Annual departmental report by the Director of Medical and Health Services / Hong Kong.

G. R.

ANNUAL REPORT

OF THE

DIRECTOR

OF

MEDICAL SERVICES

FOR THE YEAR

1937.

Printed at Hong Kong Prison, Stanley.

HONG KONG.

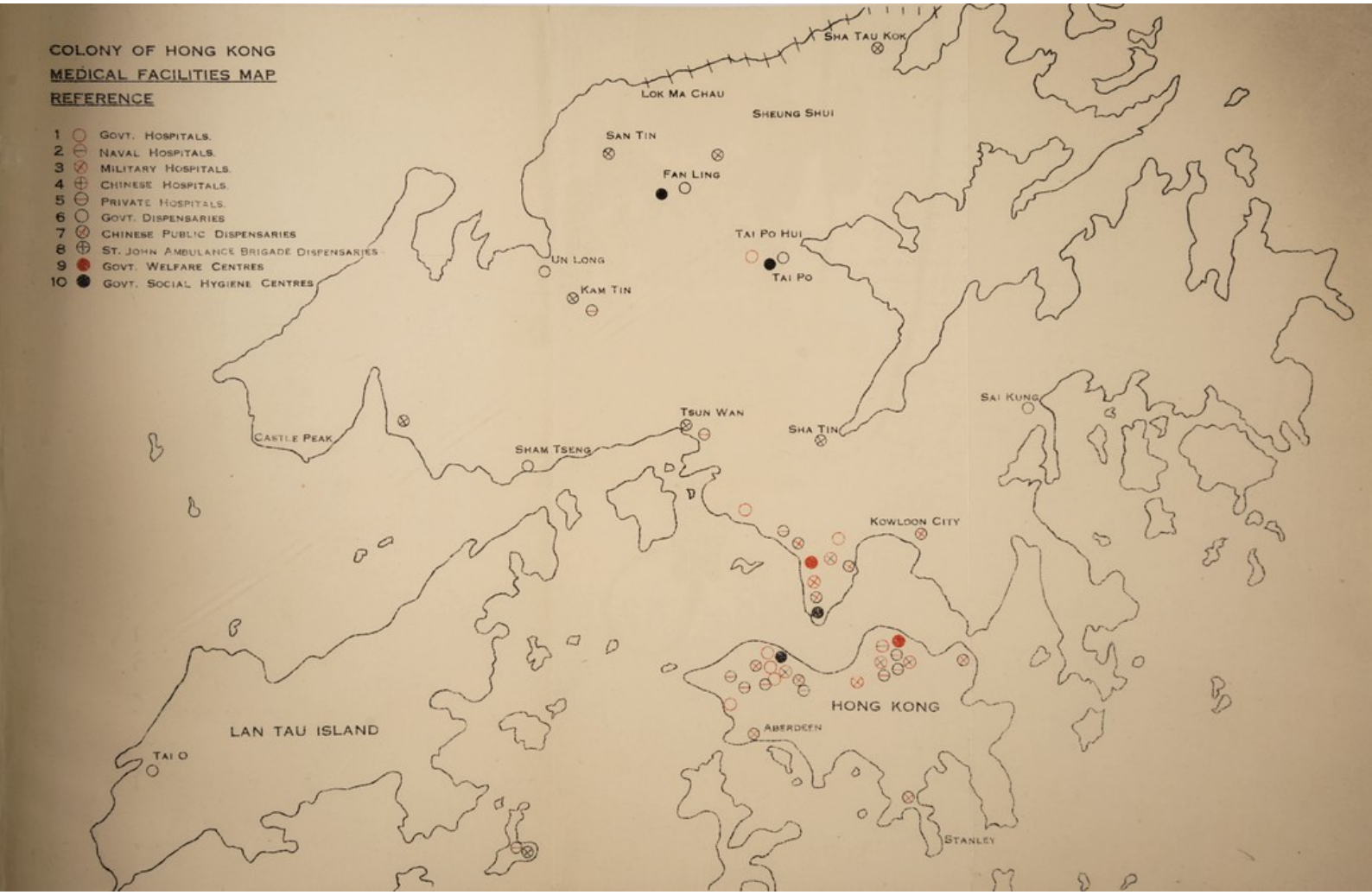
REPORT

OF THE

MEDICAL DEPARTMENT

FOR THE YEAR

1937.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Appointments.

European.

Medical Officer: Dr. P. B. Wilkinson.

Woman Medical Officer: Dr. (Mrs.) A. L. J. Dovey.

Nursing Sisters: Miss B. M. Auger, Miss J. A. M. Black, Miss S. Dempsey, Miss C. C. Denly, Miss H. E. Gray, Miss E. M. Hansey, Miss P. E. Keam, Miss W. N. M. Lambert-Baker, Miss J. Lees, Miss R. E. Low, Miss A. M. Mackie, Miss K. Marley, Miss M. K. Murray, Miss E. M. Pratt, Miss D. E. Purtell, Miss C. G. Y. Purves, Miss B. S. Robertson, Miss J. Smith, Miss D. H. Stockford, Miss D. C. Tall, Miss A. M. Thomas, Miss L. E. Turner, Miss B. M. Wansey, Miss G. Waugh, Miss D. E. M. Wilson.

Secretary: Mr. R. W. H. Maynard.

Asiatic.

Medical Officers: Dr. Lien Tsoong Kya, Dr. Tan Hee Choo, Dr. Yeoh Guan Eng.

Promotions.

European.

Principal Matron: Miss S. F. Sutton.

Matron: Miss A. M. Davies.

Senior Sister: Miss A. M. Cullinan.

RETIREMENTS & RESIGNATIONS.

Director of Medical Services: Dr. A. R. Wellington, C.M.G.

Government Consultant: Professor W. C. W. Nixon.

Principal Matron: Miss S. I. Summerskill.

Senior Sister: Mrs. B. E. Elliott.

Nursing Sisters: Miss F. Boullin, Miss E. O. Davis, Miss J. N. Edwards, Miss L. Lace, Miss J. Lenaghan, Miss B. M. Lockhart-Smith, Miss H. G. Mickel, Miss K. M. Moore, Miss A. Munro, Miss M. B. M. Mustill, Miss S. M. Nobel, Miss L. M. Passey, Miss I. Russell, Miss M. W. Ward.

Asiatic.

Medical Officers: Dr. Cheah Keng Seng, Dr. Phoon Seck Wah, Dr. Phoon Seck Wing.

(*b*) Health Division.

APPOINTMENTS.

European.

Woman Medical Officer: Dr. (Mrs.) G. R. Nash.

RETIREMENTS & RESIGNATIONS.

Woman Medical Officer: Dr. (Mrs.) L. Fehily.

(*c*) Laboratory Division.

TRANSFERS.

European.

Assistant Analyst: Mr. J. L. Tetley to Imports & Exports Office.

B. (*a*) Ordinances affecting the Public Health.

The following is a list of Ordinances, Rules, Regulations, By-laws and Government Notifications affecting the public health or medical matters which were enacted, made or published during 1937:—

1. Ordinances

1. Public Health (Sanitation) Amendment Ordinance, 1937.

2. Pharmacy and Poisons Ordinance, 1937.

2. Rules, Regulations & By-laws.

1. Adulterated Food and Drugs Regulations—amendment to Regulation 4 (Government Notification 25).
2. Liquors Ordinance, 1931—Brewery Regulations made thereunder (Government Notification 108).
3. Public Health (Food) Ordinance, 1935—Amendment of By-laws (Food Shops) (Government Notification 169).
4. Cremation Ordinance, 1934—Amendment of Regulations (Government Notification 200).
5. Adulterated Food and Drugs Ordinance, 1935—Amendment of Regulations (Government Notification 218).
6. Emergency Regulations Ordinance 1922—Regulations for prevention and mitigation of cholera (Government Notification 541).
7. Public Health (Sanitation) Ordinance, 1935—Domestic Cleanliness and Prevention of Disease By-laws—By-law 11 relating to restriction on sale of certain foodstuffs (Government Notification 542).
8. Emergency Regulations Ordinance, 1922—Regulation prohibiting sale of Chinese dishes (Government Notification 576).
9. Emergency Regulations Ordinance, 1922—Regulation prohibiting sale of mussels (Government Notification 641).
10. Quarantine and Prevention of Disease Ordinance, 1936—Regulations for the supply of water to and from Water Boats and from Wharves (Government Notification 659).
11. Dangerous Drugs Ordinance, 1935—Repeal of Regulation 21 and Schedule II. (Government Notification 675).
12. Public Health (Sanitation) Ordinance, 1935—Amendment of By-laws headed "Conservancy". (Government Notification 679).
13. Pharmacy and Poisons Ordinance, 1936—Amendment to Regulation 1 relating to "Licences to Wholesale Dealers". (Government Notification 700).
14. Prisons Ordinance, 1932—Amendment of Prison Rules relating to duties of Medical Officer (Government Notification 745).
15. Dentistry Ordinance, 1914—Rescission of Regulation 4 of Dentistry Regulations (Government Notification 859).

16. Public Health (Sanitation) Ordinance, 1935—Amendment of By-laws relating to scavenging (Government Notification 907).

17. Midwives Ordinance, 1910—Amendment of Regulations made thereunder (Government Notification 911).

3. Government Notifications.

1. Government Notification 1—Shanghai place where smallpox prevails.

2. Government Notification 76—Dysentery to be included within the expression "Infectious Disease".

3. Government Notification 142—Bangkok place where cholera prevails.

4. Government Notification 110—Pakhoi place where smallpox prevails—rescission of order relating thereto.

5. Government Notification 201—Public Health (Sanitation) Ordinance, 1935—application of, to Tsing Yi Urn Cemetery.

6. Government Notification 208—Nursing and Maternity Homes Regulation Ordinance, 1936—exemption of Babington Hospital and Sanatorium.

7. Government Notification 310—Shanghai place where smallpox prevails—rescission of order relating thereto.

8. Government Notification 349—Public Health (Food) Ordinance, 1935—Markets—List of, markets closed.

9. Government Notification 410—Public Health (Animals and Birds) Ordinance, 1935—Prohibition of Importation of equines from Macao and Canton.

10. Government Notification 425—Prisons Ordinance, 1932—Order that "The Prison Ward" to be set aside for purpose of prison.

11. Government Notification 463—Bangkok place where cholera prevails—rescission of order relating thereto.

12. Government Notification 485—Hoihow an infected port where cholera prevails.

13. Government Notification 507—Public Health (Sanitation) Ordinance, 1935—application to Tsing Yi Urn Cemetery—cancellation of Government Notification 140 and Government Notification 201 relating thereto.

14. Government Notification 508—Public Health (Sanitation) Ordinance, 1935—application of, to Hammer Hill Urn Cemetery.

15. Government Notification 522—Public Health (Sanitation) Ordinance, 1935—application of, to extension Chai Wan Cemetery.

16. Government Notifications 647, 648, 649, 650 and 651—Public Health (Sanitation) Ordinance, 1935—Orders relating to removal of bodies.

17. Government Notification 674—Dangerous Drugs Ordinance, 1935—declaration that Ordinance shall cease to apply to certain preparations.

18. Government Notification 676—Shanghai place where cholera prevails.

19. Government Notification 743—Hoihow an infected port where cholera prevails—rescission of order relating thereto.

20. Government Notification 761—Haiphong place where cholera prevails.

21. Government Notification 762—Rangoon place where plague prevails.

22. Government Notification 821—Public Health (Food) Ordinance, 1935—Declaration that Kennedy Town Wholesale Market shall be deemed to be a market within by-laws.

23. Government Notification 858—Rangoon place where plague prevails—rescission of order relating thereto.

C. Finance.

Revenue earned by all divisions of the Medical Department during 1937 amounted to $455,232.42 as compared with $338,866.09 in 1936. The total ordinary (recurrent) expenditure was $1,866,911.97, the corresponding expenditure for 1936 being $1,574,761.55. Special expenditure amounted to $151,225.47 and $9,565.90 in 1937 and 1936 respectively. The figures for special expenditure do not include the cost of buildings, hospitals, water supplies, etc., a very considerable item. The total expenditure on medical services rose from $1,584,327.25 in 1936 to $2,018,137.44 in the year under review.

In order to obtain a more accurate picture of public health expenditure, it is necessary to include such items as water and drainage works, Urban Council cleansing services, etc., as shown in the following table of expenditure:—

Table I.

	$
Motor Ambulance Service	31,135.60
Police Department	363.50
Public Works Department	1,935,282.08
Sanitary (Urban Council) Department	1,009,439.35
Subsidies to Charities	204,458.09
Medical Department	2,018,137.44
Total.....	$5,198,816.06

The total revenue for the Colony from all sources in 1937 was $32,111,222.28; hence the expenditure on medical services formed 16.19 per centum of the general revenue.

II.—PUBLIC HEALTH.

(A) GENERAL REMARKS.

(I) General Diseases.

Three factors had a profound influence on public health in the Colony during 1937.

The most important of these was the outbreak of hostilities between China and Japan. Large numbers of refugees, both white and Asiatic, fled from the war zones and sought a haven in Hong Kong.

Special measures were taken by the Government and various voluntary agencies in an endeavour to cope with the situation and to provide food and shelter to those who had, in many cases, lost their all.

But, as might have been expected, the influx of mostly destitute and unemployed persons into an already congested urban area aggravated insanitary conditions and the number of deaths leaped up from a monthly average of 2,349 for the first seven months of the year to 4,070 in September, giving an average of 3,638 for the last five months of 1937. Many of these refugees arrived from districts in China where health services had become seriously disorganised and where, as a result, epidemic disease had been added to the horrors of the situation. It was not surprising, therefore, that Hong Kong

suffered from a visitation of cholera. The disease appeared towards the end of July in which month thirteen cases were discovered. By the time the last victim came under observation in December, some 1,082 persons had lost their lives.

The third distressing occurrence of major importance which afflicted Hong Kong in 1937 was a particularly severe typhoon which devastated the Colony on the 2nd of September.

No accurate estimate of the actual loss of life is possible. Suffice it to say that some 490 bodies of persons who had been drowned or killed were picked up mainly on the foreshore at the eastern entrance to the harbour.

Owing to the lapse of time between death and the discovery of the bodies autopsies were impracticable in many cases. Nearly three hundred of the dead were found in the New Territories, 166 of this number being found at Taipo where many houses collapsed as the result of the tidal wave.

On the other side of the picture, the opening of the Queen Mary Hospital on the 13th of April, 1937, constituted an event of outstanding importance in the history of the Colony, and, more especially, in connection with the care of the sick and suffering and medical education.

This magnificent hospital of 546 beds with completely modern equipment in all departments, built at a cost of nearly four million dollars (£250,000), replaced the old Government Civil Hospital parts of which dated back over seventy years.

The new building fills a long felt want and enables clinical training to occupy its rightful place in medical education in this Colony.

The completion of the Shing Mun Jubilee Dam which allows of the impounding of three thousand million gallons of water served as a landmark in the development of public health utilities in these territories.

(II) Communicable Diseases.

(a) Mosquito or insect-borne diseases.

Since the organisation of anti-malarial work under the auspices of the Malaria Bureau, a branch of the Laboratory Division, malaria has become a relatively unimportant disease in the urban areas. It still requires careful watching and control lest it gives rise to the outbreaks that preceded the establishment of the Bureau. The infection rate remains high in certain rural areas where lack of funds and local agricultural customs make remedial measures impracticable. The subject is dealt with in detail in the Report of the Malaria Bureau in Section IX, Scientific.

(b) Infectious diseases.

(i) Plague.

Plague continues to remain absent from these territories, although reports are received from time to time of its existence in epidemic proportions in various parts of China, including the Fukien Province, Hainan, etc., and there is always a possibility of it reappearing with all the severity that accompanied the first historical outbreak of 1894. Infection has been absent since 1929.

(ii) Cholera.

Cholera was one of the legacies of disturbed conditions in the Far East. The disease was first recognised in July, although it is significant that notifications of dysentery had already shown a marked increase in June. Bangkok had suffered from a severe epidemic during the first half of the year with 1902 cases and 989 deaths. During the first ten days of July over 100 cases were reported at Hoihow in South China, and on the 22nd of the month the body of a coolie who had died from cholera was landed at Hong Kong from the S.S. "Kwong Tung" coming from Hoihow. On the following day a student arrived from Canton and died of the disease in Kowloon Hospital. Sporadic cases, totalling thirteen in all, were reported from various parts of Victoria in July. The disease became epidemic with almost startling suddenness in August when nearly 1,100 cases were found—many refugees probably having brought the infection with them. In September rather over 500 cases occurred followed by an almost equally sudden drop to seventy-two in October, eight in November and a single one in December. Further details are given in "III Hygiene & Sanitation", suffice it to say that the outbreak affected 1,690 persons of whom 1,082 died, a mortality rate of sixty-four per centum.

(iii) Smallpox.

Cases of smallpox were notified in Hong Kong during every month of 1937 except October. The largest number for any single month were encountered in April. A second fastigium occurred in December and this heralded what proved later to be the most serious outbreak within living memory. The yearly total was 129 cases notified of which ninety-four died. There can be little doubt that many cases missed detection owing to successful concealment and to a quite ineffective system of house-to-house visits.

The yearly incidence of smallpox during the preceding fourteen years is of interest for purposes of comparison with that of 1937.

Table II.

Year	*1923.*	*1924.*	*1925.*	*1926.*	*1927.*	*1928.*	*1929.*
Cases	1320	913	66	49	149	616	977
Year	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
Cases	270	15	248	566	153	61	23

(iv) Typhus.

Although rife in many areas in China, typhus was not recognised in Hong Kong during 1937.

(v) Cerebro-spinal fever.

Sporadic cases of cerebro-spinal fever were discovered throughout the year, forty-four out of a total of 157 being notified in March. March and April are the months of maximum prevalence. Eighty-eight or fifty-six per centum of the patients died. The corresponding figures for 1936 were 123 cases and sixty-five deaths, a case mortality rate of fifty-three per centum. The average annual incidence over the quin-quennium 1932-1936 amounted to approximately 176.

(vi) Pulmonary tuberculosis.

As in past years pulmonary tuberculosis formed rather more than one out of eleven deaths from all causes. The overcrowded conditions under which the poorest and most under-nourished members of the community live (associated with the exceedingly common and filthy habit of spitting in public places) provide ideal soil for the propagation of this disease, especially since the hospitalization of any but a very small proportion of infectious cases is at present unrealisable.

(vii) Dysentery.

Mention has been made already of the significant rise in the notification of cases of dysentery which preceded the cholera epidemic of 1937. The greatest number of cases (111) were reported in October, a total of 576 being recorded for the whole year. There was, fortunately, no repetition of the disastrous milk-borne outbreak of dysentery of the Shiga type in European children which had claimed several victims in 1936.

(viii) Enteric fever.

July to October were the months of maximum prevalence of the enteric group of fevers. No doubt the refugee problem contributed to the increased incidence from 418 notified cases and 136 deaths in 1936 to 464 and 176 respectively in 1937.

(ix) Diphtheria.

During 1937 the major incidence of notified cases of diphtheria was recorded from November to March inclusive representing the colder winter months. In this instance an actual reduction took place, the figures for 1936 being 375 of which 214 proved fatal, whereas only 308 cases with 148 deaths were notified in 1937.

(x) Scarlet fever.

Scarlet fever is a rarity in Hong Kong, but eight cases were seen during the year.

(xi) Leprosy.

Little is known regarding the amount of leprosy in these territories, although various estimates have been made which tend to the belief that there may be upwards of a thousand or more sufferers from the disease. Until a systematic survey has been carried out by someone skilled in the diagnosis of the condition, the extent of the problem will remain an unknown quantity and provision of accommodation locally or elsewhere would be a matter of guesswork. The possibility is under consideration of eliciting the help of the British Empire Leprosy Relief Association in carrying out such a survey, and of sending the greater number of lepers to the Roman Catholic Settlement at Sheklung in Chinese territory. A daily average of thirty-two lepers were cared for by Government at the Kennedy Town Tung Wah Leper Settlement and forty-nine were sent to Sheklung in the Kwangtung Province of China during the year.

(c) Helminthic diseases.

Whatever may be the true incidence of helminthiasis in the community, the actual number of patients treated in the Government and Chinese hospitals in 1937 was negligible. Roundworm infection headed the list followed by hookworm and tapeworm. Thirty-six in-patients were treated for fluke.

VITAL STATISTICS.

(1) Chinese Population.

Owing to its intimate geographical relationship with South China and to the fact that Hong Kong is a free port with, practically speaking, no effective restriction on immigration or emigration, it is not possible to provide an accurate estimate of the general population. This factor applies even more markedly for the year under review during which a serious refugee problem developed as the result of the Sino-Japanese incident. No figures are of value regarding the actual number of persons who sought refuge in Hong Kong from the fighting in China, although an approximate estimate of 250,000—300,000 has been furnished. Based upon the arithmetical increase in population between the two Census periods of 1921 and 1931, the estimated population at mid-year 1937 amounted to 1,006,982, of whom nearly ninety-eight per centum were Chinese. No account is taken in this estimate of the numbers of refugees now resident in these territories. The distribution of the population as estimated in the various areas comprising the Colony is given in Table III.

Table III.

	Island of Hong Kong.	*Kowloon & New Kowloon.*	*New Territories.*	*Maritime.*	*Totals.*
Non-Chinese.	9,847	10,887	476	1,372	22,582
Chinese.....	437,982	339,366	107,052	100,000	984,400
Totals...	447,829	350,253	107,528	101,372	1,006,982

Registration of births and deaths is compulsory and is carried out under the directions of the Director of Medical Services who is also Registrar-General of Births & Deaths. Procedure is governed by The Births & Deaths Registration Ordinance, No. 21 of 1934, and valuable assistance is obtained from the Police Department and the staff of the Chinese Dispensaries. There are seven register offices in the Island of Hong Kong, four in Kowloon on the mainland and eleven in the New Territories and on certain of the larger islands.

Birth registration is still incomplete, partly as the result of ignorance or laziness and partly owing to a Chinese custom of postponing the event until the child is in its second year.

Against this, a tendency has shown itself since the commencement of disturbances in Far Eastern waters to endeavour to register births in Hong Kong as a preliminary step towards claiming British nationality, even when the evidence of local birth is of the most slender.

Births registered in 1937 showed an increase from 27,383 (530 Non-Chinese) in 1936 to 32,303* (692 Non-Chinese). The crude, uncorrected birth-rate for 1937 is calculated as 32.1 per thousand of the mid-year population. This compares with a rate of 27.8 for the previous year. Some 34,635 deaths were registered in 1937 amongst the civilian population, an increase of 9,255 over the figure for 1936. (In addition, eleven deaths were recorded in the Forces of the Crown during the year.) It is significant that the monthly average of deaths for the first seven months of the year was 2,349, whereas the monthly average for the last five months was 3,638—the refugee problem and typhoon being largely accountable. The crude, uncorrected death-rate for the civilian population is estimated at 34.4 per thousand living, the corresponding figure for 1936 being 25.8.

Still-births numbered 913 in 1937 and 976 in 1936.

Deaths in Chinese infants under one year of age numbered 9,905 in 1936 and 11,620 in 1937, the respective infant mortality rates being 372 and 376, post-registered births being deducted from the total Chinese births in making the calculation.

(2) Non-Chinese Population.

There were 692 births (387 male and 305 female) including late registrations in this section or 162 more than in 1936. The crude birth-rate is estimated to be 30.6 per thousand living in 1937 as compared with 23.3 in 1936.

Non-Chinese deaths numbered 236 (apart from seventeen deaths in the Forces of the Crown) in 1936 giving a death-rate of 10.9 per thousand living. In the year under review the figures were 244 (excluding eleven deaths in the Forces) with a death-rate of eleven.

*Includes 744 post registrations after 12 months (705 Chinese, 39 Non-Chinese).

In spite, therefore, of the very definite deterioration in the health conditions prevailing amongst the Chinese inhabitants in 1937, there was little or no falling off in the health of the Non-Chinese elements. This may have been due to the fact that, generally speaking, the standard of living amongst the Non-Chinese elements was maintained. There were three still-births in the Non-Chinese community.

Deaths in infants of Non-Chinese nationality amounted to thirty as compared with nineteen in 1936—an infant mortality rate of forty-six, the rate for the previous year being thirty-seven.

Nearly seventy-seven per centum of the deaths in Non-Chinese were certified by medical practitioners who attended the deceased in life, whereas only fifty-eight per centum of Chinese deaths were similarly certified. Many of the uncertified deaths in Chinese were in respect of bodies of unknown persons deposited in the street.

Sick and invaliding rates are not obtainable in the case of the general Non-Asiatic population.

(3) European Officials.

Table IV furnishes data regarding the health of European officials during 1937 and affords means of comparison with the state of health of this section of the community in the preceding two years.

Table IV.

	1935.	*1936.*	*1937.*
Total number of officials resident	900*	942*	940*
Average number resident	881†	930†	918†
Total number on sick list	396	453	453
Total number of days on sick list	5,908	7,144	6,134
Average daily number on sick list	16	20	17
Percentage of sick to average number resident	45%	49%	49%
Average number of days on sick list for each patient	15	16	14
Average sick time (in days) to each resident	7	8	7
Total number invalided	6	10	12
Percentage of invalidings to total residents	0.66%	1.06%	1.28%
Total deaths	5	7	3
Percentage of deaths to total residents	0.55%	0.74%	0.32%
Percentage of deaths to total average number resident	0.57%	0.75%	0.33%

* Figure given shows the total number of European officials who received salary in the Colony in December of corresponding year.

† Figure given was arrived at by dividing the total number of European officials who received salary locally throughout the year by the number of months in the year.

The causes of death in 1937 were as follows:—

(1) Carcinoma of liver, cholaemia.

(2) Perforative appendicitis, peritonitis embolism.

(3) Bullet wound of head, laceration of brain.

Officials were invalided on the following grounds:—

(1) Pulmonary tuberculosis.

(2) Sprue (2 cases).

(4) Secondary carcinoma following primary carcinoma of uterus.

(5) Enlargement of the thyroid gland.

(6) Defective vision, neurasthenia, general debility.

(7) A type of neuroses.

(8) Myocarditis.

(9) Hyperpiesia.

(10) Gastric ulcer.

(11) Colitis, progressive debility, nervous exhaustion.

(12) Fracture of skull.

(4) Chinese officials.

No accurate data are available in respect of the sick, invaliding or death-rates of Chinese and other Asiatic officials during the year under review.

For further information on the subject of vital statistics reference should be made to Appendix C of this Report.

III.—HYGIENE & SANITATION.

(A) GENERAL REVIEW OF WORK DONE AND PROGRESS MADE.

(I)—Preventive Measures.

(i) Mosquito & insect-borne diseases.

(a) Malaria.

The surveys and research work carried out by the Malariologist and staff of the Malaria Bureau which was established in 1930 have borne fruit and malarial infection is now limited to rural areas and to the outlying parts of towns. Constant vigilance is, however, needed to ensure that there is no slackening up of anti-malarial activities in urban areas where it has not yet been found possible to intitute permanent drainage works requiring a minimum of maintenance.

The subject is being dealt with in detail in the Report of the Malaria Bureau in Section IX, Scientific, consequently it is not proposed to describe malaria preventive measures in this section.

Two points are, however, deserving of record.

Firstly, the number of cases of the disease admitted to Government hospitals increased during the last two years as may be seen from Table V.

Table V.

Year.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Cases of malaria treated in hospitals.	585	465	475	457	384	581	677

Secondly, a not inconsiderable amount of breeding of the anopheline vectors takes place in paddy-fields and in land under wet cultivation. It is often undesirable on economic grounds to abolish this form of agricultural activity. At the same time the areas are too extensive with the staff and funds available to permit of treatment with Paris-green or other non-oily larvicide. As an alternative, advice is given in places infected with mosquitos for screening, spraying of the interiors of rooms with insecticide, and the use of bed nets and of prophylactic quinine.

Part of the former prison at Lai Chi Kok was mosquito-proofed during the year.

(b) Yellow Fever, etc.

Yellow fever is fortunately unknown in these territories and filariasis is relatively uncommon and may be quite symptomless and so need not invite special mention. Other diseases capable of being insect-borne are dealt with under separate heads.

(ii) Epidemic diseases.

(a) Plague.

Systematic trapping of rats was carried out throughout the year, some 221,652 being trapped of which 16,375 were caught alive. It is not suggested that this has any influence on the rat population. On the other hand, a portion of each daily catch was taken to the public mortuaries where a morbid examination is made. Up to the present no staff has been available for taking and examining spleen smears, hence it is scarcely legitimate to affirm the presence or absence of P. pestis; although, in the absence of human cases, there is a certain amount of presumptive evidence in its favour.

Periodical cleansing of dwellings was undertaken and the community was encouraged to abolish rat-harbourages as far as possible and to render their premises unattractive to rats by protecting food-stuffs. Some 1313 rat holes on premises were sealed up during the year as compared with 1811 in 1936.

Measures aimed at preventing the introduction of plague by sea are referred to in the section dealing with Port Health Work and Administration.

(b) Cholera.

Reference has been made earlier in this Report to the serious outbreak of cholera which visited these territories in 1937. Preventive measures included the following:—

(*a*) Inspection and examination of all arrivals by train and boat, especially those coming from Canton and Macao;

(*b*) Isolation and treatment of sick;

(*c*) Mass inoculation;

(*d*) Legislation to minimise infection by food;

(*e*) Propaganda in press;

(*f*) Intensive house-to-house inspection and disinfection of infected dwellings.

With regard to (*a*), all arrivals of river steamers at night were prohibited; vessels were examined under Police guard at the wharves; special measures were taken by the Port Health Authorities to ensure the effective cleansing of passenger decks, kitchens and lavatories after the passengers had disembarked; and passengers were examined on alighting from trains.

As regards (*b*), the sick were originally tended at the Infectious Diseases Hospital, Kennedy Town. Later, when the numbers increased so rapidly, they were accommodated in Block A of the old Government Civil Hospital—as many as 328 being under treatment there at the same time. In all 1401 cases were admitted and 776 died, a case mortality of fifty-five per centum.

In regard to (*c*), free inoculation was given at all hospitals, public dispensaries and at centres staffed by the St. John Ambulance Association & Brigade. Over a quarter of a million inoculations were administered. Figures are not available as to the number of persons at risk. Of fifty-two cases known to have received anti-cholera inoculation twenty-five or forty-eight per centum died, whereas of 462 persons who had not received such protection as inoculation provides 306 or sixty-six per centum died.

As regards (*d*), regulations were made by the Governor-in-Council restricting the sale of certain foods and drinks.

Propaganda mentioned at (*e*) related to articles in the Press and in particular a pamphlet entitled "Precautions to be taken to avoid Cholera" which was distributed generally and which was printed in the English and Chinese Press.

The sanitary inspectorate were requested to exercise increased vigilance.

The sanitary staff is inadequate and its organisation has been the subject of considerable criticism for years past by those best qualified to speak. There is little wonder that the epidemic broke with such suddenness upon the Colony under the conditions prevailing. Reference will be made later in this Report to the possible influence of methods of nightsoil and refuse disposal in vogue on the incidence and spread of acute intestinal disease.

(c) Smallpox.

Preventive measures against smallpox included vaccination, 443,021 persons being vaccinated at Government hospitals, Chinese public dispensaries and at centres established by St. John Ambulance Association & Brigade. This voluntary organisation has rendered very valuable assistance for many years past and the general public owe it a deep debt of gratitude. Vaccination of infants within six weeks of birth or of arrival in the Colony is compulsory under the Vaccination Ordinance and the necessary notices are handed to parents and guardians of children attending at the Register Offices to register the birth. In the absence of vaccination certificates in respect of such infants, reminders are sent by post.

Amongst a series of 28,461 births registered in the General Register Office and in the Chinese Public Dispensaries in 1937, some 21,232 infants were vaccinated by this means. Vaccination of school children is also compulsory and public vaccinators visited schools to offer their services.

Inmates of prisons, reformatories, refuges and similar institutions are also required to be vaccinated. Emigrants by boat from Hong Kong are subject to the compulsory clause. Vaccination of immigrants is also permissible under certain conditions, but has not been effected so far. The reasons for this are somewhat obscure, but relate to the desire that ships arriving in Hong Kong should suffer no delay of any sort from quarantine precautions, even though they may be actually importing cases of acute infectious disease or large numbers of unvaccinated passengers of the poorest class.

Lastly, vaccination is compulsory of persons whom the Health Authority has reason to suspect have been exposed to infection. This provision is valuable on theoretical rather than on practical grounds. Owing to the fact that the majority of the cases of smallpox during epidemic periods are "missed" or are found after death dumped into the streets, there are no means of ascertaining the addresses from which they were carried.

Lymph is prepared in the Government Bacteriological Institute under conditions which ensure a high standard of potency and low bacterial infection. Buffalo calves are used. The lymph is put up in metal containers each holding three cubic centimetres and capable of being used for about sixty insertions.

Cases of the disease were isolated at the Infectious Diseases Hospital, Kennedy Town when discovered; but nearly half the total number of cases notified were not found until after death.

In all, ninety-four deaths occurred in a total of 129. Such a high mortality rate is unlikely and it is much more probable that many "missed" cases occurred with unfortunate results. A more effectively organised sanitary inspectorate under the direct control of the Medical Officers of Health would prevent this state of affairs from taking place and should result in much avoidable suffering and loss of life from preventable disease. Disinfection of premises where cases were discovered or to which they could be traced was also carried out together with vaccination of contacts. Here again as the sanitary inspectorate had not been trained as public vaccinators time was lost—and contacts no doubt escaped—between the discovery of a case of smallpox and securing the services of a public vaccinator.

(iii) Other Diseases.

(a) Leprosy.

Apart from offering asylum to lepers at the Kennedy Town Settlement where the inmates come and go at will and sending a number of lepers who have come to the Colony from other parts of China to the Shek Lung Settlement in Chinese territory, no special measures were taken against the disease during the year.

The problem is bound up with the low standard of living in the poorest classes and until economic conditions, nutrition and environmental sanitation improve, it is unlikely that there will be any marked change in the incidence of the disease.

(b) Tuberculosis.

Efforts were made to provide accommodation for infectious cases of pulmonary tuberculosis in special wards at the Government and certain of the Chinese hospitals were room isolation at home was impracticable. It must be admitted, however, that the majority of "open" cases remain in close contact with the community and are only recognized at autopsy.

Provision of special institutions or of separate hospital accommodation for all persons suffering from the disease in a communicable form is an ideal to be aimed at, but one economically impossible to achieve at the present time.

In the meantime, energies are being directed on schemes for improving the housing of the poorest classes and on investigation into the causes of malnutrition which exerts such a profound influence on the incidence of cases and their severity.

Legislation was drawn up during the year with a view to bringing about the compulsory pasteurization of milk, but the opposition succeeded in postponing this for the time being.

There is every reason to believe that this opposition is disappearing concurrently with a better appreciation of the subject by the general public and that the necessary legislation will be enacted in 1938.

The possibility of legislating against spitting in public places is also under consideration, a similar law having been enacted some years ago in Malaya where there is a large proportion of Chinese in the population. A further possibility relates to the carrying out of a survey by an experienced observer lent to the Medical Department by the National Association for the Prevention of Tuberculosis; but no definite arrangements have been made to date in this connection.

(*iv*) *Helminthic diseases.*

Preventive measures against helminthic diseases included the control of nightsoil and refuse—see the relevant section—war on flies, inspection of meat and foodstuffs. Little or no satisfactory organization exists in the New Territories for dealing with wastes and the more rural portions of the Urban Council Area in the Island and Kowloon. The markets and slaughter houses in the Urban Areas are under the supervision of the Colonial Veterinary Surgeon and have not yet been placed under the control of the Health Officers of the respective districts.

(*v*) *Diseases of animals.*

The Colonial Veterinary Surgeon reported the following details, *inter alia*, relating to diseases in animals for the period under review:—

Live stock in the Colony on 31st December, 1937

	Urban Council Area	*New Territories*	*Total*
Cows	2,038	1,000	3,038
Goats	137	200	337
Horses	353	200	553

Swine number unknown.

Some 180 cattle, 265 dogs and 230 horses were examined and passed through quarantine during the year. These figures do not include animals imported for slaughter or consigned to the Military Authorities. Tuberculosis was found in three cattle and one swine at the depots. There were three cases of glanders and two of anthrax. Twenty-nine animal brains were examined by the Government Bacteriologist and Negri bodies found in two.

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

Owing to the influx of refugees following the outbreak of hostilities in the late summer of 1937, there was a marked increase in the amount of morbidity and of mortality in the community; consequently it would not be justifiable to infer any definite seasonal prevalence. A very marked increase in deaths from all causes was recorded during the last five months of the year.

(II)—General Measures of Sanitation.

(a) *Sewage disposal.*

An increasing number of premises in the Urban Council Area were connected up with the public sewers or acquired septic tank installations during the year under review. The Public Works Department supervised the installation of water closets in 1,470 instances in private dwellings, the figure comparing with 904 for the previous year. There still remain many houses and the vast majority of tenements and shop-houses which depend upon a bucket system for the disposal of nightsoil. Except in the case of the Peak District of Hong Kong and certain Government buildings, buckets are collected by coolies, mostly women, employed by contractors. There is no double-bucket system and the contents of house buckets are carried away in closed wooden receptacles during the hours of darkness, through the streets to a fleet of junks berthed along the water front. During 1937 there were seven stations on the Island of Hong Kong and five in Kowloon on the mainland.

The junks in question form part of the conservancy system owned by the Urban Council. When they have collected their quota of nightsoil in the steel-lined compartments of their holds, the junks are taken by sea to Gin Drinkers Bay. Here nightsoil is baled out by men standing shoulder deep in excreta into other junks owned by contractors. In normal times the nightsoil is carried up the Canton River by the second fleet of junks and sold chiefly for the fertilization of the mulberry trees on which the silkworms feed.

Since the decline in the industry and particularly since Sino-Japanese hostilities made coastal shipping rather a precarious trade, there has been a tendency for the contractors owning the second fleet of junks to dispose of nightsoil to market gardeners and for fish ponds in the New Territories. This obviously constitutes a grave source of danger when it is remembered that typhoid and dysentery are common in Hong Kong and that outbreaks of cholera are also not of infrequent occurrence. Although a certain amount of revenue accrues from the sale of nightsoil to contractors in the way described, there is always a danger of the junks being unable to function owing to strikes in labour or to typhoons. The service was, in fact, seriously disorganised during the typhoon season of 1937. For this reason, steps are being taken to investigate the possibility of drastically altering the system and to arrange for nightsoil to be dumped at stated places—usually public latrines—from which it will be carried away in sewers to the deep sea either direct when no danger to public health can be assured or after partial purification by the activated sludge process with the effluent passing over aeration beds.

In the rural areas and in certain outlying parts of the Urban Council Area, uncovered pig pits are used for receiving human excreta. Flies and mal-odours are the inevitable accompaniments.

The collection and removal of nightsoil is controlled by conservancy by-laws made under the Public Health (Sanitation) Ordinance, No. 15 of 1935.

(*b*) *Refuse disposal.*

Refuse is collected from dustbins by the Sanitary Department of the Urban Council. The service is a twice daily one in the urban districts of Hong Kong and Kowloon and once daily in the Peak and outskirts of the purely urban areas. An appreciable proportion of the four hundred and eighty-four tons collected daily is carried in open baskets through the streets by women coolies who perform the service in return for being allowed to make use of remnants of food, etc., for pig wash. This private scavenging system possesses obvious drawbacks, especially during the summer months, since each coolie is accompanied by a cloud of flies some of which may detach themselves and enter premises along the route.

About three-quarters of the refuse is collected into covered Sanitary Department motor lorries of which twelve function in Hong Kong with about half that number in Kowloon. Household waste from these and that carried in open baskets is tipped into barges or dust boats five of which are stationed at various parts of the sea front in Hong Kong and four in Kowloon.

The dust boats lie alongside for several hours each day and are a prolific source of flies during the summer months.

They are taken by tugs, except when equipped with their own power, to a refuse disposal area established in the shallow waters of Kowloon Bay at Kun Tong. A considerable amount of land has already been formed in this way and should be valuable after consolidation for building purposes. The refuse is top-dressed with a foot or more of dredged sand and mud from the approaches to Hong Kong harbour. Once the filling area is reduced to reasonable proportions the fly nuisance at this dump should be very considerably lessened.

Spraying of insecticide in carried out on the dust boats before they return to their urban stations, but this is only partially effective and it is usual for many flies to be transported back. This nuisance has been lessened in some degree since coolies working on the dust boats were forbidden to comb the refuse for rags, etc., and to take these back in the boats returning from the disposal area. A second refuse dump is maintained in swampy land near Aberdeen on Hong Kong Island.

Only one public incinerator exists and is sited at Kennedy Town on the Island. Here dirty dressing from hospitals, condemned carcasses and slaughter house waste are burned.

The refuse disposal system has certain definite objections from the public health standpoint, but it is capable of improvement and is certainly a degree better than the former arrangement under which all refuse was dumped at sea.

Incineration of all waste at one or more points on Hong Kong Island and in Kowloon and the New Territories with the utilisation of ash and incombustible material for filling reclaimable areas constitutes an ideal to be aimed for when financial considerations justify. It may be of interest to note that the existing system was seriously interrupted at the time of the typhoon. Two dust boat stations were completely demolished and others were severely damaged. In addition, one refuse barge was lost and three partially destroyed. Apart from the normal amount of refuse, some 1,500 tons resulted from the typhoon and took a week to clear.

Refuse barges may be out of action for four days at a time when the typhoon signal is raised and refuse has to be dumped at certain points along the shore during that period, a proceeding that has certain grave public health objections.

(*c*) *Drainage.*

As in previous years a comprehensive system of surface drainage was undertaken by the Public Works Department in 1937. In addition, a considerable amount of anti-malarial drainage was constructed in the neighbourhood of Kai Tak Aerodrome, in the proposed cantonment area at Kowloon Tong on the outskirts of Kowloon, and elsewhere.

(*d*) *Water supplies.*

Mention has been made earlier in this Report of the completion of the Shing Mun Jubilee Dam supplying water to Kowloon and Victoria townships. As might be expected with water works installed over a long period of years, the type and efficiency varies somewhat.

The water supply of Hong Kong which is under the control of the Water Department of the Public Works Department is obtained from impounding reservoirs having a combined maximum capacity of 5,971 million gallons and a combined drainage area of 10,536 acres or nearly sixteen and a half square miles.

Storage particulars are as follows:—

Table VI.

Name of reservoir	Locality	Capacity (million gallons)	Remarks
Tytam	Island	362	Gravitational
Tytam Byewash	,,	22	,,
Wongneichong	,,	30	,,
Aberdeen (Upper)	,,	173	,,
Pokfulam	,,	66	,,
Tytam (Intermediate)	,,	196	Requires pumping
Tytam Tuk	,,	1,406	,, ,,
Aberdeen (Lower)	,,	107	,, ,,
		2,362 =	Total Island storage
Kowloon	Mainland	353	Gravitational
Kowloon Byewash ...	,,	186	,,
Shek Li Pui	,,	116	,,
Jubilee (Shing Mun).	,,	2,921	,,
Reception	,,	33	
		3,609 =	Total mainland storage
		2,362	Total Island storage
		5,971	Total storage

The mainland, *i.e.* Kowloon and New Kowloon, is supplied solely from mainland sources. The Island is supplied partly from its own storage and partly from the mainland by way of two submarine mains.

Table VII shows the arrangements regarding filtration:—

Table VII.

Name of plant	Locality	Normal capacity (million gallons per day)	Remarks
Eastern	Island	2.6	Slow sand with pre-filters
Bowen Road ...	,,	3.0	Paterson's rapid gravity
Albany	,,	1.8	Slow sand only
Elliot	,,	1.8	Slow sand with pre-filters
,, ...	,,	4.0	Paterson's rapid gravity
West Point	,,	0.7	Slow sand only
Chai Wan	,,	0.2	,, ,, ,,
		14.1	Total Island capacity
Shek Li Pui	Mainland	15.0	Paterson's rapid gravity
Kowloon	,,	3.0	Slow sand only
		18.0	Total Mainland capacity
		14.1	Total Island capacity
		32.1	Total capcaity

With the exception of supplies in the Pokfulam area of the Island all water from Government supplies is chlorinated after filtration. Chlorination is generally carried out by means of Paterson chloronomes.

The dosage of chlorine varies seasonally but averages about one half part per million.

Bacteriological results for 1937 were as follows:—

Table VIII.

Samples	B. coli communis
1,028	were absent in 50 c.c. (89.8%)
86	were above standard — (B. coli absent in 10 c.c.) (7.5%)
31	were below standard (2.7%)
1,145	Total number of examinations made (of filtered water)

During 1937 consumption on the Island varied between twelve and nineteen million gallons per day and on the mainland between seven and a half and twelve million gallons per day.

Until last year periodical restriction of the supply was an annual occurrence particularly on the Island, but as storage was then practically doubled by the completion of the Jubilee Reservoir, this unsatisfactory state of affairs is not so likely to happen in future, always provided funds for necessary extensions are forthcoming. Consumers are supplied generally through metered house services of which there are about 24,000; although public stand pipes are provided for those who are unwilling to pay for water by meter.

Present charges for water are as follows:—

Two per centum on assessed value of premises;

fifty cents per 1,000 gallons (less fifteen per centum for prompt payment) for consumption in excess of a statutory free allowance based on the two per centum rate;

*one dollar per 1,000 gallons is charged for shipping and construction supplies, and

thirty-five cents per 1,000 gallons for unfiltered supplies.

A new Waterworks Ordinance involving revised charges for water is at present under consideration.

The average consumption per head per day amounts to about thirty-two gallons.

It is hoped that funds will be available shortly to enable Albany Service Reservoir to be covered and the unfiltered and unchlorinated water in the Pokfulam area to be adequately dealt with. Recommendations for the covering of the Albany Reservoir were put forward by the late Professor Sir William Simpson sent out to this Colony by the Secretary of State thirty-six years ago.

Although only just over one per centum of the Government pipe-borne water now remains untreated, it is unwise that even this relatively small proportion should serve as a potential source of water-borne disease in a country subjected to periodical invasion by cholera and where large reservoirs of typhoid and dysentery are constantly at hand.

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* *Note.*—One Hong Kong dollar of one hundred cents varies in exchange value but is often worth about one shilling and three pence.

(e) Clearance of bush and undergrowth.

In spite of a rainfall of over eighty inches during the year, clearance of bush did not represent a matter of any moment in the Colony.

(f) Domiciliary visiting and inspections.

House-to-house inspection forms part of the duties of the Health Officers and Sanitary Inspectorate, theoretically the Sanitary Inspectors being grouped round the Health Officers for this and other purposes. In actual practice the Sanitary Inspectors are not under the control of the Medical Officers of Health but under the Chairman of the Urban Council of Hong Kong, a quasi-municipal body which functions mainly as a cleansing department but which possesses limited powers and is without fiscal autonomy. The system is unsatisfactory from many points of view and strong representations have been made to Government to sanction a reorganization on up-to-date lines. It is over twelve years ago that Sanitary Inspectors were placed under the general control of the Medical Officers of Health in the United Kingdom (Sanitary Officers Ordinance, 1926). There are some hopes of this change being effected in 1938 this reform being long overdue and the present system militating against the health and well-being of the community.

It is estimated that, apart from premises occupied by Europeans and the larger banks, stores, etc., there are about 23,347 Chinese-type houses in the Urban Council Area of Hong Kong and Kowloon. The majority of these are of three storeys or floors. Some 220,713 floors were subjected to cleansing with kerosene oil emulsion during the year. Since each Sanitary Inspector is responsible for supervising a district containing 30,000 or more inhabitants, the majority of whom live under lamentably overcrowded conditions, domiciliary visiting which forms but a part of the duties of an Inspector can hardly be regarded as effective. This is borne out by the fact that numbers of cases of dangerous infectious disease, *e.g.*, cholera, smallpox, etc., are "missed" and many fatal cases only seen in the mortuaries after being dumped in the streets. Such a dangerous state of affairs could hardly exist with an adequate and effectively supervised inspectorate working under the direct orders of the Medical Officers of Health who are nominally responsible for the health of the town.

(g) Offensive trades.

Some 186 premises were licensed for offensive trade purposes in Hong Kong and Kowloon.

The list of different businesses comprised the following:— battery manufacture and manganese crushing 30, bone boiling and storing 20, chromium plating 5, cleansing and storing of sharks fins 31, fat boiling and soap manufacture 39, feather

drying, cleaning and sorting 15, hair (including human) drying, cleaning and sorting 6, packing of skins and hides 1, pig roasting 22, rag sorting and picking 11, resin boiling 2, tanneries 4.

With the exception of the establishments dealing in sharks fins and pig roasting most of the trades mentioned above were confined to certain districts of the Urban Council Area set aside for the purpose.

Many of these undertakings are small and might be classed as house industries. In point of fact they are not infrequently carried on in premises designed as dwelling houses and not for commercial use. The battery industry which is of comparatively recent growth operates under conditions far from satisfactory owing to the primitive methods employed. Definite cases of poisoning with manganese have not so far been discovered, but it is more than likely that some of the ill-health suffered by the workers—mostly women—is attributable to working in the dust-laden atmosphere of these factories.

The feather cleaning industry is equally unsatisfactory from the workers standpoint, especially as the labour roll is almost invariably made up of women and young girls. Attempts to insist upon the wearing of masks in the dust-laden atmosphere have failed and the only solution would appear to be the introduction of legislation to enforce mechanical cleaning.

(III)—School Hygiene.

The School Hygiene Branch of the Medical Department first came into being in 1925 when a Health Officer was specially allocated for this work. Four years later a Chinese Health Officer was appointed to assist. In 1933 a second Chinese Health Officer was added to the staff. The Branch is now made up of one European and two Chinese Health Officers, a part-time Lady Medical Officer and five Nurses.

The educational institutions in the Colony may be classified into three groups:—(1) Government schools, of which there are twenty-one with 5,643 scholars, (2) Grant-in-Aid schools, numbering nineteen with 8,676 scholars, and (3) Private schools, which are termed 'vernacular' when teaching is in Chinese, or 'English' when teaching is in English. Of the private schools, 284 with 20,210 scholars were subsidised, and 853 with 52,464 scholars were unaided. The majority of schools in the last category are very far from being satisfactory from the hygienic standpoint.

Under the Education Ordinance, 1913, the Director of Education is empowered to refuse applications for registration and to remove the names of schools from the register if such are not "properly and efficiently carried on".

The School Hygiene Branch is responsible for the medical supervision of school children and for the inspection of school premises.

(a) Medical supervision of scholars.

With the limited staff it is only possible for a small proportion of the school population to be medically examined.

In the period under review 5,802 medical examinations were carried out in eighteen Government schools, the remaining three Government educational institutions being of a special nature and not subject to medical inspection.

Some twenty-six per centum of the scholars examined were found to be suffering from defects of one kind or another, excluding dental or eye troubles.

Dental disease formed the largest group of defects met with. There is no School Dental Officer, consequently the persons affected have to seek private treatment.

Visual disorders came next in frequency, myopia accounting for nine tenths in this group. Myopia commonly develops between eleven and thirteen years of age and progresses throughout school life. Its incidence amounted to twenty-six per centum amongst scholars of all ages in the Government schools examined.

Pulmonary tuberculosis was detected or strongly suspected in seventeen out of 1,506 scholars examined for this condition, an incidence of just over one per centum.

Deformities of the chest and postural deformities of the spine were found to be common in entrants to Government schools.

Table IX gives some indication of the number of attendances of scholars at the various school clinics:—

Table IX.

Violet Peel Health Centre	100
Special Clinic for ears, nose & throat ...	396
Special Clinic for refraction	636
Yaumati School Clinic	670
Ellis Kadoorie School Clinic	978
Total	2,780

Seventy-six visits were paid by the School Nurses to the homes of scholars for purposes of giving advice.

It is of interest to note that in 1931 a charge varying from fifty cents on entrance to three dollars per annum was made payable by scholars attending Government schools. This fee entitles such scholars to obtain spectacles when these are prescribed at School Clinics. It also covers hospital fees for pupils admitted to hospital for operations on the tonsils and adenoids and the cost of exercises for the relief of squint. A Physical Training Supervisor was appointed in the Education Department during 1937 to organise schemes for physical training in Government and other schools.

(b) Inspection of premises.

At the request of the Education Department a number of visits were paid to premises in the urban districts in order to report on their suitability for registration. Some 614 such visits were undertaken. In many instances premises were found to be used as schools before they had been inspected or registered. Many of such schools have been found to be very overcrowded, to possess inadequate lighting and ventilation, to lack simple furniture and to be deficient in latrine accommodation, water supply and proper means of refuse disposal.

The existing legislation needs strengthening on the subject of school hygiene and it is hoped that such additions or amendments as may be necessary will be enacted during 1938. Certain additional subordinate Health staff will be required to propagate the reasonable standards which it is proposed should be adopted.

It cannot be emphasised too strongly that by far the best method of teaching hygiene to scholars is by ensuring that the school premises themselves are satisfactory from the public health standpoint.

(IV)—Labour Conditions.

Labour conditions suffered a definite deterioration during the latter half of 1937 owing to the tens of thousands of refugees from the areas affected by the Sino-Japanese incident, many of whom were practically destitute and sought to throw themselves into the labour market. Even in normal times labour is somewhat too easily obtainable from the inexhaustible reservoir in China. This large surplus of labour was offset to a small extent by the establishing of factories by commercial interests who were no longer able to function in the troubled zones of Shanghai, Tientsin and other places in China. In addition, a number of small workshops came into existence to supply uniforms and other equipment for the armies in China.

For the most part labourers are paid on a piece-work basis. Wages vary widely, female workers in electric torch battery factories may earn as low a rate as fifteen cents per day, the normal rates for male and female labourers being from sixty to

seventy-five cents for the former and forty to sixty cents for the latter per day. Hours of work vary in the different trades and occupations but are usually about nine hours with overtime up to another four hours. Apart from Government activities the bulk of the labour is employed in house-building, ship-building and engineering, transport, market gardening, fishing, domestic and quasi-municipal service, and in factories and workshops.

Two mines are operated in the New Territories and employ about 600 labourers. In the Lin Ma Hang Mine satisfactory accommodation has been provided for labourers, but this is not the case with a Wolfram Mine up to the present time. There are no estates or plantations similar to those found in Malaya, Ceylon, and similar eastern colonies and dependencies.

A small but valuable piece of legislation was introduced during the year under review in the form of Regulations under the New Territories Regulation Ordinance, 1910.

This provided the Health Authorities in the New Territories with the power to require certain types of employers of labour to construct suitable housing accommodation for their labourers and to carry out anti-malarial measures in the area occupied by the proposed works. Owing to lack of liaison between the authorities concerned, works are not infrequently undertaken without any notification to the authorities and, hence, without satisfactory provision for the labourers employed.

It is unlikely that conditions of labour will show any marked improvement in Hong Kong until a Labour Code, possibly on the lines of that promulgated in the Federated Malay States several years ago, has been enacted laying down a minimum wage, adequate housing, and so on.

(V)—Housing and Town Planning.

Housing in the Colony is controlled under the Buildings Ordinance, No. 18 of 1935.

The vast majority of the houses occupied by the labouring classes are built back-to-back with narrow frontages (governed originally by the length of China fir used) and often with conservancy back-lanes six feet or more in width.

In many houses built prior to the Public Health & Buildings Ordinance, No. 1 of 1903, the open space provided within the plot boundaries is often less than 100 square feet in extent.

Houses constructed subsequent to the passing of No. 1 Ordinance of 1903 possess a larger open space; one quarter of the plot being reserved when the land was purchased before the Ordinance came into force and one third in cases when the land was obtained after the passing of the Ordinance. The more usual type of older house is of three storeys, often with a cock loft to increase the accommodation, and has a frontage of sixteen to twenty-five feet, a depth of thirty-five to forty feet. The lower storey is often a shop. The upper storeys consist of one large room divided into three or more cubicles separated by partitions six or seven feet high, with a kitchen at the back. In the older houses there is but one latrine on the ground floor serving the whole house but those of more modern construction have a latrine on each floor. In some cases the approach lanes between each group of houses have been built over by what is termed locally "riding floors", the lower storey serving as a thoroughfare occupied by hawkers, street sleepers, and littered with debris.

Lighting and ventilation, means of access to upper floors (and escape in case of fire) and sanitary accommodation in this type of house is very unsatisfactory.

Recent legislation enacted in the year previous to that under review seeks to rectify many of these defects and set a much higher standard for new buildings.

Not only are the majority of the houses in Victoria, at any rate of poorer type, arranged with little or no regard for the principles of town-planning but they are individually grossly overcrowded. This condition of overcrowding became still more aggravated in the latter half of 1937, chiefly owing to the influx of refugees but also to the conversion of dwelling houses into factories and schools to replace those destroyed or menaced in areas in China affected by the Sino-Japanese hostilities. The Administration is faced with very serious difficulties in dealing with this problem of housing and overcrowding and it is to be hoped that the Housing Commission appointed by the Government in 1935 will be able to devise a satisfactory solution.

The general sense of insecurity influenced private building during 1937 and a considerable reduction took place in the number of houses constructed in the urban areas.

With the exception of one or two reclaimed areas town planning is more or less non-existent in the Urban Council Areas of the Island and there is no legislation dealing with the subject apart from the question of zones for offensive trades.

On the other hand, some admirable town planning has been effected in Kowloon and New Kowloon on the mainland and this district presents a far simpler public health problem.

The building branch of the Public Works Department is responsible for controlling building, the Health Division of the Medical Department serving in an advisory capacity.

The Sanitary Department which functions in the Urban Council Area only has little or nothing to do with housing other than, for example, the removal of obstructions. This is well shown in the subjoined table.

Table X.

Nature of work.	*No. in 1936.*	*No. in 1937.*	*By whom supervised.*
1. Obstructions removed from open spaces	615	1,240	Sanitary Dept.
2. Obstructions to light & ventilation removed...	1,793	1,598	do.
3. Houses demolished (domestic)	134	167	Public Works Dept.
4. Houses demolished (non-domestic)	9	3	do.
5. Houses erected (domestic)	205	160	do.
6. Houses erected (non-domestic)	14	14	do.
7. Houses reconstructed (domestic)	150	135	do.
8. Houses reconstructed (non-domestic)	1	5	do.

(VI)—Food in relation to Health & Disease.

A large market of modern design was opened at Wanchai early in the year and a second smaller market at Stanley at the end of the year.

The demolition of the old Central Market in Victoria was commenced in September, 1937, in order to make room for a new structure. The retail stall-holders were accommodated in temporary stalls in the Western Market and the whole-sale dealers in a new market, the Kennedy Town Wholesale Market.

Under the present rather anomalous organisation of the Sanitary Department *vis à vis* the Health Division of the Medical Department, health conditions in markets are under the supervision of the Colonial Veterinary Surgeons instead of under the Health Officers.

Hawkers of foodstuffs in the public highways continued to present a public health problem, both as regards the methods of preparation of their wares and the means of protection—or lack of means—of foodstuffs from dust and flies. In cases where a district was well-supplied with restaurants and eating shops, efforts were made to discourage hawking. The prevalence of diseases of the enteric type has been mentioned earlier in this Report, and the need for special care was of still greater importance during the summer of 1937 when cholera broke out. The sale of food (and drugs) is governed by the following legislation:—

(1) Adulterated Food & Drugs Ordinance, No. 8 of 1935.

(2) Public Health (Food) Ordinance, No. 13 of 1935.

(3) Hawkers Ordinance, No. 22 of 1935.

In addition, special *ad hoc* bye-laws were drawn up to meet the dangers resulting from the cholera epidemic and preliminary steps were taken to introduce compulsory pasteurization.

These bye-laws prohibited persons from selling cut or peeled fruit controlled by permit the sale of ice cream, non-aerated fruit juice or herbal drinks and certain jellies, uncooked fish, mussels, etc.

Under the Adulterated Food and Drugs Ordinance, Health Officers, Veterinary Surgeons and Sanitary Inspectors are authorised by the Urban Council, on the recommendation of the Director of Medical Services, to take samples and to submit them for analysis.

In Table XI below details of this work are given.

Table XI.

Food or drug.	No. of samples analysed.
Boracic ointment	4
Butter	38
Castor oil	4
Cheese	37
Coffee	8
Epsom salts	5
Glauber salts	5
Glycerine	4
Lard	16
Milk (fresh)	145
Milk (unsweetened evaporated)	22
Paraffin	4
Seidlitz powder	4
Tea	39
Water	1

Nine out of the 145 samples of fresh milk were found to be below the standard, the remaining articles on the list being satisfactory.

Foodstuffs seized and destroyed included:—condiments, 1,350 lbs., confectionery, 16,125 lbs., eggs, 100 lbs., fish, 20 lbs., flour, 22,280 lbs., fruit, 15,957 lbs., meat, 919 lbs., milk, 89 lbs., molasses, 500 lbs., and vegetables, 106,791 lbs.

Foodstuffs voluntarily surrendered and destroyed comprised:—cheese, 18 lbs., cocoa, 43 lbs., coffee, 300 lbs., condiments, 252 lb., confectionery, 491 lbs., fish, 4,285 lbs., fruit, 1,445 lbs., jam, 6 lbs., meat, 3,350 lbs., sausages, 108 lbs., syrup, 19 lbs., and vegetables, 266 lbs.

There are two important dairy concerns in the colony, one European-owned on the Island somewhat unfortunately sited as regards the Queen Mary Hospital, and the second under Chinese management on the mainland. There are, in addition, about thirty small dairies owned by Chinese mostly on the mainland.

The daily production of fresh milk in 1937 amounted to about 1,700 gallons of which by far the larger proportion was produced at the European-owned dairy referred to above.

This concern has incurred considerable expenditure in recent years on pasteurization and bottling plants and when completely reorganised on modern lines should be in a position to produce milk free from tubercle bacilli, Br: abortus, the streptococcus causing mastitis, and other organisms giving rise to milk-borne infections.

Draft legislation was introduced during 1937 to make pasteurization of milk compulsory but met with considerable opposition. There is every possibility of the proposal becoming law in 1938 together with regulations covering bottling, sterilization of containers, etc. As might be surmised milking in the majority of the small Chinese-owned cattle byres leaves a great deal to be desired and it is to be hoped that small owners of cattle will find it better to sell their products to one or other of the important and well-equipped concerns.

While on the subject of milk production mention should be made of a comparatively new enterprise, namely, the preparation of reconstituted milk and cream usually from New Zealand butter and skimmed milk powder. Legislation is pending to enforce pasteurization, clean bottling of these products and a standardization of their quality as regards milk fat and total solids other than fat. Dairies and milk shops are licensed and are subjected to periodical inspection.

The more important Government slaughter house is situated at Kennedy Town (Hong Kong Island) others are to be found at Ma Tau Kok on the mainland; and at Aberdeen and Sai Wan Ho on the Island.

Oxen are shot but humane slaughtering has not yet been extended to sheep, goats and pigs.

The numbers of animals dealt with at the abattoirs in 1937 were as follows:—Cattle 72,218, swine 390,519, sheep and goats 18,502.

These activities are supervised by the Veterinary Branch of the Sanitary Department.

As might be expected in a territory where so large a proportion of the population subsist on very low wages and where a few cents makes all the difference between sufficient food and starvation or at least serious under-nutrition, certain deficiency diseases are commonly met with.

Osteomalacia, pellagra, rickets and scurvy are rarely recognised but beri beri, including the infantile variety, constitutes a serious problem and occasions much incapacity, ill-health and, in infants, not infrequently a fatal ending.

Out of a total of 34,635 deaths registered in 1937, 1,661 were attributed directly to beri beri, a ratio of nearly 48 per thousand deaths from all causes.

Much information of value is to be anticipated from the Nutrition Research Committee established to investigate nutritional problems in the Colony.

(B) MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE & SANITATION.

Hygiene is one of the subjects on the curriculum in a large proportion of the schools. Unfortunately many schools suffer from such serious health deficiencies in the matter of light, ventilation and sanitary accommodation that lessons in hygiene possess little point.

Personal hygiene and mothercraft is taught to the women attending the maternal and child welfare centres and domestic hygiene by the Health Nurses when they visit the homes in the districts.

A reasonable standard of hygiene is aimed at in the homes of some seventy-six registered midwives which are inspected periodically by the Supervisor of Midwives (a woman doctor) and her staff. The better types of these serve as examples of how to maintain hygienic conditions in homes in the midst of the overcrowded areas.

It might be expected that the sanitary inspectorate should take an important part in instructing the general public in the advantages of living in reasonably hygienic surroundings and no doubt useful work may be done at times along these lines.

As has been stated, however, the sanitary inspectorate are not yet under the control of the Medical Officers of Health. In the meantime, there can be no doubt that a valuable source of public health propaganda is being largely wasted through lack of direction by those best qualified to give it.

Lectures on hygiene, first aid and kindred subjects are delivered by the officers of the Medical Department, by the staff of the Chinese Public Dispensaries, by the St. John Ambulance Association & Brigade and by other voluntary organizations.

Use is also made of the English and Vernacular press and of the Wireless Broadcasting system.

(C) TRAINING OF SANITARY PERSONNEL.

The Medical Officers of Health, the Malariologist and others are responsible for giving courses of instruction with practical demonstrations in sanitation, elementary entomology, sanitary engineering and allied subjects.

Until the Health Division of the Medical Department is reorganised on proper lines the training of sanitary personnel will continue to suffer. No examination was held in Hong Kong under the auspices of the Royal Sanitary Institute for the Sanitary Inspectors' Certificate in 1937.

(D) RECOMMENDATIONS FOR FUTURE WORK.

(1) Reorganisation of Health Division on accepted lines with placing of sanitary inspectorate and subordinate staff under the direct supervision and control of the Medical Officers of Health—the scavenging of the Urban Council Area being carried out by a Cleansing Branch of the Sanitary Department.

(2) Increase in staff of Chinese and European Health Staff and appointment of a Deputy Director of Health Services to coordinate Health activities and to be available, if desired, as Professor of Public Health and Preventive Medicine in the University of Hong Kong.

(3) Substitution of sewerage system of nightsoil disposal for existing pan and barges and construction of sewers for large sections of Kowloon, etc., where housing development is likely to take place.

(4) Overhaul of existing scheme of refuse disposal involving dumping, especially during times of typhoons.

(5) Legislation to cover town planning, zoning and the prohibition of conversion of dwelling houses into factories.

(6) Slum clearance preceded by construction of healthy houses for the dispossessed on a sub-economic basis.

(7) Covering of Albany Road Reservoir and filtration and sterilization (by chloramine or other approved method) of pipe-borne water in Pokfulam area of Victoria.

(8) Formation of school dental department with Government Dental Surgeon.

(9) Inauguration of Chair in Public Health & Preventive Medicine in the University of Hong Kong.

(10) Provision of adequate accommodation for general diseases, infectious and mental diseases in the Kowloon Medical Centre.

(11) Establishment of model Health Centres in Eastern and Western Districts of Victoria, in Shamshuipo and Kowloon City Districts of Kowloon and at Taipo.

IV.—PORT HEALTH WORK & ADMINISTRATION.

Hong Kong which is recognised as being one of the greatest ports in the world on the basis of shipping tonnage was considerably affected by the hostilities, although the decrease in shipping was compensated for to a certain extent by the temporary closure of Shanghai as an international port.

During the year under review 4,322 British ocean-going vessels entered and cleared the harbour as compared with 4,616 in 1936. To this number should be added 5,202 foreign ocean-going vessels which had amounted to 6,364 in the previous year.

River steamers, launches and foreign trade junks also saw an appreciable diminution, the figures for each class being 7,695, 4,082 and 12,481 respectively.

The tonnage fell from 40,063,663 in 1936 to 36,191,724 in 1937.

Some 4,775 inward bound ocean-going vessels were boarded by Port Health Officers.

Vessels from Canton, Macao and West River ports and smaller craft were visited when information was at hand of sickness or death. They were also inspected periodically by the Health Inspector with the object of encouraging a higher standard of cleanliness, and for purposes of deratisation.

During the year 129 special visits were made to vessels as compared with eighty-six in 1936 to examine persons suffering from infectious but non-quarantinable diseases.

Thirty-three out of the thirty-six bodies landed from vessels were examined at the mortuary.

Bills of Health to the number of 1,611 were issued in Hong Kong. Their abolition has been urged in many parts of the world and there is some doubt as to their value in the Far East, more especially under the disturbed conditions existing at the moment.

Owing to the absence of any quarantine immigration station in Hong Kong it is not practicable to enforce observation ashore of passengers and crews. When the occasion arises observation has to be carried out on board at one or other of the two quarantine anchorages to which go vessels when arriving from ports deciared "infected" within the meaning of the International Sanitary Convention of 1926. Eleven ships were detained in quarantine during 1937 and 485,629 persons were medically examined on arrival, making an average of 1,330 per day. All emigrants from the Colony are medically examined and, when necessary, vaccinated before departure.

Some 245,488 emigrants were so examined during the year of whom 239,188 were "free", that is to say they paid for their passages, and the balance were "assisted", their passages being paid by their prospective employers. Rejections numbered 1,153. Emigrants vaccinated were 116,208 in number.

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 XII.

	1933	1934	1935	1936	1937	Average for period
To Straits Settlements ...	20,324	86,192	102,674	101,499	165,177	95,173
Total to all ports	64,181	138,240	158,300	164,077	245,488	154,057

Disinfection and deratisation of ships, an activity previously carried out by a private company, is now performed by the Fumigation Bureau of the Port Health Authority.

The plant consists of (1) a hulk, the "Aldecoa", which provides facilities for the bathing of passengers and the disinfection and disinfestation of their belongings in two steam disinfectors; (2) a barge equipped with a B-type Clayton machine; (3) an A-type Clayton machine, and (4) apparatus such as Dutch ovens and sprays. This equipment was added to in September, 1937, by a reconditioned launch with an A-type Clayton machine.

Deratisation and Deratisation Exemption Certificates issued in 1937 amounted to a total of ninety-one and eighty-eight respectively as compared with seventy-nine and fifty-eight in the previous year.

The sanitary control of aerial navigation, which had been rendered possible by the application of the International Sanitary Convention for Aerial Navigation to Hong Kong on the 1st of August, 1935, by legislation under the Quarantine and Prevention of Diseases Ordinance in the following year, was further strengthened by regulations governing aircraft promulgated in the Government Gazette on the 17th of December, 1937.

Several new air services were inaugurated during the year and the following companies make regular calls at Hong Kong:— Imperial Airways, Pan-American Airways, China National Aviation Corporation and the Eurasia Corporation.

No cases of infectious disease were discovered in passengers and crew arriving by air and no reports were received of such illness in persons who had left Hong Kong by air.

Some indication of the extent of air-traffic to and from Hong Kong (Kai Tak Civil Airport) can be appreciated by reference to the following table:—

Table XIII.

Nationality of Aircraft	ARRIVALS			DEPARTURES		
	Aircraft	Passengers	Crew	Aircraft	Passengers	Crew
British	65	49	130	67	75	134
Chinese	292	1,581	784	289	1,448	716
Other countries ...	41	299	236	39	233	283
Total	398	1,929	1,150	395	1,756	1,133

V.—MATERNITY & CHILD WELFARE.

The maternity hospitals under Government and voluntary control provided accommodation for 358 beds in 1937 of which the largest number were to be found in the Tsan Yuk Hospital (sixty beds) under the control of the Medical Department.

Beds were also available in a large number of maternity homes of which seventy-five were inspected during the year.

As from the 1st of January, 1937, the practice of midwifery habitually and for gain became a punishable offence, Wan P'os or handy women who had practised midwifery in Hong Kong for two or more years previously and who enrolled as midwives being exempted from this prohibition. As the result of this concession 111 Wan P'os' were enrolled in 1937. By degrees this type of untrained midwife will disappear in the same way as the "Sairey Gamps" in the United Kingdom.

By the end of the year 395 names were to be found in the Midwives Register.

Thirty-seven candidates satisfied the examiners at the examinations carried out under the auspices of the Midwives Board.

The Medical Department employs sixteen midwives who were located as follows:—

Chinese Public Dispensaries at Aberdeen, Kowloon City, Shamshuipo, Shaukiwan, Stanley & Yaumati and at Government Dispensaries at Ko Tung, Sai Kung, Sham Tseng, Tai O, Tai Po and Un Long.

These midwives render free service to the poor in their own homes. They visit the ante-and post-natal mother and new born child for a period of seven days after birth.

Visits to expectant mothers numbered 2,528 and to puerperal mothers 12,919. During the last-named 12,215 demonstrations were given to the mothers in the washing of their babies.

The 2,653 individual mothers visited were mostly cases of normal labour but included twelve abortions, twenty-two miscarriages and premature births and thirty-seven still-births. In fifty-nine instances the mothers were taken by ambulance to hospital, principally on account of delayed labour and usually after the Medical Officers from the various dispensaries had been called in.

Apart from deaths amongst these complicated cases, only one mother attended by the Government midwives died.

When not engaged in maternal and child welfare work the midwives assist in first aid work at the dispensaries.

Their work is overlooked by the Supervisor of Midwives who inspects their bags, quarters, records and investigates cases of complicated puerperium, the causes of deaths in infants and complaints preferred against them. Ante-natal and infant welfare work is carried on at a large number of centres including the Violet Peel Health Centre at Wanchai, Government Welfare Centre in Kowloon, Alice Memorial, Military, Tsan Yuk and Tung Wah Hospitals, Chinese Public Dispensaries, six Government Dispensaries in the New Territories (with the Government Travelling Dispensary) and at nine centres under the auspices of the St. John Ambulance Association and Brigade. At the Government centres at Kowloon and Wanchai the average daily attendances were seventy and seventy-seven respectively, the corresponding total attendances for the whole year being 23,858 and 22,339.

The average age of the infants at their first appearance at these two centres was just under three months. Rather over a quarter of those seen were artificially fed.

Six per centum of the 2,062 mothers whose blood sera were examined gave a positive Wassermann reaction.

Malnutrition and digestive disturbances, many of which were attributable to malnutrition in its widest sense, accounted for the majority of the attendances of infants, although only six cases of rickets were actually diagnosed.

Respiratory diseases came second in importance followed by conjunctivitis.

Thrush was common and was met with in 551 infants at the two centres. The soup kitchen at both centres continued to be patronised, eighty-two meals being given daily at the Wanchai Centre and half this number at Kowloon. During the summer a recipe for soya bean milk was obtained through the courtesy of Dr. Marian Yang of the Peiping First National School of Midwifery, since the cost of cow's milk is far beyond the means of the average mother of the poorer class.

This milk is made daily and has added to it certain quantities of sugar, dextrin and salt.

It is given to nursing mothers and infants who are fed at the centres. It is quite palatable and very similar to cows milk in taste. Its content of vitamin B makes it a particularly valuable food for nursing mothers suffering from beri beri.

The Society for the Protection of Children continued to render valuable assistance by supplying milk and artificial feeds to mothers attending the centres who were found by the Medical Officers to be too poor to afford these "luxuries".

A special feature of 1937 consisted in the inoculation of 1,696 mothers and older children with cholera vaccine during the serious epidemic of that disease.

Home visits formed another activity of the centres and nearly two thousand were paid by nurses to the homes of babies attending.

Voluntary helpers were all too scarce at these centres, but special mention should be made of the devoted services of Mrs. D. Cuthbertson who has now, unfortunately, left the Colony.

A description of maternal infant welfare would be incomplete without mention of the activities of the Hong Kong Eugenics League formed in April, 1936, which aims at giving advice to poor married women who have already had one or more children on how to limit and space their families.

Sessions were held weekly out of office hours at the Violet Peel Health Centre.

The number of mothers who were given advice on the spacing and limiting of their families amounted to 217. The number of pregnancies in this group was 1,142, an average of 5.3 per mother. Nearly one third of these pregnancies had ended in miscarriage, still birth or early death of the child born alive.

The average age of the mother attending the clinic was just under thirty years.

The following extract from the Report of the Eugenics League for 1937-38 is of interest:—"Before any mother is "instructed in contraception full medical history is taken and "careful examination performed by the doctor. By this means "a number of serious diseases have been detected in their early "stages. Patients have been referred to the appropriate clinics "for the treatment of venereal disease, tuberculosis and other "medical, surgical, obstetrical and gynaecological conditions."

VI.—HOSPITALS, DISPENSARIES AND VENEREAL DISEASES CLINICS.

A list of Naval, Military, Government Civil, Chinese and private hospitals and institutions is given in Return B to this Report. On this occasion it is only proposed to mention the more salient facts in connection with the hospital and dispensary services in the Colony.

1.—*Queen Mary and Government Civil Hospitals.*

The outstanding event in the year as regards improved hospital facilities was the opening of the Queen Mary Hospital which replaced the old Government Civil Hospital built in 1874 and which was closed on the 30th of June, 1937.

The ceremony was performed by His Excellency Sir Andrew Caldecott, K.C.M.G., C.B.E., at that time Governor and Commander-in-Chief, on the 13th of April, 1937.

Situated on the south side of the Island in open surroundings 500 feet above sea level, the new hospital commands an uninterrupted view of the sea and islands to the south and west.

The hospital was designed by the officers of the Public Works Department in consultation with the Medical Department and cost nearly four million dollars (Hong Kong) or a quarter of a million pounds sterling—(about £460 per bed).

It may be said to embody all the latest improvements in hospital construction. The buildings are planned on the vertical system with lifts to all seven floors.

Excellent lighting and ventilation facilities are afforded by the grouping of the five wings of the hospital in the form of an "H". The main entrance is in the centre of the building with a separate entrance on the north side for patients arriving by ambulance and a service entrance on the south side.

The roof is flat and so designed to permit of its use as an open air ward for patients suffering from tuberculosis and other conditions which benefit from sunlight and fresh air.

The main building and nursing staff quarters are of steel frame construction and quietness has been studied, the walls and floors being of sound-resisting material.

The hospital has accommodation for a total of 546 beds of which thirty-six are cots and thirty-two for maternity cases. An Isolation Wing consists of nine small wards with room for twenty-two cases.

About one quarter of the beds are allotted to the three clinical units of the Hong Kong University, namely the Medical, Surgical and Gynaecological and Obstetrical Units.

These beds are under the direct control of the Clinical Professors whose reports are contained in Section IX, Scientific, to this Report. The first patients were admitted from the Victoria Hospital on the 1st of May, 1937, and during the remainder of the month and in June all the patients were transferred to the new hospital from the old Government Civil Hospital.

More wards were occupied as stores and equipment became available and by the end of the year only two remained empty.

The typhoon of the 1st of September damaged the building to some extent and this delayed the full occupation of the top floor by two months whilst repairs were being effected.

Private practitioners were given the privilege of making use of the Maternity Wing for the treatment of their own cases and two took advantage of this during the year.

The following serves as a brief summary of the work carried out at the new Queen Mary Hospital and the old Government Civil Hospital in 1937:—

Table XIV.

	Queen Mary Hospital (May-Dec.)	*Government Civil Hospital (Jan.-June)*	*Total for 1937*
In-patients:—			
General	5,375	2,693	8,068
Maternity	191	469	660
Total	5,566	3,162	8,728
Daily average	296	209	253
Chinese	3,488	1,993	5,481
European	780	122	902
Indian	989	520	1,509
Russian	42	16	58
Other nationalities	76	42	118
Treated by Government Officers	4,631	2,239	6,870
Treated by University Staff—			
Medical	229	153	382
Surgical	275	213	488
Gynaecological	240	88	328
Nationality of maternity cases—			
American	1	—	1
British	43	—	43
Chinese	106	410	516
Indian	36	45	81
Japanese	3	13	16
Portuguese	1	1	2
Russian	1	—	1

	Queen Mary Hospital (May-Dec.)	*Government Civil Hospital (Jan.-June)*	*Total for 1937*
Operations—			
By Government Officers	443	217	660
By University staff.	637	402	1,039
Total	1,080	619	1,699
Deaths—			
General in-patients...	292	170	462
Maternity cases	3	2	5
Total	295	172	467
Still-births	7	6	13

The number of in-patients dealt with in the principal Government hospitals on the Island in 1937 amounted to 8,728 as compared with 6,868 in 1936, the daily average rising from 219 to 249 in the same period.

Table XV.

	Queen Mary Hospital	Govt. Civil Hospital		Total in 1937
		Govt. Civil Hospital & C. Block	Queen's Road Clinics	
Out-patients (New cases)				
General	1,933	21,246	—	23,179
Medical University Unit	—	—	1,624	1,624
Surgical University Unit	—	—	4,459	4,459
Gynaecological University Unit..	—	—	1,890	1,890
Eye Clinic (Government)	—	—	3,126	3,126
Venereal Diseases (Government)	—	—	1,811	1,811
	1,933	21,246	12,910	36,089

2.—*Kowloon Hospital.*

The Government general hospital accommodation on the mainland consists of one institution only—Kowloon Hospital. This building stands in a medical reserve over thirty acres in extent allowing for considerable growth in the future. It possesses ninety-seven beds for general purposes and thirty-four maternity beds.

In-patients numbered 3,706 as compared with 3,367 in 1936.

This figure was made up of 2,475 Chinese, 830 Europeans, thirty Indians and 371 persons of other nationalities. The daily average number of in-patients was 101.

Some 1,322 operations were performed under general anaesthesia during the year.

Deaths among in-patients amounted to 326.

The out-patient service at Kowloon Hospital continued to expand by leaps and bounds. Whereas in 1933 the number of persons dealt with was only 27,810, in the year under review it rose to 91,001. To this latter figure should be added 204 and 4,738 attending the ear, nose and throat and eye clinics respectively, and 5,766 attending the venereal diseases clinic, making a grand total of 101, 709.

1,372 patients were treated in the maternity block at Kowloon Hospital, a daily average of twenty-two for the thirty-four beds. Amongst these were 1,288 deliveries, eight maternal deaths and seventy-two stillbirths. The maternal mortality was due to three cases of eclampsia, two of post partum haemorrhage, two of puerperal septicaemia and one of toxaemia. Both Chinese and European women were encouraged to attend the ante-natal clinics at Kowloon Hospital and 696 availed themselves of this service in 1937.

The average cost per patient per day for diets, provision, fuel, light and kitchen staff during 1937 was one dollar and four cents.

(A)

Before leaving the description of the work done at the Government General Hospitals mention should be made of two activities which have undergone considerable development in recent years.

(*a*) *Anaesthetics.*

A full time Government Anaesthetist is employed and the number of anaesthetics administered by this officer and by other Government Medical Officers is detailed below:—

Table XVI.

	Government Anaesthetist	*Other Medical Officers*	*Total*
Government Civil Hospital...	300	172	472
Kowloon Hospital	341	970	1,311
Queen Mary Hospital	504	281	785
Victoria Hospital	84	18	102
Total	1,229	1,441	2,670

The various agents used in anaesthetising patients by the Government Anaesthetist are given in the following table:—

Table XVII.

Chloroform	34
Ether—alone or with ethyl chloride	537
Ether—with evipan	87
Evipan	226
Nitrous oxide and oxygen	88
Pentothal sodium	7
Spinal	225
Other methods	25
Total	1,229

Ether remains the most commonly used aneasthetic in major surgery in Hong Kong. Evipan is, however, extensively employed for minor operative procedures and for induction in nervous patients.

The use of spinal anaesthesia has increased greatly and has proved most satisfactory. A six per centum solution of freshly prepared novocaine has given uniformly good results; but the anaesthesia produced can only be relied upon to last for about

one and a half hours. With a view to prolonging the effect several other methods have been tried. Pantocain L (Bayer) has been the most satisfactory, giving in a small series of twenty cases a duration of anaesthesia from two and a quarter to three and a half hours. The routine use of nitrous oxide is prohibited by its high cost.

(B)

(b) Radiology, Electro-therapeutics and Massage.

In addition to a full-time Radiologist, two Radiographers and two Masseuses and Electrotherapists were on duty during the year at the Queen Mary and Kowloon Hospitals, assisted in both cases by an X-Ray Sister.

A remarkable increase in the activities of this sub-department has taken place in the past five years, as is evidenced from the figures in the table given below:—

Table XVIII.

	1933	*1934*	*1935*	*1936*	*1937*
Massage and electrical treatment	10,579	12,947	18,077	10,465	11,775
Radiological examinations	3,076	3,991	4,897	5,511	6,690
Films exposed	5,477	8,208	8,577	9,193	12,784

The equipment was augmented during the year by the purchase of a dental X-ray apparatus.

A considerable economy was effected in the routine use of X-ray paper instead of films.

In August, 1937, at the request of the Trustees of the Granville Sharp Estate, the Medical Department took temporary custody of 442 milligrammes of radium. The radium was made available for use in the Government Hospitals under the supervision of the Radiologist and for loan to private practitioners.

With the twenty milligrammes already owned by the Department a considerable number of cases of malignant disease were able to be treated.

3.—*Victoria General & Maternity Hospital.*

This Government hospital situated in the Peak District of Hong Kong Island was closed on the 7th of June, 1937, following upon the opening of the Queen Mary Hospital. It possessed forty-six general and twenty-six maternity beds mostly reserved for Europeans.

During the five months of the year when the hospital was functioning some 229 cases were treated, 199 in the general wards and thirty in the maternity wards. The patients in the general block consisted of thirty-six men, fifty-four children and 109 women.

Of there, 194 were Europeans and five belonged to other races. The daily average of general hospital patients was twenty-four. Thirty women were admitted to the maternity wards which had an average of three adults and three infants during the period. Twenty-nine deliveries were recorded. The hospital was fortunate in having no deaths in the general wards and no maternal deaths.

Ante-natal and other cases seen in the out-patients department of the maternity block numbered 542.

Plans are under consideration for utilising the Victoria Hospital as a convalescent home, mainly for the children of Europeans living on the hot and damp lower levels on the Island and mainland.

4.—*Tsan Yuk Maternity Hospital.*

This institution was originally erected and managed by the local Chinese community, but it was eventually considered desirable in the interests of the patients and of efficiency that Government should take over the building and that it should be regarded as a Government institution in future. This transfer was effected with the knowledge and active support of the Chairman and members of the Tung Wah Committee. The number of beds in the Tsan Yuk Hospital was sixty, of which fourteen were reserved for gynaecological cases until the Queen Mary Hospital was opened.

The table below presents the record for 1937.

Table XIX.

In-patients.

Remaining at end of 1936	39
Admissions in 1937	2,197
Total treated	2,236
Maternity cases	2,096
Deliveries	1,934
Maternal deaths	6
Maternal death-rate per 1,000 live births	3.2
Infant deaths	33
Still-births	83
Gynaecological cases	140
Death in gynaecological cases	1
Operations in gynaecological cases	69

Out-patients.

	New cases.	*Return visits.*	*Total attendances.*
Gynaecological	338	234	572
Ante-natal	499	453	952
Infant welfare	1,060	1,049	2,109
Totals	1,897	1,736	3,633

Attention is invited to the low puerperal mortality rate for a hospital which provides accommodation in the main for the poorest class of Chinese.

The average daily cost per patient in 1937 for diets, provisions, fuel, light and kitchen staff was fifty-two cents.

5.—*Infectious Diseases Hospital.*

The Infectious Diseases Hospital at Kennedy Town on the Island of Hong Kong was built as a Police Station and, no doubt, was of eminently suitable design for such purpose. The hospital is supposed to accommodate twenty-six beds in six wards. As might be expected such provision is entirely inadequate and it is hoped that it will be found possible before long to erect a new hospital on the mainland with rather more than ten times the number of beds available at present.

During the cholera outbreak of 1937 it was found necessary to bring back into use a portion of the old Government Civil Hospital.

Since no repairs or renovations had been carried out in this hospital for a long time in view of its closure, the premises were far from satisfactory from the hygienic standpoint and for the safety of the staff.

In all, 1,299 cases of cholera, sixty cases of smallpox and eight cases of chickenpox were treated in the Infectious Diseases Hospital and in the reopened portion of the old Government Civil Hospital.

6.—*Social Hygiene Centres.*

During the year under review four Government venereal diseases clinics functioned, two on the Island—one at the Queen's Road (old Government Civil Hospital) Out-patient Department and one at the Violet Peel Health Centre, Wanchai—and two in Kowloon—one close to the Docks and the second at Kowloon Hospital. Subsidiary clinics were also in operation at Taipo and Un Long in the New Territories.

Some idea of the extent to which use is made of the facilities for free medical advice and treatment at these social hygiene centres can be gathered by reference to the following tables.

Table XX.

New cases treated in 1937:—

	Chinese		European		Indian		Others		Total	
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
Queen's Road (old Government Civil Hospital)	1198	570	40	—	3	—	—	—	1241	570
Violet Peel Health Centre	1007	652	164	2	138	3	39	—	1348	657
Kowloon Docks ..... (Tsimshatsui)	1663	480	450	—	96	1	19	—	2228	481
Kowloon Hospital ...	337	827	4	6	6	1	—	—	347	834
Taipo Centre	19	2	—	—	9	—	—	—	28	2
Un Long Centre	17	5	—	—	4	—	—	—	21	5
	4241	2536	658	8	256	5	58	—	5213	2549

Table XXI.

Number of attendances in 1937:—

	Chinese		European		Indian		Others		Total	
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
Queen's Road (old Government Civil Hospital)	5386	2621	377	—	73	—	2	—	5838	2621
Violet Peel Health Centre	3925	3325	1198	25	2436	20	87	5	7646	3375
Kowloon Docks ..... (Tsimshatsui)	6163	2266	2789	—	1450	6	51	8	10453	2280
Kowloon Hospital ...	1601	3177	106	22	45	1	—	1	1752	3201
Taipo Centre	71	15	—	—	320	—	—	—	391	15
Un Long Centre	92	28	—	—	79	—	—	—	171	28
	17238	11432	4470	47	4403	27	140	14	26251	11520

Full use was made of the twenty-four beds reserved for male cases of venereal disease at the old Government Civil Hospital and provision was made for the in-patient treatment of men, women and children suffering from venereal disease in the Queen Mary Hospital.

Some 13,055 injections of organic arsenic and 962 injections of bismuth preparations were given to out-patients.

The Health Officer, Social Hygiene, and his assistants examined 4,923 smears for gonococci and took 11,748 specimens of blood for the Wassermann test.

7.—*Infant Welfare Centres.*

These have been fully described in Section V, Maternity and Child Welfare, in this Report.

8.—*Dispensaries in the New Territories.*

Before detailing the position and activities of the medical services available in the New Territories, it might be profitable to give some information of a general nature concerning this area.

The New Territories include about three hundred square miles of mainland between Kowloon and the Sham Chun River and a number of islands, the largest of which is Lantau. This area was leased by Great Britain for a period of ninety-nine years from 1898 from the Government of China. The territory lies outside the Urban Council Area and as yet possesses but a skeleton medical and health organisation.

The Public Health (Sanitation) Ordinance has not been applied to the New Territories, and the Labour Code introduced towards the end of 1937 can only be regarded as a gesture in the right direction.

The bulk of the community live under rural or semi-rural conditions not unlike those prevailing in South China as a whole. There are, in addition, three main concentrations of population at Taipo and Un Long on the mainland and at Cheung Chau, an island. Organised markets and a small number of scavengers are to be found in these three townships, but elsewhere environmental hygiene is practically unorganised and in the care of "village elders".

For medical purposes the New Territories are divided into Eastern and Western Districts, the range of hills running more or less north—south serving as a geographical boundary.

Details of estimated population and death-rates are given in the tables below.

Table XXII.

A.—Western Medical District.

(1) Mainland

	Estimated population (mid-year 1937)	*Deaths*	*Death-rate per thousand*
Au Tau	13,497	416	30.8
Lok Ma Chau	4,846	104	21.5
Ping Shan	16,198	376	23.2
†Tsun Wan	6,338	210	33.1

(2) Islands

†Cheung Chau	14,980	419	28.0
†Lantau (Tai O) ...	9,409	280	29.8

† Maritime population included.

Table XXIII.

B.—Eastern Medical District.

(1) Mainland

	Estimated population (mid-year 1937)	*Deaths*	*Death-rate per thousand*
*Saikung	11,183	241	21.6
Sha Tau Kok	9,306	265	28.5
Sha Tin	4,465	135	30.2
Sheung Shui	11,807	270	22.9
Tai Po	14,902	456	30.6

* Includes Islands of Cheung Kwan O and Po Toi.

Lamma Island with an estimated mid-year population (including maritime) of 2,396 is not included in this table as births and deaths are not registered.

Medical services in the New Territories are supervised by a European Health Officer resident at Kowloon. This officer has under his direction two Chinese Medical Officers with headquarters at Taipo and Un Long, a 1st Grade Dresser attached to a Travelling Motor Dispensary and a number of Nurse-Midwives who are posted to Government Welfare Centres and posts at Ku Tung (the Lady Ho Tung Welfare Centre), Sai Kung, Sham Tseng and Tai O.

In addition, a Chinese Medical Officer, Dressers and Anti-malarial Inspectors were in health and medical charge of 2,000 labourers at Shing Mun Dam until April, 1937, when the work on these waterworks was completed, and a Charge Dresser was attached to the workers at Pat Heung Aerodrome until the close of the year.

The table opposite represents a summary of the work done at the various Government medical centres in the New Territories during the year under review.

Apart from the dispensaries and welfare centres staffed by the Government Medical Department, valuable work is done by some nine units established by St. John Ambulance Association and Brigade. In one instance (Cheung Chau) the institution consists of a fifty bedded hospital built on modern lines where useful work is done handicapped somewhat by a lack of adequate supplies of uncontaminated water.

In a second case (Kam Tin), the Brigade maintains a small cottage hospital actually improvised out of a group of single-storey Chinese dwellings. This is chiefly used for maternity cases.

Table XXIV.

	Ku Tung Welfare Centre	Sai Kung Dispensary	Tai O Dispensary	Taipo Dispensary	Un Long Dispensary	Travelling Dispensary	Total
New cases	3,903	1,775	2,476	5,720	5,634	6,264	25,772
Old cases	2,427	2,177	1,714	11,464	4,709	1,225	23,716
Maternity cases	152	89	122	85(*d*) 150(*i*)	197	—	795
Malarial cases	232	505	250	749	279	347	2,362
Vaccinations	1,062	730	491	2,129	1,372	1,189	6,973
Total	7,776	5,276	5,053	20,297	12,191	9,025	59,618

(*d*) = on district, (*i*) = in dispensary.

The Director of the Ambulance has kindly provided the following details of the activities of the Brigade in 1937:—

Centres:—Haw Par Hospital, Tsuen Wan Hospital, Kam Tin Hospital, Ha Tsun Clinic, Fanling Clinic, Tun Mun Clinic, Takuling Clinic, Shataukok Clinic and Shatin Clinic.

Patients treated:—maternity 1,302, general 127,093.

Cost of service:—$26,444.

Since the early days of 1937 a large force of labourers have been employed at the Lin Ma Hang Lead Mine near Sha Tau Kok on the frontier between China and the New Territories.

The labour force suffered severely from malaria, twenty-six fatal cases occurring during the year. The health situation became so unsatisfactory that the management had to engage a Chinese Medical Officer and Dresser in July, 1937.

Owing to the siting of the labourers line in Chinese territory, the Hong Kong Government can exercise little or no control over the accommodation for the employees of the mine and over malarial conditions in the vicinity.

9.—*Chinese Hospitals and Dispensaries.*

The Chinese Hospitals & Public Dispensaries were established, in some instances, over seventy years ago under the auspices of the Tung Wah, a charitable organisation with very wide ramifications over a considerable portion of South China. The "hospitals" were intended to serve several purposes:—to provide accommodation for the sick poor, who desired Chinese herbalist treatment or treatment by Western medicine, for the old and decrepit to spend their last days under a friendly roof, and for the destitute and homeless. In other words, they combined the functions of the old Poor-law infirmary, the "Union" workhouse, home for the aged, and Rowton House in the United Kingdom. On the other hand, the primary object of the Chinese Public Dispensaries was to provide places in various parts of the town at which the bodies of deceased persons could be deposited and handed over for burial by the Authorities instead of being dumped in the streets or into the harbour.

Little by little, keeping pace with the education of the poorer and illiterate sections of the community, efforts have been made to extend the scope of the dispensaries so that today, while still serving as public mortuaries, they also provide large sections of the population who cannot afford the fees of a private practitioner with the benefit of Western medicine treatment.

In the same way, the Chinese hospitals have catered for an increasing number of actually sick persons and the bulk of the bed accommodation is now given over to the use of patients desiring Western medicine. Many thousands of out-patients continue to receive herbalist treatment and many beds in the Chinese hospitals are occupied by persons who are supposed to the "treated" by herbalist "doctors". The change over to Western treatment has been a slow process and has not been aided by the system in vogue at the Chinese hospitals which allows the question "Do you want Chinese or European medicine" to be addressed to every patient seeking admission. The unlettered coolie usually thinks of Western medicine in terms of operations since herbalists rarely, if ever, operate. He rather naturally choses the system with which he is familiar and, as it is "Chinese", which he imagines is the more appropriate for him as a Chinese.

Assisted by enlightened Chinese directors of the Tung Wah Committee and by the cures effected by the Government and other Western medicine doctors working in these hospitals, there has been a gradual but definite increase in the proportion of patients seeking Western treatment. Unfortunately, the hospitals still preserve their other functions and a considerable number of persons find shelter and food in them who require nothing else and cannot be classed as patients by the greatest stretch of imagination.

Added to a real and very definite lack of hospital accommodation (both in- and out-patient) for the poorer classes of the Chinese population of these territories—an estimated deficiency of upwards of at least a thousand beds—this practice results in dangerous overcrowding.

During inspections of the hospitals in question it is not at all an uncommon thing—aggravated, no doubt, by the influx of indigent refugees from areas affected by the Sino-Japanese hostilities—to see two patients, old and young, in the same bed, five adult women in two beds pushed close together, patients lying all over the ward floor so as to render separation of types of disease and medical attention and nursing a matter of extreme difficulty. One particularly bad example of overcrowding noted was sixty-one patients occupying a ward holding twelve beds.

This distressing state of affairs is recorded partly to point to the need for urgent reform of the system and for the provision of a sufficiency of institutions of different types to meet the needs of the poorest elements in the population, and partly in the hope and belief that, with the close cooperation of the Tung Wah Committee, the Secretariat for Chinese Affairs (whose officers show such great devotion to the interests of the Chinese community), the Medical Department and with financial support from Government, the dawn of a new era in the care of the sick poor is breaking.

Western medical treatment only is given at the nine Chinese Public Dispensaries scattered over the Island and Kowloon.

Their history and functions have been well described in previous Annual Reports, consequently, it is only proposed to give some indication of the work done on this occasion by including Tables XXV and XXVI.

Of 218,351 inoculations against cholera given by some twenty-seven institutions in the Colony during the epidemic in 1937, nearly ninety thousand were given at the Tung Wah Hospital and Chinese Public Dispensaries.

Table XXV.

SUMMARY OF WORK DONE IN THE CHINESE PUBLIC DISPENSARIES DURING 1937.

Dispensaries.	Patients		Certificates of cause of death issued.	Patients sent to hospital.	Patients removed to hosp. by ambulance.	Corpses removed to hospital or mortuary.	Dead infants brought to dispensary.	Vaccinations.	Gynaecological cases.	
	New cases.	Old cases.							New cases.	Old cases.
Central	37,157	30,786	12	84	3	49	29	6,405	389	670
Eastern	20,368	24,980	8	15	6	62	308	3,621	503	850
Western	30,900	17,555	69	32	21	30	434	6,046	—	—
Shaukiwan	32,888	50,568	18	125	—	2	345	7,394	861	1,391
Aberdeen	9,323	9,545	—	119	3	—	—	2,251	303	350
Harbour & Yaumati	51,033	41,275	90	77	6	181	175	9,137	1,233	1,923
Shamshuipo	41,372	31,842	8	46	2	298	279	15,351	962	1,576
Hung Hom	16,003	6,083	56	175	7	206	204	6,358	418	477
Kowloon City	25,545	25,893	61	164	18	30	293	5,130	587	1,133
Total for 1937	264,589	238,527	322	837	66	858	2,067	61,693	5,256	8,370
Total for 1936	252,444	222,383	247	659	34	108	1,632	57,251	5,183	7,972

Table XXVI.

WORK DONE IN GYNAECOLOGICAL CLINICS OF CHINESE PUBLIC DISPENSARIES IN 1937.

Dispensary	No. of Clinics		Total Number		New Cases		Old Cases		Average Attendance per day	
	New 1936	Old 1937	1936	1937	1936	1937	1936	1937	1936	1937
Central	49	50	974	1,059	299	389	675	670	20	21
Eastern	46	43	1,511	1,353	582	503	929	850	35	31
Shaukiwan	97	98	2,130	2,252	902	861	1,228	1,391	22	23
Aberdeen	48	51	591	653	309	303	282	350	12	13
Yaumati	100	100	3,267	3,156	1,347	1,233	1,920	1,923	33	32
Shamshuipo	96	91	2,472	2,538	889	962	1,583	1,576	26	28
Hung Hom	48	48	729	895	346	418	383	477	15	19
Kowloon City	49	49	1,481	1,720	509	587	972	1,133	30	35
Kwong Wah Hospital	47	47	1,154	1,191	460	450	694	741	25	25
Total:—	580	577	14,309	14,817	5,643	5,706	8,666	9,111	24	26

Table XXVII.

	Tung Wah.	*Tung Wah (Eastern).*	*Kwong Wah.*	*Totals*
In-patients.				
Chinese treatment.	8,397	2,563	5,215	16,175
Western treatment.	10,221	6,021	15,552	31,794
Combined.....	18,618	8,584	20,767	47,969
Operations	1,088	147	602	1,837
Deaths in hospital.	4,336	2,262	6,043	12,641
Brought in dead ...	918	683	1,832	3,433
Death-rate per 1,000 in-patients.	233	264	290	264
Out-patients.				
Chinese treatment.	186,530	72,388	203,946	462,864
Western treatment	39,875	28,197	48,396	116,468
Combined	226,405	100,585	252,342	579,332
Eye clinic	16,274	118	1,176	17,568
Baby clinic	492	—	8,045	8,537
Ante-natal clinic...	—	—	271	271
Anti-smallpox vaccinations	5,962	876	2,050	8,888

The Tung Wah Group of Hospitals comprises the Tung Wah and Tung Wah (Eastern) Hospitals situated on the Island and the Kwong Wah Hospital in Kowloon on the mainland.

The figures relating to persons treated are deliberately separated from those relating to Government Hospitals for reasons which are no doubt apparent after a perusal of the earlier paragraphs in this section.

The official combined bed accommodation at these hospitals amounts to 1097. The actual number of in-patients not infrequently approaches twice this figure.

Table XXVII above gives some idea of the large volume of work done.

The old Tung Wah Infectious Diseases Hospital (at Kennedy Town on Hong Kong Island) served as a refuge for lepers during 1937, the premises having been condemned for the treatment of acute infectious diseases. Lepers to the number of 167 (of whom only thirty were females) were admitted during the year, ten having remained from the end of 1936.

Their subsequent histories were as follows:—

Table XXVIII.

Discharged	6
Transferred to Sheklung Leper Settlement, Kwangtung, China	49
Discharged at own request	14
Absconded without notice	35
Died	11
Remaining at end of 1937	62
Total	177

The inmates were under the care of the European Medical Officer in charge of the Government Infectious Diseases Hospital which adjoins the Leper Institution.

After the construction of a new infectious diseases hospital for the colony at the Kowloon Medical Centre, it is probable that a small nucleus of accommodation for lepers awaiting transfer to Sheklung will be maintained at the existing Government Infectious Diseases Hospital and that the dilapidated and dangerous premises at present occupied by lepers will be demolished.

In May, 1937, the medical care of the women and girls detained in the Po Leung Kuk Home on the Island was taken over by the Lady Visiting Medical Officer, Chinese Hospitals. Some 349 of the inmates of this home came under medical care, sixty-eight being transferred to hospital of whom seven died.

VII.—PRISONS AND ASYLUM.

1. PRISONS.

The principal prison in the Colony is the Hong Kong Prison, Stanley, on the Island where there is cell accommodation for 1,612 males.

The Female Prison is situated at Lai Chi Kok on the mainland and has accommodation for more than 100. The Male Prison at Lai Chi Kok was closed at the end of January, 1937, and Victoria Gaol was closed in September, 1937.

The total number of admissions to all prisons was 17,088; of whom 14,596 were males and 2,492 females. Of these 1,197 males were fifty years of age or over.

In Hong Kong Prison Hospital, Stanley, there is a hospital of fifty-seven beds with six cells for isolation cases and two padded cells. The Female Prison has nine beds for sick cases.

For cases which require special treatment there are prison wards in the Queen Mary and Kowloon Hospitals.

Sixty-five cases were transferred to the Government Civil Hospital and Queen Mary Hospital (thirty-four for X-ray examination and electrical treatment) for treatment not available in the Prison Hospital. Ten cases were transferred to the Mental Hospital and one case of smallpox to Kennedy Town.

There were seventy-nine deaths amongst the male prisoners and three amongst the females. The causes of deaths are given in the subjoined table.

Table XXIX.

	Males.	*Females.*
Typhoid	1	—
Cholera	2	—
Pulmonary tuberculosis	37	—
Tubercular enteritis	4	—
Disseminated tuberculosis	1	—
Syphilitic aortitis	1	—
Septicaemia	2	—
Cerebral malaria	—	1
Meningitis	1	—
Aortic valvular disease	2	—
Chronic myocarditis	17	—
Acute myocarditis	1	—
Aneurysm	2	—
Bronchitis	—	1
Lobar pneumonia	2	—
Pneumonia	1	—
Cirrhosis of liver	1	—
Acute nephritis	2	—
Senility	1	1
Acute cardiac failure	1	—
Total	79	3

Seven male prisoners were released on medical grounds all of whom were lepers; five female prisoners were also released, three suffering from leprosy and two from pulmonary tuberculosis.

Table XXX.

Prison.	Total prisoners admitted.	Daily average No. of inmates.	Total admissions to hospitals.	Daily average No. of prisoners to hospital.	Total out-patients.	Daily average number of out-patients.	Deaths.	Death-rate, *i.e.* No. of deaths to total admissions to prison.
Victoria & H.K. Prison (male)	14,596	2,262	1,886	32.4	25,619	86.6	79	0.5
Lai Chi Kok (female).	2,492	231	369	9.4	707	2.4	3	—

In addition to the male and female prisons in Hong Kong there are two remand homes, one for boys and another, under the supervision of the Salvation Army, for girls.

Forty-three boys were housed in the Remand Home for boys at the beginning of 1937. 1,114 were admitted during the year and forty-three were detained in the Home at the end of the year—apart from three boys in the Queen Mary Hospital.

The Home was visited by a Medical Officer once a week and the general standard of health was well maintained. Some 295 of the boys were inoculated against cholera and 470 vaccinated against smallpox. Scabies constituted the commonest complaint.

The Girls Remand Home accommodated 355 inmates during the year and their health was supervised by a Government Lady Medical Officer.

2. MENTAL HOSPITAL.

The Mental Hospital functioned as a separate institution after the closing of the old Government Civil Hospital in the summer of 1937.

The premises are designed to provide temporary accommodation for patients pending their transfer to Canton, if Chinese, or to Europe and other countries in the case of other races.

The following table gives particulars of admissions and discharges during the year.

Table XXXI.

Remaining from 1936	51
Admitted during 1937	359
Total	410
Discharged—cured	71
—relieved	62
—not improved	52
Transferred to Canton	149
Died	20
Remaining at end of year	56

The daily average number of patients was rather over seventy. The hospital was designed to accommodate thirty-two patients at one time. It will be appreciated, therefore, that overcrowding and lack of adequate segregation of different types of patients inevitably occurs, clearly demonstrating the desirability for a new and larger institution.

VIII.—METEOROLOGY.

Hong Kong is situated off the south-eastern coast of China between latitude 22° 9′ and 22° 17′ N. and longitude 140° 5′ and 114° 18′ E. It enjoys a sub-tropical climate with a hot and humid summer from May to September when the south-west monsoon blows and a cool, dry winter during the period of the north-east monsoon.

During the year under review the highest monthly average temperature was recorded in August—93° F.—and the lowest in January—76.1—the lowest absolute minimum, 45.9 F., being registered in February. July was the wettest month with 19.315 inches of rain and from May to September 70.58 out of the total of 82.5 inches of rain fell.

The relative humidity was highest in March when it reached ninety-three per centum and lowest in October with a figure of forty-one per centum. Reference has already been made in the text to the disastrous typhoon which struck Hong Kong on the 1st of September, 1937, with a wind velocity of over 160 miles per hour.

Further details are given opposite in Table XXXII.

Table XXXII.

The following table gives the means, totals or extremes of the meteorological data for the several months of the year 1937.

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.
	ins.	°	°	°	°	°	Rel.	ins.	p.c.	hours.	ins.	Points.	Miles p.h.
January	30.12	76.1	66.3	61.6	58.0	48.5	79	0.44	72	139.7	2.765	E/N	12.4
February	30.13	78.5	66.2	61.2	57.5	45.9	78	0.44	77	103.1	0.310	ENE	10.7
March	29.95	81.2	68.6	64.7	61.4	51.0	89	0.55	93	53.0	3.445	E/N	15.7
April	29.97	86.3	76.4	71.8	68.6	59.7	86	0.67	78	131.2	2.260	E	12.8
May	29.86	89.7	84.0	78.8	75.2	70.8	84	0.83	73	159.2	11.120	E/S	10.4
June	29.72	90.0	85.8	81.4	78.3	71.0	85	0.91	85	120.2	13.265	SE/S	9.9
July	29.70	91.5	88.0	82.7	78.8	75.0	84	0.93	61	237.6	19.315	SE/E	7.1
August	29.71	93.0	86.1	82.2	79.0	75.9	86	0.94	84	125.2	14.355	SE/E	13.5
September	29.89	90.6	87.0	82.1	78.9	74.9	82	0.90	59	208.2	12.525	E	11.3
October	29.99	89.0	82.5	77.5	73.5	62.0	72	0.69	41	268.0	1.500	NE/E	11.8
November	30.07	84.1	76.5	70.8	66.7	53.2	71	0.55	55	182.7	1.035	ENE	9.9
December	30.10	76.8	70.0	65.0	61.1	52.7	76	0.47	59	166.0	0.605	E/N	10.7
Mean total or extreme	29.93	93.0	78.1	73.3	69.7	45.9	81	0.69	70	1,894.1	82.500	E/N	11.3

IX.—SCIENTIFIC.

1. GOVERNMENT BACTERIOLOGICAL INSTITUTE.

INTRODUCTORY.

(1) *Administrative.*—No changes are to be recorded under this head. No officers were on long leave, nor were there any additions to the existing staff.

(2) *Buildings and equipment.*—(*a*) During the latter part of the year the open verandah on both sides of the office was enclosed and thus incorporated into the building proper so as to add to the office space, which was far too small for the requirements of the Institute.

—(*b*) No addition to the permanent equipment was made during the year.

(3) *Library.*—The following book was added to the library:—

The Pathology of Internal Diseases, Wm. Boyd, 1935.

(4) *Research.*—(*a*) *Typhoid.* An investigation into the presence of agglutinins against typhoid organisms in cases showing no clinical signs of the disease was continued. The sera for test were obtained from bloods sent from the Venereal Diseases Clinic for Kahn test, and should represent a good cross-section of the hospital population of Hong Kong. No European cases were included, the great majority being Chinese, with a proportion of Indians. The number tested totalled 229 cases; of these 224 showed no agglutination in the lowest dilution used, (1 in 50). Of the five cases showing some agglutination, one showed only a doubtful reaction in the lowest dilution against the O antigen and no agglutination at all against the H antigen. Another case showed doubtful O agglutination 1 in 50, with H agglutination in both 1 in 50 and 1 in 100. A third case showed O agglutination to 1 in 50 with H agglutination to 1 in 100. The two remaining cases both showed no O agglutination at all with H agglutination to 1 in 50 only. Actually only cases two and three could have caused any difficulty in diagnosis as far as typhoid was concerned; such a diagnosis could not have been considered from the serological result in the other three. A further investigation will be carried out in 1938 on the Widal reaction as observed on cases showing an elevated temperature due to other known infection. The idea in this case is to determine whether such cases show any non-specific agglutination in the dilutions used in our test, or whether residual agglutinins are stimulated by their infection to a significant extent.

(*b*) *Syphilis.* An interesting comparative study has been carried out on the recently described Ide precipitation test. One thousand sera have been tested in parallel with the Kahn; while close analysis of the results has not yet been made the following will give some idea of the results of the comparative study:

Table XXXIII.

	Kahn test.		*Ide test.*	
Strong positive	214	347	243	384
Positive	133		141	
Doubtful	44		51	
Negative	609		565	
Total	1,000		1,000	

The results are classified so as to conform to the League of Nations scheme of reporting. It will be seen that there is a close measure of agreement. Moreover, a cursory examination of the results shows that a good many of the discrepancies occurred in treated cases and also in cases subjected to provocative injection of arsenicals.

It is proposed to carry out a further series of parallel tests on treated cases only. The complete results of the study will be published in due course.

(*c*) *Trichinosis.* During the year an investigation was undertaken designed to measure the amount of trichinosis prevalent among the poorer type of the population of Hong Kong. Diaphragms were obtained from adult bodies at Victoria Mortuary for examination. The muscle was first finely ground in a meat grinder and then intimately mixed with a digesting mixture and placed in a water bath at 37°C. with frequent shaking.

The resulting material was filtered through wire gauge and examined for the characteristic cysts. A total of eighty-two diaphragms was subjected to treatment and examination. In no instance were encysted larvae of trichinella spiralis found. I understand that a similar study was recently undertaken in a laboratory connected with a Canton University, with similar results. Freedom from this infestation is probably to be attributed to the belief held by the Southern Chinese that leprosy may result from eating uncooked pork.

These results are in striking contrast to those obtained by workers in America, who have found a surprisingly high percentage of infestation in bodies examined by them.

(5) *General.*—As usual the number of tests performed during the year constitutes a record, although the increase is not as great as has been the rule during past years. For the first time since being in charge of the Institute the writer has rather discouraged any enlargement of the field of our activities. With much regret it has been realized that there is a limit to the amount of work of which a non-expanding staff is capable and which can be carried out in our present quarters. It is a pity that this should be so but there seems little help for it under present conditions.

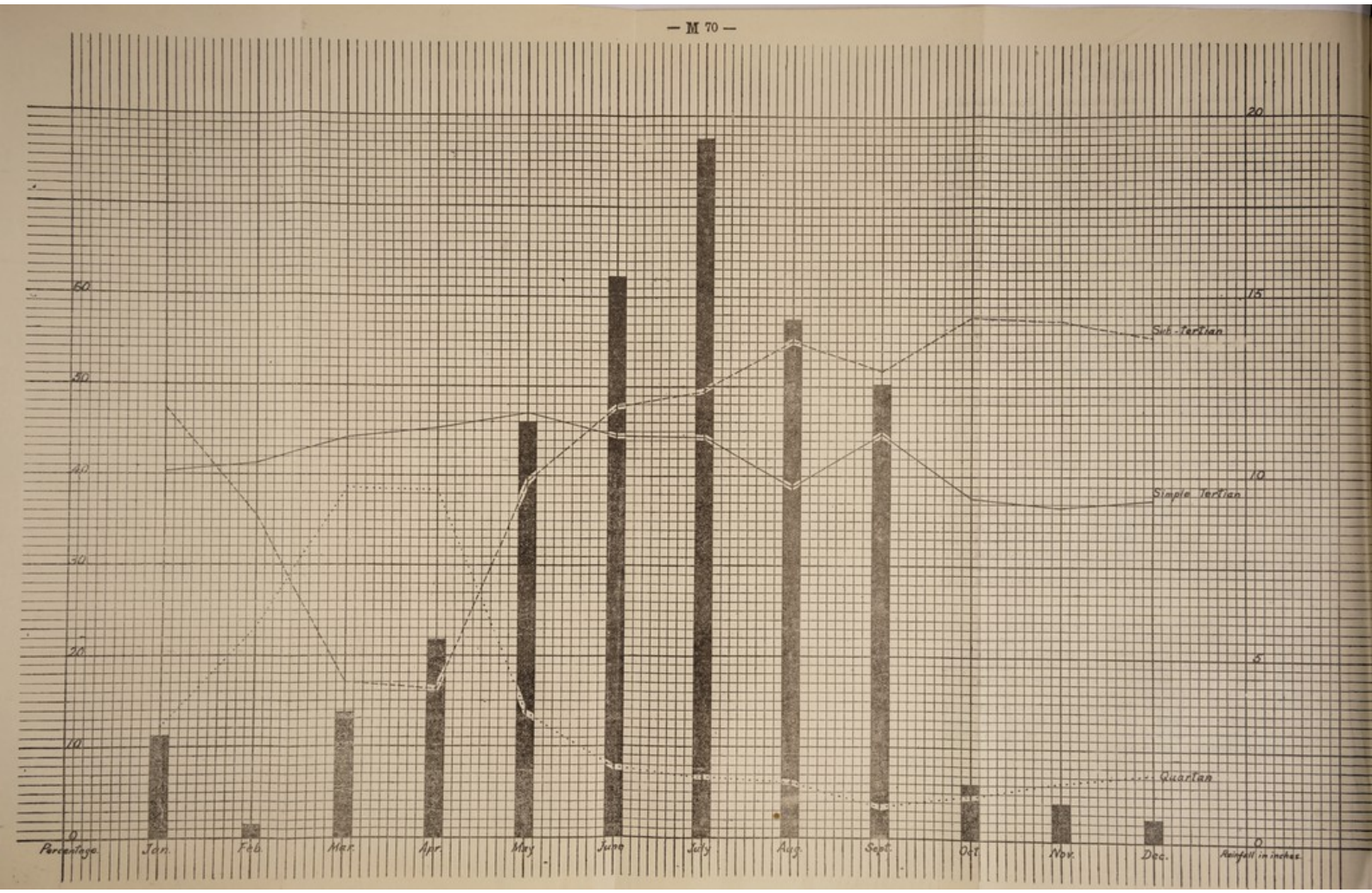
The cholera epidemic in the summer threw a great deal of extra work on the staff, both by way of stool diagnosis as well as in preparing and distributing prophylactic vaccine. Later in the year the appearance of smallpox cases in increasing numbers led to great increase in our lymph production in order to cope with a possible epidemic in 1938.

It is again a pleasure to record the highly satisfactory work of the staff of the Institute.

A. Protozoology and Helminthology.

(1) *Blood films for malaria.*—Eight thousand nine hundred and seventeen films were examined for the presence of malarial parasites. Three thousand five hundred and eighty one contained parasites. This is in somewhat marked contrast to last year when there were four thousand and ninety two positives in eight thousand four hundred and eighty-one films examined; *i.e.*, in the year under review there were fewer positives in more films.

A graph is interleaved showing the percentage relation of the different types of malarial parasites to each other month by month throughout the year, also the rainfall in inches. It shows beautifully the interesting relation which quartan bears to sub-tertain, both in the early as well as the later months of the year. The rather smooth curve of simple tertian shows well how comparatively little this type of infection is influenced by atmospheric conditions. This must be related (in some measure at least) to the well known tendency of simple tertian infection to chronicity and relapse.


60
50
40
30
20
10
0
Percentage
Jan.
Feb.
Mar.
Apr.
May
June
July
Aug.
Sept.
Oct.
Nov.
Dec.
20
15
10
5
0
Rainfall in inches
Sub-Tertian
Simple Tertian
Quartan

(2) *Filaria.*—Thirty blood films were examined for filarial embryos—five only were positive.

(3) *Faeces.*—Two thousand four hundred and seven specimens of faeces were examined for parasites and the typical cytological picture of bacillary dysentery. An interesting finding is that of a case of infestation with balantidium coli. This is the first time that this parasite has been reported from this laboratory. Unfortunately it was impossible to obtain any information as to the place of origin of the patient owing to the fact that death occurred rapidly.

Table XXXIV.

Examination of Stools for Intestinal Parasites.

	European	Indian	Chinese	Total
Ascaris	47	6	117	170
Clonorchis	3	—	101	104
Trichuris	15	4	23	42
Ankylostoma	2	5	24	31
Enterobius vermicularis	1	—	1	2
Multiple infestation.	7	1	81	89
Balantidium coli ..	—	—	1	1
E. histolytica	7	—	7	14
Negative	629	89	1,236	1,954
Grand total	711	105	1,591	2,407

Multiple infestation of table above.

Eighty-nine cases of multiple infestation.

Ascaris	74
Clonorchis	27
Trichuris	51
Ankylostoma	43

B. Serology.

(1) *Kahn reaction.*—Sixteen thousand five hundred and eighty-one sera were tested. The results are shown in the table.

Table XXXV.

Examination of Blood Sera for Syphilis.

	European		Indian		Chinese		Total
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	
Strong positive..	40	7	49	2	1,558	781	2,437
Positive	24	—	29	1	687	366	1,107
Weak positive...	14	1	34	—	501	251	801
Doubtful	14	—	37	—	428	244	723
Negative	558	52	740	16	5,173	4,974	11,513
Grand total ..	650	60	889	19	8,347	6,616	16,581

(2) *Agglutination tests.*—One thousand five hundred and forty-six sera were tested for agglutinins against various organisms.

Table XXXVI.

Agglutination Tests.

Organisms	European			Indian			Chinese			Total
	Pos.	Neg.	Doubtful	Pos.	Neg.	Doubtful	Pos.	Neg.	Doubtful	
B. typhosus	15	80	5	4	17	3	325	1023	59	
B. para A.		95	5	2	19	3	4	1344	59	
B. para B.		95	5	1	20	3	2	1346	59	1539
Enteric fever type undetermined	9						53			
B. melitensis		2								2
B. abortus		1								1
Weil Felix reaction.								4		4
Total for each race.		112			24			1410		1546

C. Bacteriological Examinations.

(1) *Faeces.*—Three thousand seven hundred and fifty-eight stools were cultured for pathogenic organisms. A large proportion of these were from cholera cases or suspects in the course of the cholera epidemic which occurred in the summer.

Table XXXVII.

Stools examined for Organisms.

Organisms	European		Indian		Chinese		Total
	Pos.	*Neg.*	*Pos.*	*Neg.*	*Pos.*	*Neg.*	
B. typhosus	—	19	—	1	7	290	317
B. dysenteriae (group) ...	—	389	—	61	—	1,264	1,714
,, ,, (Flexner)	36	—	3	—	95	—	134
,, ,, (Shiga) ...	3	—	—	—	8	—	11
,, ,, (Schmitz)	1	—	—	—	16	—	17
V. cholerae	5	13	—	2	552	993	1,565
Grand total ...	45	421	3	64	678	2,547	3,758

(2) *Sputum.*—Six hundred and eighty-seven specimens of sputum were examined for infection with the tubercle bacillus.

Table XXXVIII.

Sputa examined for Tuberculosis.

	European	Indian	Chinese	Total
Positive	24	10	140	174
Negative	70	64	379	513
Grand total ...	94	74	519	687

(3) *Urine.*—One hundred and thirty-six urines were cultured for organisms.

(4) *Urethral and cervical smears.*—Six hundred and seventeen urethral and cervical smears were examined for the presence of the gonococcus.

(5) *Nasal and skin scrapings for M. leprae.*—One hundred and fifty-four examinations of material from suspected leprosy cases were made. Fifty were positive.

(6) *Throat swabs.*—One thousand four hundred and fifty-four swabs were cultured for the presence of C. diphtheriae. The total number, as well as the number of positives is well below the figures recorded for 1936.

Table XXXIX.

THROAT SWABS EXAMINED FOR DIPHTHERIA.

	European	Indian	Chinese	Total
Positive	96	1	240	337
Negative	469	9	639	1,117
Grand total	565	10	879	1,454

(7) *Cerebro-spinal fluid.*—Two hundred and thirty-two fluids were cultured for the meningococcus and other pathogenic organisms. The numbers of fluids infected with the meningococcus was somewhat higher than last year, but the figure is still within our usual endemic total.

Table XL.

CEREBRO-SPINAL FLUID EXAMINED FOR MENINGOCOCCI AND OTHER ORGANISMS.

	European	Indian	Chinese	Total
Meningococcus	—	—	92	92
Pneumococcus	—	—	15	15
Streptococcus	—	—	5	5
Negative	5	1	114	120
Grand total	5	1	226	232

(8) *Friedmann test for pregnancy.*—Ten Friedmann tests were carried out during the year.

(9) *Miscellaneous tests.*—One thousand five hundred and twenty-three examinations of various kinds not listed otherwise were performed. This includes certain work of a research nature:

229 B. typhosus agglutinations
1,000 Ide serological tests
82 Diaphragm digestions for trichinae
212 Other unspecified tests.

D. Preparation of Vaccine Lymph.

The preparation of lymph was much accelerated this year. In addition to the low level of stocks held, the onset of hostilities in China and the presence of large numbers of refugees led us to build up a good reserve so as to be ready to cope with any demand which the presence of smallpox during the winter might very well call forth.

The seed used was as before one generation removed from lapine, *i.e.*, lapine, calf, seed. The yield on the whole was good, although we had several calves which were not up to a good physical standard and consequently gave poor individual yields. Forty-eight calves were used and 7,411 g. of pulp was obtained; a yield of 154.39 g. of pulp per calf.

The technique in use at present has been strikingly successful in improving the yield of pulp and thereby lowering the cost of production of the finished lymph. This is attained without any loss of potency or other change in the quality of the lymph. We feel that we can hardly expect any further improvement in this respect for some time.

The appended table shows the yield of pulp year by year for the past few years.

Table XLI.

Date	No. of calves scraped for pulp	Total pulp collected	Average yield per calf
1931	83	2,163 gms.	26.06 gms.
1932	122	4,160 ,,	34.09 ,,
1933	148	5,787 ,,	39.10 ,,
1934	116	5,816 ,,	50.14 ,,
1935	nil	nil ,,	nil ,,
1936	4	622 ,,	155.50 ,,
1937	48	7,411 ,,	154.39 ,,

Amount of lymph prepared ..... 28,065 c.c.
,, ,, ,, issued ..... 22,651 c.c.
,, ,, ,, in stock at end of year ..... 18,477 c.c.

E. Preparation of Vaccines and Sera.

(1) *Antimeningococcus serum.*—Issue of serum in 1937 totalled 9,120 c.c., a figure practically the same as in the previous year. The amount prepared was 15,850; this leaves in stock at the end of the year a total of 48,000 c.c. This is a somewhat large amount, but under present conditions in the Colony it may not prove too large. Production is going on as usual.

(2) *Gonococcus vaccine.*—The amount issued for use at the Venereal Diseases Clinics was 10,420 c.c., a greater increase than total figures indicate, as more use is being made of the stronger vaccine (1,000 m per c.c.)

Total amount issued	10,420 c.c.
1,000 million per c.c.	7,260 c.c.
100 ,, ,, ,, ...	3,160 c.c.

(3) *Anti-rabic vaccine.*—Twenty-nine animal brains were examined for Negri bodies. Two positive results were recorded.

Table XLII.

Nationality	Treatment completed	Treatment not completed	Total
Chinese	24	147	171
British	28	14	42
Portuguese	1	5	6
Japanese	—	3	3
Belgian	1	—	1
Indian	1	2	3
Italian	—	1	1
American	1	—	1
Danish	1	—	1
Anamite	1	—	1
Out-port	—	4	4
Grand total	58	176	234

Total number of doses issued 1,810

(4) *Autogenous vaccine.*—Twenty autogenous vaccines were prepared. The appended table shows the amount of vaccines and serum issued during the year.

Table XLIII.

Vaccines and Serum	Amount issued
Gonococcus vaccine	10,420 c.c.
T. A. B. ,,	1,020 c.c.
Cholera ,,	17,250 c.c.
Autogenous ,,	20 vaccines
Anti-meningococcus serum	9,120 c.c.

F. Examination of Water and Milk.

(1) *Bacteriological analysis of water.*—One thousand five hundred and thirty-eight samples of water from various sources, chiefly the public supply, were examined during the year.

Table XLIV.

Unfiltered raw water	121
Filtered ,, ,,	209
Filtered and chlorinated water from service taps throughout the Colony.	1,154
Well water	8
Water from other than public supplies ...	46
Total	1,538

(2) *Bacteriological analysis of milk.*—One hundred and twenty-seven analyses of milk were carried out, chiefly by request of the M.O.H.

G. Medico-Legal Investigations.

Eighty investigations were carried out on materials furnished by the Police. The character of the examinations was as follows:

Blood stains	42
Seminal stains	31
Miscellaneous	7

H. Morbid Histology.

Two hundred and seventy-four tissue sections were prepared and examined histologically. Among them were fifty malignant tumours and fifty benign; of the remainder 125 represent surgical pathological conditions, and forty-nine organs from post-mortem cases.

Table XLV.

Analysis of Clinical and Other Examinations.

	Nature of examination	Total for 1937	Total for 1936
Agglutination Reaction	B. Typhosus ,, Paratyphosus A ,, ,, B	1,539	1,435
	Weil Felix Reaction	4	7
	B. Dysenteriae	—	1
	,, Melitensis	2	1
	,, Abortus	1	1
	Serological Reaction for Syphilis	16,581	16,841
Blood Smears	Malaria	8,917	8,481
	Filaria	30	41
	Blood count, etc.	77	102
Cultural Examinations	Naso-pharyngeal swabs (C. Diphtheriae)	1,454	2,058
	Spinal fluid (Meningococcus)	232	281
	Faeces (Typhosus, Paratyphosus, Cholera, etc.)	3,758	824
	Blood	1,478	1,435
	Urine	136	185
Faeces	Intestinal Parasites	2,407	1,919
	Occult blood	28	37
	Tubercle Bacillus	10	8
	Tissue Sections	274	296
	Friedmann test for pregnancy	10	5
Miscellaneous Examinations	Sputa	687	785
	Pus	90	60
	Urine	293	555
	Smear for Gonococcus	617	1,351
	,, ,, M. leprae	154	153
	Animals for Rabies	29	19
	Medico-legal Examinations	80	46
	Bacteriological Examination of Milk	127	40
	,, Analysis of Water	1,538	1,484
	Rideal Walkers Test of Disinfectants	—	—
	Autogenous vaccine prepared	20	49
	Miscellaneous	1,523	297
	Total	42,096	38,797

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

2. ANNUAL REPORT OF THE MALARIA BUREAU 1937.

It has been customary for some years to compile a comprehensive report on the activities of the Malaria Bureau since its inception in 1930 and such reports should be consulted by those interested in the malarial problem in Hong Kong.

2. The present report omits all references to the manifold activities of the Bureau and confines itself to new developments during 1937.

3. Some 696 (+three among the Forces of the Crown) deaths were ascribed to malaria, forming rather over two per centum of deaths registered from all causes. The corresponding figures for 1936 were 503 and just under two per centum respectively.

4. Disturbance of soil has not been found to be a factor of any great consequence in increasing the number of breeding places of the important anophelines.

5. Night catching of anophelines in pigsties and cattle-byres was continued for the purposes of obtaining material for precipitin tests and dissections.

6. 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*, *A. vagus*, and *A. lindesayi var. japonicus*.

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

A. maculatus, a malaria vector greatly to be feared in Malaya, is seldom found in dwellings in Hong Kong and (judging from precipitin tests) appears to be zoophyllic rather than homophyllic. Locally it has only been found infected with malaria in the Shing Mun area. The larvae of this species were met with along with those of *A. (F) togoi* in rock pools by the seashore on Cheung Chau Island. Samples of the water from these pools were submitted to the Government Analyst and were found to contain 0.06%, 0.08%, 0.09%, 0.17% chlorine as chlorides.

8. *A. hyrcanus* was obtained in large numbers from "screened" lines at Shing Mun and Pat Heung Camps; its infection rate was, as usual, low in comparison with that of

A. minimus, *A. jeyporiensis*, and *A. maculatus*. Pigment hitherto encountered in the oocysts has been considered to be that of the benign tertian parasite, but the oocysts found in one midgut contained somewhat coarse dark pigment. From precipitin tests it appears to be zoophyllic for choice.

9. It is noteworthy that the catches of adult mosquitos at several stations were found to be far less numerous than those of preceding years owing to preventive work done.

10. Anti-malarial measures were carried out in many areas on the Island and mainland during 1937, and particular attention was given to the following amongst other places:—

(*a*) Shek O, (*b*) Tytam Tuk, (*c*) Stanley Gaol, (*d*) Repulse Bay, (*e*) Shouson Hill, (*f*) Aberdeen, (*g*) Mount Kellett, (*h*) Pokfulam (including Queen Mary Hospital), (*i*) Government Quarry North Point, (*j*) Kai Tak Aerodrome, (*k*) Kowloon Tong and surroundings, (*l*) Shing Mun Camp, and (*m*) Pat Heung Aerodrome.

11. The actual methods employed were rough training of streams, ditching, stone drainage, and oiling. In a portion of one stream which was heavily strewn with boulders which it would have been difficult to move, stones of various sizes were packed between the boulders thus shutting out light from the water.

12. Valuable work was also undertaken by the Bureau where mosquito nuisance was specially aggravated. *C. fatigans*, *A.* (*S*) *albopictus*, and *A.* (*F*) *togoi* were the species most frequently incriminated.

13. Four tables are appended. The first table gives details of nearly 12,000 anopheline larvae examined microscopically for identification purposes; the second relates to some 1,878 adults hatched out from larvae and pupae; the third summarises certain of the results of precipitin tests on bloods from mosquitos caught in various localities and in different shelters; while the fourth table gives a summary of systematic catches and dissections to ascertain the presence of malarial infection of anophelines caught at Pat Heung Camp in two "screened" lines. The numbers of *A. minimus* greatly exceeded those of *A. jeyporiensis* even though rice fields abounded along the hill-foots. In addition, catching was also done in villages outside the half mile area around these lines. Of 1,550 anophelines obtained approximately 60% were A. hyrcanus, 20% *A. minimus*, 12% *A. jeyporiensis*, 7% *A. tessellatus* (a high rate for this species), and 1% *A. maculatus*.

Table XLVI.

ANOPHELINE LARVAE EXAMINED MICROSCOPICALLY.

Month.	A. maculatus.	A. minimus.	A. hyrcanus var. sinensis	A. jeyporiensis var. candidiensis.	A. karwari.	A. aitkenii var. bengalensis.	A. splendidus.	A. lindesayi var. japonicus.	A. tessellatus.	Totals.
January ..	1,622	317	348	33	1	1	—	3	—	2,325
February ..	132	3	—	—	—	—	—	—	—	135
March	343	1	—	—	—	—	—	—	—	344
April	153	55	20	62	—	—	63	—	—	353
May	473	61	3	23	—	12	59	—	—	631
June	121	—	95	—	—	—	—	—	19	235
July	97	—	—	—	—	—	—	—	—	97
August ...	148	—	148	—	—	—	—	—	11	307
September	221	—	24	—	—	—	—	—	—	245
October ...	1,693	596	366	17	266	—	—	—	—	2,938
November	755	328	61	4	299	—	—	—	—	1,447
December	916	461	1,206	—	359	—	—	—	—	2,942
Totals	6,674	1,822	2,271	139	925	13	122	3	30	11,999

Table XLVII.

ADULT MOSQUITOS HATCHED OUT FROM LARVAE AND PUPAE.

Month.	A. maculatus.	A. minimus.	A. hyrcanus. var. sinensis.	A. jeyporiensis. var. candidiensis.	A. karwari.	A. aitkenii. var. bengalensis.	A. splendidus.	A. tessellatus.	Totals.
January	133	28	29	1	—	—	—	—	191
February	66	6	1	—	—	—	—	—	73
March	60	1	—	—	—	—	—	—	61
April	19	4	—	9	—	—	9	—	41
May	49	2	—	—	—	—	—	—	51
June	17	2	15	1	—	—	23	17	75
July	12	—	—	—	—	—	—	—	12
August	48	—	44	—	—	—	—	12	104
September	64	—	2	—	—	—	—	—	66
October	402	63	45	—	6	—	—	—	516
November	101	30	8	1	5	—	—	—	145
December	113	109	245	—	76	—	—	—	543
Totals	1,084	245	389	12	87	—	32	29	1,878

Table XLVIII.

RESULTS OF PRECIPITIN TESTS ON BLOOD TAKEN FROM MOSQUITOS CAUGHT AT VARIOUS PLACES.

Species.	No. examined	No. with positive reactions.	Reactions positive to the serum of					
			Man.	Dog.	Pig	Cattle	Goat.	Mixed.
Morning Catches in Squatters' huts Lai Chi Kok in which pigs were kept.								
A. minimus ...	2	2	—	—	2	—	—	—
A. jeyporiensis	1	1	—	—	1	—	—	—
A. hyrcanus ..	1	1	—	—	1	—	—	—
Totals	4	4	—	—	4	—	—	—
Night Catches in cattle-byres Dairy Farm, Pokfulam.								
A. minimus ...	2	2	—	—	—	2	—	—
A. jeyporiensis	2	2	—	—	—	2	—	—
A. maculatus..	40	40	—	—	—	40	—	—
A. hyrcanus ..	7	6	—	—	—	3	—	3 (cattle & goat)
C. bitaeniorynchus	4	4	—	—	—	4	—	—
C. tritaeniorynchus	4	4	—	—	—	4	—	—
C. fatigans	21	20	—	—	—	20	—	—
A. (F) neveoides ...	3	2	—	—	—	1	—	1 (cattle & goat)
Armigeres obturbans ..	16	15	—	—	—	15	—	—
A. (S) albopictus	2	2	—	—	—	2	—	—
Totals	101	97	—	—	—	93	—	4 (cattle & goat)
Night Catches in pig shelters (close to cattle-byres) Dairy Farm, Pokfulam.								
A. maculatus..	8	8	—	—	8	—	—	—
A. hyrcanus ..	2	2	—	—	2	—	—	—
C. fatigans	8	8	—	—	8	—	—	—
Totals	18	18	—	—	18	—	—	—
Morning Catches in Squatters' huts Wong Chok Hang Village.								
A. minimus ...	38	37	37	—	—	—	—	—
A. jeyporiensis	2	2	2	—	—	—	—	—
C. fatigans	42	42	38	—	1	—	—	3 (man & pig)
Armigeres obturbans ..	9	9	9	—	—	—	—	—
M. (M) uniformis	3	3	3	—	—	—	—	—
Totals	94	93	89	—	1	—	—	3 (man & pig)
Night Catches in pigsties Wong Chok Hang Village.								
A. maculatus..	32	31	—	—	31	—	—	—
A. hyrcanus ..	39	38	—	—	37	—	—	1 (man & pig)
A. tessellatus..	6	6	—	—	6	—	—	—
C. fatigans	37	37	—	—	36	—	—	1 (man & pig)
Armigeres obturbans ..	45	44	—	—	44	—	—	—
M. (M) uniformis	7	7	—	—	7	—	—	—
Totals	166	163	—	—	161	—	—	2 (man & pig)
Morning Catches in Goat Pens Shing Mun Camp.								
A. minimus ...	4	4	—	—	—	—	4	—
A. jeyporiensis	8	8	—	—	—	—	8	—
A. maculatus..	28	27	—	—	—	—	27	—
A. hyrcanus ..	8	8	—	—	—	—	8	—
A. (S) albopictus	9	9	—	—	—	—	9	—
C. whitmorei...	6	6	—	—	—	—	6	—
Totals	63	62	—	—	—	—	62	—

NOTE :—The salivary glands of all Anophelines were examined for sporozoites, but none were found.

Table XLIX.

Summary of dissections of mosquitos caught from Pat Heung area for malarial infection.

Species.	Number caught.	Number dissected	Number with infected glands only.	Number with infected midgut only.	Number with infected glands & midgut.	Percentage of infection.
A. minimus.....	521	454	2	11	—	2.86
A. jeyporiensis..	174	153	—	1	—	0.65
A. maculatus ...	1	1	—	—	—	—
A. hyrcanus	3,576	1,911	—	2	—	0.10
A. fluviatilis ...	29	29	—	—	—	—
A. tessellatus ..	5	5	—	—	—	—
A. splendidus...	41	38	—	—	—	—

R. B. Jackson, M.D., B.Ch., D.P.H. (Dublin),

Government Malariologist.

3. Government Analytical Laboratory.

(1) The work of the Hong Kong Government Analytical 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.

The bills issued for this non-government work amounted in 1937 to $39,953.50 and this sum represents about ¾ of the cost of running the laboratory for the year.

The total value of the work done during the year both Government and non-government, amounted to $100,478.50. This was the highest ever recorded, despite the total cessation of lard samples towards the end of the year.

(2) The following tables show the nature of the work under the various heads.

Table L.

Official Work.

(3) Official work—*i.e.* Government work.

	1936.	*1937.*
Chemico-legal samples from the Police & Medical Departments	333	351
Food & drug samples under the Ordinance from the Sanitary Department	196	337
Water samples from public supplies	2,104	1,834
Dangerous goods under the Ordinance, from the Police Department & Fire Brigade	58	3
Bio-chemical examinations, from the Medical Department & University	222	287
Carried forward	2,913	2,812

	1936.	*1937.*
Brought forward	2,913	2,812
Materials from various departments for testing:—		
Oils from P.W.D.	11	9
Coals from P.W.D., Harbour Department & K.C.R.	249	235
Building materials from P.W.D.	5	8
Foodstuffs from Medical Department, Police Department, etc.	86	74
Pharmaceutical samples from Government Apothecary	7	18
Chemicals from Medical Department, P.W.D. etc.	22	16
Battery acids from P.W.D.	11	1
Minerals & metals	9	11
Septic tank effluents	95	27
Harbour waters	24	26
Miscellaneous samples	22	37
Total	3,454	3,274

The value of work done for Government Departments, as determined under the Tariff of Charges (Government Notification No. 837 of 1932), was $60,525.00 as against $60,150.00 for 1936.

(4) A considerable amount of the official work comes under the heading of chemico-legal. Practically the whole time of the Government Analyst is spent on this work, and during the year under review, owing to a large increase of toxicological examinations (including post mortem materials from seventy persons), the Senior Assistant Analyst had to give assistance on many occasions and to give evidence in several enquiries.

Chemico-Legal Samples.

(5) The following table shows the nature of the work done under this head.

Table LI.

	1936.	*1937.*
Toxicological examinations	199	236
Counterfeit coins & materials	78	11
Bombs & explosives	0	19
Articles for stain	14	18
,, ,, fire enquiries	9	3
,, connected with larceny	6	2
,, ,, ,, forgery	0	29
,, ,, ,, robbery with violence	8	20
Dangerous goods	11	3
Other examinations	8	10

(6) The incidence of counterfeiting decreased considerably this year, and with the new nickel coins in circulation, which are much more difficult to counterfeit, a further decrease is to be expected.

(7) Investigations were carried out in connection with a fire on the Kowloon-Canton Railway and also in connection with an explosion on a launch in the harbour. In both cases many lives were lost but in neither case could evidence of criminal intent be detected.

(8) The laboratory was consulted in connection with three bomb outrages during the year. In one case a parcel was delivered to a house by a private messenger. On attempt being made to open the parcel, it exploded, and the recipient received fatal injuries. As a result of investigation of the pieces, it was possible to construct a copy of the bomb, and the copy was produced in Court. The bomb was exploded by means of an electrical contact firing a charge of black powder and broken glass, and was of very ingenious construction. The other two cases arose at the end of the year, due possibly to the Sino-Japanese incidents, and both bombs were of the Mills type filled with a picric acid-perchlorate-aluminium mixture.

(9) An examination was made of a bullet taken from the leg of a junk woman wounded by machine gun fire from a submarine. The bullet was of an incendiary type.

(10) Exhibits in connection with eight cases of robbery with violence were examined, in which the use was made of pepper for temporarily blinding the victims.

(11) Members of the laboratory staff attended Court on twenty-one occasions during the year.

(12) *Toxicological Examinations.*

Table LII.

Nature of poison.	*No. of samples.*
No poison found	72
Opium	46
Phenolic or cresolic compounds	39
Barbituric acid derivatives	8
Codeine	1
Alkaloids of gelsemium elegans benth	6
Hydrocyanic acid	2
Chloral hydrate	6
Arsenic derivatives	25
Mercury	2
Lead	2
Ether	2
Corrosive acids	4
Santonin	2
Mydriatic alkaloids	1
Organic dyestuffs	1
Crude heroin hydrochloride	1
Alcohol in urine	9
Harmless materials submitted in connection with poison cases	7
Total	236 samples

(13) An increase in the work is to be noted, suicide again accounting for the majority of the deaths. Opium is still the most common agent, but a very large increase in the use of poisons of the lysol type is to be reported.

(14) There were three cases of arsenical poisoning during the year. In one, the accused murdered three people by adding an aqueous infusion of native white arsenic to the water used for boiling rice. The second case was due to a woman accidentally drinking a similar infusion in mistake for water, with fatal results. A third case arose through a Dockyard employee drinking Atlas A solution in mistake for tea, also with fatal results.

(15) Gelsemium elegans Benth was again used on several occasions for suicidal purposes, with fatal results.

(16) An unusual case was one in which a Chinese drank a mixture of Chinese wine and santonin, and then threw himself from the top floor of the China Building.

(17) Two cases of suicide by drinking strong acids occurred, the acids used being hydrochloric acid in one case and nitric acid in the other. In both cases the corrosive effect in the stomach wall was very marked. Corrosive sublimate was also taken in one case, and here again there was considerable corrosion of the stomach.

Food & Drugs.

(18) It has not been found possible, as was hoped, to increase the number of samples taken under the Ordinance, owing partly to shortage of staff here, and partly to the work in connection with cholera epidemic, which required the whole attention of the Urban Council Inspectors for some time. The following table gives details of the substances examined.

Table LIII.

Substance.	No. of sample examined.	No. found genuine.	No. found adulterated.
Boracic ointment	4	4	0
Butter, fresh	27	27	0
,, tinned	5	5	0
Castor oil	4	4	0
Cheese	43	43	0
Coffee	8	8	0
Epsom salts	5	5	0
Glauber salts	5	5	0
Glycerine	4	4	0
Lard	16	14	2
Milk, evaporated	25	24	1
,, fresh	145	138	7
Medical paraffin	4	3	1
Seidlitz powder	4	4	0
Tea	38	34	4
Total	337	322	15

Water & Sewage Samples.

(19) Routine analyses of the public supplies were carried out during the year. The actual number of tap samples was less than last year owing to the sampler having very much more commercial sampling to perform. However, the samples of tap water were taken from widely spread sources and acted as an efficient check on possible pollution.

(20) An investigation into the working of the septic tank at Stanley Prison was started and the work is still in progress. The work of the state of pollution of the Harbour of Refuge, Yaumati, was completed.

Bio-Chemical Examinations.

Table LIV.

(21) Blood for blood urea nitrogen	29	samples.
,, ,, ,, sugar	34	,,
,, ,, ,, urea nitrogen and blood sugar	30	,,
,, ,, carbon monoxide	1	,,
Calculi	13	,,
Stool	12	,,
Human milk	47	,,
Urine	35	,,
Gastric contents	86	,,

(22) An increase under this head is to be reported, due to the increased use made of the laboratory by the Government hospitals.

Materials from Government Departments for testing.

(23) 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. Apart from this work, very little testing of Government stores was undertaken by the laboratory.

(24) Fumigation of books by means of hydrocyanic acid gas was again carried out in several Government buildings.

(25) Routine examinations of ghee and atta supplied to the Police Department were continued, and have acted as a useful safeguard against possible adulteration.

Semi-official Work.

(26) Semi-official work—*i.e.* work for the Naval, Military and Air Force Authorities.

Table LV.

	1936.	*1937.*
Examination of steamer tanks for inflammable vapour	3	5
Foodstuffs	29	21
Coals	1	0
Oils (fuel, kerosine & petrol)	23	35
Battery acids	48	59
Building materials	0	4
Air for impurities	3	11
Chemicals	1	3
Miscellaneous	2	5
Total	110	143

Value of work done under this head was $1,960.00 as against $1,128.75 for 1936.

(27) An increase is to be recorded in the work received from the Naval Authorities in connection with the testing of stores. Investigations were also carried out as to the relative vitiation of the atmosphere in various compartments on H. M. Ships.

(28) A further unusual investigation was one in which the concentration of carbon monoxide was determined in the air in a "pill box" from which prolonged machine gun fire had taken place.

Unofficial Work.

(29) Unofficial work—*i.e.* work for local firms etc.

Table LVI.

	1936.	*1937.*
Examination of steamer tanks for inflammable vapour	15	34
Foodstuffs	24	42
Bio-chemical examinations	23	4
Toxicological examinations	1	0
Water samples	20	5
Building materials	0	13
Oils, fats & waxes, including petroleum products	311	321
Minerals & metals	341	414
Dangerous goods	15	7
Chemicals	5	0
Miscellaneous	20	20
Total	775	860

Value of work done under this head was $37,993.50 as against $34,714.00 for 1936.

(30) Work under this head again shows an increase. After the outbreak of Sino-Japanese hostilities, a considerable increase took place in the amount of tin and wolfram exported from here.

(31) With regard to lard samples, owing to a decision in England that locally refined lard can no longer claim privilege as an Empire product, not one sample of lard was analysed in the laboratory after the middle of November, and the loss of revenue to the laboratory from this source is expected to be in the neighbourhood of about $12,000.00 per annum.

Sampling.

(32) The following list gives the amount of sampling done by the Sampler attached to the laboratory.

Table LVII.

	1936.	*1937.*
Tin	3,862 tons.	4,315½ tons.
Lard	132,002 cases.	140,436 cases.
Wood oil	30 tons.	60 tons.
Anise oil	10 cases.	—
	10 drums.	—
Cassia oil	10 drums.	15 drums.
Firecrackers	3,289 cases.	4,076 cases.
Antimony regulus	5½ tons.	—
Teaseed oil	—	40 tons.
Water samples	1,921 samples.	1,702 samples.

Special Investigations.

(33) Again owing to shortage of staff very little fresh investigation could be initiated, as Mr. Tetley was transferred to the Import & Export Department soon after his return to the Colony.

(34) The London method for the assay of ingot tin has been adopted by the laboratory and proved to be as rapid as the old method.

(35) An investigation into the method of analysis of wolfram ore was carried out and certain modifications have been adopted.

(36) As a result of a complaint from Germany that a sample of local lard had been adulterated with vegetable oil a test used in Hamburg was investigated and it proved to be quite unreliable even when used on lards which were prepared in the laboratory from known genuine pigs fat.

Staff & Equipment.

(37) Mr. Tetley returned from long leave on 4th March, 1937 and was transferred to the Import & Export Department on 1st May, 1937. He was later promoted to the Federated Malay States and the resulting vacancy in this laboratory has not yet been filled.

(38) The forced draught to the hooded bench was installed and has proved a success. A request has been made for another batch of fume cupboards to be similarly treated.

Revenue.

(39) The fees paid into the Treasury during the year amounted to $39,307.00 as against $34,797.25 in 1936. The value of the work done, both Government and commercial, as determined from the Tariff of Charges (Government Notification No. 837 of 1932) was $100,478.50 as against $96,010.75 in 1936.

(40) Expenditure for 1936 and 1937 compared.

Table LVIII.

	1936.	*1937.*
Personal emoluments	$40,157.56	$47,665.60
Other charges:—		
Apparatus & chemicals	3,607.47	3,959.47
Books & journals	185.87	316.49
Conveyance allowance	178.00	180.00
*Fuel & light	729.03	1,227.75
Incidental expenses	314.70	280.28
Uniforms	87.84	76.36
Total Other Charges.....	$ 5,102.91	$ 6,040.35

* As from the beginning of 1937, electric light and power is paid by individual departments and not by the Public Works Department.

(41) Revenue for 1936 and 1937 compared.

Table LIX.

Head of Revenue.	*1936.*	*1937.*
Analyses	$34,797.25	$39,307.00

(42) Expenditure and Revenue for the past ten years.

Year.	*Expenditure.*	*Revenue.*
1928	$ 29,333.98	$ 15,562.00
1929	35,390.43	24,974.00
1930	44,677.95	19,891.50
1931	57,341.16	19,295.50
1932	50,746.44	30,604.00
1933	52,494.16	42,347.50
1934	44,526.21	32,968.75
1935	35,678.42	30,773.50
1936	45,260.47	34,797.25
1937	53,705.95	39,307.00

V. C. BRANSON,

M.C., A.R.C.S., D.I.C., B.Sc., F.I.C.

Government Analyst.

4. Report of the University Professional Units.

UNIVERSITY CLINICAL UNITS AT THE QUEEN MARY HOSPITAL.

MEDICAL UNIT—Report by the Professor of Medicine,

Professor William I. Gerrard,
O.B.E., M.D., ch.B., F.R.C.P., Lond., D.P.H.

Staff:—

William I. Gerrard, O.B.E., M.D., ch.B., F.R.C.P., Lond., D.P.H.

First Assistant to Professor

January-August—H. C. Tan, M.B., B.S.

September-December—P. P. Chiu, M.B., B.S.

Second Assistant to Professor

January-August—P. P. Chiu, M.B., B.S.

September-December—H. T. Wu, M.B., B.S.

House Physician

January-June—S. Y. Kong, M.B., B.S.

July-December—H. N. Lee, M.B., B.S.

Clinical Assistants

January-March—P. P. Kho, M.B., B.S. and P. R. T. Naidu, M.B., B.S.

April-June—H. N. Lee, M.B., B.S. and E. H. Ong, M.B., B.S.

In the old Government Civil Hospital this teaching unit was allotted the following beds:—

Males	*Females*	*Infants*	*Total*
30	15	3	48

On the transfer to the new Queen Mary Hospital the number of beds was increased to fifty-six as follows:—

Males	*Females*	*Infants*	*Total*
20	20	16	56

Because of the reduction in the number of male beds the admittance of opium addicts has had to be curtailed.

Cases treated as in-patients in the University Teaching Medical Wards:—

Table XL.

Men	192
Women	118
Children under 12	72
Total	382
Number of cases died during the year ...	50

Cases treated as out-patients at the University Medical Out-patient Clinics at Queen's Road West:—

1. *Afternoon Clinic* (general medical cases)

Mondays and Thursdays:

1,378 new cases seen and treated (men, women and children): many of these cases attended more than once, bringing to a total of 6,103 cases.

2. *Children's Clinic*

Thursday mornings:

246 new cases seen and treated: many of these cases attended more than once, bringing to a total of 1,367 cases.

The total of cases seen and treated by the Medical Unit at Out-patients Department during the year 1937 was 7,470 (this figure included old and new cases, men, women and children).

The following special tests have been carried out:

Table LXI.

(*From January to December 1937*)

Blood urea	101
Blood sugar	8
Blood sedimentation rate	215
Fractional test meal	124
Urea clearance test	10

Remarks:—Diseases of both in-patients and out-patients are discussed.

Cerebro-spinal meningitis: The total number of cases was small. There was little evidence of the usual epidemic incidence. Further notes are given under "Special Investigations."

Tuberculosis: This disease in its various forms continues to be as prevalent as ever—the pulmonary type predominating.

Malaria: The sub-tertian type continues to be most prevalent.

Ankylostomiasis: Incidence is high amongst patients from New Territories area. Many cases have recently come from the neighbourhood of Canton.

Clonorchiasis: Infection is widespread but the number of in-patients has to be limited because of lack of accommodation. Fully seventy per centum of both in-patients and out-patients are infected with more than one type of intestinal parasite at the same time.

Opium and Heroin Addiction:

In-patients:

Number of cases admitted to the University Medical Clinic from January to the end end of December, 1937	18 cases

Table LXII.

Duration of Treatment:

Less than 5 days	3 cases
5 to 20 days	7 ,,
Over 20 days	7 ,,
Under treatment	1 case
Average number of days in hospital	27 (approx.)
Longest duration in hospital	65 days
Shortest duration in hospital	1 day

Result of Treatment:

Relieved	9 cases
Unchanged	6 ,,
Untreated because of leaving hospital within 24 hours	2 ,,
Still under treatment	1 case

There has been a reduction in the number of cases seeking admission for treatment.

All cases with one exception have been of a mild type. They belong, as previously noted, to the coolie class and it is doubtful if the degree of their opium addiction is in itself a serious matter. What does seem of more importance is that the majority suffer from some physical ailment which has been the cause of the taking of opium in the first place. The average amount of money spent by our cases on opium has been fifty cents a day.

One case of relapse (fourth time) of heroin addiction was treated and did well in hospital. He was fit on discharge.

Continued observations on the gastric function of addicts show the deleterious effects of the habit.

Treatment has been on former lines namely, complete and immediate withdrawal of opium followed by Modinos auto-serotherapy.

I am still of opinion that the effect of this method of treatment is mainly psychological. I have not experienced the wonderful results reported by some other observers. Then again those of our addicts whose physical ailments are relieved by ordinary medical treatment have no need of further opium and hence the former habit is easily dropped. One case relapsed and was re-admitted but in this instance patient suffered from symptoms due to a duodenal ulcer.

Avitaminoses: Beri-beri is still very prevalent and mostly of the polyneuritic type.

Duodenal ulcer: The incidence appears to be higher and in most cases the diagnosis has been confirmed by radiological examination.

Dyspepsia: The incidence is very high and etiology is varied.

Cirrhosis of liver: Comparatively prevalent—accompanied by ascites and in most cases by splenomegaly—the clinical picture of Banti's syndrome and the etiology uncertain. See note under "Special Investigations".

Chronic parenchymatous nephritis: Incidence remains high but the etiology remains obscure.

Anaemia-hypochromic: Extremely prevalent as a concomitant of other diseases.

Syphilitic cardio-vascular disease: Aortitis resulting in well defined signs and symptoms of aortic incompetence remains moderately prevalent.

Chronic rheumatic endocaritis: The incidence remains higher than ever anticipated. The subtropical climate of South China appears to be almost as favourable as that of North China for the development of acute rheumatism.

Syphilis of the central nervous system: Tabes dorsalis is frequently diagnosed. General paralysis of the insane is very much less prevalent.

Children's Out-patient Clinic: Acute bronchitis and broncho-pneumonia show a high incidence. There are two main factors namely, exposure and defective nutrition. Nutritional disturbances are very prevalent—due mostly to poverty and it is a matter for regret that mothers of the poorer class seem, in greater numbers, to be abandoning the old almost general custom of breast- feeding.

Evidence of rickets is found in a small percentage. It is probable that the exposure of the children's naked bodies to the ample sunshine in this climate is mainly responsible for the low incidence.

A certain percentage of children are suffering from stigmata of congenital syphilis.

Special Investigations.

Cerebro-spinal meningitis: Use was made of a special supply of Ferry's antitoxin generously given to the Medical Unit by Parke, Davis & Co. Unfortunately the number of cases admitted as suitable for early treatment was small. The results are given in a paper for publication—"Antitoxin in the Treatment of Acute Meningococcal Meningitis" (prepared in September, 1937).

It is hoped that further suitable material will be available so that a larger number of cases may be treated by this method which appears to be a definite advance.

Pulmonary tuberculosis: A controlled use of Solganal B (Schering) is being made. The supply of the drug has been generously undertaken by Schering's Ltd. A careful record of the blood sedimentation rate and the Schilling polymorphonuclear cell count is kept throughout the course of treatment. This form of gold therapy is particularly suitable for the early stage of the type showing a tendency to healing and fibrosis.

The open air verandahs of the common wards at the Queen Mary Hospital have already proved a most valuable adjunct in the treatment of suitably chosen cases of pulmonary tuberculosis.

The anaemias have been specially studied and Dr. Chiu, who is now First Assistant of the Medical Unit and who has been the holder of the Jordan Scholarship, has made this subject one for particular investigation. The relative values of various haematinics in the anaemia of ankylostomiasis have been studied and at the same time observations on the gastric function of such cases have been made.

Observations are being carried out on the splenomegalies. Many cases are admitted to hospital showing the well known Banti's syndrome in its advanced form and of doubtful etiology. Some cases show a very definite splenomegaly but without ascites and with little liver enlargement. Tests are being carried out on the effect of adrenalin in the splenomegalies believed to be of malarial origin.

A condition of thrombopenia of a surprising degree is frequently encountered in these cases and splenectomy is being undertaken with gratifying results. No special report will be made on this subject until the number of cases is larger.

One case of chronic splenomegaly was diagnosed as Schistosomiasis japonicum and splenectomy is contemplated.

Nutritional diseases are, as in the past, the subject of careful investigation.

Dr. Wu Hung Tak has contributed useful information on the question of polyneuritis in pregnant women—the subject of a special paper.

The relative values of various vitamin B1 containing preparations are being tested in cases of polyneuritis. The bio-chemical control of such work is being undertaken by the University Department of Physiology. Clinical observations on vitamin C excretion have been made. The necessary material has been generousiy supplied by Messrs. Hoffmann-La Roche.

Investigations on gastric analysis in the case of opium addicts continue.

SURGICAL UNIT.—Report by the Professor of Surgery, Professor Kenelm H. Digby, M.B., B.S., F.R.C.S. Eng.

Staff:

Kenelm H. Digby, M.B., B.S., F.R.C.S., (Eng.) (Ho Tung Professor of Clinical Surgery and Professor of Surgery; Consulting Surgeon Queen Mary Hospital, and Consultant in Surgery to the Hong Kong Government; Late Surgical Registrar at Guy's Hospital, London.)

Lien Tsoong Kya, M.B., B.S., First Assistant to the Professor of Surgery. (From January 1st to October 16th. 1937).

Wm. Lai Fook, M.B., B.S., First Assistant to the Professor of Surgery (From October 16th. to Dec.).

Wm. Lai Fook, M.B., B.S., Second Assistant to the Professor of Surgery. (From January 1st to October 16th. 1937).

Yeung Tsaw Che, M.B., B.S., Second Assistant to the Professor of Surgery. (From October 16th. to December 1937).

Cheng See Yan, M.B., B.S., House Surgeon from January to June.

Gosano, E. L., M.B., B.S., House Surgeon from July to December..

Wu Hung Tak, M.B., B.S., Out-patient Officer from January to June.

Ribeiro, R. A. V., M.B., B.S., Out-patient Officer from July to December.

In the old Government Civil Hospital this teaching unit was allotted the following beds:—

Males	*Females*	*Infants*	*Total*
26	16	4	46

On the transfer to the new Queen Mary Hospital the number of beds was increased to sixty-one, as follows:—

Males	*Females*	*Infants*	*Total*
37	18	6	61

This increase in the number of beds and the great improvement in hospital facilities should add greatly to the efficiency of the work.

488 in-patients were treated in the three wards of the Surgical Clinic at the Government Civil Hospital.

674 surgical operations under anaesthesia were performed.

The out-patient attendance in the Surgical Clinic at Out-patients Department, Queen's Road West numbered 3,352.

1,107 patients attended the Ear, Nose and Throat Clinics (new patients). There were also 3,126 patients who attended the Opthalmic out-patients Clinic.

The weekly staff rounds attended by members of the Staff and other qualified practitioners were held throughout the year from 5 to 6 p.m. on Mondays.

The transfer of the Surgical Unit from the old Government Civil Hospital to the Queen Mary Hospital took place on the 23rd June, 1937.

Radium was again available for the clinic in sufficient quantities from August 15th.

OBSTETRICAL AND GYNAECOLOGICAL UNIT.

Report by the Acting Head of the Department of Obstetrics and Gynaecology,

Dr. P. F. S. Court,

F.R.C.S., Ed., M.R.C.S. Eng., L.R.C.P., Lond.

This unit was under the direction of Professor W. C. W. Nixon, M.D., B.S., Lond., F.R.C.S., Eng., L.R.C.P., Lond., M.C.O.G., from the beginning of the year until 10th December. On 11th December, Dr. Court was appointed to act in his stead.

All gynaecological cases were transferred to the Queen Mary Hospital in June, 1937, and were subsequently treated there. The Tsan Yuk Hospital was devoted to obstetric cases only. There are now sixty beds for obstetrics in the Tsan Yuk Hospital and twenty-one beds for gynaecology at Queen Mary Hospital.

During the year the following numbers of cases were treated.

Table LXIII.

Out-patients department	*Government Civil Hospital (Out-patients Department)*	*Tsan Yuk Hospital*
New cases	1,890	338
Old cases	2,159	234

Maternity cases:—	
Tsan Yuk (39 cases remained from 1936)	2,096
Government Civil Hospital until June (University cases)	336
Total	2,432
Gynaecological cases:—	
Tsan Yuk	140
Government Civil Hospital until June (University cases)	69
Queen Mary Hospital after June (University cases)	259
Total	468

The number of cases showing puerperal pyrexia (*i.e.* temperature of 100.4 or over on more than one occasion while the patient is under observation, not including the first 24 hours), was 122; of these none died.

Sulphonamide compounds have been used as a routine for these cases. There is a high incidence of malnutrition among the cases of pregnancy. This is evinced by oedema and peripheral neuritis and cardiac insufficiency.

Table LXIV.

Classification of cases:—	*Tsan Yuk Hospital.*	*Government Civil Hospital (until June).*
Vertex presentations	1,830	304
P. O. P.	53	11
Breech	57	7
Face	2	—
Brow	—	1
Transverse	8	—
Shoulder	6	—
Twins	22	1

Table LXV.

Causes of maternal deaths:—

Tsan Yuk Hospital—

1 Pre-eclampsia and post-partum haemorrhage.

2 Ante-partum and post-partum haemorrhage.

3 Acute nephritis and cardiac failure (undelivered).

4 Myocarditis and heart failure.

5 Subtertian malaria and heart failure.

6 Toxaemia from burns and heart failure.

Government Civil Hospital—

1 Cardiac failure.

Table LXVI.

Ante-natal Clinics:—

New cases	499
Old cases	453

Table LXVII.

Statistics of the Gynaecological Department:—

Number of admissions—

Government Civil Hospital until June	69
Queen Mary Hospital after June	259
Tsan Yuk Hospital	140

Number of operations performed—

Government Civil Hospital	47
Queen Mary Hospital	185
Tsan Yuk Hospital	69

Deaths—

Queen Mary Hospital	3
Tsan Yuk Hospital	1

APPENDIX.

Return A.

MEDICAL, HEALTH AND LABORATORY SERVICE STAFF.

Administrative Staff.

The Director of Medical Services	1
Deputy Director of Medical Services	1

Clerical Staff.

Secretary	1
Assistant Secretary	1
Stenographer	1
Accountant	1
Clerk, Class II	1
Clerk, Class III	3
Clerk, Class IV	2
Clerk, Class V	5
Clerk, Class VIA	3
Clerk, Class VIB	24
Special Class	2

INVESTIGATIVE DIVISION.

Bacteriological Institute.

Bacteriologist	1
Assistant Bacteriologist	1
Senior Laboratory Assistant	1
Laboratory Assistants	5

Malaria Bureau.

Malariologist	1
Assistant to Malariologist	1
Malarial Inspectors	6

Chemical Division.

Government Analyst	1
Assistant Analyst (1 vacancy)	3
Assistant Analyst (Chinese)	1
Assistant Analyst (Chinese) Class II	1
Sampler	1

Health Division.

Urban Branch.

Health Officers	2
Chinese Health Officer	1
Lady Medical Officer (Part time)	1

Port Health Branch.

Port Health Officer & Inspector of Emigrants	1
Second Port Health Officer & Inspector of Emigrants	1
Chinese Port Health Officers	2
Port Health Inspector	1
Chinese Health Inspector	1
Public Vaccinators (2 vacancies)	12

Fumigating & Disinfecting Bureau.

Fumigator	1

Venereal Diseases Branch.

Venereal Diseases Officer	1
Chinese Venereal Diseases Officer	1
Venereal Diseases Technical Assistant	1
Charge Dresser, Class I	1
Charge Dressers, Class II	2
Staff Dresser	1
Venereal Diseases Nurse	1

Maternity and Child Welfare Branch.

Lady Medical Officer	1
Chinese Lady Medical Officer	1
Infant Welfare Nurses	7
Interpreter and Assistant	1

School Hygiene Branch.

Health Officer for Schools	1
Chinese Medical Officers for Schools	2
School Nurses	5

Chinese Hospitals and Dispensaries Branch.

Visiting Medical Officer	1
Lady Visiting Medical Officer	1
Chinese Resident Medical Officers	3

Chinese Lady Medical Officers	3
Stenographer	1
Dispensary Nurse	1
Midwives	6

Medical Division.

Clinical Branch (General).

Government Consultants	3
Senior Medical Officer	1
Medical Officers	10
Chinese Medical Officers	5
House Officers	6
House Surgeon	1

Nursing Staff (General).

Principal Matron	1
Matrons	2
Senior Sisters	5
Nursing Sisters	59
Charge Nurses (Vacant)	3
Staff Nurses (12 vacancies)	28
Probationer Nurses (10 vacancies)	74
Midwives	1
Charge Dressers, Class I	3
Charge Dressers, Class II	3
Staff Dressers	9
Probationer Dressers	33
Linen Maid	1

Nursing Staff (Mental Hospital).

Head Attendant	1
Assistant Attendant	1
Mental Nurses	3
Probationer Dressers	3

Kennedy Town Hospital (Infectious Diseases).

Staff Nurses	3
Charge Dressers Class II	2
Staff Dresser	1
Steward	1

Tsan Yuk Maternity Hospital.

House Medical Officers	2
Matron	1
Assistant Matron	1
Midwives	5
Pupil Midwives	13

Stewards.

Steward	1
Assistant Steward	1

Pharmacy Branch.

Apothecary	1
Assistant Apothecary	1
Storekeeper	1
Charge Dispenser, Class I	1
Charge Dispensers, Class II	4
Staff Dispensers	5
Probationer Dispensers	5

Radiological Branch.

Radiologist	1
Radiographers	2
Masseuses	2
X Ray Sister	1
Probationer Masseuses	3
Radiographic Assistants	4

New Territories Branch.

Health Officer	1
Chinese Medical Officers	2
Midwives	10
Dresser	1

Miscellaneous.

Storemen	3
Installation Mechanic	1
Fitters	4
Motor Drivers	2
Office Attendants, Messengers, Wardboys, Amahs, Coolies, &c. (19 vacancies)	438

Return B.

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

Naval Hospitals.

Naval Hospital, Wanchai.
Royal Naval Sanatorium.

Military Hospitals.

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

Government Hospitals.

Queen Mary Hospital (opened on 13.4.37).
Government Civil Hospital (closed on 30.6.37).
Victoria Hospital (closed on 7.6.37).
Infectious Diseases Hospital.
Tsan Yuk Hospital.
Mental Hospital.
Hong Kong Prison Hospital at Stanley.
Kowloon Hospital.
Shing Mun Hospital (closed 30.4.37).
Female Prison Hospital, Lai Chi Kok.
Tai Po Maternity Ward.

Private Hospitals.

Alice Memorial and Affiliated Hospitals.
St. Paul's Hospital.
Matilda Hospital.
Canossa Hospital.
War Memorial Hospital.
Tung Wah Hospital.
Tung Wah Eastern Hospital.
Chinese Eastern Maternity Hospital.
Hong Kong Sanatorium and Hospital.
St. Francis Hospital.
Majima Hospital.
Babington Sanatorium.
Tung Wah Infectious Diseases Hospital.
Precious Blood Hospital.
Kwong Wah Hospital.
Haw Par Hospital.
Tsun Wan Hospital.
Kam Tin Hospital.

Appendix A.

Table LXVIII.

QUEEN MARY
CIVIL
VICTORIA
MENTAL
KOWLOON
TSAN YUK
KENNEDY TOWN
} HOSPITAL.

RETURN OF DISEASES.

FOR THE YEAR 1937.

Appendix B.

Table LXIX.

TUNG WAH
TUNG WAH EASTERN
KWONG WAH
} CHINESE HOSPITAL.

RETURN OF DISEASES.

FOR THE YEAR 1937.

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 LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
I.—*Infectious & Parasitic Diseases.*										
1. Typhoid fever	10	74	20	84	4	3	208	106	211	3
2. Paratyphoid fevers	—	6	—	6	—	—	—	—	—	—
3. Typhus fever	—	—	—	—	—	—	—	—	—	—
4. Relapsing fever	—	—	—	—	—	—	—	—	—	—
5. Undulant fever	—	—	—	—	—	—	—	—	—	—
6. Smallpox :—										
(*a*) Variola major	—	61	32	61	11	—	28	—	28	—
(*b*) Variola minor	—	—	—	—	—	—	1	—	1	—
7. Measles	—	14	1	14	5	—	24	9	24	—
8. Scarlet fever	—	6	—	6	1	—	—	—	—	—
9. Whooping cough	—	9	—	9	—	—	2	1	2	—
10. Diphtheria	6	61	15	67	4	2	172	97	174	1
11. Influenza	4	452	1	456	4	28	1,801	298	1,829	40
12. Cholera	—	1,304	766	1,304	—	—	82	18	82	—
13. Dysentery :—										
(*a*) Amoebic	—	3	—	3	—	12	153	4	165	9
(*b*) Bacillary	5	112	16	117	3	3	323	128	326	8
(*c*) Other or unspecified.	1	3	—	4	1	—	237	102	237	9
14. Plague :—										
(*a*) Bubonic	—	—	—	—	—	—	—	—	—	—
(*b*) Pneumonic	—	—	—	—	—	—	—	—	—	—
(*c*) Septicaemic	—	—	—	—	—	—	—	—	—	—
15. Erysipelas	1	9	—	10	—	1	27	1	28	—
16. Acute poliomyelitis	—	3	2	3	—	1	13	1	14	—
17. Encephalitis lethargica	—	1	—	1	—	1	10	1	11	—
18. Cerebro-spinal meningitis (epidemic)	1	23	16	24	1	1	96	58	97	5
19. Glanders	—	—	—	—	—	—	—	—	—	—
20. Anthrax	—	—	—	—	—	—	—	—	—	—
21. Rabies	—	1	1	1	—	—	—	—	—	—
22. Tetanus	—	1	1	1	—	1	72	51	73	2
23. Tuberculosis of the respiratory system	13	180	61	193	15	104	3,549	1,698	3,653	117
24. Tuberculosis of the central nervous system	1	16	13	17	9	—	223	159	223	3
25. Tuberculosis of intestines and peritoneum	1	15	3	16	—	—	22	15	22	—
26. Tuberculosis of vertebral column	2	9	—	11	3	17	108	9	125	—
Carried forward	45	2,363	948	2,408	61	174	7,151	2,756	7,325	197

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	45	2,363	948	2,408	61	174	7,151	2,756	7,325	197
I.—*Infectious & Parasitic Diseases.*—(*Contd.*)										
27. Tuberculosis of other bones and joints	3	30	—	33	3	22	87	19	109	24
28. Tuberculosis of skin and subcutaneous tissues	—	14	—	14	1	1	5	—	6	—
29. Tuberculosis of the lymphatic system	1	10	—	11	—	44	78	6	122	10
30. Tuberculosis of genito-urinary system	1	2	—	3	—	—	—	—	—	—
31. Tuberculosis of other organs	—	—	—	—	—	2	19	5	21	1
32. Disseminated tuberculosis..	1	16	10	17	3	—	125	79	125	15
33. Leprosy	10	170	11	180	62	1	14	—	15	—
34. Syphillis :—										
(*a*) Congenital	—	4	2	4	—	—	61	20	61	—
(*b*) Primary	3	63	—	66	—	2	34	—	36	5
(*c*) Secondary	—	22	—	22	—	—	68	1	68	2
(*d*) Tertiary	3	32	—	35	—	—	69	14	69	4
35. Other venereal diseases :—										
(*a*) Gonorrhoeal opthalmia	1	6	—	7	—	1	15	—	16	1
(*b*) Gonorrhoea	5	195	—	200	4	1	45	—	46	2
(*c*) Soft chancre	3	109	—	112	2	—	30	—	30	—
36. Purulent infection :—										
(*a*) Septicaemia	—	8	6	8	—	—	7	7	7	—
(*b*) Pyaemia	—	1	1	1	—	4	18	3	22	—
(*c*) Gas gangrene	—	1	1	1	—	—	—	—	—	—
37. Yellow fever	—	—	—	—	—	—	—	—	—	—
38. Malaria	—	51	—	51	—	—	508	57	508	14
(*a*) Benign tertian	—	206	—	206	3	7	279	—	286	8
(*b*) Quartan	1	7	—	8	—	—	7	—	7	—
(*c*) Sub-tertian	17	292	21	309	10	23	1,060	256	1,083	36
(*d*) Cachexia	—	121	2	121	3	9	38	15	47	5
39. Other diseases due to protozoa :—										
(*a*) Kala-azar	—	—	—	—	—	—	2	2	2	—
(*b*) Trypanosomiasis	—	—	—	—	—	—	—	—	—	—
(*c*) Yaws	—	—	—	—	—	—	—	—	—	—
40. Ankylostomiasis	—	35	—	35	3	—	44	6	44	1
41. Hydatid cysts	—	—	—	—	—	—	—	—	—	—
Carried forward	94	3,758	1,002	3,852	155	291	9,764	3,246	10,055	325

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.
Brought forward	94	3,758	1,002	3,852	155	291	9,764	3,246	10,055	325
I.—*Infectious & Parasitic Diseases.*—(*Contd.*)										
42. Other diseases due to helminths :—										
(*a*) Ascariasis	1	39	—	40	1	3	99	—	102	4
(*b*) Filariasis	1	7	—	8	—	2	—	—	2	—
(*c*) Taeniasis	—	10	—	10	—	—	41	—	41	2
(*d*) Clonorchiasis	—	8	—	8	—	—	27	—	27	3
(*e*) Schistosomiasis	—	1	—	1	1	—	—	—	—	—
43. Mycoses :—										
(*a*) Actinomycosis	—	—	—	—	—	—	—	—	—	—
(*b*) Other mycoses (sprue)	1	—	—	1	—	—	—	—	—	—
44. Other infectious or parasitic diseases :—										
(*a*) Vaccinia	—	—	—	—	—	—	—	—	—	—
(*b*) Other sequelae of vaccination	—	—	—	—	—	—	—	—	—	—
(*c*) German measles	—	—	—	—	—	—	—	—	—	—
(*d*) Varicella	—	15	—	15	1	—	12	—	12	—
(*e*) Mumps	—	6	—	6	1	—	10	—	10	—
(*f*) Dengue	—	11	—	11	—	—	—	—	—	—
(*g*) Glandular fever	—	—	—	—	—	—	—	—	—	—
(*h*) Blackwater fever	—	—	—	—	—	—	—	—	—	—
II—*Cancer and Other Tumours.*										
45. Cancer or other malignant diseases of the buccal cavity, and pharynx	2	35	6	37	9	3	82	23	85	5
46. Cancer or other malignant tumours of the digestive organs, & peritoneum :—										
(*a*) Oesophagus	—	2	2	2	—	—	7	7	7	—
(*b*) Stomach & duodenum	—	10	2	10	—	—	21	15	21	—
(*c*) Rectum	—	5	2	5	1	—	6	4	6	—
(*d*) Liver and biliary passages	1	14	12	15	—	3	9	8	12	—
(*e*) Other digestive organs	—	1	—	1	—	—	3	3	3	—
47. Cancer or other malignant tumours of the respiratory organs	—	4	2	4	—	1	8	2	9	1
Carried forward	100	3,926	1,028	4,026	169	303	10,089	3,308	10,392	340

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	100	3,926	1,028	4,026	169	303	10,089	3,308	10,392	340
II.—*Cancer and other Tumours.*—(*Contd.*)										
48. Cancer or other malignant tumours of the uterus ...	—	24	3	24	1	1	38	16	39	—
49. Cancer of other malignant tumours of other female genital organs	—	6	—	6	3	—	—	—	—	—
50. Cancer or other malignant tumours of the breast ...	3	37	1	40	3	3	41	13	44	1
51. Cancer or other malignant tumours of the male genito urinary organs ...	—	7	—	7	2	—	9	3	9	—
52. Cancer or other malignant tumours of the skin	1	3	1	4	1	—	66	19	66	—
53. Cancer or other malignant tumours of organs not specified	2	15	1	17	1	—	18	8	18	—
54. Non-malignant tumours :—										
(*a*) Female genital organs	—	7	—	7	—	—	5	—	5	—
(*b*) Other sites	3	85	1	88	2	1	1	—	2	—
55. Tumours of undetermined nature :—										
(*a*) Female genital organs	1	—	—	1	—	2	12	1	14	—
(*b*) Other sites	—	4	—	4	—	3	2	—	5	—
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and Other General Diseases.*										
56. Rheumatic fever	—	6	—	6	—	—	2	—	2	—
57. Chronic rheumatism, osteo-arthritis :—										
(*a*) Chronic rheumatism	—	17	—	17	2	3	156	3	159	12
(*b*) Rheumatoid arthritis	—	1	—	1	—	5	50	—	55	17
58. Gout	—	—	—	—	—	—	—	—	—	—
59. Diabetes mellitus	1	12	1	13	1	—	17	3	17	—
60. Scurvy	—	2	—	2	—	6	2	1	8	—
61. Beri-beri	1	92	13	93	7	30	2,777	915	2,807	269
62. Pellagra	—	2	—	2	—	—	—	—	—	—
63. Rickets	—	—	—	—	—	—	2	—	2	—
Carried forward	112	4,246	1,049	4,358	192	357	13,287	4,290	13,644	639

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	112	4,246	1,049	4,358	192	357	13,287	4,290	13,644	639
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and Other General Diseases.*—(*Contd.*)										
64. Osteomalacia	—	—	—	—	—	—	—	—	—	—
65. Diseases of the pituitary gland	—	1	1	1	—	—	—	—	—	—
66. Diseases of the thyroid and parathyroid glands :—										
(*a*) Simple goitre	1	4	—	5	—	—	12	—	12	—
(*b*) Exophthalmic goitre	—	15	1	15	5	—	10	1	10	—
(*c*) Myxoedema, cretinism	—	—	—	—	—	—	—	—	—	—
(*d*) Tetany	—	—	—	—	—	—	—	—	—	—
(*e*) Other diseases	—	—	—	—	—	—	—	—	—	—
67. Diseases of the thymus ...	—	—	—	—	—	—	—	—	—	—
68. Diseases of the adrenal glands (excluding tuberculosis)	—	—	—	—	—	—	—	—	—	—
69. Other general diseases	1	6	—	7	—	—	126	43	126	18
IV.—*Diseases of the Blood and Blood Forming Organs.*										
70. Haemorrhagic conditions :—										
(*a*) Purpura	—	3	1	3	1	—	2	—	2	—
(*b*) Haemophilia	—	—	—	—	—	—	3	3	3	—
71. Anaemia, chlorosis :—										
(*a*) Pernicious anaemia...	—	2	1	2	—	—	71	1	71	16
(*b*) Other anaemias and chlorosis	—	4	—	4	—	2	58	—	60	2
(*i*) Splenic anaemia	—	8	1	8	—	2	—	—	2	—
(*ii*) Others	1	20	1	21	2	—	178	1	178	29
72. Leukaemia, aleukaemia :—										
(*a*) Leukaemia	—	—	—	—	—	—	—	—	—	—
Chronic myeloid	—	2	1	2	—	—	—	—	—	—
Chronic lymphatic...	—	—	—	—	—	—	—	—	—	—
Acute	—	—	—	—	—	—	—	—	—	—
Multiple myeloma ...	—	—	—	—	—	1	—	—	1	—
(*b*) Aleukaemia (lymphadenoma)	—	1	—	1	—	—	—	—	—	—
Carried forward	115	4,312	1,056	4,427	200	362	13,747	4,339	14,109	704

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	115	4,312	1,056	4,427	200	362	13,747	4,339	14,109	704
IV.—*Diseases of the Blood and Blood Forming Organs.*—(*Contd.*)										
73. Diseases of the spleen :—										
(*a*) Banti's disease	—	—	—	—	—	—	2	—	2	—
(*b*) Other diseases of the spleen	—	12	2	12	1	—	16	—	16	—
74. Other diseases of the blood and blood forming organs	—	—	—	—	—	—	—	—	—	—
V.—*Chronic Poisoning.*										
75. Alcoholism (acute or chronic)	—	18	—	18	—	—	8	—	8	—
76. Chronic poisoning by other organic substances :—										
Opium habit	2	37	—	39	—	13	682	5	695	39
Morphine habit	—	—	—	—	—	—	—	—	—	—
Others	—	2	—	2	—	—	28	1	28	4
77. Chronic poisoning by mineral substances :—										
(*a*) Occupational lead poisoning	—	—	—	—	—	—	—	—	—	—
(*b*) Other chronic poisoning by mineral	—	—	—	—	—	—	—	—	—	—
VI.—*Diseases of the Nervous System and Sense Organs.*										
78. Encephalitis :—										
(*a*) Cerebral abscess	—	—	—	—	—	—	2	2	2	—
(*b*) Others	—	—	—	—	—	—	1	—	1	—
79. Meningitis (non-epidemic)..	—	—	—	—	—	—	50	44	50	1
80. Tabes dorsalis (locomotor ataxy)	—	11	—	11	3	4	36	1	40	—
81. Other diseases of the spinal cord :—										
(*a*) Progressive muscular atrophy	—	1	—	1	—	—	2	—	2	—
(*b*) Subacute combined sclerosis	—	—	—	—	—	—	—	—	—	—
	117	4,393	1,058	4,510	204	379	14,574	4,392	14,953	748

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.
Carried forward	117	4,393	1,058	4,510	204	379	14,574	4,392	14,953	748
VI.—*Diseases of the Nervous System and Sense Organs.* —(*Contd.*)										
81. Other diseases of the spinal cord :—*Continued.*										
(*c*) Myelitis of unstated origin	1	5	—	6	1	—	2	2	2	—
(*d*) Other diseases included under 81 ...	—	—	—	—	—	—	—	—	—	—
82. Cerebral haemorrhage, apoplexy, etc :—										
(*a*) Cerebral haemorrhage	1	28	20	29	—	10	224	98	234	2
(*b*) Cerebral embolism and thrombosis	—	4	—	4	—	—	48	6	48	2
(*c*) Hemiplegia and other paralyses of unstated origin	4	18	—	22	1	4	89	17	93	4
83. General paralysis of the insane	2	20	4	22	1	1	3	1	4	—
84. Other forms of insanity :—										
(*a*) Dementia praecox ...	6	54	1	60	12	—	—	—	—	—
(*b*) Others	43	175	13	218	38	—	3	—	3	—
85. Epilepsy	—	16	—	16	—	4	132	13	136	3
86. Infantile convulsions	—	5	3	5	1	—	57	5	57	—
87. Other diseases of the nervous system :—										
(*a*) Chorea	—	1	—	1	—	—	—	—	—	—
(*b*) Neuritis, neuralgia...	5	85	—	90	8	139	2,520	231	2,659	193
(*c*) Paralysis agitans	—	—	—	—	—	1	21	—	22	—
(*d*) Disseminated sclerosis	—	—	—	—	—	—	—	—	—	—
(*e*) Hysteria	—	—	—	—	—	—	2	—	2	—
(*f*) Neurasthenia	—	6	—	6	—	—	12	—	12	—
(*g*) Others	—	11	—	11	—	—	16	—	16	—
88. Diseases of the eye :—										
(*a*) Conjunctivitis	1	30	—	31	4	2	72	—	74	2
(*b*) Trachoma	—	20	—	20	2	5	192	—	197	9
(*c*) Corneal ulcer	2	21	—	23	—	2	61	—	63	2
(*d*) Other diseases	1	51	—	52	11	1	381	—	382	15
Carried forward	183	4,943	1,099	5,126	283	548	18,409	4,765	18,957	980

Appendix A. **Appendix B.**

Table LXVIII. **Table LXIX.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	183	4,943	1,099	5,126	283	548	18,409	4,765	18,957	980
VI.—*Diseases of the Nervous System and Sense Organs* —(*Contd.*)										
89. Diseases of the ear and of the mastoid sinus :—										
(*a*) Otitis externa	—	4	—	4	—	2	35	—	37	—
(*b*) Otitis media	—	25	—	25	2	1	34	1	35	—
(*c*) Mastoiditis	1	17	1	18	2	—	2	—	2	—
(*d*) Others	—	3	—	3	—	—	—	—	—	—
VII.—*Diseases of the Circulatory System.*										
90. Pericarditis	1	2	1	3	—	1	3	—	4	—
91. Acute endocarditis :—										
(*a*) Malignant endocarditis	—	—	—	—	—	—	19	17	19	—
(*b*) Other acute endocarditis	—	—	—	—	—	—	4	1	4	2
92. Chronic endocarditis, valvular disease :—										
(*a*) Aortic valve disease	1	19	5	20	—	7	134	38	141	8
(*b*) Mitral valve disease	1	46	8	47	4	6	198	62	204	14
(*c*) Aortic and mitral valve disease	—	3	—	3	—	1	8	7	9	—
(*d*) Endocarditis not returned as acute or chronic	—	4	1	4	—	4	10	2	14	—
(*e*) Other or unspecified valve disease	—	1	—	1	—	—	23	23	23	—
93. Diseases of the myocardium :—										
(*a*) Acute myocarditis ...	3	6	3	9	—	1	34	20	35	1
(*b*) Myocardial degeneration	—	39	21	39	4	7	532	319	539	9
94. Diseases of the coronary arteries :—										
(*a*) Angina pectoris	—	—	—	—	—	—	—	—	—	—
(*b*) Coronary sclerosis ...	—	1	1	1	—	—	—	—	—	—
Carried forward	190	5,113	1,140	5,303	295	578	19,445	5,255	20,023	1,014

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	190	5,113	1,140	5,303	295	578	19,445	5,255	20,023	1,014
VII.—*Diseases of the Circulatory System.* —(*Contd.*)										
95. Other diseases of the heart :—										
(*a*) Disordered action of heart	1	19	—	20	—	—	—	—	—	—
(*b*) Other diseases included under 95	2	7	1	9	1	—	23	6	23	—
96. Aneurysm	—	5	1	5	2	—	7	1	7	—
97. Arterio-sclerosis	—	4	—	4	—	—	—	—	—	—
98. Gangrene	1	1	—	2	—	—	25	17	25	—
99. Other diseases of the arteries	1	4	—	5	—	—	—	—	—	—
100. Diseases of the veins :—										
(*a*) Varicose veins	—	2	—	2	—	2	24	—	26	—
(*b*) Haemorrhoids	1	50	—	51	5	8	161	1	169	6
(*c*) Phlebitis	1	7	—	8	—	—	—	—	—	—
(*d*) Thrombosis	—	1	—	1	—	—	—	—	—	—
(*e*) Others	—	—	—	—	—	—	—	—	—	—
101. Diseases of the lymphatic system, (lymphangitis, etc.)	—	4	—	4	—	24	201	—	225	12
102. Abnormalities of blood pressure :—										
(*a*) Arterial hypertension	—	8	—	8	1	—	7	1	7	—
(*b*) Arterial hypotension	—	—	—	—	—	—	—	—	—	—
103. Other diseases of the circulatory system	—	—	—	—	—	—	—	—	—	—
VIII.—*Diseases of the Respiratory System.*										
104. Diseases of the nasal fossae and annexa :—										
(*a*) Diseases of the nose	—	38	—	38	—	1	49	4	50	1
(*b*) Diseases of the accessory nasal sinuses	3	28	—	31	2	—	5	1	5	—
105. Diseases of the larynx :—										
(*a*) Laryngismus stridulus	—	—	—	—	—	—	—	—	—	—
(*b*) Laryngitis	—	10	—	10	1	—	77	—	77	2
Carried forward	200	5,301	1,142	5,501	307	613	20,024	5,286	20,637	1,035

Appendix A. **Appendix B.**

Table LXVIII. **Table LXIX.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	200	5,301	1,142	5,501	307	613	20,024	5,286	20,637	1,035
VIII.—*Diseases of the Respiratory System.* —(*Contd.*)										
105. Diseases of the larynx :—(*Contd.*)										
(*c*) Other diseases of the larynx	—	3	—	3	—	—	—	—	—	—
106. Bronchitis :—										
(*a*) Acute bronchitis	—	111	—	111	1	17	1,336	508	1,353	28
(*b*) Chronic bronchitis ...	2	59	2	61	—	40	1,763	405	1,803	14
(*c*) Bronchitis not distinguished as acute or chronic	5	69	—	74	2	—	528	137	528	21
107. Broncho-pneumonia	1	159	105	160	2	14	2,619	1,890	2,633	21
108. Lobar pneumonia	2	94	39	96	5	8	703	379	711	4
109. Pneumonia (not otherwise defined)	1	5	1	6	—	1	228	138	229	7
110. Pleurisy :—										
(*a*) Empyema	1	11	—	12	4	1	12	5	13	—
(*b*) Other pleurisy	—	18	1	18	1	1	21	1	22	—
111. Congestion and haemorrhagic infarct of lung, etc :—										
(*a*) Hypostatic congestion of lungs	—	—	—	—	—	—	—	—	—	—
(*b*) Other diseases included under 111 ...	—	—	—	—	—	—	2	1	2	—
112. Asthma	—	98	—	98	—	4	327	34	331	8
113. Pulmonary emphysema	—	3	—	3	—	—	1	1	1	—
114. Other diseases of the respiratory system :—										
(*a*) Chronic interstitial pneumonia, including occupational disease of the lung..	—	2	—	2	—	—	—	—	—	—
(*b*) Other diseases included in 114 :—										
(1) Gangrene of the lung	—	—	—	—	—	—	—	—	—	—
(2) Other diseases included under 114*b*	—	—	—	—	—	—	—	—	—	—
Carried forward	212	5,933	1,290	6,145	322	699	27,564	8,785	28,263	1,138

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	212	5,933	1,290	6,145	322	699	27,564	8,785	28,263	1,138
IX.—*Diseases of the Digestive System.*										
115. Diseases of the buccal cavity, pharynx etc :—										
(*a*) Diseases of the teeth and gums	—	196	—	196	1	7	411	13	418	—
(*b*) Ludwig's angina	—	1	1	1	—	1	8	—	9	—
(*c*) Diseases of the tonsils	3	196	—	199	6	4	157	—	161	—
(*d*) Other diseases included in 115	2	—	—	2	—	1	5	2	6	—
116. Diseases of the oesophagus	—	2	—	2	—	—	—	—	—	—
117. Ulcer of the stomach or duodenum :—										
(*a*) Ulcer of the stomach	2	25	8	27	3	4	116	29	120	—
(*b*) Ulcer of the duodenum	1	35	2	36	2	—	20	2	20	—
118. Other diseases of the stomach :—										
(*a*) Inflammation of the stomach	2	48	—	50	1	12	975	91	987	25
(*b*) Other diseases included in 118	—	10	—	10	—	12	356	118	368	6
119. Diarrhoea and enteritis (under 2 years)	2	120	34	122	2	8	1,699	1,068	1,707	33
120. Diarrhoea and enteritis (2 years and over) :—							1,423	689	1,423	20
(*a*) Colitis	—	109	3	109	2	11	299	40	310	8
(*b*) Otherwise defined ...	2	—	—	2	—	7	212	152	219	15
121. Appendicitis	6	111	9	117	10	2	49	16	51	2
122. Hernia, intestinal obstruction :—										
(*a*) Hernia	6	51	2	57	4	2	84	6	86	2
(*b*) Intestinal obstruction	—	10	4	10	—	2	34	5	36	—
123. Other diseases of the intestines :—										
(*a*) Constipation	1	66	—	67	1	1	38	—	39	1
(*b*) Diverticulitis	—	1	—	1	—	—	—	—	—	—
(*c*) Others included under 123	3	21	—	24	2	2	33	1	35	—
Carried forward	242	6,935	1,353	7,177	356	775	33,483	11,017	34,258	1,250

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.
Brought forward	242	6,935	1,353	7,177	356	775	33,483	11,017	34,258	1,250
IX.—*Diseases of the Digestive System.* —(*Contd.*)										
124. Cirrhosis of the liver :—										
(*a*) Returned as alcoholic	1	13	2	14	—	9	93	11	102	—
(*b*) Not returned as alcoholic	—	13	4	13	2	13	286	43	299	1
125. Other diseases of the liver :—										
(*a*) Acute yellow atrophy	—	—	—	—	—	—	—	—	—	—
(*b*) Others included under 125	—	—	—	—	—	—	70	3	70	—
Amoebic abscess...	—	3	2	3	—	—	1	—	1	—
Hepatitis	—	9	1	9	—	—	9	1	9	—
126. Biliary calculi	—	9	—	9	—	—	—	—	—	—
127. Other diseases of the gall bladder and ducts	2	26	—	28	1	—	34	20	34	—
128. Diseases of the pancreas..	—	1	—	1	—	—	—	—	—	—
129. Peritonitis without stated cause	1	10	6	11	2	1	27	16	28	—
X.—*Non-Veneral Diseases of the Genito-Urinary System and Annexa.*										
130. Acute nephritis	—	23	5	23	1	3	210	16	213	9
131. Chronic nephritis	1	52	9	53	3	59	800	466	859	27
132. Nephritis not stated to be acute or chronic	1	12	1	13	—	6	807	275	813	18
133. Other diseases of the kidney and annexa :—										
(*a*) Pyelitis	1	11	1	12	—	—	12	8	12	—
(*b*) Other diseases included under 133 ...	1	2	—	3	—	—	29	6	29	—
134. Calculi of the urinary passages :—										
(*a*) Calculi of kidney and ureter	1	22	—	23	1	—	—	—	—	—
(*b*) Calculi of the bladder	2	26	—	28	3	2	39	1	41	3
(*c*) Calculi of unstated site	—	—	—	—	—	—	2	—	2	—
Carried forward	253	7,167	1,384	7,420	369	868	35,902	11,883	36,770	1,308

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Carried forward	253	7,167	1,384	7,420	369	868	35,902	11,883	36,770	1,308
X.—*Non-Veneral Diseases of the Genito-Urinary System and Annexa.*—(*Contd.*)										
135. Diseases of the bladder :—										
(*a*) Cystitis	—	22	—	22	1	4	50	4	54	5
(*b*) Other diseases of the bladder	1	2	—	3	—	—	18	—	18	1
136. Diseases of the urethra, urinary abscess, etc :—										
(*a*) Stricture of the urethra	1	35	—	36	1	—	14	2	14	—
(*b*) Other diseases of the urethra, etc.	—	4	—	4	1	2	42	4	44	—
137. Diseases of the prostate ..	1	2	—	3	—	—	1	—	1	—
138. Diseases of the male genital organs :—										
(*a*) Phimosis	—	30	—	30	1	3	18	—	21	1
(*b*) Paraphimosis	—	4	—	4	—	—	4	—	4	—
(*c*) Hydrocele	1	19	—	20	—	—	9	—	9	—
139. Diseases of the female genital organs :—										
(a) 1. Diseases of the ovary	1	56	1	57	3	3	13	—	16	—
2. Diseases of the fallopian tube	—	36	—	36	—	—	14	1	14	—
3. Diseases of the parametrium	—	20	—	20	—	3	—	—	3	—
(*b*) Diseases of the uterus	2	197	—	199	3	—	97	3	97	—
(*c*) Diseases of the breast	1	15	—	16	—	7	56	2	63	1
(*d*) Other diseases of the female genital organs.	4	163	—	167	6	—	40	—	40	—
(*e*) Sterility	1	25	—	26	—	—	—	—	—	—
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*										
140. Post-abortive sepsis :—										
Septic abortion	—	2	—	2	—	—	2	2	2	—
Carried forward	266	7,799	1,385	8,065	385	890	36,280	11,901	37,170	1,316

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.
Brought forward	266	7,799	1,385	8,065	335	890	36,280	11,901	37,170	1,316
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*—(*Contd.*)										
141. Abortion not returned as septic :—										
(*a*) Haemorrhage following abortion	2	30	—	32	—	—	124	—	124	—
(*b*) Without record of haemorrhage	—	36	1	36	—	—	6	—	6	—
142. Ectopic gestation	1	10	—	11	1	—	10	5	10	1
143. Other accidents of pregnancy	1	24	—	25	—	—	7	—	7	—
144. Puerperal haemorrhage :—										
(*a*) Placenta praevia	—	19	1	19	—	—	25	5	25	—
(*b*) Other puerperal haemorrhage	3	23	4	26	—	—	13	7	13	—
145. Puerperal sepsis :—										
(*a*) Puerperal septicaemia and pyaemia	—	3	2	3	—	—	5	5	5	—
(*b*) Puerperal tetanus ...	—	67	—	67	—	—	—	—	—	—
146. Puerperal albuminuria and convulsions :—										
(*a*) Puerperal convulsions	—	7	5	7	—	1	47	14	48	1
(*b*) Other conditions included in 146	—	1	—	1	—	—	8	—	8	—
147. Other toxaemias of pregnancy	—	18	1	18	—	—	15	—	15	2
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	64	3,615	—	3,679	80	79	6,000	—	6,079	78
(*b*) Accidents of childbirth	3	62	—	65	—	—	97	2	97	—
(*c*) False labour	4	245	—	249	—	—	—	—	—	—
Carried forward	344	11,959	1,399	12,303	466	970	42,637	11,939	43,607	1,398

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	344	11,959	1,399	12,303	466	970	42,637	11,939	43,607	1,398
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.—(Contd.)*										
150. Other or unspecified conditions of the puerperal state :—										
(*a*) Puerperal insanity...	—	—	—	—	—	—	1	—	1	—
(*b*) Puerperal diseases of the breast	—	—	—	—	—	—	16	—	16	—
XII.—*Diseases of the Skin and Cellular Tissue.*										
151. Carbuncle, boil	2	73	2	75	5	5	271	28	276	4
152. Cellulitis, acute abscess :—										
(*a*) Cellulitis	7	169	9	176	3	10	269	37	279	12
(*b*) Acute abscess	6	473	7	479	13	33	623	39	656	32
153. Other diseases of the skin and its annexa	9	247	—	256	14	18	346	2	364	10
XIII.—*Diseases of the Bones and Organs of Locomotion.*										
154. Acute infective osteomyelitis and periostitis	5	35	—	40	7	2	97	5	99	5
155. Other diseases of the bones	2	24	—	26	—	2	9	—	11	4
156. Diseases of the joints and other organs of locomotion :—										
(*a*) Diseases of the joints	5	53	—	58	3	4	124	—	128	5
(*b*) Diseases of other organs of locomotion	1	3	—	4	1	—	—	—	—	—
XIV.—*Congenital Malformations*										
157. Congenital malformations :—										
(*a*) Congenital hydrocephalus	—	—	—	—	—	—	5	3	5	2
Carried forward	381	13,036	1,417	13,417	512	1,044	44,398	12,053	45,442	1,472

Appendix A. **Table LXVIII.** **Appendix B.** **Table LXIX.**

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total. Admissions.	Yearly total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1937.
Brought forward	381	13,036	1,417	13,417	512	1,044	44,398	12,053	45,442	1,472
XIV.—*Congenital Malformations,—(Contd.)*										
157. Congenital malformations :—Continued.										
(*b*) Spina bifida and meningocele	—	—	—	—	—	—	1	1	1	—
(*c*) Congenital malformation of heart	1	1	—	2	—	—	6	1	6	—
(*d*) Monstrosities	—	—	—	—	—	—	4	1	4	—
(*e*) Other congenital malformations	—	43	1	43	3	—	3	2	3	—
XV.—*Diseases of Early Infancy.*										
158. Congenital debility	—	9	6	9	1	9	141	99	150	3
159. Premature birth	—	19	1	19	—	2	63	55	65	1
160. Injury at birth	—	—	—	—	—	—	—	—	—	—
161. Other diseases peculiar to early infancy :—										
(*a*) Atelectasis	—	—	—	—	—	—	—	—	—	—
(*b*) Icterus neonatorum...	—	1	—	1	—	—	9	7	9	—
(*c*) Other diseases included in 161	—	—	—	—	—	—	50	50	50	—
Diseases of the umbilicus	—	1	1	1	—	—	1	—	1	—
Pemphigus neonatorum	—	1	—	1	—	—	—	—	—	—
Others included under 161c.	—	—	—	—	—	—	3	—	3	—
XVI.—*Old Age.*										
162. Old Age :—										
(*a*) Senile dementia	—	13	1	13	—	4	—	—	4	—
(*b*) Other forms of senile decay	—	20	—	20	1	32	635	357	667	11
XVII.—*Conditions Associated with Violence.*										
163. Suicide, or attempted suicide, by poisoning (including corrosive poisoning)	—	103	24	103	1	1	34	1	35	—
Carried forward	382	13,247	1,451	13,629	518	1,092	45,348	12,627	46,440	1,487

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	382	13,247	1,451	13,629	518	1,092	45,348	12,627	46,440	1,437
XVII.—*Conditions Associated with Violence.*—(*Contd.*)										
164. Suicide, or attempted suicide, by gas poisoning	—	3	—	3	—	—	—	—	—	—
165. Suicide, or attempted suicide, by hanging or strangulation	1	13	—	14	—	—	—	—	—	—
166. Suicide, or attempted suicide, by drowning	—	53	3	53	—	1	38	—	39	1
167. Suicide, or attempted suicide, by firearms	—	6	—	6	—	—	—	—	—	—
168. Suicide, or attempted suicide, by cutting or piercing instruments	—	9	6	9	—	—	—	—	—	—
169. Suicide, or attempted suicide, by jumping from a height	—	—	—	—	—	—	—	—	—	—
170. Suicide, or attempted suicide, by crushing	—	—	—	—	—	—	—	—	—	—
171. Suicide, or attempted suicide, by other means	—	1	—	1	—	—	—	—	—	—
172. Infanticide	—	—	—	—	—	—	—	—	—	—
173. Assault or homicide, by firearms	—	6	—	6	—	—	—	—	—	—
174. Assault or homicide, by cutting or piercing instruments	3	626	6	629	—	—	—	—	—	—
175. Assault or homicide, by other means	—	173	10	173	—	—	—	—	—	—
176. Attacks by venomous animals :—										
(*a*) Snake bite	—	3	—	3	—	—	—	—	—	—
(*b*) Insect bite	—	6	—	6	—	—	2	—	2	—
(*c*) Others	—	2	—	2	—	—	4	—	4	—
177. Food poisoning	—	38	—	38	—	—	22	3	22	—
178. Accidental absorption of irrespirable or poisonous gas	—	1	1	1	—	—	1	1	1	—
179. Other acute accidental poisoning	—	16	—	16	—	—	—	—	—	—
Carried forward	386	14,203	1,477	14,589	518	1,093	45,415	12,631	46,508	1,438

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	386	14,203	1,477	14,589	518	1,093	45,415	12,631	46,508	1,483
XVII.—*Conditions Associated with Violence.*—(*Contd.*)										
180. Injuries due to conflagration	—	—	—	—	—	—	—	—	—	—
181. Accidental burns :— (conflagration excepted)—										
(*a*) Burns by fire	3	59	5	62	—	—	11	1	11	2
(*b*) Scalds	2	83	9	85	3	3	38	2	41	2
(*c*) Burns by corrosive substances	—	4	—	4	—	—	2	—	2	—
(*d*) Dermatitis due to sun	—	3	—	3	—	—	—	—	—	—
(*e*) Dermatitis due to exposure to other forms of radiation..	—	—	—	—	—	—	—	—	—	—
182. Accidental mechanical suffocation	—	—	—	—	—	—	7	—	7	—
183. Accidental immersion or drowning	—	—	—	—	—	1	6	—	7	—
184. Accidental injury by fire-arms	1	14	1	15	—	1	66	—	67	65
185. Accidental injury by cutting or piercing instruments	—	972	3	972	12	2	40	—	42	3
186. Accidental injury by fall, crushing, etc. (This title includes all accidental deaths from injuries by falling, on railways, by vehicles, by machinery, by landslides, etc.).	45	2,167	140	2,212	69	20	330	4	350	28
187. Cataclysm ..... (This title includes all deaths from cyclones, volcanic eruptions, tidal waves, earthquakes or tornadoes).	—	—	—	—	—	—	—	—	—	—
188. Injury by animals (poisoning by venomous animals excepted)	—	—	—	—	—	—	—	—	—	—
Carried forward	437	17,505	1,635	17,942	602	1,120	45,915	12,638	47,035	1,558

Appendix A. Table LXVIII.

Appendix B. Table LXIX.

Diseases.	Government Hospitals.					Chinese Hospitals.				
	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.	Remaining in Hospital at end of 1936.	Yearly total.		Total Cases Treated.	Remaining in Hospital at end of 1937.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	437	17,505	1,635	17,942	602	1,120	45,915	12,638	47,035	1,588
XVII.—*Conditions Associated with Violence.*—(*Contd.*)										
189. Hunger or thirst	—	2	1	2	—	—	1	—	1	—
190. Excessive cold	—	—	—	—	—	—	—	—	—	—
191. Excessive heat	—	—	—	—	—	—	—	—	—	—
192. Lightning	—	—	—	—	—	—	—	—	—	—
193. Electricity	—	1	—	1	—	—	—	—	—	—
194. Other and unstated forms of accidental violence :—										
Inattention at birth	—	—	—	—	—	—	—	—	—	—
Other causes included under 194	—	—	—	—	—	—	—	—	—	—
195. Violence of an unstated nature—(*i.e.* accidental, suicidal, etc.)	—	—	—	—	—	—	—	—	—	—
196. Wounds of war	—	—	—	—	—	—	—	—	—	—
197. Execution of civilians by belligerent armies	—	—	—	—	—	—	—	—	—	—
198. Execution	—	—	—	—	—	—	—	—	—	—
XVIII.—*Ill-Defined Diseases.*										
199. Sudden death	—	—	—	—	—	—	—	—	—	—
200. Cause of death unstated or ill-defined :—										
(*a*) Heart failure	—	—	—	—	—	—	3	3	3	—
(*b*) Other ill-defined causes	—	—	—	—	—	—	—	—	—	—
(c) Cause not specified..	—	—	—	—	—	—	43	—	43	—
201. Under observation	4	321	1	325	9	—	—	—	—	—
202. Malingering	—	3	—	3	—	—	—	—	—	—
203. Persons accompanying patients	—	—	—	—	—	—	—	—	—	—
Miscellaneous	2	—	—	2	—	—	—	—	—	—
Maternity Cases	—	—	—	—	—	—	887	—	887	6
Total	443	17,832	1,637	18,275	611	1,120	46,849	12,641	47,969	1,594

Appendix C.

REPORT OF THE REGISTRAR-GENERAL OF BIRTHS & DEATHS.

Brief mention has been made of demographic details in the main body of this report under the heading "II Public Health, Vital Statistics." For the sake of economy of space, therefore, the Registrar-General's Report is submitted this year in tabular form with the minimum of text.

Population.

The population figure for mid-year 1937 is obtained from an arithmetical estimate based upon the increase between the Census of 1921 and that of 1931, but adding a figure of 100,000 to the end result to represent the Chinese maritime population which was not accurately enumerated in 1931.

The number so obtained is believed to be from twenty-five to thirty per centum below the actual figure resulting from the influx of refugees during the second half of 1937. From the data available it is not possible to estimate with any degree of accuracy the sex and age distribution of the population in the territories as a whole differentiated according to nationality.

Table LXX.

	Census 1921.	Census 1931.	Estimated at mid-year 1937.
Island of Hong Kong			
Non-Chinese	9,454	9,696	9,847
Chinese	337,947	399,507	437,982
Kowloon Peninsula			
Non-Chinese	3,186	7,925	10,887
Chinese	120,262	255,095	339,366
New Territories			
Non-Chinese	216	376	476
Chinese	82,947	97,781	107,052
Maritime			
*Non-Chinese	1,942	1,372	1,372
†Chinese	69,212	68,721	100,000
Total Non-Chinese	14,798	19,369	22,582
,, Chinese	610,368	821,104	984,400
Totals	625,166	840,473	1,006,982

* The decrease in Non-Chinese maritime population between the years 1921 and 1931 is considered to be due to the slump which Hong Kong was suffering from at that time and in the circumstances it is not considered that the decrease has been maintained. The 1931 figure has therefore been retained.

† It will be seen from the above figures that there was a slight decrease in the maritime population between the years 1921 and 1931. This was due to the fact that many were not counted in 1931, and a figure of 100,000 has been taken for some years past as a more accurate estimation of this section of the population.

Births.

A considerable increase in the number of births registered was noted in 1937, the figure being 32,303 as compared with 27,383 in 1936.

The ratio of male to female births was as 119 to 100.

The crude birth-rate rose from 27.8 per thousand living in 1936 to 32.1 in 1937.

The following table provides means of comparison with previous years.

Table LXXI.

Year.	1933.	1934.	1935.	1936.	1937.
Males	10,302	11,316	13,496	15,064	17,559
Females	8,440	9,570	11,541	12,319	14,744
Persons	18,742	20,886	25,037	27,383	32,303

Deaths.

Deaths showed an even greater increase in 1937 over the number recorded in the previous year, the relevant figures being 34,635 and 25,380 respectively.

Male deaths largely exceeded female in the proportion of 140 to 100.

The crude death-rate showed a corresponding rise from 25.8 in 1936 to 34.4. in 1937.

Table LXXII gives the data over a period of five years.

Table LXXII.

Year.	1933.	1934.	1935.	1936.	1937.
Males	10,168	10,464	12,059	14,681	20,233
Females	8,762	8,402	9,290	10,683	14,392
Sex unknown ...	19	19	18	16	10
Persons*	18,949	18,885	21,367	25,380	34,635

*Deaths among the Forces of the Crown are not included in this table.

Infant mortality.

As might be expected from the very different standards of living enjoyed by the Non-Chinese community as compared with the vast bulk of the indigenous population, the loss of infant life is far higher in the second group.

In the year under review the figures were 46 and 376 respectively and the ratio was even worse in 1936 as may be seen from Table LXXIII.

Table LXXIII.

Year.	1933.	1934.	1935.	1936.	1937.
Non-Chinese	88	50	57	37	46
Chinese	455	347	316	372	376

Deaths according to age.

Owing to the fact that the system employed in 1937 in the compilation of weekly mortality returns did not permit of classification into the two sexes, it is not possible on this occasion to classify the age-groups at which deaths took place into sexes.

Reference to Table LXXIV will show that approximately one third of the recorded deaths occurred in infants under one year of age and that nearly forty-five per centum of all deaths took place within the first five years of life—a very definite indication of the need for very active steps on the part of Government to secure early improvement in environmental hygiene, housing, disposal of wastes, nutrition, etc., and in the provision of adequate maternal and child welfare services.

Table LXXIV.

	Under 1 year.	1—5 years	5—15 years	15—30 years	30—60 years	over 60 years	unknown age.
Persons*.	11,650	3,888	1,260	4,484	9,387	3,824	142

*Eleven deaths among the Forces of the Crown are not included in this table.

Seasonal incidence.

The months of June and December, 1936, provided two peaks in the mortality returns. In 1937 the curve was complicated by three factors, the cholera epidemic, the arrival of many thousands of refugees from Shanghai, Tientsin and other parts of China affected by the Sino-Japanese hostilities, and, thirdly, the typhoon at the beginning of September.

The monthly totals of deaths are tabulated below.

Table LXXV.

Month.	Number of deaths.	
	1936.	1937.
January	1,809	2,477
February	1,577	2,150
March	2,043	2,230
April	1,902	2,098
May	1,927	2,360
June	2,438	2,506
July	2,318	2,623
August	2,207	3,506
September	1,971	4,070
October	2,437	3,684
November	2,244	3,460
December	2,507	3,471
Total	25,380*	34,635*

*Deaths among the Forces of the Crown are not included in this table.

Nationality of deceased.

The distribution of deaths according to nationality are briefly summarised in Table LXXVI.

Table LXXVI.

Civilian Non-Chinese Deaths Registered During 1937.

American	9
Annamite	3
British	61
Ceylonese	1
Danish	2

Eurasian	1
Filipino	8
French	3
German	2
Hebrew	1
Indian	48
Italian	3
Japanese	39
Jewish	2
Malayan	5
Mauritian	1
Mexican	2
Norwegian	1
Parsee	2
Portuguese	46
Russian	2
Spanish	1
Swedish	1
	244

Causes of death.

Not only were the weekly mortality forms used in 1937 based upon the International List of Causes of Death of 1926, but the causes of death as recorded failed to coincide with the numbers given in that List.

Moreover, no distinction on a sex basis was made in the death returns for 1937. For these reasons, it is only possible to give the gross totals of deaths from various causes in Table LXXVIII appended.

Steps have been taken to revise the form of the mortality returns which will follow the International List of Causes of Death of 1931 in future years.

(1) Diseases of the Respiratory System (Non-tuberculous).

This group occupied the first place in the list of causes of death in 1937 and was responsible for 10,380 deaths. The ratio of deaths from bronchitis, broncho-pneumonia, pneumonia, etc., to deaths from all causes amounted to 300 per 1,000. The corresponding ratio of deaths from respiratory disease per thousand living persons was 10.3.

(2) Enteritis.

Next in order of importance in killing diseases came enteritis, including gastro-enteritis, which caused 2,365 deaths in children under one year of age and a further 2,120 deaths in persons at other ages, a total of 4,485. This figure gives a ratio of 130 per thousand deaths from all causes and 4.5 deaths from enteritis per thousand living persons.

(3) Tuberculosis.

Tuberculosis was third on the list of the diseases contributing 4,028 to the mortality figures for 1937. By far the greater number of these deaths were due to pulmonary tuberculosis. This is no doubt due to the bad housing conditions and malnutrition from which the poorer classes suffer combined with the extremely common habit of spitting everywhere and at all times.

The proportion of deaths from tuberculosis per thousand from all causes amounted to 116, whilst the ratio per thousand living persons was four. By far the greater number of deaths were accounted for by tuberculosis of the respiratory system, presumably due very largely to the human strain, the relatively small number of intestinal, bony and lymphatic cases in which the bovine bacillus may have been concerned, suggesting a close correlation with the existing small consumption of fresh cow's milk.

(4) Infectious Diseases (Non-tuberculous).

Infectious and contagious diseases came high up on the list of causes of death 176 deaths being attributed to typhoid fever, ninety-four to smallpox, nineteen to measles, two to whooping cough, 148 to diphtheria, 377 to influenza, 1,082 to cholera, 316 to dysentery, thirteen to leprosy, five each to erysipelas and acute poliomyelitis, eight to encephalitis lethargica, eighty-eight to cerebro-spinal meningitis, nine* to tetanus and 296 to syphilis. The total of 2,638 gives a ratio of seventy-six per thousand deaths from all ages and 2.6 per thousand living persons. This high proportion of deaths from infectious diseases provides yet another index of the unsatisfactory health conditions prevailing in Hong Kong.

(5) Nutritional Diseases.

Although scurvy and rickets were certified to be the cause of death in only one case each, 1,661 deaths were stated to be due to beri beri. Where not only the cause but the means of prevention are known and the latter easily obtainable by the poorest inhabitant, it is unfortunate that such a heavy toll of life takes place from this disease.

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* Excluding forty-nine deaths from tetanus neonatorum.

Pellagra and other deficiency diseases do not appear to influence mortality returns in these territories.

Other nutritional diseases including general malnutrition and starvation, however, carried off 1,033 persons, mostly of tender age.

(6) Puerperal Mortality.

Diseases and accidents of pregnancy and parturition were responsible for the relatively small number of seventy-six deaths representing a ratio of 2.4 per thousand living births.

In spite of the low standard of environmental hygiene met with in the poorer quarters of Hong Kong and Kowloon, a remarkably few women appear to lose their lives in child-birth as compared with the total mortality. It is difficult to believe that good midwifery is the principle reason for this and it seems more likely that the average Chinese women possesses some degree of racial resistance to the invasion of streptococci. Nineteen of the deaths referred to above were attributed to eclampsia.

(7) Violence and other external causes.

Before leaving the subject of causes of death, mention might be made of the relatively high death-rate recorded from affections produced by violence and other external causes.

A total of 864 deaths were registered under this heading of which 366 were due to drowning 103 to suicide.

Further details of causes of death are to be found in Tables LXXVIII, LXXIX and LXXX at the end of this section—the last two relating specifically to cholera and tuberculosis.

Certification of Causes of Death.

As might be expected in a community made up largely of illiterates a minority of whom appreciate the advantages of Western medicine, the bulk of the deaths recorded are in persons who have not sought medical aid during their life time.

It is for this reason and the fact that the understaffing of the Medical Department resulting in, for example, a busy Health Officer responsible for a population of about 600,000 having to carry out "autopsies" on as many as thirty-one dead bodies in a day in addition to his normal duties as a medical officer of health that a certain amount of reserve needs to be exercised in accepting causes of death as listed.

The following table shows the nature of the authorities certifying the cause of death, either as the result of attendance upon the deceased in life or from information obtained at an "autopsy".

Table LXXVII.

Authority certifying cause of death	Chinese		Non-Chinese	
	Number of cases	Percentage of all cases	Number of cases	Percentage of all cases
Medical practitioners in attendance	20,115	58.5	188	77
Medical Officer of Health	3	0.01		
Tung Wah Hospital..	730	2.1		
Tung Wah Eastern Hospital	660	1.9		
Kwong Wah Hospital.	1,682	4.9		
Coroner from information received from the Medical Officers i/c. Public Mortuaries	8,119	23.6	56	23
Asst. Registrars, New Territories	3,082	9.0		
Total	34,391	—	244	—

Table LXXVIII.

Causes of Death.

		A. Epidemic, Endemic and Infectious Diseases.	Persons
1		Enteric group	—
	(*a*)	Typhoid fever	176
5		Malaria	—
	(*a*)	Benign tertian	1
	(*c*)	Subtertian	409
	(*d*)	Cachexia	2
	(*e*)	Blackwater fever	4
	(*f*)	Mixed or undefined	284
6		Smallpox	94
7		Measles	19
9		Whooping cough	2
10		Diphtheria	148
11		Influenza	377
15		Cholera	1,082
17		Dysentery	—
	(*a*)	Amoebic	47
	(*b*)	Bacillary	189
	(*c*)	Undefined (and other causes)	80 316
20		Leprosy	13
21		Erysipelas	5
22		Acute poliomyelitis	5
23		Encephalitis lethargica	8
24		Cerebro-spinal meningitis (epidemic)	88
31		Tetanus (except of newly born)	9
34		Tuberculosis	121
	(*a*)	Disseminated (miliary and general)	431
	(*b*)	Pulmonary (phthisis)	3,061
	(*c*)	Meningeal	334
	(*d*)	Intestinal and peritoneal	40
	(*e*)	Of bones and joints	24
	(*f*)	Glandular (lymphatic)	7
	(*g*)	Of skin (lupus)	1
	(*i*)	Of other organs	9
35		Syphilis	—
	(*b*)	Tertiary	7
	(*c*)	Congenital and conceptional	279
	(*d*)	Undefined	10
38		Beri-beri	1,661
40		Scurvy	1

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
41		Rickets	1
42		Buccal	7
	(*a*)	Carcinoma and sarcoma (malignant disease)	1
	(*b*)	Gastric and hepatic	91
	(*c*)	Intestinal and peritoneal	39
	(*d*)	Of female gential organs	42
	(*e*)	Of breast	22
	(*f*)	Of dermal	8
	(*g*)	Of other organs	53
43		Non-malignant tumours	5
44		Rheumatism	1
	(*a*)	Acute	2
	(*b*)	Chronic	4
45		Diabetes mellitus	25
47		Diseases of thyroid gland	—
	(*a*)	Exophthalmic goitre	4
	(*c*)	Other	1
48		Diseases of thymus	—
	(*b*)	Other	1
51		Anaemia	2
	(*a*)	Pernicious	8
	(*b*)	Secondary (cause not stated)	8
52		Leukaemias	—
	(*a*)	Leukaemia (splenomedullary)	1
53		Other General Diseases	—
	(*a*)	Purpura haemorrhagica	4
	(*g*)	Septicaemic and toxaemia (cause unknown)	8
	(*h*)	Other general diseases	1
54		Chronic poisoning	—
	(*d*)	Opium poisoning	7
56		Encephalitis (excluding encephalitis lethargica)	1
57		Meningitis (not tuberculous or infective c.s.m.)	64
58		Locomotor ataxia (tabes dorsalis)	2
59		Other diseases of spinal cord (excluding acute poliomyelitis)	1
	(*a*)	Myelitis	6
60		Apoplexy	73
	(*a*)	Cerebral haemorrhage	144

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
	(*b*)	Cerebral embolism	2
	(*c*)	Cerebral thrombosis	12
62		Paralysis	2
	(*a*)	Hemiplegia (cause unspecified)	18
	(*b*)	Paraplegia and other forms	3
63		General paralysis of insane	6
64		Other forms of mental alienation and defect	6
65		Epilepsy	14
66		Other fits or convulsions of unspecified origin (over 2 years)	8
68		Other functional nervous diseases	—
	(*d*)	Tetany (over 2 years)	1
69		Neuritis, sciatica, atrophy, etc. (cause not specified)	256
73		Pericarditis	37
74		Myocarditis	577
75		Acute and infective endocarditis	13
76		Chronic endocarditis and valvular disease	93
	(*a*)	Mitral	152
	(*b*)	Aortic	84
	(*d*)	Congenital heart disease	3
	(*e*)	Cardiac failure and syncope (cause unspecified)	10
77		Angina pectoris	11
78		Other diseases of heart	22
79		Diseases of the arteries	2
	(*a*)	Aneurism	31
	(*b*)	Arterio-sclerosis (cause unspecified)	20
	(*c*)	Other	1
80		Diseases of veins	—
	(*a*)	Haemorrhoids	1
84		Other diseases of circulatory system	3
85		Diseases of nasal passages	—
	(*c*)	Other	7
87		Bronchitis	—
	(*a*)	Acute	2,083
	(*b*)	Chronic	1,085

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
	(*c*)	Bronchiectasis	41
88		Broncho-pneumonia	5,710
89		Pneumonia	—
	(*a*)	Lobar	1,114
	(*b*)	Unclassifed	228
90		Pleurisy (empyema)	39
91		Pulmonary congestion	1
	(*a*)	Hypostatic and oedematous congestion	5
94		Emphysema (lungs)	1
97		Asthma	65
99		Other affections of lungs	1
100		Affections of mouth	8
	(*a*)	Diseases of teeth and gums	16
	(*b*)	Stomatitis (various forms)	3
	(*c*)	Cancrum oris (gangrenous stomatitis)	17
	(*d*)	Glossitis	1
103		Gastric ulcer	48
104		Duodenal ulcer	11
105		Other affections of stomach	—
	(*a*)	Gastritis	320
106		Enteritis and diarrhoea (over one year of age and undefined)	2,120
	(*a*)	Colitis	49
107		Sprue	1
108		Appendicitis	35
109		Intestinal obstruction (unspecified cause)	21
110		Hernia (and their complications)	16
111		Diseases due to internal parasites	—
	(*a*)	Mematoda	—
		(1) Ankylostomiasis	8
116		Cirrhosis of liver (cause unstated)	97
	(*a*)	Atrophic or portal	1
117		Other affections of liver	1
	(*a*)	Abscess (undefined)	—
		2. Other (pyaemic)	5
	(*b*)	Hepatitis (undefined)	6

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
118		Jaundice (not of newly-born; cause unstated)	—
	(*a*)	Obstructive	1
	(*b*)	Toxic or infective	2
119		Affections of gall-bladder and ducts	—
	(*b*)	Cholecystitis, etc.	31
120		Diseases of pancreas (except diabetes)	1
121		Peritonitis (of no stated cause)	37
123		Nephritis	—
	(*a*)	Acute	40
	(*b*)	Chronic (Bright's disease)	608
		(1) Parenchymatous	1
		(2) Interstitial	11
		(3) Unclassified	516
	(*c*)	Uraemic (cause not stated)	25
124		Other affections of kidneys	1
	(*a*)	Pyelitis, etc.	14
	(*c*)	Other (non-tubercular)	2
125		Urinary and renal calculus	5
126		Diseases of bladder	—
	(*a*)	Cystitis	10
128		Diseases of prostate	3
130		Diseases of male genital organs (non-venereal)	—
	(*d*)	Ulcer of penis	3
132		Cysts and other non-malignant tumours of ovaries	5
138		Accidents of pregnancy and parturition	—
	(*a*)	Abortion and miscarriage (natural or induced)	2
	(*b*)	Ectopic gestation	8
	(*c*)	Haemorrhage	—
		(1) Ante-partum	5
		(2) Post-partum	18
	(*f*)	Other accidents of parturition.	1
139		Puerperal septicaemia (or fever)	11
140		Phlegmasia alba dolens (puerperal embolism)	1
141		Puerperal eclampsia	19

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
143		Other sequelae of labour	11
145		Gangrene	—
	(*e*)	Other or known cause	1
146		Carbuncle or boil	1
147		Abscess (cause not stated)	—
	(*a*)	Whitlow	3
	(*b*)	Cellulitis (excluding erysipelas).	97
148		Ulceration of skin	—
	(*c*)	Varicose and trophic ulcers	4
	(*d*)	Other non-specific ulcers	2
150		Parasitic skin diseases	—
	(*e*)	Other parasitic skin diseases ...	5
152		Other skin diseases (primary)...	1
153		Diseases of bones	2
	(*a*)	Osteomyelitis (cause unknown).	7
	(*b*)	Other diseases of bones	2
154		Diseases of joints (non-specific)	—
	(*a*)	Arthritis	1
	(*b*)	Synovitis	1
	(*c*)	Other diseases of joints	3
155		Congenital malformations	—
	(*a*)	Hydrocephalus	2
	(*b*)	Spina bifida	1
	(*c*)	Imperforate anus	2
	(*d*)	Malformations of genitalia (under 2 years)	1
	(*e*)	Congenital atelectasis	77
	(*g*)	Other malformations	39
156		Injuries at birth	—
	(*a*)	Haemorrhages	4
157		Umbilical affections	1
	(*a*)	Tetanus neonatorum	49
159		Icterus neonatorum (non-specific)	261
160		Prematurity	361
161		Nutritional diseases	—
	(*a*)	Marasmus and atrophy (congenital debility)	522
	(*b*)	General malnutrition and starvation	440
	(*d*)	Spasmophilia and convulsions (cause not stated)	71

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
162		Infantile enteritis or diarrhoea (undefined; under 1 year and including gastro-enteritis and ileo-enteritis)	2,365
163		Intussusception	6
170		Senility (other diseases not specified)	1,043
171		Affections produced by violence and other external causes	—
	(*a*)	Suicides	—
		Suicides by poisoning—	
		(1) Internal poisoning	18
		(2) Corrosive poisoning	19
	(*b*)	Suicides by asphyxiation—	
		(1) Hanging or strangulation.	36
		(2) Drowning	11
	(*c*)	Suicide by firearms	2
	(*d*)	Suicide by instruments (cutting or stabbing)	6
	(*e*)	Suicide by jumping from a height	11
174		Burns (accidental)	—
	(*a*)	By fire	10
	(*b*)	Other than by fire	19
175		Asphyxia (accidental)	1
	(*a*)	Suffocation and strangulation.	8
	(*b*)	Drowning	366
176		Gas poisoning (accidental)	6
177		Wounds and injuries (accidental)	—
	(*a*)	By firearms (not on active service)	7
	(*c*)	By falls	25
	(*d*)	By machinery (other than vehicles)	26
	(*e*)	By crushing (vehicles, railway accidents, etc.)	111
	(*f*)	By explosions	36
	(*g*)	By animals (bites, kicks, etc.)	1
	(*h*)	Multiple wounds (mixed or undefined causes)	117
	(*i*)	Other wounds or injuries	2

CAUSES OF DEATH,—*Contd.*

		A. Epidemic, Endemic and Infectious Diseases.	Persons
179		Executions of civilians in the course of law (hanging, etc.).	2
180		Effects of exposure	—
	(*a*)	To cold	2
	(*c*)	To light rays (sun stroke)	1
181		Effects of electricity	—
	(*b*)	Electric shock	6
182		Homicide	2
	(*a*)	By firearms	4
	(*b*)	By cutting or stabbing instruments	7
	(*c*)	By asphyxia (strangulation, etc.)	1
	(*e*)	Homicide by other means	1
188		Debility, asthenia, exhaustion, etc. (cause unspecified)	59
189		Shock (cause unspecified)	6
190		Pyrexia of unknown origin	2
191		Ascites, dropsy, etc. (cause unspecified)	4
192		Other ill-defined diseases	2,320
		Undiagnosed (body too decomposed or mutilated)	396
		Total	* 34,635

* Eleven deaths among the Forces of the Crown are not included in this table.

Table LXXIX.

NUMBER OF DEATHS FROM CHOLERA—1937.

Age group.	*Total.*	*Percentage of deaths from cholera at different age periods.*
Under 1 year	6	0.56
1 — 5 years	62	5.73
5 — 15 years	75	6.93
15 — 30 years	137	12.66
30 — 60 years	668	61.74
Over 60 years	132	12.20
Unknown age	2	0.18
	1,082	

Table LXXX.

NUMBER OF DEATHS FROM TUBERCULOSIS—ALL FORMS, 1937.

Age group.	*Total.*	*Percentage of deaths from tuberculosis at different age periods.*
Under 1 year	149	3.70
1 — 5 years	612	15.19
5 — 15 years	250	6.20
15 — 30 years	1,197	29.71
30 — 60 years	1,667	41.38
Over 60 years	153	3.82
	4,028	

Note:—Males and females cannot be shown in the above table as the weekly mortality returns from which the above was tabulated do not record deaths according to sexes.

P. S. SELWYN-CLARKE,

Registrar General of Births & Deaths.

Appendix D.

PUBLIC MORTUARIES.

A complete description has been given in previous Reports of the two public mortuaries in Victoria (Hong Kong Island) and in Kowloon on the mainland; consequently, on this occasion information will be restricted to the actual work performed. Although these mortuaries serve as a valuable index of the gross mortality prevailing in the Colony at any given period, their staffing is so inadequate that little accuracy can be claimed for the actual cause of death—a matter of real regret, since Health policy must obviously be based, to some extent at any rate, on the causes of death amongst the population.

The following table affords some idea of the magnitude of the work encountered at the two public mortuaries. In all but sixty-seven cases the bodies were of Chinese.

Table LXXXI.

	Victoria.	*Kowloon.*	*Total.*
Post-mortems performed—			
Male	2,207	2,602	4,809
Female	1,836	2,016	3,852
Undefined	8	12	20
Total	4,051	4,630	8,681
Age and sex of deceased under two years—			
Male	1,392	1,682	3,074
Female	1,528	1,579	3,107
Undefined	4	12	16
Over two years—			
Male	815	920	1,735
Female	308	437	745
Undefined	4	—	4
Area from which bodies were received—			
Victoria	3,481	—	
Shaukiwan	484	—	
Other parts of Island	86	—	
Kowloon	—	4,158	
Harbour	—	380	
Other parts of mainland	—	92	
Claimed bodies sent from hospitals, etc.	224	162	386
Unclaimed bodies, mostly abandoned	2,143	4,468	6,611
Bodies of infants sent from Italian Convent	1,684	—	1,684

Further details giving the cause of death as nearly as it could be ascertained are given in Table LXXXII.

Table LXXXII.

VICTORIA AND KOWLOON MORTUARIES.

RETURN OF CAUSES OF DEATH FOR THE YEAR 1937.

Causes of death.	Yearly total.	
	Male.	Female.
I.—*Infectious and Parasitic Diseases:*—		
Typhoid fever	5	—
Smallpox:—		
Variola major	28	43
Measles	2	5
Diphtheria	11	10
Influenza	—	1
Cholera	194	116
Dysentery:—		
(*a*) Amoebic	6	—
(*b*) Bacillary	23	7
(*c*) Other or unspecified	1	—
Acute poliomyelitis	1	—
Cerebro-spinal meningitis (epidemic)	12	9
Tuberculosis of the respiratory system	301	159
Tuberculosis of the central nervous system	4	2
Tuberculosis of intestines and peritoneum	7	10
Tuberculosis of other organs	9	4
Disseminated tuberculosis	68	74
Leprosy	5	2
Syphilis:—		
Congenital	6	5
Tertiary	15	1
Malaria	31	9
Sub-tertian	11	2
Cachexia	1	—
Total carried forward	741	453

Causes of death.	Yearly total.		
	Male.	Female.	
Brought forward.....	741	453	
II.—*Cancer and other Tumours*			
Cancer or other malignant tumours of the digestive organs, and peritoneum:—			
Oesophagus	4	—	
Stomach and duodenum	—	1	
Rectum	3	1	
Liver and biliary passages...	1	—	
Non-malignant tumours:—			
Other sites	2	—	
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and Other General Diseases.*			
Beri-beri	173	44	
IV.—*Diseases of the Blood and Blood Forming Organs.*			
Haemorrhagic conditions:—			
Purpura	1	—	
Anaemia, Chlorosis:—			
Pernicious anaemia	1	—	
Diseases of the spleen:—			
Banti's disease	1	—	
V.—*Chronic Poisoning.*			
Chronic poisoning by other organic substances:—			
Opium habit	—	—	
Morphine habit	—	—	
Others	1	—	
Chronic poisoning by mineral substances:—			
Other chronic poisoning by mineral	4	6	
Total carried forward.....	932	505	

Causes of death.	Yearly total.	
	Male.	Female.
Brought forward.....	932	505
VI.—*Diseases of the Nervous System and Sense Organs.*		
Meningitis (non-epidemic)	18	9
Cerebral hæmorrhage, Apoplexy, etc:—		
Cerebral hæmorrhage	—	2
VII.—*Diseases of the Circulatory System.*		
Pericarditis	3	—
Acute endocarditis:—		
Malignant endocarditis	9	—
Other acute endocarditis	1	—
Chronic endocarditis, valvular disease:—		
Aortic valve disease	6	—
Mitral valve disease	1	1
Endocarditis not returned as acute of chronic	1	—
Diseases of the myocardium:—		
Acute myocarditis	2	—
Myocardial degeneration ...	51	10
Diseases of the coronary arteries:—		
Angina pectoris	—	1
Other diseases of the heart:—		
Other diseases included under 95	—	1
Aneurysm	28	—
Arterio-sclerosis	7	1
Gangrene	1	—
Other diseases of the arteries....	1	—
Total carried forward.....	1,061	530

Causes of death.	Yearly total.	
	Male.	Female.
Brought forward.....	1,061	530
VIII.—*Diseases of the Respiratory System.*		
Bronchitis:—		
Acute bronchitis	304	352
Chronic bronchitis	3	—
Bronchitis not distinguished as acute or chronic ...	2	—
Broncho-pneumonia	1,083	1,074
Lobar pneumonia	318	160
Pneumonia (not otherwise defined)	5	1
Pleurisy:—		
Empyema	11	10
Other pleurisy	2	1
Congestion and hæmorrhagic infarct of lung, etc.	1	—
IX.—*Diseases of the Digestive System.*		
Ulcer of the stomach or duodenum:—		
Ulcer of the duodenum	6	—
Other diseases of the stomach:—		
Other diseases included in 118	1	—
Diarrhoea & enteritis (under 2 years)	800	853
Diarrhoea & enteritis (2 years & over):—		
Colitis	104	91
Otherwise defined	2	—
Appendicitis	2	1
Hernia, Intestinal obstruction:—		
Hernia	3	—
Intestinal obstruction	1	—
Other diseases of the intestines.	3	—
Total carried forward.....	3,712	3,073

Causes of death.	Yearly total.	
	Male.	Female.
Brought forward.....	3,712	3,073
Cirrhosis of the liver:—		
Not returned as alcoholic....	14	—
Other diseases of the liver:—		
Hepatitis	3	2
Other diseases of the gall bladder and ducts	1	—
Peritonitis without stated cause.	1	—
X.—*Non-Veneral Diseases of the Genito-Urinary System and Annexa.*		
Acute nephritis	3	8
Chronic nephritis	27	2
Nephritis not stated to be acute or chronic	4	6
Diseases of the bladder:—		
Cystitis	1	—
Diseases of the prostate	1	—
XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*		
Ectopic gestation	—	1
Puerperal hæmorrhage:—		
Placenta prævia	—	1
Puerperal sepsis:—		
Puerperal septicæmia and pyæmia	—	1
Puerperal albuminuria and convulsions:—		
Puerperal convulsions	—	1
XII.—*Diseases of the Skin and Cellular Tissue.*		
Carbuncle, boil	1	—
Cellulitis, acute abscess:—		
Acute abscess	2	—
Brought forward.....	3,770	3,095

Causes of death.	Yearly total.		
	Male.	Female.	
Brought forward.....	3,770	3,095	
XIII.—*Diseases of the Bones and Organs of Locomotion.*			
Acute infective osteomyelitis and periostitis	1	—	
XIV.—*Congenital Malformations.*			
Congenital malformations:—			
Congenital hydrocephalus ...	1	2	
Congenital malformation of heart	2	2	
Other congenital malformations	5	4	
XV.—*Diseases of Early Infancy.*			
Congenital debility	195	228	
Premature birth	195	155	
Other diseases peculiar to early infancy:—			
Atelectasis	—	3	
Icterus neonatorum	16	25	
Still-births (viable)	73	73	
Still-births (non-viable)	73	69	
XVI.—*Old Age.*			
Old age:—			
Other forms of senile decay.	—	1	
XVII.—*Conditions Associated with Violence.*			
Suicide, or attempted suicide, by poisoning (including corrosive poisoning)	6	9	
Suicide, or attempted suicide, by hanging or strangulation....	22	10	
Total carried forward.....	4,359	3,676	

Causes of death.	Yearly total.	
	Male.	Female.
Brought forward.....	4,359	3,676
Suicide, or attempted suicide, by drowning	1	1
Suicide, or attempted suicide, by firearms	3	—
Suicide, or attempted suicide, by cutting or piercing instruments	6	—
Suicide, or attempted suicide, by jumping from a height.....	10	2
Infanticide	1	—
Assault or homicide, by firearms.	—	1
Assault or homicide, by cutting or piercing instruments	3	—
Assault or homicide, by other means	2	2
Attacks by venomous animals:—		
Snake bite	—	1
Other acute accidental poisoning	1	—
Injuries due to conflagration.....	1	2
Accidental burns:—(conflagration excepted)—		
Burns by fire	2	4
Scalds	1	3
Accidental mechanical suffocation	6	1
Accidental immersion or drowning	88	51
Accidental injury by firearms ...	9	1
Accidental injury by fall, crushing, etc. (This title includes all accidental deaths from injuries by falling, on railways, by vehicles, by machinery, by landslides, etc.)	108	17
Electricity	6	2
Violence of an unstated nature-(*i.e.* accidental, suicidal, etc.).	13	2
Total carried forward.....	4,620	3,766

Causes of death.	Yearly total.		Sex Unknown
	Male.	Female.	
Brought forward.....	4,620	3,766	
XVIII.—*Ill-Defined Diseases.*			
Cause of death unstated or ill-fined:—			
Cause not specified	1	—	1
Bodies too decomposed to permit of autopsy	189	85	19
Total	4,810	3,851	20

GRAND TOTAL = 8,681

P. S. Selwyn-Clarke.
Director of Medical Services.