberculosis..	—	7	7	7	—	—	123	122	123	—
33. Leprosy	133	298	21	431	172	—	6	—	6	—
34. Syphillis :—										
(*a*) Congenital	—	—	—	—	—	—	48	36	48	—
(*b*) Primary	—	—	—	—	—	—	—	—	—	—
(*c*) Secondary	—	15	—	15	—	—	—	—	—	—
(*d*) Tertiary	15	121	—	136	3	4	72	24	76	2
35. Other venereal diseases :—										
(*a*) Gonorrhoeal opthalmia	—	2	—	2	—	—	—	—	—	—
(*b*) Gonorrhoea	9	132	—	141	13	—	40	—	40	—
(*c*) Soft chancre	—	10	—	10	—	—	55	—	55	—
36. Purulent infection :—										
(*a*) Septicaemia	—	6	4	6	—	—	34	34	34	—
(*b*) Pyaemia	—	4	2	4	—	—	2	2	2	—
(*c*) Gas gangrene	—	1	1	1	—	—	—	—	—	—
37. Yellow fever	—	—	—	—	—	—	—	—	—	—
38. Malaria	6	168	1	174	2	—	—	—	—	—
(*a*) Benign tertian	2	307	3	309	8	11	1,306	5	1,317	15
(*b*) Quartan	—	15	—	15	3	—	46	3	46	—
(*c*) Sub-tertian	17	576	21	593	25	102	3,036	697	3,138	33
(*d*) Cachexia	1	139	3	140	4	4	1,776	325	1,780	87
39. Other diseases due to protozoa :—										
(*a*) Kala-azar	—	1	—	1	—	—	—	—	—	—
(*b*) Trypanosomiasis ..	—	—	—	—	—	—	—	—	—	—
(*c*) Yaws	—	—	—	—	—	—	—	—	—	—
40. Ankylostomiasis	2	46	2	48	—	3	35	4	38	—
41. Hydatid cysts	—	1	—	1	—	—	—	—	—	—
Total carried forward	326	4,345	848	4,671	363	322	14,692	4,529	15,014	403

Appendix A. Table I. **Appendix B. Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	326	4,345	848	4,671	363	322	14,692	4,529	15,014	403
I.—*Infectious & Parasitic Diseases.—(Contd.)*										
42. Other diseases due to helminths :—										
(*a*) Ascariasis	2	96	1	98	1	—	57	2	57	—
(*b*) Filariasis	—	1	—	1	—	—	—	—	—	—
(*c*) Taeniasis	—	8	—	8	2	—	—	—	—	—
(*d*) Clonorchiasis	1	9	—	10	—	—	—	—	—	—
(*e*) Schistosomiasis	—	—	—	—	—	—	—	—	—	—
43. Mycoses :—										
(*a*) Actinomycosis	—	—	—	—	—	—	—	—	—	—
(*b*) Other mycoses (sprue)	—	10	—	10	2	—	—	—	—	—
44. Other infectious or parasitic diseases :—										
(*a*) Vaccinia	—	—	—	—	—	—	—	—	—	—
(*b*) Other sequelae of vaccination	—	—	—	—	—	—	—	—	—	—
(*c*) German measles	—	7	—	7	—	—	—	—	—	—
(*d*) Varicella	1	63	3	64	—	—	28	5	28	16
(*e*) Mumps	1	20	—	21	—	1	36	—	37	—
(*f*) Dengue	—	4	—	4	—	—	—	—	—	—
(*g*) Glandular fever	—	1	—	1	—	—	—	—	—	—
(*h*) Blackwater fever	—	—	—	—	—	—	—	—	—	—
II—*Cancer and Other Tumours.*										
45. Cancer or other malignant diseases of the buccal cavity, and pharynx	11	8	1	19	1	2	76	49	78	5
46. Cancer or other malignant tumours of the digestive organs, & peritoneum :—										
(*a*) Oesophagus	—	5	4	5	—	—	1	1	1	—
(*b*) Stomach & duodenum	—	12	9	12	—	1	39	28	40	—
(*c*) Rectum	—	1	1	1	—	—	12	5	12	—
(*d*) Liver and biliary passages	—	12	7	12	1	—	22	20	22	—
(*e*) Other digestive organs	2	5	1	7	—	—	8	6	8	—
47. Cancer or other malignant tumours of the respiratory organs	—	9	1	9	4	—	1	1	1	—
48. Cancer or other malignant tumours of the uterus ...	3	7	3	10	1	6	80	53	86	2
49. Cancer or other malignant tumours of other female genital organs	2	32	1	34	7	1	8	4	9	—
50. Cancer or other malignant tumours of the breast ...	4	134	—	138	4	3	65	31	68	5
Total carried forward	353	4,789	880	5,142	386	336	15,125	4,734	15,461	431

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	353	4,789	880	5,142	386	336	15,125	4,734	15,461	431
II.—*Cancer and other Tumours. (Contd.)*										
51. Cancer or other malignant tumours of the male genito-urinary organs ...	2	4	1	6	1	3	10	10	13	—
52. Cancer or other malignant tumours of the skin	1	14	—	15	3	—	3	—	3	—
53. Cancer or other malignant tumours of organs not specified	2	12	5	14	2	1	40	20	41	2
54. Non-malignant tumours:—										
(*a*) Female genital organs	1	49	—	50	2	1	39	3	40	1
(*b*) Other sites	13	44	1	57	6	3	45	2	48	1
55. Tumours of undetermined nature :—										
(*a*) Female genital organs	—	22	—	22	5	—	—	—	—	—
(*b*) Other sites	—	1	—	1	—	—	—	—	—	—
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and Other General Diseases.*										
56. Rheumatic fever	—	12	1	12	2	—	13	4	13	1
57. Chronic rheumatism, osteo-arthritis :—										
(*a*) Chronic rheumatism.	1	23	—	24	—	1	70	—	71	4
(*b*) Rheumatoid arthritis	—	16	—	16	1	9	85	10	94	11
58. Gout	—	1	1	1	—	—	—	—	—	—
59. Diabetes mellitus	1	28	2	29	4	—	6	2	6	—
60. Scurvy	—	—	—	—	—	—	3	1	3	—
61. Beri-beri	131	1,128	80	1,259	199	215	7,390	1,981	7,605	338
62. Pellagra	—	—	—	—	—	—	—	—	—	—
63. Rickets	—	2	—	2	—	—	5	3	5	—
64. Osteomalacia	—	—	—	—	—	—	—	—	—	—
65. Diseases of the pituitary gland	—	—	—	—	—	—	—	—	—	—
66. Diseases of the thyroid and parathyroid glands :—										
(*a*) Simple goitre	—	12	—	12	—	—	—	—	—	—
(*b*) Exophthalmic goitre	4	24	1	28	4	—	7	2	7	1
(*c*) Myxoedema, cretinism	—	4	1	4	1	—	—	—	—	—
(*d*) Tetany	—	—	—	—	—	—	—	—	—	—
(*e*) Other diseases	—	—	—	—	—	—	—	—	—	—
67. Diseases of the thymus ...	—	—	—	—	—	—	—	—	—	—
Total carried forward	509	6,185	973	6,694	616	569	22,841	6,772	23,410	790

Appendix A. Table I. **Appendix B. Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	509	6,185	973	6,694	616	569	22,841	6,772	23,410	790
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and Other General Diseases.*—(*Contd.*)										
68. Diseases of the adrenal glands (excluding tuberculosis)	—	—	—	—	—	—	—	—	—	—
69. Other general diseases	2	4	—	6	—	—	—	—	—	—
IV.—*Diseases of the Blood and Blood Forming Organs.*										
70. Haemorrhagic conditions :—										
(*a*) Purpura	—	2	2	2	—	—	2	2	2	—
(*b*) Haemophilia	—	—	—	—	—	—	—	—	—	—
71. Anaemia, chlorosis :—										
(*a*) Pernicious anaemia...	—	—	—	—	—	—	1	1	1	—
(*b*) Other anaemias and chlorosis	1	47	1	48	3	—	—	—	—	—
(*i*) Splenic anaemia	—	—	—	—	—	—	—	—	—	—
(*ii*) Others	—	—	—	—	—	1	112	8	113	5
72. Leukaemia, aleukaemia :—										
(*a*) Leukaemia	—	1	—	1	—	—	—	—	—	—
Chronic myeloid	—	—	—	—	—	—	—	—	—	—
Chronic lymphatic...	—	—	—	—	—	—	—	—	—	—
Acute	—	—	—	—	—	—	—	—	—	—
Multiple myeloma ...	—	—	—	—	—	—	—	—	—	—
(*b*) Aleukaemia (lymphadenoma)	—	—	—	—	—	—	1	—	1	—
73. Diseases of the spleen :—										
(*a*) Banti's disease	—	—	—	—	—	—	—	—	—	—
(*b*) Other diseases of the spleen	2	1	—	3	—	2	25	—	27	1
74. Other diseases of the blood and blood forming organs	—	—	—	—	—	—	—	—	—	—
V.—*Chronic Poisoning.*										
75. Alcoholism (acute or chronic)	—	14	—	14	—	—	1	—	1	—
76. Chronic poisoning by other organic substances :—										
Opium habit	3	27	4	30	5	10	235	18	245	—
Morphine habit	—	—	—	—	—	—	—	—	—	—
Others	3	—	—	3	—	—	—	—	—	—
77. Chronic poisoning by mineral substances :—										
(*a*) Occupational lead poisoning	—	—	—	—	—	—	—	—	—	—
(*b*) Other chronic poisoning by mineral	—	—	—	—	—	—	—	—	—	—
Total carried forward	520	6,281	980	6,801	624	582	23,218	6,801	23,800	796

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Carried forward	520	6,281	980	6,801	624	582	23,218	6,801	23,800	796
VI.—*Diseases of the Nervous System and Sense Organs.*										
78. Encephalitis :—										
(*a*) Cerebral abscess	—	—	—	—	—	—	2	2	2	—
(*b*) Others	1	1	—	2	1	—	—	—	—	—
79. Meningitis (does not include C.S.M.)	—	5	4	5	—	—	14	8	14	2
80. Tabes dorsalis (locomotor ataxy)	—	13	2	13	1	4	10	5	14	4
81. Other diseases of the spinal cord :—										
(*a*) Progressive muscular atrophy	—	1	—	1	—	—	—	—	—	—
(*b*) Subacute combined sclerosis	—	—	—	—	—	—	—	—	—	—
(*c*) Myelitis of unstated origin	—	6	—	6	—	—	—	—	—	—
(*d*) Other diseases included under 81 ...	1	—	—	1	—	—	—	—	—	—
82. Cerebral haemorrhage, apoplexy, etc :—										
(*a*) Cerebral haemorrhage	1	35	32	36	—	7	179	146	186	6
(*b*) Cerebral embolism and thrombosis	—	—	—	—	—	2	4	3	6	—
(*c*) Hemiplegia and other paralysis of unstated origin	5	37	3	42	5	6	177	62	183	22
83. General paralysis of the insane	4	21	5	25	5	—	—	—	—	—
84. Other forms of insanity :—										
(*a*) Dementia praecox ...	25	81	—	106	29	—	—	—	—	—
(*b*) Others	74	248	18	322	85	—	42	—	42	1
85. Epilepsy	3	19	—	22	1	1	38	3	39	1
86. Infantile convulsions	—	—	—	—	—	—	2	—	2	1
87. Other diseases of the nervous system :—										
(*a*) Chorea	—	—	—	—	—	—	—	—	—	—
(*b*) Neuritis, neuralgia...	6	37	—	43	4	72	645	14	717	35
(*c*) Paralysis agitans	1	1	—	2	—	4	5	2	9	—
(*d*) Disseminated sclerosis	—	—	—	—	—	—	3	3	3	—
(*e*) Hysteria	—	8	—	8	3	—	—	—	—	—
(*f*) Neurasthenia	1	10	—	11	—	—	—	—	—	—
(*g*) Others	—	6	—	6	3	8	20	6	28	3
88. Diseases of the eye :—	—									
(*a*) Conjunctivitis	4	79	—	83	5	—	—	—	—	—
(*b*) Trachoma	2	22	—	24	—	26	706	—	732	37
(*c*) Corneal ulcer	—	36	—	36	1	—	—	—	—	—
(*d*) Other diseases	8	104	2	112	10	—	—	—	—	—
Total carried forward	656	7,051	1,046	7,707	777	712	25,065	7,055	25,777	908

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	656	7,051	1,046	7,707	777	712	25,065	7,055	25,777	908
VI.—*Diseases of the Nervous System and Sense Organs —(Contd.)*										
89. Diseases of the ear and of the mastoid sinus :—										
(*a*) Otitis externa	4	3	—	7	—	1	53	3	54	—
(*b*) Otitis media	—	27	—	27	1	—	—	—	—	—
(*c*) Mastoiditis	2	12	1	14	2	2	19	4	21	—
(*d*) Others	—	5	—	5	—	—	—	—	—	—
VII.—*Diseases of the Circulatory System.*										
90. Pericarditis	—	1	—	1	—	—	9	5	9	—
91. Acute endocarditis :—										
(*a*) Malignant endocarditis	—	—	—	—	—	1	10	4	11	—
(*b*) Other acute endocarditis	—	3	2	3	—	—	—	—	—	—
92. Chronic endocarditis, valvular disease :—										
(*a*) Aortic valve disease	—	7	2	7	1	2	53	35	55	—
(*b*) Mitral valve disease	5	20	6	25	2	—	—	—	—	—
(*c*) Aortic and mitral valve disease	—	—	—	—	—	11	276	147	287	7
(*d*) Endocarditis not returned as acute or chronic	—	—	—	—	—	—	—	—	—	—
(*e*) Other or unspecified valve disease	2	8	1	10	—	—	56	29	56	—
93. Diseases of the myocardium :—										
(*a*) Acute myocarditis ...	1	—	—	1	—	—	—	—	—	—
(*b*) Myocardial degeneration	2	5	5	7	—	9	1,040	767	1,049	4
94. Diseases of the coronary arteries :—										
(*a*) Angina pectoris	—	—	—	—	—	—	1	1	1	—
(*b*) Coronary sclerosis ...	—	1	1	1	—	—	—	—	—	—
95. Other diseases of the heart :—										
(*a*) Disordered action of heart	2	19	5	21	1	3	22	1	25	—
(*b*) Other diseases included under 95	1	2	1	3	—	—	17	—	17	—
96. Aneurysm	1	4	1	5	—	—	8	4	8	—
97. Arterio-sclerosis	—	5	1	5	—	—	4	—	4	—
98. Gangrene	2	10	4	12	—	2	29	27	31	—
99. Other diseases of the arteries	—	2	—	2	1	—	—	—	—	—
Total carried forward	678	7,185	1,076	7,863	785	743	26,662	8,082	27,405	919

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly Total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly Total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	678	7,185	1,076	7,863	785	743	26,662	8,082	27,405	919
VII.—*Diseases of the Circulatory System.* —(*Contd.*)										
100. Diseases of the veins :—										
(*a*) Varicose veins	—	17	—	17	2	9	49	—	58	2
(*b*) Haemorrhoids	5	54	—	59	2	—	—	—	—	—
(*c*) Phlebitis	—	—	—	—	—	—	—	—	—	—
(*d*) Thrombosis	—	4	2	4	—	—	—	—	—	—
(*e*) Others	—	—	—	—	—	4	26	1	30	1
101. Diseases of the lymphatic system, (lymphangitis, etc.)	4	89	—	93	2	3	2	—	5	—
102. Abnormalities of blood pressure :—										
(*a*) Arterial hypertension	—	13	1	13	1	—	—	—	—	—
(*b*) Arterial hypotension	—	—	—	—	—	—	—	—	—	—
103. Other diseases of the circulatory system	—	5	—	5	—	—	—	—	—	—
VIII.—*Diseases of the Respiratory System.*										
104. Diseases of the nasal fossae and annexa :—										
(*a*) Diseases of the nose	4	30	—	34	—	—	13	—	13	1
(*b*) Diseases of the accessory nasal sinuses	5	14	—	19	1	—	—	—	—	—
105. Diseases of the larynx :—										
(*a*) Laryngismus stridulus	—	1	—	1	—	—	—	—	—	—
(*b*) Laryngitis	—	18	—	18	—	—	4	—	4	—
(*c*) Other diseases of the larynx	—	1	1	1	—	—	—	—	—	—
106. Bronchitis :—										
(*a*) Acute bronchitis	11	104	1	115	—	19	342	142	361	2
(*b*) Chronic bronchitis ...	6	36	—	42	—	57	1,520	407	1,577	79
(*c*) Bronchitis not distinguished as acute or chronic	4	111	2	115	4	3	1,023	194	1,026	57
107. Broncho-pneumonia	1	271	164	272	7	42	4,417	3,794	4,459	16
108. Lobar pneumonia	5	147	65	152	3	15	1,353	883	1,368	12
109. Pneumonia (not otherwise defined)	1	25	10	26	2	—	156	90	156	1
110. Pleurisy :—										
(*a*) Empyema	4	35	2	39	6	2	18	8	20	1
(*b*) Other pleurisy	8	28	3	36	—	2	37	1	39	—
Total carried forward	736	8,188	1,327	8,924	815	899	35,622	13,602	36,521	1,091

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	736	8,188	1,327	8,924	815	899	35,622	13,602	36,521	1,091
VIII.—*Diseases of the Respiratory System.* —(*Contd.*)										
111. Congestion and haemorrhagic infarct of lung, etc :—										
(*a*) Hypostatic congestion of lungs	—	3	—	3	1	—	—	—	—	—
(*b*) Other diseases included under 111 ...	—	80	1	80	6	—	1	1	1	—
112. Asthma	—	2	—	2	—	—	119	3	119	2
113. Pulmonary emphysema	—	—	—	—	—	—	3	—	3	—
114. Other diseases of the respiratory system :—										
(*a*) Chronic interstitial pneumonia, including occupational disease of the lung..	—	1	—	1	1	—	—	—	—	—
(*b*) Other diseases included in 114 :—										
(1) Gangrene of the lung	2	7	3	9	1	—	—	—	—	—
(2) Other diseases included under 114*b*	—	6	1	6	—	—	2	2	2	—
IX.—*Diseases of the Digestive System.*										
115. Diseases of the buccal cavity, pharynx etc :—										
(*a*) Diseases of the teeth and gums	2	238	2	240	4	7	125	—	132	6
(*b*) Ludwig's angina	—	—	—	—	—	—	4	2	4	—
(*c*) Diseases of the tonsils	3	294	2	297	4	—	108	—	108	—
(*d*) Other diseases included in 115	1	36	—	37	2	—	—	—	—	—
116. Diseases of the oesophagus	—	—	—	—	—	—	—	—	—	—
117. Ulcer of the stomach or duodenum :—										
(*a*) Ulcer of the stomach	3	61	17	64	2	19	176	40	195	5
(*b*) Ulcer of the duodenum	2	67	—	69	8	1	43	—	44	1
118. Other diseases of the stomach :—										
(*a*) Inflammation of the stomach	3	107	2	110	4	—	—	—	—	—
(*b*) Other diseases included in 118	5	36	3	41	—	12	842	15	854	11
119. Diarrhoea and enteritis (under 2 years)	2	115	53	117	—	10	2,010	1,336	2,020	16
Total carried forward	759	9,241	1,411	10,000	848	948	39,055	15,001	40,003	1,132

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Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	759	9,241	1,411	10,000	848	948	39,055	15,001	40,003	1,132
IX.—*Diseases of the Digestive System.* —(*Contd.*)										
120. Diarrhoea and enteritis (2 years and over) :—										
(*a*) Colitis	4	175	10	179	2	—	—	—	—	—
(*b*) Otherwise defined . .	9	116	3	125	4	68	2,322	1,256	2,390	62
121. Appendicitis	6	138	10	144	8	3	45	8	48	1
122. Hernia, intestinal obstruction :—										
(*a*) Hernia	1	77	2	78	4	3	95	6	98	4
(*b*) Intestinal obstruction	2	14	5	16	1	—	24	17	24	1
123. Other diseases of the intestines :—										
(*a*) Constipation	—	78	—	78	—	—	—	—	—	—
(*b*) Diverticulitis	—	1	—	1	—	—	—	—	—	—
(*c*) Others included under 123	1	76	2	77	13	5	562	170	567	17
124. Cirrhosis of the liver :—										
(*a*) Returned as alcoholic	—	13	4	13	1	—	—	—	—	—
(*b*) Not returned as alcoholic	2	13	4	15	—	7	137	77	144	7
125. Other diseases of the liver :—										
(*a*) Acute yellow atrophy	—	—	—	—	—	—	—	—	—	—
(*b*) Others included under 125	—	—	—	—	—	5	31	16	36	2
Amoebic abscess...	—	5	1	5	1	—	—	—	—	—
Hepatitis	—	9	2	9	—	—	—	—	—	—
126. Biliary calculi	1	9	—	10	1	—	4	—	4	1
127. Other diseases of the gall bladder and ducts	2	45	1	47	3	—	3	—	3	—
128. Diseases of the pancreas..	—	4	2	4	—	—	—	—	—	—
129. Peritonitis without stated cause	—	21	9	21	3	3	54	42	57	—
X.—*Non-Veneral Diseases of the Genito-Urinary System and Annexa.*										
130. Acute nephritis	—	24	9	24	2	4	55	9	59	—
131. Chronic nephritis	3	53	19	56	1	35	1,356	459	1,391	91
132. Nephritis not stated to be acute or chronic	2	19	5	21	1	13	884	344	897	39
Total carried forward	792	10,131	1,499	10,923	893	1,094	44,627	17,405	45,721	1,357

Appendix A. **Table I.** — **Appendix B.** **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	792	10,131	1,499	10,923	893	1,094	44,627	17,405	45,721	1,357
X.—*Non-Venereal Diseases of the Genito-Urinary System and Annexa.*—(*Contd.*)										
133. Other diseases of the kidney and annexa :—										
(*a*) Pyelitis	2	57	5	59	—	—	27	8	27	—
(*b*) Other diseases included under 133 ...	2	19	—	21	—	—	—	—	—	—
134. Calculi of the urinary passages :—										
(*a*) Calculi of kidney and ureter	3	33	—	36	2	—	4	1	4	—
(*b*) Calculi of the bladder	4	37	1	41	4	3	28	—	31	2
(*c*) Calculi of unstated site	—	—	—	—	—	—	3	—	3	—
135. Diseases of the bladder :—										
(*a*) Cystitis	—	33	—	33	1	2	32	2	34	2
(*b*) Other diseases of the bladder	—	27	1	27	1	—	—	—	—	—
136. Diseases of the urethra, urinary abscess, etc :—										
(*a*) Stricture of the urethra	—	19	—	19	—	—	91	3	91	3
(*b*) Other diseases of the urethra, etc.	1	18	—	19	—	1	11	—	12	—
137. Diseases of the prostate ...	1	5	1	6	—	—	17	—	17	—
138. Diseases of the male genital organs :—										
(*a*) Phimosis	3	56	—	59	2	1	49	—	50	1
(*b*) Paraphimosis	—	2	—	2	—	—	—	—	—	—
(*c*) Hydrocele	1	42	—	43	2	—	—	—	—	—
139. Diseases of the female genital organs :—										
(*a*) 1. Diseases of the ovary	3	52	4	55	4	3	43	—	46	1
2. Diseases of the fallopian tube	3	24	—	27	3	—	—	—	—	—
3. Diseases of the parametrium	—	48	2	48	—	—	—	—	—	—
(*b*) Diseases of the uterus	5	315	5	320	4	2	46	—	48	—
(*c*) Diseases of the breast	2	28	3	30	—	—	10	—	10	1
(*d*) Other diseases of the female genital organs.	2	3	—	5	—	2	38	—	40	—
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*										
140. Post-abortive sepsis :—										
Septic abortion	—	8	—	8	—	—	13	3	13	—
Total carried forward	824	10,957	1,521	11,781	916	1,108	45,039	17,422	46,147	1,367

Appendix A. Table I. **Appendix B. Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	824	10,957	1,521	11,781	916	1,108	45,039	17,422	46,147	1,367
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*—(*Contd.*)										
141. Abortion not returned as septic :—										
(*a*) Haemorrhage following abortion	2	105	—	107	2	—	138	4	138	—
(*b*) Without record of haemorrhage	—	46	1	46	—	1	44	—	45	2
142. Ectopic gestation	—	13	1	13	1	—	8	—	8	—
143. Other accidents of pregnancy	—	10	—	10	—	—	16	1	16	—
144. Puerperal haemorrhage :—										
(*a*) Placenta praevia	—	8	3	8	—	—	16	5	16	—
(*b*) Other puerperal haemorrhage	—	6	5	6	—	—	7	1	7	—
145. Puerperal sepsis :—										
(*a*) Puerperal septicaemia and pyaemia	1	3	—	4	—	1	15	4	16	—
(*b*) Puerperal tetanus ...	—	—	—	—	—	—	3	2	3	—
146. Puerperal albuminuria and convulsions :—										
(*a*) Puerperal convulsions	1	10	4	11	—	—	—	—	—	—
(*b*) Other conditions included in 146	—	3	3	3	—	—	—	—	—	—
147. Other toxaemias of pregnancy	—	23	8	23	—	—	95	31	95	3
148. Puerperal phlegmasia alba dolens, embolism and sudden death :—										
Puerperal phlegmasia alba dolens not returned as septic...	—	—	—	—	—	—	—	—	—	—
Puerperal embolism and sudden death...	—	—	—	—	—	—	—	—	—	—
149. Conditions associated with labour :—										
(*a*) Normal labour	82	6,044	—	6,126	106	107	8,207	—	8,314	86
(*b*) Accidents of childbirth	—	14	14	14	—	—	3	3	3	—
(*c*) False labour	—	451	—	451	—	—	—	—	—	—
150. Other or unspecified conditions of the puerperal state :—										
(*a*) Puerperal insanity..	1	3	—	4	1	—	—	—	—	—
(*b*) Puerperal diseases of the breast	—	1	—	1	—	—	22	—	22	1
Total carried forward	911	17,697	1,560	18,608	1,026	1,217	53,613	17,473	54,830	1,459

Appendix A.
Table I.

Appendix B.
Table II.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total.		Total Cases Treated.	Remaining in hospital at end of 1939.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	911	17,697	1,560	18,608	1,026	1,217	53,613	17,473	54,830	1,459
XII.—*Diseases of the Skin and Cellular Tissue.*										
151. Carbuncle, boil	4	180	4	184	4	6	296	44	302	7
152. Cellulitis, acute abscess :—										
(*a*) Cellulitis	5	319	5	324	9	84	2,051	98	2,135	93
(*b*) Acute abscess	6	44	1	50	—	—	—	—	—	—
153. Other diseases of the skin and its annexa	15	211	2	226	14	78	2,419	—	2,497	211
XIII.—*Diseases of the Bones and Organs of Locomotion.*										
154. Acute infective osteomyelitis and periostitis	2	23	1	25	2	5	64	12	69	1
155. Other diseases of the bones	—	19	—	19	3	—	20	—	20	1
156. Diseases of the joints and other organs of locomotion :—										
(*a*) Diseases of the joints	7	63	3	70	8	13	152	1	165	11
(*b*) Diseases of other organs of locomotion	8	25	—	33	2	—	36	—	36	—
XIV.—*Congenital Malformations*										
157. Congenital malformations :—										
(*a*) Congenital hydrocephalus	—	5	—	5	—	—	3	3	3	—
(*b*) Spina bifida and meningocele	—	1	—	1	—	—	—	—	—	—
(*c*) Congenital malformation of heart	2	14	3	16	2	—	9	6	9	—
(*d*) Monstrosities	—	—	—	—	—	—	—	—	—	—
(*e*) Other congenital malformations	3	30	3	33	5	—	36	16	36	—
XV.—*Diseases of Early Infancy.*										
158. Congenital debility	1	21	9	22	2	8	383	319	391	—
159. Premature birth	—	3	3	3	—	1	84	68	85	2
160. Injury at birth	1	—	—	1	—	—	—	—	—	—
Total carried forward	965	18,655	1,594	19,620	1,077	1,412	59,166	18,040	60,578	1,785

Appendix A. **Appendix B.**
Table I. **Table II.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in hospital at end of 1938.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in hospital at end of 1939.	Remaining in hospital at end of 1938.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in hospital at end of 1939.
Brought forward	965	18,655	1,594	19,620	1,077	1,412	59,166	18,040	60,578	1,785
XV.—*Diseases of Early Infancy.—(Contd.)*										
161. Other diseases peculiar to early infancy :—										
(*a*) Atelectasis	—	—	—	—	—	—	3	3	3	—
(*b*) Icterus neonatorum...	—	—	—	—	—	—	—	—	—	—
(*c*) Other diseases included in 161	—	1	—	1	—	—	9	5	9	—
Diseases of the umbilicus	—	—	—	—	—	—	—	—	—	—
Pemphigus neonatorum	—	—	—	—	—	—	—	—	—	—
Others included under 161c.	—	1	—	1	—	—	—	—	—	—
XVI.—*Old Age.*										
162. Old Age :—										
(*a*) Senile dementia	5	17	2	22	8	—	—	—	—	—
(*b*) Other forms of senile decay	1	33	—	34	1	82	1,016	417	1,098	63
XVII.—*Conditions Associated with Violence.*										
163. Suicide, or attempted suicide, by poisoning (including corrosive poisoning)	3	201	31	204	2	—	17	—	17	—
164. Suicide, or attempted suicide, by gas poisoning	—	—	—	—	—	—	—	—	—	—
165. Suicide, or attempted suicide, by hanging or strangulation	—	11	1	11	—	—	2	2	2	—
166. Suicide, or attempted suicide, by drowning	1	92	4	93	2	—	—	—	—	—
167. Suicide, or attempted suicide, by firearms	—	1	—	1	—	—	—	—	—	—
168. Suicide, or attempted suicide, by cutting or piercing instruments	—	20	5	20	—	—	—	—	—	—
169. Suicide, or attempted suicide, by jumping from a height	—	17	11	17	—	—	1	1	1	—
170. Suicide, or attempted suicide, by crushing	—	—	—	—	—	—	—	—	—	—
171. Suicide, or attempted suicide, by other means	—	3	—	3	—	—	—	—	—	—
172. Infanticide	—	—	—	—	—	—	—	—	—	—
Total carried forward	975	19,052	1,648	20,027	1,090	1,494	60,214	18,468	61,708	1,848