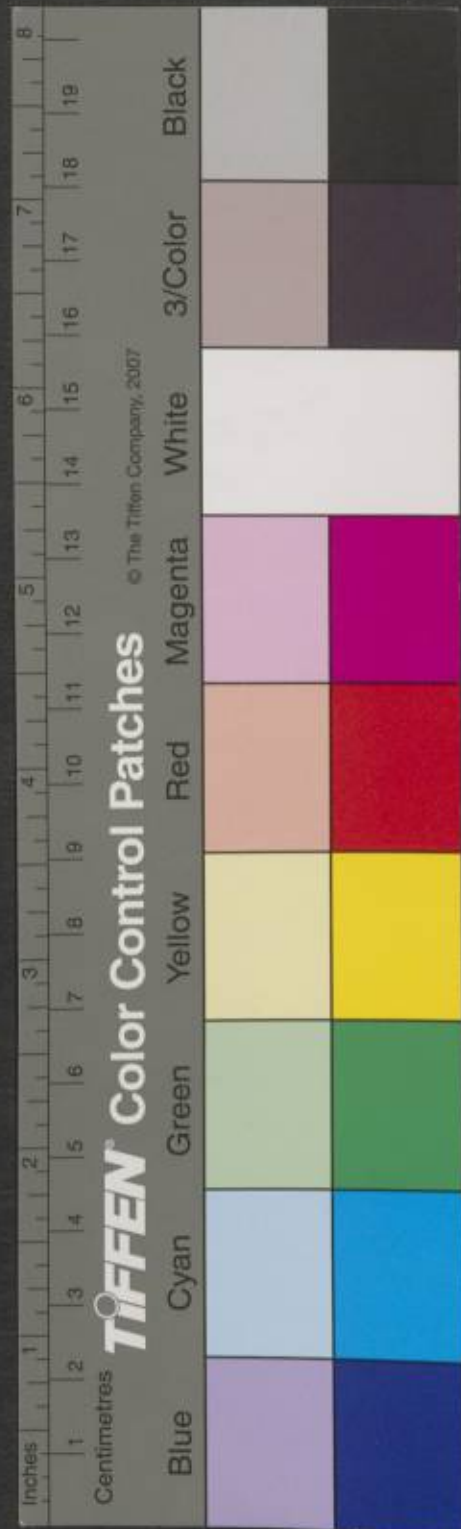


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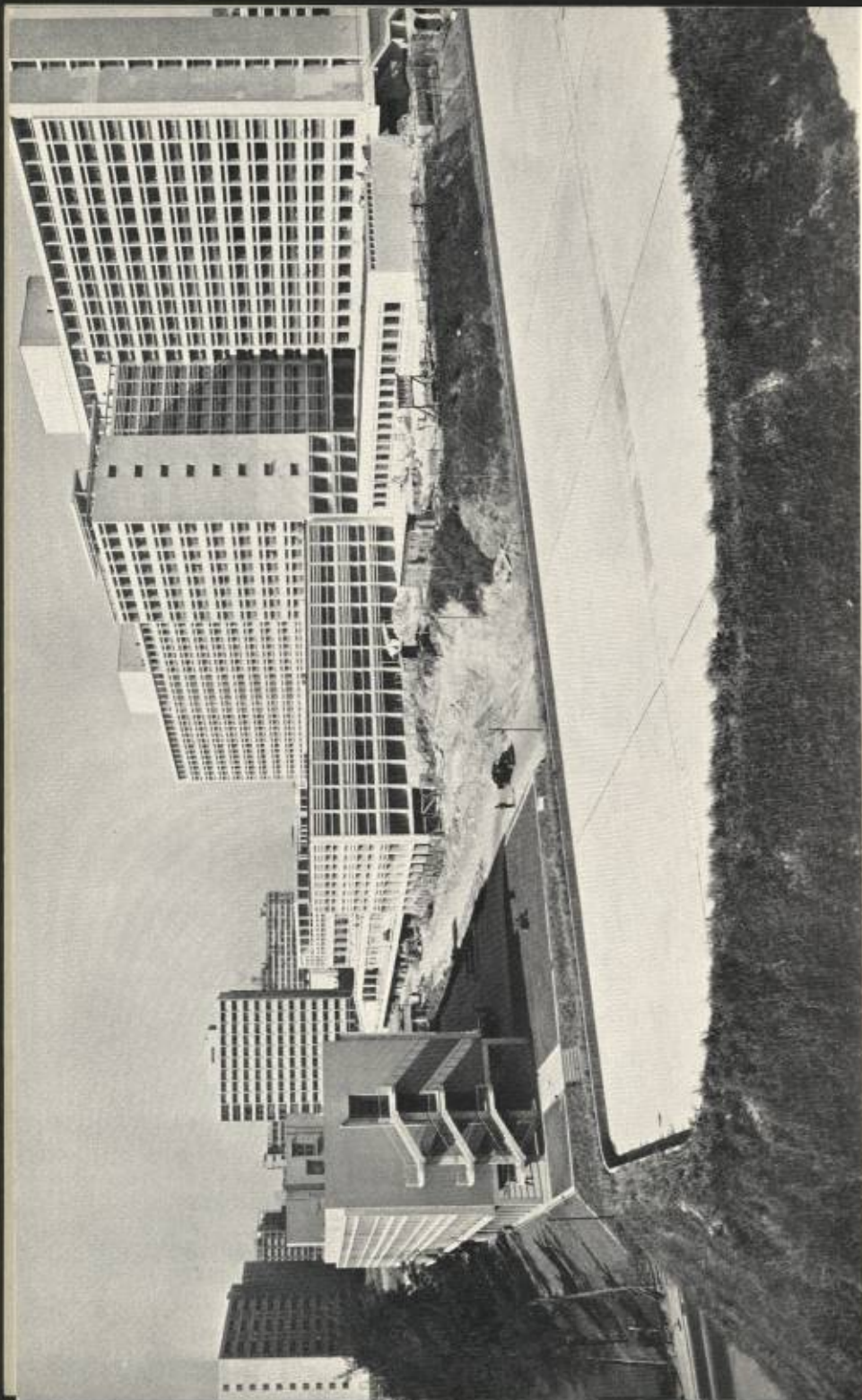
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Queen Elizabeth Hospital
opened on 10.9.63.

HONG KONG
ANNUAL DEPARTMENTAL REPORT
BY THE
DIRECTOR OF MEDICAL AND HEALTH SERVICES
P. H. TENG
FOR THE
FINANCIAL YEAR 1963 - 64

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I. GENERAL REVIEW

THE Colony of Hong Kong occupies a land area of 398½ sq. miles, and the estimated mid-year population in 1963 was 3,592,100, of which 85% was concentrated in the urban areas of Hong Kong Island and Kowloon. It is a young population, approximately 40% being below the age of 15 years and only 5% over age of 60.

2. During the year, the major problems of overcrowding and of environmental hygiene, posed by pre-war tenement buildings and aggregations of squatter and roof-top dwellings, were aggravated considerably by a serious shortage of water, the worst in the Colony's history; the total rainfall for 1963 amounted to only 35.48 inches, representing less than 42% of the normal annual rainfall. Accordingly, severe water restrictions had to be enforced and the great majority of the population were restricted to a four-hour mains supply every fourth day. As could be expected, many turned to other sources for augmentation of their water supply, and intensive chlorination was undertaken wherever possible of wells and of water obtained from other sources such as hill streams.

3. Despite the twin hazards of severe restriction of mains supply and use of water from suspect sources, there were only slight increases in the incidence of gastro-intestinal diseases. Even the re-appearance of cholera El Tor in June did not result in a widespread outbreak. In all, 115 cases of this disease were reported during 1963, occurring sporadically between 29th June and 21st December; one further case was notified in February, 1964. The outbreak is reported in detail elsewhere in this report.

4. In spite of all the environmental hazards, the community health record during the year remained remarkably good. Both the crude death rate and the infant mortality rate declined further, the former to 5.5 deaths per 1,000 population and the latter to 32.9 per 1,000 live births. For the first time in five years the neo-natal mortality also showed a fall, from 21.2 per 1,000 live births in 1962 to 18.9 per 1,000 in 1963.

5. A gratifying feature of the year was the great reduction in the incidence of paralytic poliomyelitis as a result of the mass vaccination campaign, using a Sabin type oral vaccine, which was conducted during the first quarter of 1963. Following this campaign, there was a sharp

decline in the number of cases reported and not one notification was received during the months of June, July and August, a period which had shown the peak incidence in previous years.

6. Past reports of the Medical and Health Department have made repeated mention of the increasingly heavy demands on the hospital and clinic services available in the Colony, which have resulted from the rapidly expanding population and from the increasing demand for Western medical attention. However, during the year under review there were two major developments designed to alleviate this pressure. One of these was the opening of the Queen Elizabeth Hospital by His Excellency the Governor on 10th September, 1963. The other was the acceptance by Government of a basic long-term development programme for medical services in Hong Kong.

7. The Queen Elizabeth Hospital is the largest acute general hospital in the British Commonwealth, and provides a welcome addition to the Colony's strained hospital services, particularly to those on the Kowloon Peninsula where the greatest expansion of population has occurred in recent years. Built as a single block, it is in reality two separate 'ward stacks' joined on the lower floors by administrative and central service areas. It accommodates 1,338 beds with all necessary ancillaries. The Sisters' and Nurses' quarters and the Nurses Training School are adjacent to the hospital and were opened in 1960. This hospital has replaced the Kowloon Hospital as the acute emergency hospital for Kowloon and the New Territories and, in addition, will provide facilities for highly specialized investigation and treatment in that area; these facilities include a large radiotherapeutic institute, donated by the Royal Hong Kong Jockey Club, for which equipment had not been completely installed by the end of the year under review. A phased programme to attain full functioning of the hospital and to transfer facilities from the Kowloon Hospital was commenced on 3rd December, 1963 and was completed by mid-January, 1964.

8. In 1959, a detailed plan of development for the five-year period 1960-65 was prepared; this was approved by Executive Council in 1960, subject to the examination of the details of each project by the Finance Committee of Legislative Council. This plan was an interim exercise only, as the absence of detailed population statistics made impossible any accurate long-term assessment of the problem.

9. Following the 1961 census, a revised programme for further development of curative services was prepared, designed to provide adequate facilities by 1972. After consideration by the Medical Advisory

Board, this plan was submitted to Government in 1962; the Board recommended its adoption, subject to the proviso that the estimates of cost, both capital and recurrent, might prove beyond the resources of the Colony. In view of this proviso, the plan was reviewed critically by an informal Working Party comprising members of the Colonial Secretariat and of the Medical and Health Department under the chairmanship of the Director of Medical and Health Services. The report of this Working Party was accepted by Executive Council in January, 1964, subject to the provision of necessary funds by the Finance Committee and to further detailed consideration of the plan at all stages; it was tabled subsequently as a White Paper in the Legislative Council.

10. The report was based on the stated policy of Government 'to provide, directly or indirectly, low cost or free medical and personal health services to that large section of the community which is unable to seek medical attention from other sources'. It briefly reviewed the history of medical and health services in Hong Kong, in particular during the years following the Second World War and then examined in detail the immediate requirements for out-patient curative services and for hospital beds of various categories.

11. With regard to the requirements for out-patient services, the report recommended a standard urban clinic for each 100,000 of the urban population and a standard rural clinic for each 50,000 of the population in rural areas. Other recommendations were made for the provision of clinics offering certain specialized services, for example in ophthalmic diseases, tuberculosis and social hygiene.

12. Referring to the provision of hospital beds, the report estimated that by the end of 1963 there would be 2.91 hospital beds of all categories per 1,000 population; this estimation assumed that the Queen Elizabeth Hospital and the new Kwong Wah Hospital would be fully operational at the time. The distribution of beds amongst the various categories would be as detailed in Table 1.

TABLE 1
PROVISION OF HOSPITAL BEDS
(DECEMBER 1963)

	<i>Total Beds</i>	<i>Ratio per 1,000 population</i>
General	5,140	1.44
Maternity	1,893	0.53
Infectious	307	0.09
Tuberculosis	1,820	0.51
Mental	1,176	0.33
Total	<u>10,336</u>	<u>2.41</u>

13. The report considered the available statistics on bed requirements as applied to Hong Kong, and estimated that by 1972 the minimal requirements for the various categories would be as shown in Table 2.

TABLE 2
REQUIRED PROVISION OF HOSPITAL BEDS
1972

	<i>Bed ratio per 1,000 population</i>
General	2.5
Maternity	0.5
Infectious	0.2
Tuberculosis	0.5
Mental	0.55
Total	<u>4.25</u>

14. It was estimated that by 1972 the population will have risen to five millions and, taking into account a number of new projects and extensions to existing hospitals now under planning—a total of 5,388 beds, the future requirements would accordingly be a further 5,600 beds, of which 4,760 would need to be provided by Government or by Government-assisted agencies. These requirements are detailed in Table 3.

TABLE 3
BED PROVISION—1972

Type	<i>Beds existing at 3.12.63 or proposed</i>		<i>Corrected Bed Ratio per 1,000 population</i>	<i>Increase required to attain recommended ratios</i>		<i>Commitment for Govern- ment and Government- assisted Agencies</i>
	<i>Total</i>	<i>per 1,000 population</i>		<i>per 1,000 population</i>	<i>Total</i>	
General	8,994	1.80	2.5	0.70	3,500	2,800
Maternity	2,329	0.46	0.5	0.04	200	160
Infectious	769	0.15	0.2	0.05	250	200
Tuberculosis	2,256	0.45	0.5	0.05	250	200
Mental	1,376	0.27	0.55	0.28	1,400	1,400
Total	<u>15,724</u>	<u>3.13</u>	<u>4.25</u>	<u>1.12</u>	<u>5,600</u>	<u>4,760</u>

15. The report also examined the provision of staff, the various standards of construction, accommodation and patient care, and the use of auxiliary staff.

16. In conclusion, the financial implications were noted, although, as the report states, 'the preparation of detailed costs for a programme of such magnitude and complexity is not possible without a complete analysis of each individual project'. However, rough estimates envisaged a total capital expenditure of some \$380 millions between the years 1962-63 and 1971-72, while the annual recurrent expenditure of the Medical and Health Department as detailed in the Colony's Estimates would rise to \$250 millions by the end of this period. The latter estimate, however, does not show the full implications as there would be substantial fringe costs, and a more realistic figure was estimated to be of the order of \$320 millions per annum. This would represent an expenditure of \$64 per capita for a population of five millions.

17. Another step towards the provision of satisfactory medical services for the greater part of the population was the enactment of the Medical Clinics Ordinance in September, 1963. This Ordinance, which came into force on 1st January, 1964, has as its principle object the control of medical clinics in order to protect the public from exploitation in so-called charity clinics where the service provided is below an acceptable standard. Special provision is made in Section 8 of the Ordinance to allow unregistered doctors, who have satisfied the Registrar of Clinics as to their medical capabilities, to continue to work in certain clinics registered with exemption. It is intended to review the application of this Ordinance after it has been in operation for eighteen months, but the Registrar is only enabled to exercise his powers for exemption of clinics for a period of three years.

18. Apart from the Queen Elizabeth Hospital, a number of other medical institutions, both Government and non-Government, were opened during the year. Notable amongst these was the Jockey Club Kowloon Rehabilitation Centre situated in the grounds of Kowloon Hospital. This building, erected with the aid of a generous donation from the Royal Hong Kong Jockey Club, consists of two two-storey blocks containing facilities for an orthopaedic appliance unit, physiotherapy and occupational therapy. The centre is designed to run in conjunction with the accident and rehabilitation services provided by the Queen Elizabeth Hospital, and will provide rehabilitation for those patients who have suffered an injury or illness which has left a physical disability requiring special treatment for the early restoration of function. The centre was opened by the Director of Medical and Health Services on 15th August, 1963.

19. It is once again a privilege to acknowledge the generosity of Sir Shiu-kin TANG, Kt., C.B.E., LL.D., which resulted in the opening of two important buildings during the year. The first of these was the Tang Shiu Kin X-ray Survey Centre and Dental Clinic attached to the Anne Black Health Centre at North Point on Hong Kong Island. The second was the Robert Black Health Centre at San Po Kong on the outskirts of the Wong Tai Sin Resettlement Estate in north Kowloon near Kai Tak Airport; this centre, built by equal donations from Sir Shiu-kin TANG and Government, was opened on the 27th August, 1963 by His Excellency the Governor; it is a standard urban clinic comprising an out-patient department, a maternal and child health centre, a 24-bed maternity ward and quarters for resident staff.

20. Another standard urban clinic opened during the year was the Li Po Chun Health Centre in Tai Kok Tsui. This building was made possible by the generosity of Mr. Li Po-chun who donated half the cost. It is recorded with regret that Mr. Li died on 20th November, 1963, and the opening ceremony was performed on 21st March, 1964, by his widow.

21. On 16th December, 1963 the Kam Tin Clinic and Maternity Home was opened by the Director of Medical and Health Services. This clinic containing out-patient facilities and a maternity ward of seven beds, was originally proposed by representatives of the Kam Tin and Pat Heung communities, who raised over \$30,000 towards the project. The remaining cost of the building and its equipment was borne by Government.

22. Other expansion of medical activities is detailed elsewhere in this report, notably in the section recording the activities of the Tung Wah Group of Hospitals.

ADMINISTRATION OF THE MEDICAL AND HEALTH SERVICES

23. Statutory responsibility for the administration of the services safeguarding the public health in Hong Kong lies jointly with the Director of Medical and Health Services, the Urban Council, the Director of Urban Services, the Commissioner of Labour and the District Commissioner, New Territories. Executive functions in connexion with curative medical services, personal health services and a number of aspects of preventive medicine throughout Hong Kong are the responsibility of the Medical and Health Department. The Urban Council is concerned through the Urban Services Department with environmental sanitation in the

urban areas of Hong Kong Island and Kowloon. The Director of Urban Services has executive functions as the Health Authority for certain of the townships in the New Territories and administers their environmental sanitary services. Medical Officers of Health are seconded in an advisory capacity to the Urban Services Department and the Labour Department has an Industrial Health section staffed by personnel of the Medical and Health Department.

STAFF

24. The Director of Medical and Health Services is the Head of the Department, the chief adviser to Government on medical and health policy, and an Official Member of the Legislative Council. He is a member of a number of the Boards and Committees of voluntary organizations engaged in medical and health work whose activities receive substantial support by way of Government subventions. He is also the Chairman of the Radiation Board and of the Statutory Boards dealing with the registration and disciplinary control of Medical Practitioners, Dentists, Pharmacists, Nurses and Midwives.

25. The Deputy Director of Medical and Health Services is the chief executive medical and health officer, who co-ordinates the work of the Medical and Health Divisions, each of these divisions being in charge of an Assistant Director. The Deputy Director is also Vice-Chairman of the Urban Council and is the advisor to that body on health matters. The Principal Matron is the Chief Nursing Officer and administers the Nursing Division which provides nursing, midwifery and health visitor services.

26. The Health Division, which is the administrative responsibility of the Assistant Director, Health, is concerned with infectious disease control, personal health services, rural hygiene and certain ancillary services. The Medical Division is the responsibility of the Assistant Director, Medical, and is concerned with the provision of curative and specialist clinical services. Each Assistant Director is assisted by a Principal Medical and Health Officer at Headquarters, and each division is divided into units which are individually under the charge of a Specialist or of a Medical and Health Officer with specialized experience and training. The respective spheres of responsibility of the two Divisions are outlined in Appendix 1.

27. The Principal Medical and Health Officer (Planning), assisted by a Senior Hospital Secretary, is responsible for the co-ordination of all

requests for accommodation and equipment for new institutions of the Medical and Health Department, for the processing of building plans and for the detailed forward planning of the Department's activities. In addition, advice and assistance are given on request to voluntary and private organizations engaged in the planning and commissioning of medical institutions, especially those in receipt of Government subventions.

28. The Auxiliary Medical Service, a branch of the *civil defence services*, is administered by the Medical Defence Staff Officer who is a member of the Medical and Health Department Headquarters staff. The Director of Medical and Health Services is the Unit Controller.

29. The routine administrative, secretarial, establishment and clerical work of the Department is under the general direction of the Secretary, while the Principal Accountant and his staff deal with the financial and accounting duties. The work of the Boards section is co-ordinated by the Boards Secretary.

30. The pharmaceutical and dispensing activities are the responsibility of the Chief Pharmacist, who also has inspectorate duties in connexion with the Dangerous Drugs and Pharmacy and Poisons Ordinance. The Government Chemist is responsible for the work of the Government Chemical Laboratory which undertakes the analytical, forensic chemistry and standards work in the Colony.

31. The Chief Hospital Secretary and his staff undertake the supply of equipment and the day-to-day lay administration of the hospital and clinic services. Apart from the Queen Elizabeth and Castle Peak Hospitals which are separately administered, the hospitals and clinics are grouped into two large units, each of which is the responsibility of a Hospital Secretary. Assistant Hospital Secretaries are posted to the more important institutions within these groups.

32. Appendix 2 shows the establishment of the Department at 31st March, 1964.

FINANCE

33. The actual expenditure of the Medical and Health Department for the financial year ended 31st March, 1964, was \$76,893,619, to which should be added a further \$27,764,694 disbursed in the form of subventions to institutions carrying out medical work in the Colony. Capital expenditure on medical projects under the Public Works Non-Recurrent head totalled \$29,675,789. These amounts represent 10.3% of the Colony's

total expenditure during the year. This does not include expenditure on environmental sanitation by the Urban Services Department and by the District Administration of the New Territories.

34. A Statement of Expenditure for the five years from 1959-60 to 1963-64 is shown at Appendix 3.

35. The total revenue collected by the Department from all sources totalled \$5,894,949.

36. The largest subvention was made to the Tung Wah Group of Hospitals which received \$15,272,374; in addition, a further capital grant of \$2,516,245 was made towards the continuing work on the redevelopment of the Kwong Wah Hospital; the total estimated cost of this redevelopment is \$34.1 millions, of which Government is contributing eighty per cent. Other large subventions were \$1,503,000 to the Alice Ho Miu Ling Nethersole Hospital, \$3,459,401 to the Grantham Hospital, \$1,200,000 to the Hong Kong Anti-Tuberculosis Association, \$613,976 to the Mission to Lepers, Hong Kong Auxiliary and \$550,000 to the Pok Oi Hospital.

LEGISLATION

37. The following legislation dealing with medical and health matters was enacted during the year 1963-64. Mention is made of the purpose of the more important ordinances in the body of this report.

Ordinances:

- (i) Animals (Control of Experiments) Ordinance, 1963.
- (ii) Medical Clinics Ordinance, 1963.

Rules and Regulations:

- (a) Animals (Control of Experiments) Regulations, 1963. (L.N. 57/63).
- (b) Poisons (Amendment) Regulations, 1963. (L.N. 137/63).
- (c) Poisons (Amendment) (No. 2) Regulations, 1963. (L.N. 139/63).
- (d) Poisons List (Amendment) Regulations, 1963. (L.N. 138/63).
- (e) Poisons List (Amendment) (No. 2) Regulations, 1963 (L.N. 140/63).
- (f) Medical Clinics (Forms) Regulations, 1963. (L.N. 150/63).

PROFESSIONAL REGISTERS

38. There are five statutory bodies dealing respectively with the registration of medical practitioners, dentists, pharmacists, nurses and

50. Of 345 nurses applying for registration in the general nursing part of the Register, 344 were accepted of whom 316 were from the approved Training Schools in the Colony and 28 were nurses who had trained outside Hong Kong. Some of the latter were required to sit and pass the Board's examination before registration and others were referred for further training. The remaining one application was rejected. One nurse, whose registration had lapsed due to absence from the Colony, was re-admitted to the Register. One name was deleted from the Register on account of death.

51. Thirteen candidates who passed the Final Examination in Psychiatric Nursing were registered.

52. No disciplinary investigations or inquiries took place during the year.

Midwives Board

53. The Board met quarterly and examinations were held during the months of April, July, October and January. A total of 252 candidates entered for the Board's examinations, of whom 235 were successful.

54. There were 243 applications for registration and 234 were accepted; 227 of the applicants had completed their training in Hong Kong and 7, who qualified outside Hong Kong, were accepted without further examination. Of the remaining 9, one was rejected and the others, who had completed Part I of the Central Midwives Board examination held in the United Kingdom, were required to undergo six months further training before sitting the Board's examination. Three names were deleted from the Register on account of death.

55. No disciplinary investigations or inquiries took place during the year.

Radiation Board

56. Two meetings were held to consider draft Radiation (Control of Radioactive Substances) Regulations and Radiation (Control of Irradiating Apparatus) Regulations. Drafting of the Regulations was still progress at the end of the year.

Medical Advisory Board

57. The Board met three times during the year. Consideration was given to the Heaf-Fox Report, the Report on Tuberculosis Research prepared by experts from the Medical Research Council of the United

Kingdom, the Report on Development of Medical Services in Hong Kong and the Report by the Working Party on the School Medical Service in addition to other minor business.

II. PUBLIC HEALTH

GENERAL COMMENTS

58. The general level of the public health was well maintained throughout the year despite increasing densities of population in the urban areas, inadequate housing in the most congested areas, strictly limited and restricted water supplies and some 20% of the population dependent on a nightsoil collection service for sanitation.

59. There was a slight decrease in the notifications of infectious diseases mainly due to a fall in the numbers of reported cases of tuberculosis and of certain other respiratory diseases. There was a rise in the notifications of enteric diseases and also of chickenpox. Mention has already been made in this report of the markedly reduced incidence of poliomyelitis following the vaccination campaign held in the first quarter of 1963. The severe epidemic of measles, which commenced during the winter months of 1962, reached a peak in January, 1963, and thereafter gradually subsided.

60. In spite of widespread investigations, no cholera vibrios were found during the winter months from October, 1962 until the first case of cholera El Tor appeared in June, 1963.

VITAL STATISTICS

61. The registration of all deaths and live births occurring in the Colony is compulsory under the Births and Deaths Registration Ordinance. Still-births are not registrable but the numbers of still-born children received by cemeteries and crematoria are recorded. Table 4 shows the annual returns for births and deaths during the past five-year period.

TABLE 4
BIRTHS AND DEATHS 1959-63

Year	Estimated Mid-Year Population	Total live births	Crude Live Birth Rate (per 1,000 Population)	Still Births Recorded	Total Deaths	Crude Death Rate (per 1,000 Population)
1959 ...	2,857,000	104,579	36.6	1,393	20,250	7.1
1960 ...	2,981,000	110,667	37.1	1,680	19,146	6.4
1961 ...	3,177,700	108,726	34.2	1,683	18,738	5.9
1962 ...	3,400,300	111,905	32.6	1,560	20,324	5.9
1963 ...	3,592,100	115,263	32.1	1,633	19,748	5.5

62. The total number of live births registered again showed an increase, but the crude live-birth rate fell slightly as did the crude death rate. There was a natural increase of 95,515 persons, the highest ever recorded.

63. The mortality pattern continued to show the same trends observed during previous years, namely, decreasing mortality from the communicable diseases and increase in deaths from diseases of later life, particularly neoplasms and cerebro-vascular disorders. An analysis of mortality for the years 1959-63 can be found in Appendix 4.

TABLE 5
INFANTILE AND MATERNAL MORTALITY 1959-63

Year	Infantile Mortality rate (per 1,000 live births)	Neo-natal Mortality rate (per 1,000 live births)	Maternal Mortality rate (per 1,000 total births)
1959 ...	48.3	21.3	0.73
1960 ...	41.5	20.9	0.40
1961 ...	37.7	21.0	0.45
1962 ...	36.9	21.2	0.48
1963 ...	32.9	18.9	0.29

64. Table 5 shows the continuation of recent downward trends in infantile and maternity mortality. A notable point is the fall in neo-natal mortality, which had remained comparatively stationary for the previous four years.

65. An analysis of maternal mortality over the past 5 years is shown in Table 6. Toxaemias and haemorrhages of pregnancy were the principle fatal complications, although there have been marked reductions in death from these causes during recent years.

TABLE 6
ANALYSIS OF MATERNAL MORTALITY 1959-63
(per 1,000 total births)

Year	Sepsis (excluding septic abortions)	Toxaemias	Haemorrhages	Abortions	Ectopic Pregnancies	Others
1959 ...	N/A	.340	.226	.028	.066	.056
1960 ...	.010	.179	.145	.045	.072	.045
1961 ...	.009	.09	.027	.036	.027	.072
1962 ...	.018	.141	.185	.026	.044	.062
1963 ...	.017	.077	.111	.009	.034	.051

III. WORK OF THE HEALTH DIVISION

HYGIENE AND SANITATION

Urban Areas

66. The Urban Council is responsible through the Urban Services Department for environmental sanitation in Hong Kong, Kowloon and New Kowloon. The Deputy Director of Medical and Health Services, in his capacity of Vice-Chairman of the Urban Council, is the co-ordinating link between the two Departments for the control of communicable diseases by means of environmental sanitation, food hygiene and pest control. Medical and Health Officers are seconded as Health Officers to the Urban Services Department from the Medical and Health Department and work under the direction of an Assistant Director of Medical and Health Services who is posted to the Urban Services Department as Assistant Director, Hygiene. He is responsible for the guidance of the Health Inspectorate in particular and for advice to the Urban Services Department as a whole on the day-to-day management of environmental health problems.

67. Health Officers in the urban areas, in addition to their duties connected with the maintenance of satisfactory standards of environmental sanitation and food hygiene, are responsible for the co-ordination of all epidemiological measures to control the transmission of infectious diseases. Exceptions are tuberculosis, venereal disease, leprosy and malaria, which are the concern of specialized branches of the Medical and Health Department. Through the media of routine house inspections and regular visits to licensed food premises carried out by the Health Inspectorate, much health education is possible in connexion with immunization campaigns and with the control of intestinal infections. With the assistance of qualified Health Visitors, the Health Officers maintain investigations into the known cases of diphtheria, tetanus neonatorum, poliomyelitis, typhoid and certain other diseases.

68. These activities are closely co-ordinated with the activities of teams of inoculators from the Epidemiological Section of the Medical and Health Department, working under the direction of the Assistant Director of Medical and Health Services (Health) through area Health Officers and offering prophylactic immunization against smallpox, diphtheria, cholera, enteric fever and poliomyelitis.

Rural Areas

69. The Director of Urban Services has statutory powers controlling sanitation, food hygiene, cleansing, amenities and the allied services of licensing of hawkers and premises where food is handled, with the exception of slaughter houses and offensive trades, which remain the responsibility of the District Commissioner, New Territories. The Medical and Health Department provides the curative and personal health services and the Principal Medical Officer of Health, New Territories, advises the respective authorities on all health matters affecting the area.

70. The Medical and Health Department is also responsible for environmental health in rural areas. The main emphasis is on health education stemming from the curative services and designed to stimulate self-help in the villages through the development of simple measures which will improve environmental sanitation.

EPIDEMIOLOGY

Quarantinable Diseases

71. The whole Colony was declared a cholera-infected local area in terms of the International Sanitary Regulations on the 28th of June following the laboratory confirmation of a case of cholera El Tor; it was declared free of infection on the 20th of December, 1963, 15 days after notification of the 114th case. A further case was notified on the 22nd of December and the Colony was declared re-infected on that date. Seventeen days thereafter, on the 17th of January, 1964, the Colony was once more declared free of infection. The total number of cases in 1963 was 115 with four deaths attributable to the disease. Subsequently, a further case was notified on the 19th February, 1964, the Colony was declared infected on that date and declared free from infection eleven days after the notification.

72. No other quarantinable diseases occurred during the year.

Cholera

73. Following the outbreak in 1962 and in view of the continued incidence of cholera in the nearby countries, intensive preventive measures were taken throughout the year. These consisted of the bacteriological investigation for cholera vibrios of all specimens sent to the laboratory from cases of gastro-enteritis and of the routine sampling of night-soil, sea-water, well-water, and foodstuffs liable to be sources of transmission of the vibrios. Quarantine restrictions were maintained throughout the

year in respect of all notified infected local areas in the Philippines and the whole of Kwang Tung Province. The restrictions were applied also to other areas as and when these were declared infected.

74. The usual environmental preventive measures were enforced: increased chlorine content in the public water supply, the chlorination of all wells in the urban areas, the vigorous inspections of public eating places, food premises, markets and the control of itinerant food hawkers. Particular attention was paid to the collection and disposal of nightsoil and the bacteriological sampling of nightsoil conservancy tankers. All inoculation centres remained open for cholera inoculation and over 3,100,000 doses of anti-cholera vaccine were administered during the year.

75. The first case of cholera, Ogawa strain, type El Tor, occurred on the 27th June, 1963 and was confirmed bacteriologically the next day. A further 114 cases were notified subsequently, the last one occurring on the 22nd of December, 1963. Of these, one was an imported case, 5 were from the New Territories, 50 from Hong Kong Island and 59 from Kowloon. Six deaths occurred, of which four were attributable to cholera; two of these were brought in dead and diagnosed at post-mortem, the third was a child aged 1½ years and the fourth was a middle-aged man who, having recovered from cholera, succumbed to uraemia. The two non-attributable deaths were a female aged 74 who, having recovered fully from cholera, died a fortnight later from bronchopneumonia and a male of 70 who died of uraemia.

76. The incidence of the disease was 3.2 per 100,000 of population and the case fatality rate 3.48 per cent. Cases occurred sporadically and, apart from one episode, no common relationship or source of infection could be identified.

77. Most cases came from amongst the poorest classes, particularly from overcrowded tenements and congested resettlement estates. Incidence differed appreciably between the three major areas of the Colony, the approximate populations of which were respectively 500,000 in the New Territories, over 1,800,000 in Kowloon and over 1,200,000 on Hong Kong Island. The disease incidence was therefore 1.0 per 100,000 in the New Territories, 3.28 per 100,000 in Kowloon and 4.16 per 100,000 on Hong Kong Island.

78. In view of the experience of the past two years, a full scale mass inoculation campaign commenced in mid-May and, by the end of that month, 16% of the population had been immunized. A further 32%

were immunized in June and 23% in July. Thereafter the response decreased rapidly and only another 6.0% were immunized in the period August-December, giving a total immunity state of 77.0%.

79. With the early appearance of the disease and its unprecedented continuance into the winter months, a re-inoculation campaign was commenced in mid-November and continued to the end of December. This campaign resulted in 10.9% of the population being given booster doses. The relationship of immunization, incidence and severity are discussed later in this report.

80. A total of 1,890 persons, immediate contacts of the clinical cases, were isolated; most were detained until seven consecutive and negative rectal swabs had been obtained. However, amongst these were 106 symptomless carriers; these were treated by oral streptomycin and not discharged until after both three consecutive and negative rectal swabs had resulted and a period of isolation of not less than seven days had elapsed.

81. The home of each case was thoroughly disinfected after bacteriological swabs had been taken from all sites which might possibly give epidemiological clues; positive results were obtained from a variety of places but no definitely significant pattern emerged. Investigation of food habits revealed little of assistance, and widespread sampling of foodstuffs, including fish, shell-fish and water, were consistently negative, except on one occasion when the body contents of a spotted crab, taken from heavily-polluted water, were found to contain cholera vibrios. Subsequent extensive sampling of various types of crustacea were consistently negative. However, the possibility of transmission of the disease by contaminated shellfish cannot be ruled out and further investigations are proceeding.

82. Apart from the fatalities, all cases responded rapidly to treatment. The age and sex distribution is shown in Table 7.

TABLE 7

CHOLERA: AGE AND SEX INCIDENCE, 1963

	0-4 Years		5-9 Years		10-19 Years		20-44 Years		45-59 Years		60+ Years		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	2	4	2	1	6	7	24	15	16	12	16	10	66	49
% of total cases ...	5.21		2.61		11.3		33.9		24.3		22.6		99.92	
% of age-group in population	15.3		13.7		18.8		34.8		12.3		5.1		100	

From this it will be seen that almost half the cases occurred in persons aged 45 and over, a group which constitutes only 17.4% of the population. In the 20-44 age-group, the incidence approximates to representation in the population while the younger age-groups had a far smaller experience than would be expected.

83. Table 8 shows the relationship of inoculation state to the severity of the disease. The figures emphasise the abnormal mildness of the outbreak—many of the patients in the 'mild' category had few symptoms and were only diagnosed as cholera after routine bacteriological investigations. There is also some indication that the vaccine had afforded some degree of protection.

TABLE 8

CHOLERA CASES BY SEVERITY AND INOCULATION STATE
(Figures in brackets represent percentage of total cases)

	Mild	Moderate	Severe	Total
No. inoculated ...	19(16.5%)	6(5.2%)	4(3.5%)	29(25.2%)
No. not inoculated ...	29(25.2%)	18(15.7%)	39(33.9%)	86(74.8%)
Total ...	48(41.7%)	24(20.9%)	43(37.4%)	115(100%)

TABLE 9

SEVERITY OF CHOLERA CASES BY AGE, SEX AND INOCULATION STATE
(Figures in Brackets Show Percentage of Total Cases)

	Mild		Moderate		Severe	
	0-44	45+	0-44	45+	0-44	45+
<i>Males</i>						
Inoculated ...	9(7.8%)	2(1.7%)	1(0.9%)	1(0.9%)	2(1.7%)	0(0%)
Not inoculated	10(8.7%)	7(6.1%)	2(1.7%)	6(5.2%)	10(8.7%)	16(13.9%)
<i>Females</i>						
Inoculated ...	5(4.3%)	3(2.6%)	2(1.7%)	2(1.7%)	2(1.7%)	0(0%)
Not inoculated	6(5.2%)	6(5.2%)	6(5.2%)	4(3.5%)	6(5.2%)	7(6.1%)

84. Table 9 shows the severity of cases related to age, sex and inoculation state. The numbers in each category are too small to enable significant conclusions to be drawn, but there is, as would be expected, a definite tendency for the disease to be of a more serious nature in the elderly. There is little of note in the sex incidence—43% of the cases occurred in females who represent 49% of the population. The table again emphasises the apparent value of inoculation, particularly the fact that

not one of the eight cases occurring in inoculated persons aged 45 years and over was of a severe nature. It is possible, however, that other factors may be involved and this is worthy of further study.

85. In addition to the 106 carriers found amongst contacts of cases, a further 14 were traced through nightsoil sampling. Out of the total of 120 carriers, 68, or 56.7 per cent, had been inoculated. It is of interest that this level of inoculation is below that of the population and also that age pattern corresponds closely to the age structure of the population whereas the sex distribution is similar to that of the cases. The results are detailed in Table 10.

TABLE 10
CHOLERA CARRIERS BY AGE AND SEX

	0-4		5-9		10-19		20-44		45-59		60+		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	12	8	10	3	15	6	32	15	6	8	2	3	77	43
% of carriers ...	16.7		10.8		17.5		39.1		11.7		4.2		100	
% of age-group in population	15.3		13.7		34.8		34.8		12.3		5.1		100	

86. Twenty-five per cent of the urban population, i.e. 33% of Hong Kong and 19% of Kowloon is not yet served by a water sewerage system and, commencing September, 1962, all nightsoil collecting vehicles were tested nightly for the presence of the vibrios of cholera *El Tor*. Nightsoil pails are collected from houses each night on demarcated routes; each pail is emptied into a hopper which in turn is pumped into a tanker. Two samples were taken from each tanker at the final disposal points and sent immediately for culture. During the year, at one time or another, 31 out of 34 routes in Hong Kong and all 28 routes in Kowloon were found to be infected. The first positive sample was obtained on 1st July, four days after the first case presented. Thereafter, Hong Kong routes were positive on over 700 occasions and Kowloon routes on almost 400 occasions. Distribution appeared to have no direct relationship to cases and followed rather than preceded them. Positive results were sporadic during the months of July, August and September, but thereafter the infection was heavy and sustained until late October in Kowloon and late November in Hong Kong. Subsequently, positive results rapidly became intermittent once more and finally ceased.

87. From the beginning of the outbreak until the end of September, a team of Health Inspectors attempted the tracing of excretors of the

vibrio through the nightsoil sampling. All hoppers supplying a tanker notified as positive were sampled and almost one hundred such samples yielded vibrios. Following the report of a positive hopper, all nightsoil buckets emptied into the hopper were then swabbed and on more than twenty occasions positive pails were found; all members of the households using these pails were swabbed rectally. By these means, fourteen symptomless excretors of vibrios were discovered and were isolated together with their immediate contacts, 227 in number.

88. These investigations did not produce any associations with clinical cases and, when pressure on the laboratories became excessive in September, the tracing of excretors of vibrios by this means had to be abandoned. However, routine sampling of nightsoil tankers was continued, and has proved a reliable means of estimating the incidence of infection in the community.

89. Several investigations were undertaken into the distribution of vibrios amongst the lower income groups. More than 3,400 individuals from amongst remand prisoners, illegal and other immigrants and nightsoil workers were rectally swabbed. Only one positive result was discovered in a nightsoil worker; this was from a total of 950 such workers who are exposed to great risk of infection.

90. Summarizing the outbreak, it may be said that there was evidence of widespread dissemination of the vibrio throughout the population, i.e. symptomless carriers, particularly in the latter part of 1963. In spite of this, comparatively few cases were reported although very intensive case-finding measures were continuously in force.

Notifiable Diseases

91. During 1963 there was a decrease of 1.2% in the overall incidence of notifiable disease. This was mainly due to a marked fall in the notifications of poliomyelitis, tuberculosis, diphtheria, malaria and influenza. This fall was counteracted by increases in notifications of measles, chickenpox, cholera, enteric fever and dysentery, both bacillary and amoebic.

92. Free immunization against smallpox, enteric fever, diphtheria and cholera continued to be available to all members of the public at all Government hospitals, clinics, Port Health inoculation centres, District Health Offices and Maternal and Child Health Centres. Registered doctors in private practice were issued with supplies of smallpox and cholera vaccine, free of charge. In addition, inoculation teams visited

schools, Resettlement Estates and other densely-populated areas during mass immunization campaigns. Poliomyelitis vaccine of the oral trivalent Sabin type was available for children at all Maternal and Child Health Centres.

93. At Appendix 5 is a summary of the incidence of notifiable diseases over the past five years, and Appendix 6 details the numbers of prophylactic immunizations administered during 1963. The specific mortality rates of the principle infectious diseases during the year are shown in Table 11.

TABLE 11
SPECIFIC MORTALITY RATES OF SOME NOTIFIABLE INFECTIOUS DISEASES
1963

Disease	Cases	Deaths	Case Fatality Rates %	Proportional Mortality Rates—per 100 deaths from all Causes	Specific Death Rates per 100,000 population
Cholera	115	4	3.48	0.020	0.111
Amoebiasis	241	12	4.98	0.061	0.334
Dysentery { Bacillary	791	2	0.39	0.015	0.084
{ Unspecified	11	1			
Enteric Fever { Typhoid	989	27	2.60	0.142	0.779
{ Paratyphoid	49	1			
Poliomyelitis	53	4	7.55	0.020	0.111
Cerebrospinal Meningitis	50	24	48.00	0.122	0.668
Diphtheria	871	86	9.87	0.435	2.115
Measles	3,416	405	11.85	2.051	11.222
Puerperal Fever	2	1	50.00	0.006	0.028
Tuberculosis	13,031	1,762	13.52	8.922	49.052

Notes: (1) Total deaths from 1.1.63 to 31.12.63 were 19,748.
(2) Estimated Population for mid-1963 was 3,592,100.

Amoebiasis

94. An appreciable increase in the incidence of this disease was recorded although the case fatality rate remained unchanged.

Bacillary Dysentery

95. The incidence of this disease remained almost stationary during 1963 but there was a slight increase in severity as measured by the case fatality rate.

96. Much intensive health education in the prevention of dysenteric infections is carried out by Health Officers amongst those connected with the handling, preparation and sale of food. A total of 126 carriers was detected amongst contacts of cases; all were treated and restrained from return to normal activities until three negative and consecutive stool specimens had been obtained. The common organisms isolated were *S. flexneri* and *S. sonnei*.

Chickenpox

97. Notifications of this disease were comparatively few following the large number of cases (1,003) reported during the first quarter of 1963. Mortality was minimal.

Diphtheria

98. Diphtheria incidence continued to show the marked decline which has been observed since the commencement of an intensive and almost continuous immunization campaign in the autumn of 1959. Although disrupted by the cholera immunization campaigns of the past three years, this programme has given very encouraging results, the annual incidence having been reduced from 2,087 cases in 1959 to 871 in 1963. The cases presenting continued to be predominantly in children under ten years of age. The case mortality rate remained stationary.

99. Amongst the contacts of cases, 127 carriers of diphtheria were found and all were isolated in hospital until they were proved free of infection.

100. *C. diphtheriae mitis* continued to be the predominant organism and only in rare instances was in *intermedius* or *gravis* strain isolated.

Enteric Fever

101. An increase of approximately twenty per cent was recorded during 1963 in the notifications of this group of diseases. The increase was probably attributable to the abnormal drought conditions with the consequent severe restrictions on mains water supplies and the use of water from suspect sources. The case mortality remained low.

102. All food handlers, including staff of water-boats, are required by law to be protected by T.A.B. inoculation and, in addition, facilities for such inoculation were available to school-children and members of the public.

Malaria

103. Cases notified numbered 377 and there was one death. This disease is reviewed in detail in paragraphs 168 to 177 of this report.

Measles

104. The epidemic which commenced in the last quarter of 1962 continued into 1963 and reached its peak in January of that year. The case fatality rate remained high, reflecting the incomplete notification of the disease.

Tuberculosis

105. Tuberculosis continued to be the major public health problem in Hong Kong and is considered in detail in paragraphs 117 to 167 of this report.

Poliomyelitis

106. Only 53 cases of acute poliomyelitis were notified during the year as compared with 363 during 1962. Of these 53 cases only one occurred during the last nine months of the year—a period which had registered previously the highest incidence.

107. It is highly probable that this marked decrease resulted from the successful poliomyelitis vaccination campaign using oral Sabin-type vaccine and conducted during the first three months of 1963. In this campaign, 500,387 children aged 3 months to 5 years (approximately 85% of children in that age-group), received 2 doses of vaccine.

108. This campaign was continued at all Maternal and Child Health Centres for one week in each month of the year, with particular emphasis on children aged three months to one year. In spite of intensive propaganda and general health education, the response was poor and two further mass campaigns were held in the months of January and March, 1964. As a result of these, 92,571 children, or 77.3% of those in the target age group, received one dose of the vaccine and by the end of March, 1964, 59,981 had received two doses.

109. Faecal surveys on children known to be unvaccinated but close contacts of vaccinated children were carried out during the year in the months of April, June, August and December. The first took place six weeks after the ending of the second mass feeding of oral vaccine and gave an excretion rate of 43.3 per thousand of vaccine strains, evidence of spread of vaccine virus; 'wild' virus was rarely encountered.

110. Three serological surveys for poliomyelitis anti-bodies were carried out; these showed a relatively low conversion rate to type I anti-bodies. There was some evidence of anti-body formation due to spread of vaccine virus from vaccinated to unvaccinated children.

Ophthalmia Neonatorum

111. There has been little change in the incidence of this disease during recent years.

Puerperal Fever

112. Two cases with one death were reported during the year, both being delivered at home without help of a doctor or a qualified midwife.

Scarlet Fever

113. The recorded incidence of this disease remained unchanged.

Whooping Cough

114. The numbers of notifications declined by 37.7% compared to 1962.

Other Communicable Diseases

Influenza

115. The notification of influenza is entirely voluntary. Cases reported during the year numbered 3,483 with 27 deaths as compared with 6,374 with 39 deaths in 1962. Only one throat washing specimen, amongst 40 taken in November, was positive for influenza virus, this specimen being antigenically identical with the A2/57 (A/Asian/57) strain.

Tetanus

116. A total of 120 cases was notified during the year of which 56 occurred in new-born infants, mostly among those delivered at home in villages of the New Territories. In such cases, assistance by an untrained person, the use of unsterile material and instruments and the common practice of applying a powder containing raw ground ginger root to the umbilicus as a styptic, combine to give a grave risk of tetanus neonatorum. Children attending Maternal and Child Health Centres are given routine immunization against tetanus using the toxoid preparations. The health education of parents and others in the areas most

affected is a slow process, despite the very considerable efforts of the Health staff of the New Territories.

TUBERCULOSIS

117. Mention was made in the Report for 1962-63 of the visit of Professor F. HEAF, C.M.G., the Adviser on Tuberculosis to the Secretary of State for the Colonies and of Dr. Wallace Fox of the Medical Research Council Tuberculosis Research Unit in London. The pattern for the existing Government Tuberculosis Service was determined in 1952 and a review of the organization which has developed over the past 10 years for the control of tuberculosis and the results of the main policy was timely. While the broad principles of the report have been accepted, the detailed recommendations, particularly those concerning research, are still under active consideration by Government.

118. In brief, the policy has been to protect, by vaccination with B.C.G., those most vulnerable to fatal post-primary manifestations of the disease, to provide out-patient facilities for the ambulatory treatment of as many tuberculosis patients as possible and to reserve the limited hospital accommodation for the care and treatment of those patients not responding to ambulatory treatment or in need of surgical operations to hasten recovery. With an estimated two per cent incidence of active disease in the adult population it has been physically and financially impossible to provide institutional care of the order required for the isolation of all infectious cases.

119. Full assessment of the results of this policy has not yet been possible. There has been a great reduction in overall mortality from tuberculosis which has been most marked in children. The incidence of the disease in children has also been lessened considerably. In adults, however, there would appear to be only a very gradual decline in incidence with comparatively high morbidity rates in various age-groups over 45 years; it is in these age-groups that there is also a high degree of resistance to 'first-line' drugs.

Mortality

120. The number of deaths from all forms of tuberculosis continued the decline shown in past years; the mortality pattern since 1951 is shown in Table 12.

TABLE 12

MORTALITY FROM TUBERCULOSIS 1951-63

Year	Estimated Population (mid-year)	Tuberculosis Death Rate per 100,000	Tuberculosis deaths as percentage of total deaths	Percentage of tuberculosis deaths below 5 years
1951	2,013,000	208.0	20.0	34.0
1952	2,250,000	158.8	18.4	34.3
1953	2,250,000	130.6	16.0	36.2
1954	2,277,000	126.3	14.9	31.2
1955	2,340,000	120.0	14.7	28.0
1956	2,440,000	107.0	13.6	25.0
1957	2,583,000	103.6	13.9	21.2
1958	2,748,000	83.8	11.2	19.6
1959	2,857,000	76.2	10.7	19.2
1960	2,981,000	69.9	10.8	10.5
1961	3,177,700	60.0	10.2	11.5
1962	3,400,300	55.3	9.25	5.74
1963	3,592,100	49.05	8.9	5.50

121. The infant mortality rate from tuberculosis has continued to fall rapidly and in 1963 the rate was 0.16 deaths per 1,000 live births, which represents only 5.6% of the figure ten years ago. This is attributable to the wide acceptance of vaccination with B.C.G. for newly-born babies; in 1963, 83.44% of all new-borns received this vaccine compared with 4.32% in 1952.

122. The average age at death again rose slightly to a figure of 47 years.

Morbidity

123. Notifications of tuberculosis have fluctuated between 12,000 and 15,000 per year during the past ten years. The rate of notification has, however, continued a steady downward trend since 1955, except for the 1962 figure which was artificially inflated by the large number of illegal immigrants entering during that year. The rate for 1963 was 363 notifications per 100,000. Details of notifications according to origin are shown in Table 13.

TABLE 13
ORIGIN OF TUBERCULOSIS NOTIFICATIONS 1961-63

	1961	1962	1963
Government Chest Clinics	8,957	10,691	8,794
Other Government Institutions	2,056	1,680	1,660
Tung Wah Group of Hospitals	947	801	864
Non-Government Institutions and Private Practitioners	624	1,091	1,713
Total	12,584	14,263	13,031

124. With regard to age and sex distribution, the greatest numbers are between the ages of 25 and 50 years, and there is a marked predominance of males.

125. The decline in the incidence of the disease in children under five is attributed to the increasing acceptance of B.C.G. vaccination. Despite the fact that a considerable proportion of these young children lose their tuberculin sensitivity within a period of two years after vaccination, it does appear that some degree of protection nevertheless persists. Investigation showed that, in common with experience elsewhere, 33% of previously-known reactors lost their sensitivity over a period of 18 months. Revaccination with B.C.G. on entry to school is still being considered and preliminary investigations are proceeding.

Work of the Government Tuberculosis Service

126. All cases attending the Government Chest Clinics are given treatment free, irrespective of origin. The volume of work undertaken at the Government Chest Clinics during the past five years is detailed in Table 14.

TABLE 14
WORK OF GOVERNMENT CHEST CLINICS 1959-63

	1959	1960	1961	1962	1963
First attendances	39,008	35,991	40,146	43,519	39,277
Cases of tuberculosis discovered...	14,406	12,937	15,270	16,541	15,036
Total attendances for treatment...	1,655,100	2,001,960	2,204,058	1,901,425	1,414,009
Under treatment from previous year	13,733	16,062	16,433	17,714	17,372
Started treatment during the year	11,357	12,617	12,381	12,190	9,694
Completed treatment	2,064	3,724	3,776	4,935	7,147
Failed to attend	5,391	4,975	4,987	5,371	5,208
Admitted to hospital from chest clinics	1,587	1,592	889	921	811
Still on treatment at end of year...	16,062	16,433	17,714	17,372	14,049

127. Treatment at the Chest Clinics is by ambulatory chemotherapy, which includes daily injection of streptomycin six days each week, combined with oral PAS and INAH, for a period of six months. At the end of this period, the oral therapy is continued for a period of up to two years from the start of treatment. Some chronic cases with positive sputum are maintained for long periods on INAH with the aim of ultimately rendering them 'catalase negative'. Hospital admission is arranged for these patients whose treatment can be expedited by surgical or other means or who, for medical or very pressing social reasons, require in-patient treatment.

128. There are four full-time Government Chest Clinics which, in addition to normal day-time working, offer one evening diagnostic session each week. Part-time clinics are maintained at twelve other centres and a sessional advisory service is provided at four other centres maintained by voluntary agencies. In addition to these specialized sessions, routine sessions are provided for the daily injections of streptomycin at a number of centres, for the convenience of patients who cannot travel regularly to the full-time clinics.

129. Case finding is not practised on any scale as the available services are already heavily committed to the care of those patients who present with active disease. All Government employees undergo an annual X-ray examination and similar surveys are undertaken, on request, of employees in industrial concerns and private institutions, subject to certain conditions concerning sick-leave and re-employment for persons found suffering from active disease. Otherwise, little case finding is performed, but this aspect of the control programme is being reviewed in the light of the Heaf-Fox Report. The results of surveys undertaken during the year are shown in Table 15.

TABLE 15
X-RAY SURVEYS—1963

	Government Employees	Conditional Surveys	Prisoners Surveys
Total examined	51,180	41,905	4,994
Clinically examined	6,228	2,979	970
Active tuberculosis	280	338	229
Percentage active tuberculosis ...	0.55%	0.86%	4.6%

Contact Tracing

130. Following the diagnosis of a case of tuberculosis, Tuberculosis Workers visit the patient's home and arrange for the examination of the

family and other close household contacts; those under eight years of age are tuberculin-tested and those over that age are X-rayed. During the year a total of 28,546 contacts were fully investigated, the findings being detailed in Table 16.

TABLE 16
CONTACT EXAMINATIONS 1962-63

		1962	1963
<i>Under 8 years of age</i>			
Tuberculin Test	{ Negative	611	308
	{ Positive	3,492	5,632
Clinical examination (of contacts showing positive children) Positive Mantoux	{ Active tuberculosis ...	95	205
	{ Inactive T.B.	200	404
	{ (Undetermined) Suspicious T.B. ...	453	395
	{ Free of tuberculosis ...	2,803	4,628
Percentage of contacts found to have active T.B.		3.45%	2.31%
<i>Over 8 years of age</i>			
Results of clinical examination following 'Contact' X-rays	{ Active tuberculosis ...	289	400
	{ Inactive T.B.	374	846
	{ (Undetermined) suspicious T.B. ...	753	984
	{ Free of tuberculosis ...	11,775	20,376
Percentage found to have active T.B.		2.11%	1.77%

Tuberculin Testing and B.C.G. Vaccination

131. Mention has been made previously of the effects of B.C.G. vaccination of the newborn. However, some 20,000 unvaccinated infants are added to the community each year, but this number is appreciably reduced through the Maternal and Child Health and School Health Services where tuberculin testing is carried out on children not known to have received B.C.G. vaccination at birth. During the year, 37,465 children were tuberculin tested in Maternal and Child Health Centres and schools of whom 13,484 were negative and received B.C.G. vaccination.

132. Children under three years of age who have not had B.C.G. but who show a positive tuberculin reaction are given INAH for one year in an effort to minimize the risks of a progressive primary tuberculosis. During the year 48 such children were discovered at the chest clinics and a further 51 through the Maternal and Child Health Service. Thus there were 99 under treatment during 1963 as compared with 188 during 1962.

Thoracic Surgery

133. Outpatient sessions for patients who need or have had chest surgery are held at the Wan Chai Chest Clinic by the Government Specialist in Thoracic Surgery and the Thoracic Surgeon from the Grantham Hospital. These sessions are held weekly and fortnightly respectively. In consultation with the staff of the Clinic, cases undergoing ambulatory chemotherapy who require surgical investigation or treatment are seen by the Thoracic Surgeons and the lines of investigation and treatment are planned. Thereafter, the patients are admitted to the Grantham Hospital; on discharge, the subsequent follow-up takes place at the Wan Chai Clinic.

Orthopaedic Tuberculosis

134. Outpatient sessions are conducted at the Sai Ying Pun and Kowloon Chest Clinics for patients with bone and joint tuberculosis and are maintained jointly by the University Consulting Orthopaedic Surgeon, who is the Professor of Orthopaedic Surgery, and the Government Orthopaedic Specialist. Additional sessions are also held by the permanent staff at these two centres for patients requiring routine treatment and supervision. The surgery is carried out at the Grantham Hospital. Thereafter, routine medical treatment and ancillary services such as physiotherapy, the fitting of appliances and medical social work are carried out by the personnel attached to the relevant clinic.

135. Attendances since the beginning of this service are shown in Table 17 and the classification of cases according to site of disease is presented in Table 18.

TABLE 17
ORTHOPAEDIC TUBERCULOSIS ATTENDANCES 1959-63

	1959	1960	1961	1962	1963
First Visits	617	441	415	397	288
Revisits	3,503	4,001	4,618	3,685	5,747
Total	<u>4,120</u>	<u>4,442</u>	<u>5,033</u>	<u>4,082</u>	<u>6,035</u>

TABLE 18
ORTHOPAEDIC TUBERCULOSIS BY SITE 1959-63

	1959	1960	1961	1962	1963
Spine	303	202	197	197	158
Hip Joint	125	94	115	109	60
Others	189	145	103	91	70
Total	<u>617</u>	<u>441</u>	<u>415</u>	<u>397</u>	<u>288</u>

136. The effects of the general campaign against tuberculosis by treatment and by the almost universal use of B.C.G. vaccination are now becoming apparent and it is likely that the decrease in orthopaedic tuberculosis will continue. For the first time since the service was started, not a single child was on the waiting list for admission for treatment despite a reduction during the year in the number of beds available for such cases. Amongst adults, this manifestation of the disease remains a problem and, as might be expected, numbers are declining only slowly.

Radiology

137. The total number of examinations carried out during 1963 on behalf of the Tuberculosis Service by the Radiological Branch of the Department was 231,122 as compared with 263,982 in 1962; almost one-third of these were performed by the use of 35 mm. or 70 mm. films. The static and mobile X-ray units attached to the Tuberculosis Service are maintained and operated by the Government Senior Radiological Specialist and his staff. There is very close co-operation and consultation between the Tuberculosis and the Radiological Services in all aspects of the diagnostic and routine supervisory radiology.

Bacteriology

138. All the bacteriological work done in connexion with the Tuberculosis Service is carried out at the Government Institute of Pathology. The standard of the work is high and compares well with that elsewhere. This was demonstrated during drug trials carried out in Hong Kong which were performed under dual bacteriological control, both in Hong Kong and in Britain and West Germany.

139. The volume of work done was restricted during the greater part of the year owing to the demands of the cholera outbreak on bacteriological facilities. Nevertheless, the total number of sputum smears examined by direct microscopy rose by 4,000 to a total of 90,806, but culturing was reduced from 13,710 specimens in 1962 to 7,364 in 1963.

140. Reference was made in the last report to the collection of information on primary drug resistance for analysis by the British Medical Research Council. This investigation was completed during the year and preliminary results indicate that a large percentage of patients who deny previous treatment for tuberculosis are in fact excreting resistant bacilli.

Medical Social Work

141. One Senior Almoner, ten Almoners and 55 Tuberculosis Workers are attached to the Tuberculosis Service. Their responsibilities include the interviewing of patients and their families, arranging hospital admission, hospital visiting, home visiting and supervision of patients on ambulatory chemotherapy, rehabilitation and assistance in money and in kind.

142. Every case attending the clinics who is diagnosed as suffering from tuberculosis is directed to the Almoner's Department for interview. At this interview details of social background are recorded, arrangement is made for the start of treatment if recommended and a suitable time and place is arranged. Further interviews in connexion with treatment and connected problems are arranged as necessary.

143. In parallel with the drop in attendance of new patients, first interviews dropped from 11,754 to 9,549 and total interviews dropped by 9,193 to 24,249. This substantial drop has occurred concurrently with the fall in pressure on the clinics which has been noticed since late 1962. In addition, there has been an increasing degree of decentralization and work has been delegated to clerical staff, although such work is not recorded in the numbers of interviews mentioned.

144. Admissions and readmissions to hospital from the chest clinics are arranged by the Almoners and this involves documentation, the financial aspects, advice to employers of admissions and the maintenance of waiting lists. While the majority of patients still express a preference for hospital treatment, there is a growing number who request outpatient treatment. Co-operation with the Kwong Wah Hospital, commenced in 1962, has proved most valuable and has offered facilities in Kowloon for the admission of persons suffering from acute complications of the disease.

145. Ward rounds by Almoners, in company with the medical staff, are carried out as a routine and each patient is normally seen individually at least once each month as well as by appointment if required.

146. The Almoners' Section is responsible for the preparation and maintenance of attendance registers of patients on outpatient therapy. After the initial interview by an Almoner, a Tuberculosis Worker visits the home, gives advice on hygiene and makes arrangements for contact examinations. In addition, irregularity of treatment or non-attendance is followed-up by home visits. Because of limited staff, much of the routine

regular visiting has to give place to visits connected with irregular attendances or default from treatment. Patients are allocated on a district basis and the Tuberculosis Worker is attached more or less permanently to her district and works from the relevant full-time chest clinic. At the chest clinics these workers also assist with reception and documentation duties so that there is a continuing personal contact with the patients both at home and in the clinic, which promotes confidence.

147. The Tuberculosis Workers are recruited from girls of good education and intelligence and are given in-service training for a period of six to twelve months before being allocated to their districts. They are not fully trained nurses nor are they trained social workers.

Assistance to Patients

148. There is a Tuberculosis Assistance Fund available to the Almoner section of the Tuberculosis Service which amounted to \$300,000 in 1963. Assistance to the dependents of patients under treatment in hospital is the principal object and disbursements are made on a formula based on previous family income and the continuing family commitments. During the year 260 families received an average weekly grant of \$27.71, as compared to \$26.38 in 1962. In addition, milk powder issued on the basis of one pound each week to each patient was a charge on the fund. Miscellaneous disbursements such as travelling expenses of patients coming from outlying districts for X-ray were also made from the Fund. Surgical appliances for cases of orthopaedic tuberculosis were given to 100 patients at a cost of \$7,814, of which \$5,196 came from the Assistance Fund, the remainder being subscribed either by the patient or by voluntary agencies.

149. Another source of assistance is the Samaritan Fund at the disposal of the Principal Almoner. A total of \$1,674 was given for travelling expenses such as are incurred by orthopaedic cases attending clinics.

150. Donations in kind of rice, noodles, cooking fat, beans, clothing and blankets were also made possible through the generosity of C.A.R.E.

151. When it is not possible or expedient to assist patients from the resources available to the Tuberculosis Service they may be referred to other agencies such as the Social Welfare Department, the Family Welfare Society, Foster Parents Inc., and many other similar organizations. A total of 400 patients were referred to these welfare agencies for assistance.

Rehabilitation

152. Ambulatory treatment for the majority of patients who attend the Government Clinics means that the greatest number can continue at work, or spend relatively short periods in hospital before returning to their jobs. However, there is a considerable number of patients in the 40-45 age-group who are unskilled workers with chronic disease and who have undergone thoracic surgery; these present a difficult re-employment problem. The Lutheran World Federation operates a rehabilitation scheme whereby patients recommended by organizations dealing with the treatment of tuberculosis are resettled either in agriculture, in small home industries or in other suitable employment. The total number of patient referred during the year to the Lutheran Tuberculosis Project was 107, as compared to 56 in 1962. There is very close consultation and co-ordination between Government staff and the personnel of the project.

Hospital Services

153. The magnitude of the tuberculosis problem in Hong Kong is such that it is not physically possible to segregate and treat in hospital all cases of active open tuberculosis. The place of ambulatory chemotherapy, recently assessed on a scientific basis in Madras, has proved itself in practice over the past ten years in Hong Kong. However, hospital beds are necessary to any system of control and treatment and they play an essential role in Hong Kong. While Government has established and developed outpatient facilities on a major scale, the provision of hospital services had been predominantly the role of the voluntary agencies. Thanks to the practical co-operation of these voluntary agencies, who receive substantial Government subventions, a co-ordinated system of hospitalization has been developed over the years.

154. During 1963, 1,727 beds were available for the in-patient treatment of tuberculosis. Of these, 55% were in the two tuberculosis hospitals and the convalescent home maintained by the Hong Kong Anti-Tuberculosis Association. The other institution dealing exclusively with tuberculosis is the Haven of Hope Sanatorium at Junk Bay in the New Territories.

155. Beds for tuberculosis in Government Hospitals are in the Lai Chi Kok and Cheung Chau Hospitals. During 1963 there were 72 beds at Lai Chi Kok Hospital and 42 beds at Cheung Chau Hospital. The latter are used largely for young adolescents with positive sputum who

have to be debarred from school until they are sputum negative. The Tung Wah Group of Hospitals maintains tuberculosis beds mainly for the care of patients with long-standing disease. The distribution of all tuberculosis beds is shown in Table 19.

TABLE 19

TUBERCULOSIS BEDS 1963

Government Hospitals	...	...	...	...	...	122
Hong Kong Anti-Tuberculosis Association:						
Grantham Hospital	...	...	...	...	...	613
Ruttonjee Sanatorium (Including Freni Memorial Convalescent Home)	...	...	...	...	...	343
Tung Wah Hospitals	...	...	...	...	...	355
Haven of Hope Sanatorium	...	...	...	...	...	230
Private Hospitals	...	...	...	...	...	64
Total	...	...	...	...	...	1,727

156. The Lai Chi Kok and Tung Wah Eastern Hospitals provide beds for the admission of acute tuberculosis emergencies, such as haemoptysis and spontaneous pneumothorax, which are brought to the casualty departments of the Queen Mary and Kowloon Hospitals. Such cases are admitted either direct or as soon as resuscitation has been effected at the receiving hospital and the patients are fit to move.

The Work of the Voluntary Agencies

The Hong Kong Anti-Tuberculosis Association

157. This is the largest and longest established of the voluntary agencies working exclusively in the field of tuberculosis. It maintains two hospitals and one convalescent home, containing a total of 956 beds, a B.C.G. clinic and outpatient clinic for the follow-up of discharged patients and a Tuberculosis Insurance Scheme. Supported by voluntary donations, the Royal Hong Kong Jockey Club and some endowments, the Association also receives substantial annually-recurrent subventions from Government.

158. The Association works very closely with the Government Tuberculosis Service and now provides in its two hospitals almost all available facilities for the thoracic and orthopaedic surgery required for the treatment of tuberculosis. Admissions to both the medical and surgical beds of Grantham Hospital and, to a lesser extent, the Ruttonjee Sanatorium

are now largely in respect of patients referred by the Government Chest Clinics, although both hospitals also arrange admissions direct for their own referred cases.

The Grantham Hospital

159. Opened in 1957, this hospital of 613 beds is equipped as a modern chest hospital. An extension was completed early in 1963; this contains wards totalling 84 beds, a physiotherapy department and a school for the training of nurses for the British Tuberculosis Association Nursing Certificate. Run on a fee-paying non-profit-making basis, the hospital provides private, semi-private and general ward accommodation for fees of \$35, \$24 and \$18 a day respectively. During 1963, Government maintained 492 of the beds in the general wards, including 48 beds in the new extension. Government also provides the clinical staff for 252 beds and undertakes the medical social work for patients in the 492 beds it maintains. The follow-up of patients discharged from these beds is undertaken at the Government Chest Clinics.

160. For the clinical supervision of Government-sponsored patients within the hospital there are the Grantham Pulmonary Unit of 240 medical and surgical beds, the Government Pulmonary Unit of 138 medical and 34 surgical beds and the joint Grantham-Government Orthopaedic Unit of 80 beds. The Medical Superintendent, responsible to the Grantham Hospital Management Board, is in charge of the medical administration of the hospital and has clinical charge of the Grantham Pulmonary Unit medical beds. The Grantham Thoracic Surgeon has clinical charge of the surgical beds in that unit. The medical and surgical beds in the Government Pulmonary Unit are under the clinical supervision of the Government Senior Tuberculosis Specialist and the Government Specialist Thoracic Surgeon respectively. The orthopaedic beds are in the clinical charge of a visiting consultant in Orthopaedics. All staff throughout the hospital is provided by the Association with the exception of Government Medical Officers posted to the Government clinical units whose salaries are recovered from the Association. The Government Specialists act as consultants and no charge is made for their services.

The Ruttonjee Sanatorium and Freni Memorial Convalescent Home

161. These two units are the responsibility of the Ruttonjee Sanatorium Management Board and are run as one. In the Sanatorium of 233 beds, medical, surgical and orthopaedic work is carried out, while the Convalescent Home of 110 beds is for patients who are under drug treatment

but are sufficiently well not to be in need of special nursing care. Consultant services are supplied by the University Professorial Units of Medicine, Surgery and Orthopaedics. Medical and senior nursing staff are provided by the Sisters of the St. Columban Missionary Order.

162. In addition, the medical staff of the Sanatorium maintain the B.C.G. and 'follow-up' clinic in the Association's Headquarters situated next door to the hospital, and undertake the X-ray and medical work in connexion with the Tuberculosis Insurance Scheme.

163. The numbers of patients admitted during recent years are shown in Table 20.

TABLE 20

WORK OF RUTTONJEE SANATORIUM AND FRENI MEMORIAL CONVALESCENT HOME					
1960-63					
		1960	1961	1962	1963
Adults through Government Clinics	...	350	289	439	370
Children (Pulmonary) through Government Clinic	... ..	52	31	34	49
Children (Orthopaedic)	... ..	39	56	85	44
Other admissions and re-admissions	...	252	302	427	504
Total...	... ..	693	678	985	967

The Tung Wah Group of Hospitals

164. This group of three hospitals has a varying total of between 300 and 454 beds available for patients with tuberculosis. These beds are almost entirely occupied by cases of a chronic type and the turnover is accordingly relatively slow. No special subvention is made to support these beds as the total recurrent expenditure of the group is met by a Government subvention. In the busy maternity wards of these hospitals the B.C.G. vaccination of new-born babies is carried out by staff of the Government Tuberculosis Service.

The Haven of Hope Sanatorium

165. Maintained by the Junk Bay Medical Relief Society, this inter-denominational Protestant Mission Sanatorium provides 230 beds for the medical treatment of tuberculosis. No major surgical or orthopaedic work is undertaken. The Sanatorium staff also maintain a tuberculosis outpatient and 'follow-up' clinic at nearby Rennie's Mill and carry out some tuberculosis survey work amongst the villagers in the Junk Bay

area. Government maintains 80 beds in the Sanatorium for the free treatment of New Territories villagers and also gives a small annual grant towards the cost of the X-ray survey work.

Other Voluntary Agencies

166. The Lutheran World Service developed in 1961 a pilot rehabilitation scheme for patients with arrested or cured tuberculosis. The scheme has now become well established and its activities are being expanded as additional facilities become available.

Private Hospitals

167. There are 64 beds provided in private hospitals, some of which are classed as charity beds in which treatment is given at low cost or free. There is also a considerable amount of ambulatory chemotherapy given by private practitioners, but there is no information at present available either on the numbers of patients under treatment or the results of such treatment.

MALARIA BUREAU

168. The Malaria Bureau, under the direction of the Specialist (Malariology), is responsible for all malaria control operations throughout the Colony and, in certain instance, also undertakes the control of the breeding of culicine mosquitoes. In addition, lectures are given on malaria and allied subjects to various groups of health personnel under training, and expert advice is given as required to the Armed Services, to the Pest Control Unit of the Urban Services Department, to Hei Ling Chau Leprosarium and to Her Majesty's Prisons in the New Territories.

Control Operations

169. The important malaria vectors are *A. minimus* and *A. jeyporiensis* var. *candidiensis*. Malaria control in the urban areas is based chiefly on anti-larval measures consisting of training and clean weeding of hill streams, ditching and oiling. Anti-malaria oil continues to be employed as the main larvicide, although Gammexane Dispersible Powder and Diazinon are also used on a limited scale in areas where the application of oil is unsuitable, such as in rice fields and irrigation ditches leading from seepages to rice cultivation. The urban control programme includes Hong Kong Island and, in Kowloon, an area extending from just beyond Lai Chi Kok in the West to Lei Yue Mun in the east, end as far north as the Kowloon Reservoir. Also included in the programme are certain

circumscribed rural areas in the New Territories such as Rennie's Mill, the township on Cheung Chau Island, and the Chi Ma Wan Open Prison and the Shek Pik reservoir project in the south of Lantau Island.

170. The results of anti-larval operations, as checked by routine adult mosquito catches and larval collections, are satisfactory and the incidence of natural malaria transmission in the controlled areas continues to be virtually nil.

171. In most of the New Territories, control by anti-larval or anti-adult measures is at present impracticable because of the scattered population, the widespread traditional wet cultivation, and the unprotected contiguous borders and islands. The main protection against malaria for disciplined groups stationed in the New Territories consists therefore of such anti-larval measures as may be practicable in their immediate vicinity, screening where possible and chemoprophylaxis.

172. The cost of control measures during the year was 34 cents per head of population protected.

Incidence of Malaria

173. Malaria is a notifiable disease, and the returns of the past five years are set out in Table 21.

TABLE 21
MALARIA 1959-63

Year	Cases Notified	Deaths
1959	442	1
1960	833	—
*1961	812	1
1962	754	—
1963	377	1

* The taking of routine blood smears of all febrile children of 10 years and younger attending Government clinics in the rural areas was instituted in 1960.

174. The total of 377 cases reported during 1963 was the lowest figure recorded since notification commenced. This reduction was probably a result, at least in part, of the long drought causing a reduction in wet cultivation and hence lessening the extent of mosquito breeding.

175. Of all cases notified 89.1% were from outside the protected area. Of the cases, 47.5% came from the area surrounding the town of Sai Kung on the east coast, 18.3% were from Lantau Island and 13.5% from the Tai Po District. Of the parasites identified 93.3% were *P. vivax*, 4.2% were *P. falciparum* and 1.3% were *P. malariae*.

176. Malariometric surveys were continued; spleen and parasite rates amongst children between the ages of two and nine years were determined for nine villages in the New Territories. Spleen rates ranged from 0% to 0.35% and parasite rates from 0% to 14.5%, results which were similar to surveys carried out during previous years.

Laboratory

177. The Bureau Laboratory continued to carry out the routine identification of mosquitoes and the examination of blood smears collected at surveys or submitted from outlying dispensaries. Of 825 *A. minimus* and *A. jeyporiensis* var. *candidiensis* and 91 other anopheline species dissected during the year, none were found to contain sporozoites. In addition precipitin tests were carried out to study feeding habits. Other activities of the Bureau included lectures and demonstrations on anti-malaria work to medical students, Health Inspectors and Health Visitors.

SOCIAL HYGIENE SERVICE

178. This service, which is the responsibility of the Social Hygiene Specialist, consists of three branches dealing with dermatology, venereal diseases and leprosy. Facilities for the diagnosis of skin conditions are of considerable importance in the discovery of cases of latent syphilis and of early leprosy. Accordingly, the service is organized to provide nine centres for purely dermatology clinics. In addition there are thirteen social hygiene clinics, where venereal infections and leprosy undergo investigation and treatment, although a number of dermatological cases also attend these clinics. The Wan Chai Hospital provides in-patient accommodation for the treatment of skin disease in women and children and a few beds for male patients are available at the Queen Elizabeth and Lai Chi Kok Hospitals. A small number of patients with skin disease are admitted to the Queen Mary Hospital for teaching purposes.

Venereal Diseases

179. The venereal disease clinics serve members of the public, seamen of all nationalities, women referred from Maternal and Child Health Centres and gynaecological clinics, prison inmates, patients in the Castle Peak Hospital, persons referred from the Medical Examination Board and applicants for emigration to the United States and Canada. Any treatment required is given free of charge. In addition, a large number of dermatological conditions are seen and treated at these clinics. There was a continued rise, in general conformity with world statistics, in the

primary and secondary syphilis rate during the year, but the incidence in the teenage group of the population has not risen in the manner experienced in the U.S.A., the United Kingdom, Australia and Europe. The trends over the past ten years are shown in Appendix 7.

180. The incidence of gonorrhoea remained fairly stable, but further control of the disease remains a problem because of difficulty in the diagnosis of chronic cases, especially in females. Penicillin is normally the first method of treatment but resistance and anaphylaxis continue to increase. Other antibiotics have strict limitations due to higher costs and difficulties in the supervision of administration.

181. The incidence of latent syphilis continued to fall. This is to be expected if the overall diagnosis and treatment of syphilis over the past ten years has been effective.

182. Ante-natal blood tests for syphilitic infection are carried out as a routine on pregnant women attending Maternal and Child Health Centres, and Table 22 shows the results over the past five years. The value of this routine investigation is reflected in the low figures for congenital syphilis in babies under one year of age.

TABLE 22
V.D.R.L. EXAMINATIONS IN EXPECTANT MOTHERS 1959-63

	1959	1960	1961	1962	1963
No. of tests (Clinics & Hospitals) ...	46,932	52,068	51,449	55,159	31,544
% of Positive rates ...	2.6	2.3	1.6	2.2	1.6
No. of tests (Private Midwives) ...	6,269	6,805	6,940	7,645	3,690
% of Positive ...	2.3	1.9	1.4	1.5	1.1
Registered live births ...	104,579	110,667	108,726	111,905	115,263

183. The incidence of venereal disease in prostitutes, who attend voluntarily at the Social Hygiene Clinics either through contact tracing or for periodic investigation, has been under review since 1959. Table 23 sets out the results to date.

TABLE 23
VENEREAL DISEASE IN PROSTITUTES 1959-63

Year	No. of Prostitutes attending for the first time	Gonorrhoea	Syphilis	
			Early latent	Late latent
1959	1,086	235	63	96
1960	952	124	69	146
1961	806	124	31	66
1962	917	155	44	60
1963	938	140	62	77

Leprosy

184. During 1963 there were one full-time and one part-time clinics in Hong Kong, four part-time clinics in Kowloon and weekly clinics held in certain outlying centres in the New Territories. New cases of leprosy treated numbered 258, of which 100 presented with lepromatous, 144 with tuberculoid and 14 with diamorphous manifestations of the disease. Of the infectious cases, 134 were admitted to the Hei Ling Chau Leprosarium. This institution is maintained by the Hong Kong Auxiliary of the Mission to Lepers and a very close liaison is maintained between the staff of the Mission and the Social Hygiene Service.

185. Some severely ulcerated tuberculoid cases were admitted to Orthopaedic Units at Queen Mary and Queen Elizabeth Hospitals, while others were admitted to Hei Ling Chau. A weekly Ulcer Clinic is held in Hong Kong, during which plaster casts, footwear and special splints, devised by the Orthopaedic Appliance Section, are fitted. Hei Ling Chau provides training facilities for the deformed, and the Hong Kong Society for Rehabilitation has been able to take post-surgical cases for rehabilitation and trade training.

186. The Almoners attached to the Service assist patients in Hei Ling Chau and in outpatient clinics with various problems arising from domestic worries, resettlement and employment. In this task they receive help from the Social Welfare Department and from various religious and private welfare agencies.

187. The prejudice against employment of the cured leper is beginning to disappear through the efforts of welfare workers and educational programmes for the general public and employers. Government and private employers in 1963 absorbed into full or partial employment approximately 100 cured cases. Comprehensive and effective recording of the work potential of patients attending clinics was put into action during the year.

Dermatology

188. Apart from dermatological clinics held at all Social Hygiene centres, consultant services are provided for in-patients at all Government Hospitals and also for the Tung Wah Group of Hospitals. Two outpatient clinics are held each week at both the Queen Mary and Queen Elizabeth Hospitals and sessions for medical students are also held twice weekly. Lectures in dermatology are given to student nurses at Queen Mary and Queen Elizabeth Hospitals, Health Nurses, Student Physiotherapists, Health Inspectors and Social Welfare Trainees. During the

year, postgraduate courses in Dermatology were given to members of the two Medical Associations and other doctors.

189. A complete survey into the incidence and cultural characteristics of mycological conditions seen in Hong Kong was undertaken and the Service runs a mycological diagnostic service in its laboratory. Surveys and research into the incidence and possible causes of acute and subacute lupus erythematosus are being undertaken.

190. A total of 10,740 new cases were registered at clinics during the year and 303 cases were admitted to hospital. A classification of dermatological cases for the past three years is given at Appendix 8.

PORT HEALTH

191. The Port Health Administration is responsible for all measures designed to prevent the introduction of quarantinable infectious diseases into the Colony; for the sanitary control of the ports of entry by sea, air and rail; for the carrying out of the provisions of the International Sanitary Regulations as embodied in the Quarantine and Prevention of Diseases Ordinance and the Asiatic Emigration Ordinance and for the compilation of epidemiological statistics and reports. There are also statutory responsibilities under the Hong Kong Merchant Shipping Ordinance. A weekly exchange of epidemiological information is maintained with the World Health Organization Epidemiological Station in Geneva.

192. All persons entering the Colony are subject to a quarantine inspection. Arrivals by sea are inspected at the two quarantine anchorages in Kowloon Bay and off Stonecutters Island respectively; arrivals by air are inspected at Kai Tak Airport and persons crossing the land frontier by rail at the Lo Wu Quarantine Post. All immigrants without valid international certificates against smallpox are vaccinated.

193. Other routine work carried out include the deratting, disinsecting and fumigation of ships, sanitary duties in the port and airport, including supervision of water supplies, control measures to keep the port and airport free from *Aedes aegypti* and inspection of all vessels carrying more than twenty unberthed immigrants. A service rendering medical advice by wireless, on request, to ships at sea is also maintained. In addition to routine work, the Port Health launches, equipped with stretchers, first-aid equipment and radio telephones, provide a sea ambulance service in the port area.

194. Four Port Health inoculation centres are maintained for the convenience of persons requiring International Certificates for travel, two on Hong Kong Island and two in Kowloon, including one at the airport. Free prophylactic vaccinations are also offered at these centres to members of the public.

195. Out-patient clinic facilities are provided in the Airport for Government servants working at the Airport and for their families. This clinic includes a vaccination centre for members of the public who require International Certificates of Vaccination and it also serves as a first-aid post.

DISTRICT MIDWIFERY SERVICES

196. The difficulties of attending home deliveries under existing housing conditions and the growing appreciation of the advantages of the skilled attention available in institutions have resulted in a continuing decline in domiciliary midwifery. During the year only 2.5% of all registered births took place in the home; the remainder of the deliveries were either in hospitals or in Government or private maternity homes. This is reflected in the further decline in the maternal mortality rate, which has shown a dramatic fall in recent years.

197. It is now Government policy gradually to reduce facilities for domiciliary midwifery and to provide instead beds for normal midwifery in all new Health Centres constructed in urban areas where the needs of the district warrant this provision. In the New Territories the policy has been, and still continues to be, to include maternity beds in all new clinics.

198. During the year 52 maternity beds were provided in Kowloon in the maternity wards of the Robert Black Health Centre at San Po Kong and the Li Po Chun Health Centre at Tai Kok Tsui; in addition a maternity home of seven beds was opened at Kam Tin in the New Territories.

199. The work of the Government Midwifery Service during 1963 is summarized in Table 24.

TABLE 24
GOVERNMENT MIDWIFERY SERVICE 1963

Maternity beds in hospitals	...	...	...	...	412
Maternity beds in maternity homes (urban)	...	...	...	...	136
Maternity beds in maternity homes (rural)	...	...	...	...	154
Midwives (excluding hospitals)	...	...	...	...	100
Cases attended (excluding hospitals)	...	...	...	...	21,162
Average case-load for each midwife (excluding hospitals)	...	...	...	...	225

200. Midwives in private practice attended 41.4% of all births, the great majority of these taking place in small maternity homes of from two to six beds. The Supervisor of Midwives, a Government Senior Medical and Health Officer, is responsible for the regular inspections of such homes and for the general supervision of the work of the midwives; in this task, she is assisted by a qualified Health Visitor. The work undertaken in 1963 by the private midwives is outlined in Table 25.

TABLE 25

PRIVATE MIDWIFERY SERVICE 1963

Number of midwives in active practice	...	...	...	...	196
Number of registered maternity home	...	...	...	...	109
Number of beds	...	...	...	...	510
Maternity home deliveries	...	...	...	...	44,187
Domiciliary deliveries	...	...	...	...	1,595
Total deliveries	...	...	...	...	45,782

201. All midwives are trained to perform vaccinations against smallpox and to administer B.C.G. to new-born infants. It is due to the efforts of these midwives, both Government and private, that 83.44% of all children born in 1963 received B.C.G. protection, a measure which has resulted in a dramatic fall in child mortality from tuberculosis. In addition, refresher courses are held at the Tsan Yuk Hospital for midwives in private practice.

MATERNAL AND CHILD HEALTH SERVICE

202. In this most important and popular aspect of the work of Department, which is maintained on a 'well-baby' clinic basis, the emphasis is on health education and the prevention of disease. All facilities are provided without charge, and, once disease is detected and unless the ailment is minor, the child concerned is referred to the appropriate branch of the curative service for investigation and any necessary treatment. When cured, the patient is encouraged to return to the relevant Maternal and Child Health Clinic. Health Education programmes for groups of mothers in the clinics and of individuals during home visits are permanent and continuing activities of the Health Visitors. In the clinics, all forms of group health education are available such as simple talks, film and puppet shows and flannelgraph illustrations; practical demonstrations and group discussions are also widely used, the choice of medium depending on the subject and on the audience.

203. Clinics are held in both full-time and part-time centres and there are sessions for ante-natal and post-natal cases, for infants aged

0-2 years and for toddlers aged 2-5 years. Close liaison is maintained between maternity hospitals and the Maternal and Child Health Service to ensure the after-care of infants requiring special attention. The work performed during 1963, as compared with that of 1962, is detailed in Table 26.

TABLE 26

MATERNAL AND CHILD HEALTH SERVICE 1962-63

	1962	1963
No. of full time centres	9	12
No. of subsidiary centres	21	21
No. of ante-natal sessions each year	2,195	2,413
New ante-natal attendances	23,203	25,897
Total ante-natal attendances	98,245	111,324
Number of post-natal sessions each year	931	914
New post-natal attendances	5,023	5,233
Total post-natal attendances	6,560	6,987
Number of infant welfare and toddler sessions each year	5,103	5,268
New infant welfare attendances	44,348	73,520
Total infant welfare attendances	417,760	632,328
New toddler welfare attendances	9,989	13,194
Total toddler attendances	69,774	92,358
Total home visits	82,231	89,616

204. Two full-time centres were opened during the year—the Robert Black Health Centre in August, 1963, and the Li Po Chun Health Centre in March, 1964. Following the opening of the former centre, the twice-weekly infant clinics, previously held in the nearby Wong Tai Sin Resettlement Estate, were discontinued. Two subsidiary centres were opened, one at the Li Cheng Uk Resettlement Estate in September, 1963 and the other in the Kam Tin Health Centre in January, 1964. The total attendances at the clinics for infants and toddlers increased by 29.6% and new attendances by 16.6%. Only 0.13% of those attending for the first time showed any abnormality.

205. Immunization against diphtheria, whooping-cough and tetanus is given as a routine, using triple vaccine. Smallpox vaccination is given where necessary and children not known to have received B.C.G. who are tuberculin positive but without signs of active disease are given prophylactic I.N.A.H. for a period of one year.

206. The Colony-wide average attendance at each ante-natal session was 46, as against 44 in 1962, and the average number of attendances by each expectant mother was four. Post-natal sessions are the least

popular and it seems that attendance is exclusively confined to women who either suspect or are conscious of an abnormality; 20.06% of those who attended for post-natal care needed some form of treatment.

207. Maternal and Child Health Centres played an active part in the oral poliomyelitis vaccination campaign held in January and March, 1964, and they provided all the specimens required for the virological and serological studies carried out by the Government Virus Laboratory in connexion with the campaign.

SCHOOL HEALTH SERVICE

208. The Medical and Health Department undertakes in all registered schools, through its School Health Service, responsibility for environmental sanitation, the control of communicable disease, immunization against diphtheria, smallpox, cholera and typhoid and health education. There is also a medical inspection and curative service provided for a limited number of participants in the existing contributory School Health Scheme. This latter scheme is under review and will be replaced in September, 1964, by a School Medical Service operated on a per capita contributory basis by private practitioners. To this end, negotiations have been conducted with the Chinese Medical Association, members of which have agreed to participate in a medical inspection and curative service for school-children.

209. During 1963, 24,859 pupils from 228 schools were participating in the existing contributory School Health Service. Medical inspections, clinic services, dental care and specialist ophthalmic and ear, nose and throat investigations and treatment were provided. Table 27 sets out the work done.

TABLE 27

WORK OF SCHOOL HEALTH SERVICE 1962

<i>Medical Inspections</i>	<i>General Clinic Attendances</i>	<i>Dental Attendances</i>	<i>E.N.T. Attendances</i>	<i>Ophthalmic Attendances</i>
37,265	32,673	27,873	1,189	3,641*

* 1,971 pairs of spectacles and 292 pairs of lens replacements were issued.

210. Apart from major outbreaks of measles and chickenpox there were no epidemics of infectious disease amongst children of school age. A total of 121,458 school children were fully immunized against diphtheria and a further 39,648 were given booster doses; 9,032 children were vaccinated against smallpox and 485,723 were inoculated against cholera.

211. Tuberculin-testing was carried out during the year as part of a general investigation to check the sensitivity state of pupils in registered schools throughout the Colony with a view to extending the B.C.G. service, as a routine, to all school children. Tuberculin tests numbering 34,793 were performed and 10,706 children were vaccinated with B.C.G. Positive reactors were investigated, as were known family contacts of tuberculosis; those with suggestive signs and symptoms and those with a 15 mm. or greater reaction were requested to attend for an X-ray examination. In these three groups a total of 644 children were advised to attend for an X-ray; 616 of them showed no radiological evidence of disease and 15 were referred for full investigation at a chest clinic. The remaining 13 did not attend for X-ray examination.

212. Before being permitted to teach in registered schools, school teachers are required to undergo an X-ray examination. During the year, 4,243 chest X-rays were taken and 37 teachers were found to be suffering from active tuberculosis; in such cases permission to teach is refused and priority admission to hospital arranged. After full investigation a further 139 teachers were permitted to teach under regular medical supervision.

213. Registered school premises are inspected routinely by Health Inspectors; all new premises and all proposals for extensions or alterations to existing schools are investigated to ensure adequate environmental sanitation and hygiene. Such inspections numbered 2,330 during the year.

214. Health education activities included lectures by doctors and Health Visitors to teachers-in-training; visits were also arranged to school clinics for practical demonstrations of the common health problems amongst school children. School and home visits and talks to pupils and parents at school clinics by Health Visitors are routine activities which are an integral part of the work of the School Health Service.

DENTAL SERVICE

215. The Government Dental Service, under the direction of the Senior Dental Specialist, provides general dental care for the Civil Service as well as a School Dental Service, related to the School Health Scheme. In addition, emergency dental care is given to patients in Government hospitals, to prisoners in Her Majesty's Prisons and to the public at certain of the Government out-patient clinics. The work of the General Dental Service during the years 1961-63 is shown in Table 28.

TABLE 28

WORK OF THE GENERAL DENTAL SERVICE 1961-63

Year	Attendances	Deciduous Teeth		Permanent Teeth		Persons rendered dentally fit
		Restored	Extracted	Restored	Extracted	
1961	130,323	5,304	19,196	51,329	33,895	15,086
1962	138,377	6,254	20,269	48,893	34,599	18,844
1963	145,128	6,406	21,649	52,254	33,535	21,628

216. Two new dental clinics were built during the year. In May a clinic of advanced design especially for the treatment of children and named the Tang Shiu Kin Dental Clinic for its benefactor was opened in North Point. Accommodation is provided for two dental officers and four dental nurses. The accent in this clinic is on prevention of dental disease and the waiting hall is specially planned for dental health education with an attractive decor and audio-visual aids. In December the dental section of Queen Elizabeth Hospital began operations. This small two-surgery unit is of compact design and, in association with beds and a special operating theatre, is equipped to deal with all kinds of oral surgery including fractures of the face and jaws.

School Dental Service

217. The participants in the School Health Service received dental examinations and treatment from an operating staff comprising six dental officers and four dental nurses whose work is outlined in Table 29.

TABLE 29

WORK OF THE SCHOOL DENTAL SERVICE 1961-63

Year	No. of participants	Attendances for treatment	Deciduous Teeth		Permanent Teeth		Participants rendered dentally fit
			Restored	Extracted	Restored	Extracted	
1961	24,330	31,242	4,262	8,413	18,571	2,352	2,332
1962	24,919	29,891	4,051	7,423	18,234	1,760	2,931
1963	28,859	27,940	4,291	6,871	17,366	1,549	3,099

Dental Epidemiology

218. Fluoridation of water supplies throughout the Colony began in March, 1961. The fluoride ion concentration has since then been generally maintained at 0.9 parts per million during winter months and 0.7 parts per million during summer. Although it is too early for a noticeable effect upon the dental health of the population, it is anticipated that a

marked reduction in caries incidence amongst children will result, particularly in those children born after 1960.

Dental Health Education

219. A continuous programme of dental health education is maintained in all Government Dental Clinics by professional and auxiliary staff with the aim of impressing on patients the need for good oral hygiene and regular dental care.

Control of Dental Practice

220. Two Dental Inspectors were employed throughout the year in the supervision and control of dental practice, and made regular inspection of premises. There was one successful prosecution for alleged illegal practice of dentistry by an unregistered person under the Registration of Dentists Ordinance, 1959.

FORENSIC PATHOLOGY

221. All medico-legal work in connexion with the investigation of crime is carried out in laboratories situated in the Police Headquarters building. These laboratories, under the direction of the Specialist in Forensic Pathology, are staffed jointly by the Medical and Health and Police Departments. Lectures are given in various aspects of medico-legal work to Police personnel. The Specialist is part-time Lecturer in Forensic Medicine at the University of Hong Kong. Table 30 details work of the laboratories during the year.

TABLE 30

WORK OF THE FORENSIC PATHOLOGY LABORATORIES 1963

Examination of victims and suspects	...	...	...	...	362
Attendance at scenes of crime	...	...	...	...	55
Attendance at courts	...	...	...	...	119
Medico-legal examination of weapons	...	...	...	...	78
Examination of hairs, fibres, etc.	...	...	...	...	558
Examination of clothing	...	...	...	...	726
Miscellaneous examinations	...	...	...	...	287
Blood grouping (medico-legal)	...	...	...	...	2,109
Blood grouping (Police Officers)	...	...	...	...	894
Lectures to Police Officers	...	...	...	...	13
Identification of nature of meat—dog, cat, etc.	...	...	...	...	9
Chemical examinations	...	...	...	...	42
<i>Assistance in Raids</i>					
Breach of Pharmacy and Poisons Ordinance and Penicillin Ordinance	...	...	...	...	8
Unregistered Medical Practitioners	...	...	...	...	9
Abortionists	...	...	...	...	5
Unregistered Dentists	...	...	...	...	1

Public Mortuaries

222. The two public mortuaries, one on Hong Kong Island and the other in Kowloon, are under the supervision of the Specialist in Forensic Pathology. It is to these institutions that all cases of sudden, unnatural or uncertified deaths are sent, including deaths in Police or Prison custody, exhumed bodies and human remains.

TABLE 31
WORK OF PUBLIC MORTUARIES 1963

	<i>Victoria</i>	<i>Kowloon</i>
Total number of bodies received	1,163	2,997
Total number of autopsies performed	598	1,126
Number of bodies claimed	803	1,662
Number of bodies unclaimed	360	1,335
Deaths due to natural causes	872	2,458
Deaths due to unnatural causes	291	539

GOVERNMENT CHEMICAL LABORATORY

223. The Laboratory carries out analytical and consulting work of a very varied character for Government Departments, the Armed Services, commercial firms and private individuals. The total number of all samples examined was 45,051, an increase of 11% over the number examined in 1962; this increase was due mainly to increases of samples of narcotics, water and dutiable commodities. Table 32 shows the work of the Laboratory during the year.

TABLE 32
WORK OF THE GOVERNMENT CHEMICAL LABORATORY 1962-63

	<i>Samples Analysed</i>	
	<i>1962</i>	<i>1963</i>
Biochemical	14,326	13,185
Dangerous Drugs Ordinance	9,963	13,528
Dutiable Commodities	8,212	9,341
Water and Waterworks Chemicals	2,681	3,893
Food and Drugs	1,147	1,086
Forensic	1,002	797
Toxicology	690	899
Dangerous Goods Regulations	343	370
Commercial	632	868
Import/Export (Prohibition) (Specified Articles)		
Orders	7	3
Miscellaneous	1,437	1,081
	<u>40,440</u>	<u>45,051</u>

224. The major part of the work is concerned with biochemical analyses, narcotics control and the assessment of dutiable commodities.

A great variety of work was done for the Police Department during the year, which included cases of forged or altered documents, the examination of counterfeit gold, tear gases, exhibits from the scene of 'hit-and-run' accidents and material from explosions, acid-throwing and arson. 797 specimens of drugs of various kinds were examined in connexion with infractions of the laws relating to the sale of poisons and to the possession of prohibited insecticides.

225. The value and range of dutiable commodities examined for assessment or remission of duty were similar to those in previous years. A continuous check was maintained on the level of fluoridation of the public water supplies, samples being taken daily from each station at which fluoride is added.

Water and Waterworks Chemicals

226. The water emergency brought a considerable amount of extra work to the laboratory. The tankers collecting water from the tidal estuary of the Pearl River were at first manned with testing officers drawn from various sections of the Medical and Health Department to ensure that water was not brought back with more than an acceptable degree of salinity. The testing was at first done chemically but, when conditions later became more exacting with a rise in the salinity of the river, a system of practically continuous salinity testing by electrical apparatus was established on each ship. This proved of value in enabling the ships to load the maximum possible amount of water in rapidly varying conditions of salinity. Eventually, outside staff were recruited and trained for this work. Considerable work was done by members of the laboratory staff in special surveys of the river as a guide to the tanker operation and in purification of the river water on arrival in Hong Kong.

227. In addition, the water emergency caused a large increase in the number of samples of well water submitted for analysis, either for potable or industrial purposes. An officer with special professional qualifications in water treatment was recruited during the year.

228. The number of samples of food and drugs submitted for examination under the Public Health and Urban Services Ordinance remained steady. Particular attention was paid to milk and to products containing preservatives. A large number of samples were examined for the presence of preservatives, and both non-permitted preservatives and excessive concentrations of permitted preservatives continued to be found in a number of locally-manufactured products.

229. Work carried out for Government departments included the assessment of standards in connexion with supply of various commodities and the examination of inflammable and other dangerous goods seized by the Department of Fire Services. The number of commercial samples dealt with showed a marked increase and covered a very wide field, including alloys, oils, chemicals, drugs, fire crackers, paints and textiles.

GOVERNMENT INSTITUTE OF PATHOLOGY

230. The Government Institute of Pathology, situated in the upper floors of the Sai Ying Pun Polyclinic, undertakes the major part of the clinical pathology and all the public health laboratory work for Government in the Colony and for some of the grant-aided hospitals. The branch of the Institute in Kowloon Hospital closed in December, 1963, to enable extensive conversions and was transferred temporarily to the laboratories of the Queen Elizabeth Hospitals. Small clinical laboratories are maintained at the Lai Chi Kok and Castle Peak Hospital. The University Department of Pathology carries out the routine clinical pathology for the Queen Mary Hospital, and a Virus Unit in that Department is staffed from the Institute but operates under the general supervision of the Professor of Pathology. There is a branch laboratory in Caine Lane on Hong Kong Island for the manufacture of vaccine. The work of the Institute during the year is detailed at Appendix 9.

231. A major event during the year was the opening in December of the modern and well-equipped laboratories of the new Queen Elizabeth Hospital. The number of examinations performed there showed a rapid rise as the wards were opened, and the increase is expected to continue. A Blood Bank with a 24-hour service was also established.

232. Courses of lectures and practical classes for Student Technicians were held throughout the year. Separate courses of lectures were also given to Health Inspectors and Health Visitors.

233. The Vaccine Section of the Institute continued to manufacture standard cholera vaccine of 8,000 million organisms per millilitre, and over 3,000,000 doses of vaccine were used in the course of mass anti-cholera inoculation campaigns held during the year. A reserve of some two million millilitres is always maintained.

234. Systematic examination for *V. cholerae* in night-soil from collecting vehicles was carried out throughout the year and stool specimens from cases of gastroenteritis were investigated routinely for vibrios.

In addition, the investigation of water from all sources and of other possible vehicles of infection such as fruits, vegetables, fish and shell-fish for cholera organisms was continued throughout the year. On the occurrence of the first clinical case of cholera, a twenty-four hour cholera diagnostic service was established at the Institute in Sai Ying Pun and in the Kowloon Hospital branch of the Institute.

235. During the year 77,085 specimens of faeces, nightsoil, food, water, etc. were examined for *V. cholerae*, with 1,627 positive results. This extra work necessarily resulted in a reduction of certain other routine services until the cessation of the outbreak at the end of the year.

236. Despite this, there was again an increase in the number of examinations carried out in this Institute during the year, though this was not so marked as previously. The total of 776,793 was 60,398 more than the corresponding figure for 1962. The grand total includes 2,122 examinations carried out in the Virus Unit and 1,931 blood groupings performed for personnel of the Auxiliary Medical Services and other bodies.

237. In the tuberculosis section, fluorescent microscopy was introduced for direct examination of smears for tubercle bacilli and this has greatly facilitated such work. Numerous sensitivity tests and other investigations were also carried out in connexion with tuberculosis drug trials.

Virus Laboratory

238. The Virus Laboratory is equipped mainly for diagnostic and survey work in connexion with enterovirus. The Unit carried out a number of faecal and serological surveys for the mass anti-poliomyelitis vaccination campaign. This campaign appeared to be very successful, in that a high conversion rate was obtained and 'wild' poliovirus almost completely disappeared from the community.

239. Four faecal surveys were carried out during the year in the months of April, June, August and December and involved children aged three to twelve months. The first of these surveys was performed approximately six weeks after the second mass feeding of Sabin vaccine, the children sampled being unvaccinated but known to be in reasonably close contact with vaccinated children. From this group, an excretion rate of 43.3 per thousand of 'vaccine' strain poliovirus was found, indicating evidence of spread of the vaccine. The excretion rates of 'wild'

poliovirus during the three months in 1963 were very markedly less than in previous year. Other enterovirus excretion rates were also lower.

240. Three serological surveys for polio-antibodies were carried out. The first, in April, 1963 was on sera obtained in Maternal and Child Health Centres from children aged 6-12 months who had received two doses of oral Sabin trivalent vaccine. Presence of antibodies was assumed at a titre of 1:4. The conversion rates obtained from this group, known to be 'triple negative' before vaccination, are shown in Table 33. One of the factors in the relatively low conversion rate for Type I antibodies may have been interference from other enteroviruses in March.

TABLE 33

POLIOMYELITIS CONVERSION RATES

Antibody Type	No. showing presence of anti-bodies	Serological conversion rate
Type I	42	66%
Type II	63	98.5%
Type III	61	95%
Total	64	

241. Sera was also received from 50 unvaccinated children aged three months to five years who had been in reasonably close contact with vaccinated children. In the age-group 7-12 months i.e. that most at risk, comparison of antibody levels found in April, 1963, with those found in unvaccinated children of the same age in December, 1962, showed a general increase of polio-antibody levels. This can be attributed to the spread of the vaccine virus in the community.

242. In December, sera were received from unvaccinated children aged three to twelve months to detect 'triple-negative' children for further follow-up. Of these, 37 were from the age-group 7-12 months, and a comparison with the April survey showed a general percentage increase of 'triple negative' children—65% in December and 25% in April. Most noteworthy was the complete absence of antibody to Type I poliovirus in all 37 children tested; it can be presumed that these children had not been exposed to either the 'wild' or the 'vaccine' virus.

243. During the mass campaign in the first quarter of 1963, a control group of 79 'triple-negative' children was surveyed by weekly rectal swabs for twelve weeks, poliovirus isolation and 'marker' tests being carried out in each case. After feeding of the virus, the results showed that the average duration of excretion was approximately five weeks and that Type II was the dominant type after the first feeding followed

by Type III. There was also a general marked correlation between the type of vaccine virus isolated from the faeces and the subsequent antibody response. Overall excretion rates of the vaccine types after feeding were 34% for Poliovirus Type I, 93% for Poliovirus Type II and 87% for Poliovirus Type III.

244. From the 53 cases reported in 1963 none of the isolates were Type I, which in the previous year had caused 90% of the cases. The results of routine diagnostic examinations carried out by the Virus Laboratory on specimens received for virus isolations and serological studies are summarized in Table 34.

TABLE 34

ISOLATION OF POLIOVIRUS

	Number examined	Positive poliovirus			Negative	
		Type I	Type II	Type III		
Clinical cases	Faeces ...	88	0	30	12	46
	Throat swabs ...	11	0	1	0	10
	C.S.F. ...	27	0	0	0	27
Contact cases	Faeces ...	345	0	29	5	311
Convalescent cases	Faeces ...	34	0	3	2	29

245. Commencing in December, samples of nightsoil from Kowloon and of Moore's swabs in sewage from Hong Kong were taken to obtain data on the prevalence of 'wild' and 'vaccine' strains of poliovirus. Two out of eight samples of nightsoil from Kowloon showed the presence of 'vaccine' poliovirus.

Respiratory Virus Identification

246. In March, 1963, the Virus Laboratory was designated a National Influenza Centre by the World Health Organization who supplied reagents for influenza virus studies.

247. Throat swabs were received from cases of respiratory infection in children and babies from the Paediatric Unit, Queen Mary Hospital, together with paired sera. Respiratory syncytial virus (R.S. virus) was isolated from four of these cases who were all under one year of age. All sera were tested for antibodies by complement-fixation technique and a more than four-fold antibody rise to the R.S. virus isolated was obtained in some of the cases. It is therefore evident that the virus does occur in Hong Kong and is likely to be an important cause of respiratory infection in children under the age of twelve months.

248. All sera received were also tested for complement-fixation antibodies to Influenza A, Influenza B, Adenovirus, Q-fever, and psittacosis. Results are shown in Table 35.

TABLE 35
RESPIRATORY VIRUSES 1963

	Influenza	Influenza	Adenovirus	Respiratory syncytial virus	'Q' Fever	Psittacosis
No. Presence of antibodies	6	0	6	10	0	0
Percentage showing antibodies	33%	0	33%	55%	0	0

Vaccine Production

249. The Vaccine Laboratory prepared and issued during the year the quantities of vaccine shown in Table 36.

TABLE 36
VACCINE PREPARATION 1963

	Prepared during 1963	Issued during 1963
Anti-smallpox vaccine	20,180 ml.	19,827 ml.
Anti-rabies vaccine 2%	51,650 ml.	50,400 ml.
Anti-rabies vaccine 4%	39,850 ml.	39,100 ml.
Anti-typhoid-paratyphoid vaccine	96,000 ml.	84,950 ml.
Anti-cholera vaccine	2,668,850 ml.	2,668,425 ml.
Anti-plague vaccine	19,350 ml.	30,850 ml.

Post-mortem Examinations

250. Pathologists from the Institute carried out 485 post-mortems at the Queen Mary Hospital and Kowloon Hospital, including medico-legal cases, on patients dying in those hospitals.

251. Technicians from the Institute undertake the routine post-mortem examination for plague of rodents sent to the Public Mortuaries by the Pest Control Unit of the Urban Services Department. Of 129,808 rodents examined, none were found to be infected with *Pasteurella Pestis*.

Blood Banks

252. The Blood Donation Centre, maintained by the Hong Kong Branch of the British Red Cross Society on the Hong Kong waterfront, continued to collect and distribute blood to the Blood Banks at the Kowloon, later the Queen Elizabeth, and Queen Mary Hospitals. The laboratory work in connexion with this was undertaken by the Government Institute of Pathology.

253. Donations of blood received during the year exceeded by some 230 pints the total for 1962. Although the greater part of the blood again came from members of the Armed Services or from visiting Royal Navy and United States warships, there was a further increase in blood



Jockey Club Rehabilitation Centre, Kowloon
opened on 15.8.63.

Robert Black Health Centre, San Po Kong
opened on 27.8.63.





Kam Tin Clinic and Maternity Hospital, New Territories
opened on 16.12.63.

Li Po Chun Health Centre, Arran Street, Kowloon
opened on 21.3.64.



donations from the Chinese residents, and the Donor's Club, under the guidance of the Chairman of the Hong Kong Branch of the British Red Cross Society, continued to expand its activities. In addition, a considerable amount of blood was donated direct to the Blood Banks by relatives of patients in the various hospitals. The sources and distribution of blood received by the Blood Banks are detailed in Tables 37 and 38.

TABLE 37
SOURCES OF BLOOD DONATED 1963

British Red Cross Society	8,384 pints
Patients' relatives and friends... ..	1,144 pints
Other sources	0 pints
Total	9,555 pints

TABLE 38
DISTRIBUTION OF BLOOD 1963

Government Hospitals	6,919 pints
Government Assisted Hospitals	2,023 pints
Private Hospitals	448 pints
Military Hospitals	0 pints
Manufacture of Plasma	0 pints
Preparation of Coombs Reagent	0 pints
Unusable due to various causes	258 pints
Total	9,958 pints

254. Despite this encouraging increase, there is still a serious shortage of blood to meet all demands. In fact, supply was barely adequate to meet the emergency needs of the acute hospitals and much elective surgery had to be postponed for varying periods for lack of blood. Much propaganda is being directed by the British Red Cross Society to promote an increase in the number of Chinese donors, as the Armed Services, other temporary residents and visitors cannot be regarded as other than a transient source of supply. The people of Hong Kong owe a great debt of gratitude to these donors who, though only temporarily resident in the Colony, give blood for general use.

INDUSTRIAL HEALTH

255. The health of workers in factories and in other industrial undertakings is the statutory responsibility of the Commissioner of Labour. The Industrial Health Section of the Labour Department is chiefly concerned with the prevention of occupational disease and the protection of workers against health hazards arising from the working environment. Advice is offered to industry on problems connected with the hygiene

of work-places, the use of protective clothing and equipment, and the provision of clinic or first-aid facilities.

256. Investigations continued into the working conditions in trades known to be hazardous to health, and medical supervision is maintained of workers in certain dangerous trades such as those in which lead and radio-active substances are handled. Health Visitors carry out individual case work on injured persons claiming compensation under the Workmen's Compensation Ordinance.

257. The Industrial Health Section conducted field surveys of working environments for detection of toxic gases, fumes and dust. Temperature and ventilation studies were made in a number of factories as well as investigations into ventilation of basement workrooms and into the health hazards of tunnelling.

258. Clinical field surveys carried out included chest X-ray examinations of workers in dusty trades for silicosis, and surveys of industrial dermatitis, of the health of the skin of workers handling tarry compounds and of Waterworks officers handling fluorides.

HEALTH EDUCATION

259. A better appreciation by the Colony's population of the basic principles of environmental hygiene and the prevention of disease continue to be the main health objective. A very wide field is covered by many branches of the Medical and Health Department as an integral part of the service, and all available methods are used in the programmes undertaken. In general, those methods designed for individual or group education have proved to be the most effective, being used with particular success is the Maternal and Child Health Service, the Tuberculosis Service and the Social Hygiene Service.

260. A number of other departments are concerned with various aspects of Health Education in their respective spheres, and the Inter-departmental Committee on Health Education formed in 1959 sits in an advisory capacity on any matters related to Health Education which may be referred to the Committee.

261. The co-operation of all voluntary bodies interested in health topics is actively sought and Kaifong Associations and Welfare Societies are particularly active in this field. Many of the Kaifongs take a lively and practical interest in the health problems of their respective districts and co-operate in immunization campaigns and in education on environmental hygiene. During the year, a Health Exhibition was organized by the 28 Kaifong Health Education Sections Committee, in which the

Medical and Health Department co-operated by producing displays of various aspects of preventive medicine.

262. The Health Education Team, formed during 1961 in the New Territories, was active in promoting better standards of hygiene and living conditions in rural areas and in preparing the way for immunization campaigns. The two 'floating clinics' donated by the Royal Hong Kong Jockey Club and the 'flying doctor' helicopter service combined curative treatment with advice on environmental hygiene and the prevention of disease during visits to isolated coastal and inland villages.

IV. WORK OF THE MEDICAL DIVISION

263. The demands on the clinic and hospital services provided by Government continued to increase during the year. This increase has resulted from two main factors—the rapidly expanding population and the increasing tendency to turn from traditional Chinese medicine towards Western methods of treatment.

264. Figures I and II show the out-patient attendances, the provision of beds and the admissions to hospitals, both Government and non-Government, for the five year period 1959-1963.

FIGURE I
OUT-PATIENT ATTENDANCES AT GOVERNMENT CLINICS
1959-1963

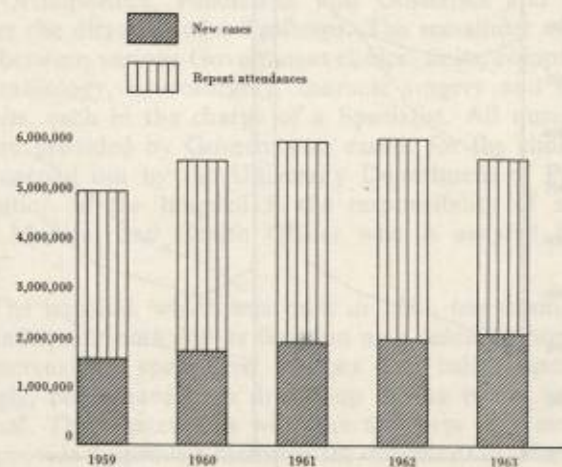
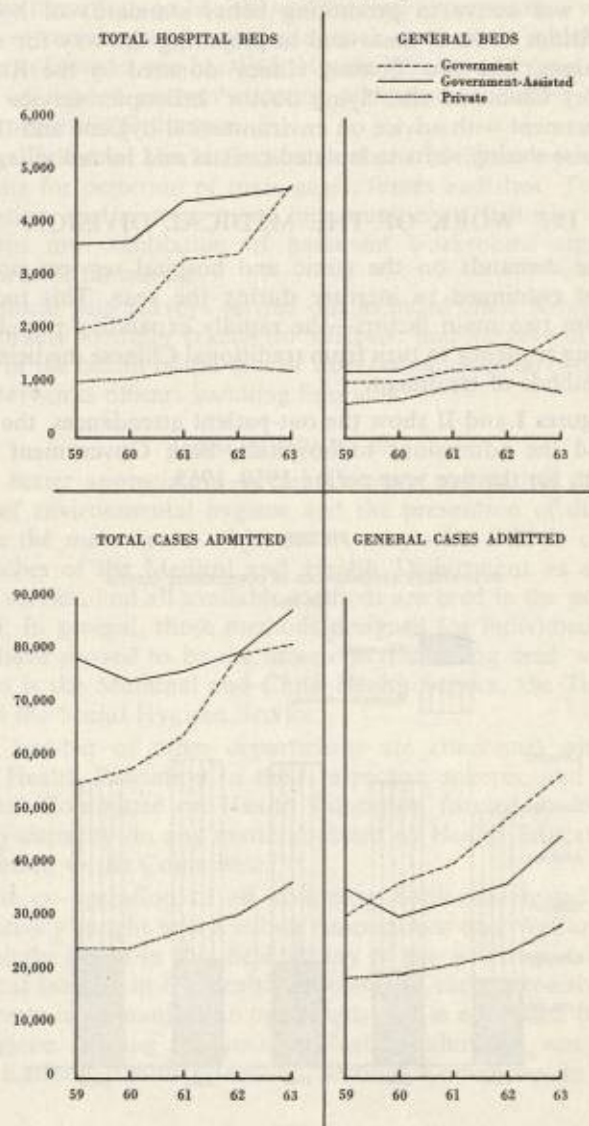


FIGURE II

HOSPITAL BEDS
(Excluding Maternity Homes)



HOSPITALS

265. At the end of 1963, there was a total of 11,086 beds available in all hospitals in Hong Kong, excluding those hospitals maintained by Her Majesty's Armed Forces; this total includes 574 beds in the Kowloon Hospital which closed for reprovisioning in January, 1964. An additional 630 beds in private maternity and nursing homes were also available. Details concerning this hospital accommodation are given in Appendix 10 and an analysis of the work done is set out in Appendices 11 and 12.

266. The main event of the year was the opening of the Queen Elizabeth Hospital, mention of which has been made previously in paragraph 7. The re-development programme of the Kwong Wah Hospital in Kowloon continued to progress satisfactorily and is described later in this report in paragraph 325.

GOVERNMENT HOSPITALS

Queen Mary Hospital

267. The Queen Mary Hospital is an acute hospital serving as the main specialist centre for Hong Kong Island and as the University teaching hospital for the Medical Faculty of the University of Hong Kong. It is also one of the two Government centres for general nursing training.

268. Of the hospital's 623 beds, 313 are controlled by the University teaching units, which comprise the University Departments of Medicine, Surgery, Orthopaedics, Paediatrics and Obstetrics and Gynaecology, each under the direction of a Professor. The remainder of the beds are allocated between various Government clinical units, comprising medical, surgical, radiology, neurosurgery, thoracic surgery and ear, nose and throat units, each in the charge of a Specialist. All nursing and other services are provided by Government, except for the clinical pathology which is carried out by the University Department of Pathology. The administration of the hospital is the responsibility of a Government Principal Medical and Health Officer who is assisted by a Hospital Secretary.

269. The hospital, which was built in 1937, has during recent years proved inadequate both for its function as a teaching hospital and also for the increasingly specialized services it is called upon to provide. Accordingly, plans have been drawn up during recent years to extend the hospital. These extensions will take the form of a new professorial suite to provide improved facilities for teaching an increased number

of students, which will also house a radio-therapeutic department; a seven-storey block connected to the rear of the main hospital, accommodating 4 theatre suites, a central sterile supply department and an expanded pharmacy; and a large radio-diagnostic department at the front of the main building. In addition, there will be increased accommodation for nurses and the Nurses Training School, now accommodated in the main hospital, will be reprovisioned in the nurses home. By April 1963, the plans for these extensions were well advanced, and during the year a start was made on site formation for the main buildings. A new emergency generator house and more parking spaces for vehicles were constructed, the work being completed at the end of November; the kitchen, which was proving inadequate to cope with the increasing numbers of patients, is being reprovisioned on the roof of the hospital, and this work was nearing completion by the end of March 1964.

270. Although the hospital has a nominal capacity of 623 beds, the increased demand for services, particularly from emergency admissions, required the use of camp beds averaging 120 each day throughout the year.

271. Apart from the casualty department, which provides a 24-hour service for emergencies from Hong Kong Island, no general out-patient clinics are held at the hospital. However, specialist out-patient clinics are held at the Sai Ying Pun Polyclinic by the University and some Government clinical units. Government specialist clinics are also held at the Violet Peel Polyclinic.

272. A total of 21,518 patients were admitted during the year, and Table 39 sets out the work of the hospital over the past five years.

TABLE 39

QUEEN MARY HOSPITAL 1959-63

	1959	1960	1961	1962	1963
Maternity Cases admitted	1,925	2,103	2,300	2,390	2,250
General in-patients (excluding maternity)	12,695	14,612	15,376	18,336	19,268
Total out-patient attendances	63,676	58,191	71,046	83,458	81,209
Casualties attended (included in the above figures)	22,307	23,402	41,936	46,589	43,816
Operations (excluding minor ones)	7,212	8,160	8,420	9,681	9,623
Mortality (expressed as percentage of admissions)	7.5	7.0	7.3	6.6	7.5

Queen Elizabeth Hospital

273. Reference has already been made in paragraph 7 to the commissioning and opening of this institution, which not only is the largest hospital in Hong Kong but also is the Colony's largest building with a built-over area of nearly one million square feet.

274. Apart from the emergency services of its casualty department, the Queen Elizabeth Hospital is designed to provide modern specialized facilities for the rapidly expanding population of Kowloon and the mainland portion of the New Territories. After nearly a year of preparatory work by a commissioning unit, the hospital of 1,338 beds began to admit patients on 3rd December, 1963, and was fully operational by 14th January, 1964. However, the Institute of Radiology, which will offer the most modern radiotherapeutic measures, was not functioning by the end of the year under review; it is expected that the Institute will be opened towards the end of June, 1964. Other parts of the hospital not completed at 31st March, 1964, were the laundry and certain of the quarters.

275. The casualty department, opened on the 17th December, 1963, dealt with a total of 27,867 emergency cases between that date and 31st March, 1964. An analysis of these cases has been made, and the results are detailed in Table 40.

TABLE 40

CASUALTY DEPARTMENT, QUEEN ELIZABETH HOSPITAL

Traumatic			
Assault	9.4%		
Traffic	6.0%		
Industrial	9.9%		
Domestic	16.9%		
Sport	1.1%		
Other	4.0%		
			47.3%
Non-Traumatic			
Infectious	0.9%		
Medical & Paediatric	27.2%		
Surgical	12.9%		
Obstetric	0.6%		
Gynaecological	3.7%		
Psychiatric	1.4%		
Other	5.5%		
			52.2%
Unknown ... ..			.5%
			100.0%

276. Of the total casualty attendances, 21.4% were admitted to the hospital, 8.1% were referred to other hospitals for admission and 70.5% were treated and sent home. It was noteworthy that the commonest type of attendance was for an industrial hand injury.

Kowloon Hospital

277. For the greater part of the year until the opening of the Queen Elizabeth Hospital, the Kowloon Hospital continued to serve as the main casualty and emergency receiving centre for Kowloon and the New Territories, an area with a total population of approximately 2½ million. The casualty department maintained a 24-hour service, up to the 17th December, 1963, when its facilities were transferred to the Queen Elizabeth Hospital and an average of 12.8 casualties were seen every hour of that period.

278. As in previous years, the hospital was under continuous pressure, particularly from emergency admissions, and its 574 beds had to be considerably augmented by the widespread use of camp beds in wards and on verandahs; in addition, the high rate of patient turnover recorded during the last few years was perforce maintained. Table 41 sets out the work of the hospital over the past five years.

TABLE 41
KOWLOON HOSPITAL 1959-63

	1959	1960	1961	1962	1963
Maternity cases admitted ...	3,646	4,372	4,695	4,487	4,638*
General inpatients (excluding Maternity) ...	13,242	16,052	19,102	24,895	24,754†
Total O.P.D. Attendance ...	547,628	569,682	671,912	635,679	523,056
Casualty Attendance (including in above figure) ...	71,627	80,333	86,218	97,246	107,489†
Operations (excluding minor cases)...	6,571	7,584	9,257	11,748	10,728
Mortality (Expressed in % of admissions)...	5.5	6.4	6.5	7.6	5.89

* up to 11.12.63.

† up to 17.12.63.

279. The large outpatient department adjacent to the hospital provides facilities for general cases; this department continued to function after the transfer of the other facilities to Queen Elizabeth Hospital. In addition, specialized clinics were held at the Specialist Clinic situated in the grounds of the Queen Elizabeth Hospital.

280. Medical, general surgical, orthopaedic, paediatric, obstetric and gynaecological and ear, nose and throat units were maintained, each under the clinical direction of a Specialist or of a Senior Medical Officer with a higher qualification. Other services included diagnostic radiology, pharmaceutical and surgical supply, clinical pathology, physiotherapy, almoning and a blood bank. A Principal Medical and Health Officer was Medical Superintendent, assisted by a Hospital Secretary, and all professional and other staff were provided by Government.

281. As in previous years, the medical unit continued to admit a large number of acute medical emergencies, particularly gastric haemorrhage resulting from peptic ulcer or cirrhosis of the liver. The number of acute cerebro-vascular accidents continued to rise rapidly and, by the time that the hospital's facilities were transferred, rehabilitation and disposal of recovered cases had become a serious problem. This had been accentuated by the need for a quick turnover and by the domestic housing problems facing the greater proportion of the population.

282. The two general surgical units continued under increasing pressure, in particular due to emergencies admitted through the Casualty Department. During the year, the number of emergency cases admitted to surgical wards was eight times greater than the number of elective cases admitted through the specialized clinics.

283. As would be expected under the existing conditions of overcrowding and rapidly-increasing population, the orthopaedic unit continued to deal mainly with traumatic cases which accounted for 85% of the total orthopaedic admissions; of the remainder, two-thirds were acute orthopaedic cases (e.g. acute sciatica, tuberculosis of joints and severe sprains), while the other third was composed of other types of orthopaedic conditions.

284. Following the opening of the Queen Elizabeth Hospital, Kowloon Hospital, apart from the general out-patient department, closed to enable renovations to be undertaken as certain of the buildings are over thirty years old. On the completion of these, the hospital will re-open in its new role of a subsidiary of the Queen Elizabeth Hospital for the care of patients who have passed the acute stage of their illness but who still require a period of convalescence or rehabilitation before returning to normal life. In addition, a certain number of beds will be allocated for persons suffering from tuberculosis; these will be for three categories of patients, namely, those suffering from emergency complications of the disease, those requiring surgery for either pulmonary

or orthopaedic manifestations and those in need of treatment with special combinations of drugs.

Tsan Yuk Hospital

285. This is the main specialist obstetric hospital in the Colony and the clinical supervision of its 200 beds is undertaken by the University Professor of Obstetrics and Gynaecology. She is assisted by her University Lecturer Staff and by Government Medical and Health Officers; all nursing and other staff are provided by Government.

286. It is the teaching centre in Obstetrics for medical undergraduates and is the Colony's training school for midwives who have not trained as general nurses and who undergo a two year course conducted in Cantonese.

287. Routine admissions are now limited to cases registered at the hospital ante-natal clinic; these are in the main primiparae, grand multigravidae, women with a previous abnormal obstetric history or referred cases requiring specialist care; such cases comprised 93.8% of the total admissions during 1963. The rest of the admissions were emergency cases referred by private midwives, general practitioners or the Government Midwifery Service. The work carried out by the hospital during the year is set out in Table 42.

TABLE 42

TSAN YUK HOSPITAL 1962-63

	1962	1963
Total admissions	7,340	7,624
Total deliveries	5,993	6,591
Still-birth rate (per 1,000 total births)	10.68	15.00
Neo-natal mortality rate (per 1,000 live births)	11.70	10.03
Maternal mortality rate (per 1,000 total births)	Nil	0.15
Percentage operative deliveries	20.63	21.59
Ante-natal attendances	34,786	36,908
Post-natal attendances... ..	3,739	4,115

288. Ante-natal and post-natal sessions are held regularly. In addition there is a special clinical for medical conditions complicating pregnancy, a social hygiene clinic for venereal disease and a family planning clinic staffed and conducted by the Family Planning Association of Hong Kong.

Castle Peak Hospital

289. This hospital for psychiatric patients is situated at Castle Peak in the New Territories. It was originally designed for 1,000 beds but pressure has been such in the three years of its existence that accommodation has had to be provided for a far greater number of patients and during the year the average number of inpatients in the hospital was in excess of 1,200. Psychiatric cases from the whole Colony are admitted to this hospital, the great majority of whom continue to present as voluntary patients.

290. The Hong Kong Psychiatric Centre situated on Hong Kong Island is the main outpatient department and is combined with a day hospital which also provides observation, treatment and supervision for patients on parole from Castle Peak Hospital. In addition, psychiatric outpatient sessions were held regularly at the Queen Elizabeth Hospital Specialist Clinic in Kowloon and at the Maurine Grantham Health Centre in Tsuen Wan.

291. Training in psychiatric nursing was successfully continued and is referred to in paragraph 436. Fifth-year medical students also spent a week in residence at the hospital to receive practical training in psychiatry.

292. In therapy, new psychotropic drugs came into use, particularly Valerium, Amitriptylline and Haloperidol. Aversion therapy continued to be given for some out-patients, while there was a revival of insulin shock therapy for a few intractable cases of schizophrenia. In the depressive states the use of the mono-amine-oxidase inhibitors continued to be effective.

293. Occupational therapy plays a very considerable part in the management of psychiatric patients and a comprehensive range of activities in industrial, craft and gardening work was organized successfully throughout the year. In addition to the various forms of employment, a full programme of out-door and indoor recreations was maintained.

294. Psychiatric social work was undertaken by Almoners attached to the main hospital and to the out-patient day hospital. The New Life Mutual Aid Club, a registered society, consists of discharged patients and their relatives; the club aims to promote the mental and physical health of its members, to help with social problems and to induce a better understanding by the public of the problems that face mental patients.

295. Tables 43 and 44 show the work of the Castle Peak Hospital and that of the Day Hospital and psychiatric out-patients centres respectively.

TABLE 43
WORK OF CASTLE PEAK HOSPITAL 1963

	Male	Female	Total
Patients in hospital on 1.1.63	939	517	1,256
Patients admitted: First admission	773	525	1,298
Re-admissions	468	367	835
Total admissions	1,241	892	2,133
Patients discharged (including transfers and deaths*)	954	810	1,764
Patients in hospital on 31.12.63	1,026	599	1,625

* There were 7 male and 2 female patients who died in hospital.

TABLE 44
WORK OF DAY HOSPITAL AND PSYCHIATRIC CENTRES 1963

	Psychiatric Day Hospital		
	Male	Female	Total
Patients attending on 1.1.63	34	16	50
Admissions during year	139	102	241
Discharges during year	141	100	241
Patients attending on 31.12.63	32	18	50
	Psychiatric Clinic Attendances (excluding parole cases)		
	New	Repeat	Total
Hong Kong	1,021	20,037	21,058
Queen Elizabeth Hospital	248	823	1,071
Tsuen Wan	116	838	954

Drug Addiction Treatment Centre

296. This centre is situated at Castle Peak Hospital and provides treatment on a voluntary basis for male drug addicts who are prepared to surrender their liberty for a period of six months. With the opening in April, 1963, of the Shek Kwu Chau Centre operated by the Society for the Aid and Rehabilitation of Drug Addicts, patients were retained in Castle Peak Hospital for only the first month of their treatment during the immediate withdrawal period. Thereafter they were transferred to Shek Kwu Chau for a further five months of rehabilitation.

297. No basic change was introduced into the therapeutic treatment, although attempts were made to substitute oral administration of methadone instead of by injection. Occupational therapy continued to be an important part of the treatment regime, as experience over the past few years has made it apparent that the essential problem is prevention of relapse.

298. The Pui Sun Fraternal Association continued to function under the aegis of the Lutheran World Service. By the end of the year there were 113 registered members and premises had been made available to them for use as a meeting place. The main problem has been the lack of sound leadership from amongst the group themselves, and they had to be strongly supported by the Almoners of the Department in co-operation with the Lutheran World Service.

299. Research studies were continued amongst the patients admitted to the centre. Preliminary data from the radiological study of lung changes in narcotics smokers revealed reticular changes to be present in 10% of the cases, and in over half of these there was evidence of other pulmonary lesions. Parallel with these findings it was observed that, despite selection for admission on ground of good health, only 29% of cases had negative X-ray findings, there being a high incidence of pulmonary tuberculosis and emphysema, 33% and 25% of cases respectively. This data is now under critical examination.

300. Table 45 analyses the results of treatment for all patients registered since the opening of the centre in March, 1961, up to the end of March, 1964.

TABLE 45
DRUG ADDICTION TREATMENT CENTRE
MARCH 1961—MARCH 1964

Registered	1,567	
Submitted to Selection Procedure	No 192	Yes 1,375
Approved for Admission	No 585	Yes 790
Admitted for Treatment	No 186	Yes 604
Followed-up by Almoners	No 290	Yes 314
Currently Abstinent	No 124	Yes 190

Lai Chi Kok Hospital

301. This hospital of 481 beds serves three categories of patients: 150 beds are allocated for infectious diseases, 72 for pulmonary tuberculosis and the remaining 259 beds for convalescent patients from Kowloon (later Queen Elizabeth) and Queen Mary Hospitals.

302. Physiotherapy and occupational therapy units are maintained at the hospital, the former dealing mainly with the orthopaedic convalescent patients and children with poliomyelitis while the latter deals with the long-stay convalescent and tuberculosis patients.

303. In the infectious disease section, the main change during the year was a marked reduction in the numbers of admissions due to diphtheria and poliomyelitis. In the former disease, the reduction was approximately 42%, from 874 in 1962 to 503 in 1963. However, the cases seen continued to be of a severe character and 160 of them required immediate tracheotomy when presenting at the hospital.

304. With regard to poliomyelitis, there was a marked reduction in the number of cases admitted, reflecting the success of the mass oral vaccination campaign conducted in the first quarter of 1963.

305. As in the previous two years part of the hospital had to be made available for the isolation of cases suffering from cholera. The 1963 outbreak of this disease is reviewed in paragraphs 73 to 90 of this report.

306. Other diseases seen were typhoid, tetanus (mainly tetanus neonatorum) and dysentery, both bacillary and amoebic.

307. Details of the infectious cases requiring admission to the Lai Chi Kok Hospital and the Sai Ying Pun Hospital are shown in Table 46.

Sai Ying Pun Infectious Diseases Hospital

308. This hospital of a nominal 88 beds is situated on Hong Kong Island and is used entirely for the treatment of infectious diseases. The main pattern of disease seen is similar to that detailed previously for Lai Chi Kok Hospital and here also the number of diphtheria and poliomyelitis cases showed a marked decline during the year.

309. An increasing number of bacillary dysentery cases and carriers were encountered during 1963; many of the organisms were resistant to the more common antibiotics.

310. Forty-nine cases of cholera were admitted during the year to the cholera wing; no deaths occurred although some patients were suffering from intercurrent disease such as carcinoma of the lung, aortic stenosis and diabetes.

311. Table 46 details the cases of infectious disease admitted during 1963 to both Sai Ying Pun Hospital and Lai Chi Kok Hospital.

TABLE 46
INFECTIOUS DISEASE HOSPITALS 1963

	<i>Cases Admitted</i>	<i>Deaths</i>	<i>Case Fatality Rate (per cent)</i>
Diphtheria	816	76	9.31
Typhoid	485	7	1.44
Tetanus	148	72	48.65
Amoebic Dysentery	88	2	2.23
Bacillary Dysentery	559	2	0.36
Tubercular Meningitis	21	7	33.33
Measles	233	20	8.58

St. John Hospital

312. Consisting of 100 beds and a general outpatient department, this Hospital serves the Island of Cheung Chau and the neighbouring islands of the western sea-board. Specialist clinics for tuberculosis, paediatrics, medicine, dental, eye, social hygiene and skin diseases are also held at the hospital which provides accommodation for patients who require general medical and minor surgical treatment which cannot be given on an outpatient basis. Those requiring specialist medical or surgical treatment are transferred to Hong Kong Island.

313. There are 42 beds set aside for patients with pulmonary tuberculosis who need in-patient supervision. These are largely occupied by adolescents with lesions of such nature that they cannot be allowed to attend school until they are rendered sputum negative.

Wan Chai Hospital

314. This small 30-bed hospital, originally intended for the inpatient treatment of venereal disease amongst women and children, is now primarily an institution for the care of female patients with skin diseases. A busy dermatological out-patient department is also maintained.

315. Out-patient facilities are also provided for the treatment of women suffering from venereal disease and for the examination of known female contacts.

South Lantau Hospital

316. This small hospital of 17 beds was originally designed to serve the workers on the Shek Pik Reservoir which was completed during the year. It now serves the villages and the south-west coast of Lantau Island and, as communication facilities on the island expand, it is becoming available to an increasingly greater population. The Medical Officer-in-Charge is responsible for the Dispensary and Maternity Home at Mui Wo and for sick prisoners and staff at Her Majesty's Prisons and Detention Centres on the island; he also serves as the Health Officer for the area.

Prison Hospitals

317. Four hospitals with a total of 185 beds are maintained within prison compounds in the Colony at Stanley Prison, Victoria Prison, Tai Lam Prison and Lai Chi Kok Female Prison.

318. Stanley Prison Hospital containing 90 beds is concerned with the health of over 3,000 prisoners and over 400 staff. Apart from the general out-patient clinic, specialist sessions are held for tuberculosis, venereal disease, leprosy, eye diseases and dentistry. The major problem during the year under review was an outbreak of bacillary dysentery commencing in mid-January, 1964 and continuing for some 2½ months. This was traced to food handlers in the kitchen and was brought under control by the imposition of more stringent hygiene and sanitation measures.

319. H.M. Prison, Tai Lam, continues to give encouraging immediate results in the treatment and rehabilitation of convicted male drug addicts.

320. The Victoria Remand Prison has, in addition to a hospital for general diseases, a special psychiatric observation unit for suspected cases of mental disease in prisoners. This unit is under the clinical supervision of the Senior Specialist in Psychiatry, members of whose staff also pay regular visits to all main prisons and training centres to advise on the numerous psychiatric and personality problems encountered amongst prisoners.

GOVERNMENT ASSISTED HOSPITALS

321. Financial assistance mainly by means of an annual subvention is given by Government to twelve hospitals maintained by voluntary organizations.

322. Paragraphs 157 to 165 mention those institutions which are concerned solely with the care of patients suffering from tuberculosis.

The Tung Wah Group of Hospitals

323. This group comprises three large hospitals and one infirmary. Incorporated in 1870 by statute which is based on the charitable aims and objects of Chinese tradition, a Board of Directors is elected annually. Management of the hospitals and infirmaries is delegated by the Board to the Tung Wah Hospital Medical Committee. This Committee is under the chairmanship of the Director of Medical and Health Services and is composed of the Chairman of the Board of Directors, the three Principal Directors of the Board, a prominent Chinese citizen appointed by His Excellency the Governor, a member from the Permanent Advisors to the Tung Wah Board, representatives from the Government Finance, Public Works and Medical and Health Departments and the Medical Superintendents of the Hospitals. The Board of Directors raises large sums annually from donations, charity functions, public appeals and a flag-day. This money is devoted mainly to capital expenditure on hospitals, primary schools and welfare services for the poor. Government gave a subvention of \$15,272,374 in 1963-64.

324. Each hospital provides general medical, surgical and obstetric facilities. In addition, certain wards are set aside in the hospitals and infirmary for the accommodation of patients with tuberculosis. A Group Medical Superintendent and three Medical Superintendents are appointed by Government to the hospitals, and Government Nursing Sisters are seconded to the Nurses Training School as Tutors. All training and other activities are conducted in Chinese. Consultant Services are given voluntarily by private medical practitioners and, in some instances, by Government Specialists.

325. During the year the major occupation of the Directors continued to be the redevelopment of the Kwong Wah Hospital in Kowloon. The north wing, the fourth phase of the redevelopment programme, was completed in June, 1963, and commissioned in the following month. By the end of the year under review the south wing, the fifth and last major stage of the development, was nearing completion and was officially opened in March, 1964, by the Hon. R. C. LEE, C.B.E., J.P. On the completion of this, all that remains to be done is the reconstruction of the mortuary and of certain quarters and a new building for the herbal out-patient clinic.

326. In addition to this major institution, a number of other projects were undertaken during the year by the Directors. At the Tung Wah Eastern Hospital additional quarters were made available for the accommodation of doctors and of nurses. The construction was started in June, 1963, and the premises were opened by the Hon. FUNG Ping-fan, O.B.E. on 5th March, 1964. Site formation work was completed and construction commenced on the first stage of the Wong Tai Sin Infirmary; this institution, designed to accommodate 210 chronic and disabled patients, was made possible by a generous donation from the Australian World Refugee Year Fund and the foundation stone of the building was laid on the 25th March, 1963, by Mr. C. R. McKERIHAN, C.B.E., Treasurer of the Australian National Committee for World Refugee Year. The Directors also embarked on a further project at the Sandy Bay Infirmary designed to provide 270 beds; 70 of these will replace old hutted accommodation for tuberculosis patients while the remaining 200 are to be used for the accommodation of convalescent patients from Queen Mary Hospital. The foundation stone for this building was laid on 23rd March, 1964, by Mr. LEE Iu-cheung, C.B.E.

The Alice Ho Miu Ling Nethersole Hospital

327. This hospital provides 300 beds for general medical, surgical and obstetric care and maintains a large out-patient department. The senior members of the medical staff are appointed by the London Missionary Society which also contributes annually towards the recurrent costs.

328. Although the demolition of the old east wing and the nurses quarters was completed during the year, the estimates for the redevelopment programme were of such magnitude that the Hospital's Executive Committee decided to abandon this plan and to enter into negotiations with the committee of the proposed United Protestant Hospital. With the demolition of these sections, the dispensary, radiological department and the surgical operating theatres had to be rehoused, and were accommodated in the remaining buildings, albeit under rather cramped circumstances.

329. In spite of these difficulties, the hospital continued to provide low-cost in-patient care for the lower and middle income groups and in this field it meets a marked need.

Pok Oi Hospital

330. Situated on the outskirts of Yuen Long in the New Territories, the Pok Oi Hospital provides 118 beds for the treatment of medical and

minor surgical illnesses that do not require specialist care. There are operating theatre, radiodiagnostic and laboratory facilities of a simple nature. It is managed by an Executive Committee consisting of six representatives of the Statutory Board of Directors and six representatives of Government under the chairmanship of the Deputy Director of Medical and Health Services. The Board of Directors provides charitable services in the Chinese tradition and raised funds from voluntary sources for capital and recurrent costs. These are augmented by Government subvention on a deficiency grant basis. A Government Medical and Health Officer is seconded to the hospital as Medical Superintendent.

331. New staff quarters and a hospital kitchen were completed in September, 1963, and opened in November, and work continues on the construction of the out-patient department. During the year, the Directors submitted a plan for the construction of a three-storey building to replace the present overcrowded and inadequate maternity and children's wards; however, the foundations of this building will be such that further extensions will be possible should need for expansion of the hospital's services arise in the future.

Hei Ling Chau Leprosarium

332. Maintained with the aid of a substantial recurrent subvention from Government by the Mission to Lepers, Hong Kong Auxiliary, on an island six miles from Hong Kong, the leprosarium contains accommodation for up to 540 leprosy patients. The Maxwell Memorial Medical Centre provides 50 beds for the care of patients undergoing reconstructive surgery of suffering from intercurrent disease and a further 15 beds for male patients with tuberculosis. Facilities are also provided for physiotherapy and occupational therapy.

333. The island suffered severely from the drought experienced during the year. The reservoir was exhausted prior to the light summer rains and water had to be transported by boat to the island from 30th May to 25th November, when reliance was once again placed on the reservoir alone. However, the shipments had to be recommenced on 10th March, 1964. By the end of the year under review proposals were well in hand to connect the island to the Shek Pik underwater main running from Lan Tau Island to Hong Kong Island.

334. During 1963 a submarine cable to carry electricity from Lan Tau Island was laid and all work was completed by 20th September. The provision of a 24-hour mains electricity supply has proved most valuable to the island's work.

335. There was little change in the therapeutic regimes administered on the island, but small quantities of sulphamethoxypridazine were used with good results.

336. One effect of the drought was a reduction in the number of surgical operations performed, particularly in the period between April and August. The total number of operations in the year was 150 as compared with 284 in 1962.

337. All patients on the island are expected to work in accordance with their physical capacity and previous occupation; training is available in agriculture, cottage industries and in certain light industrial occupations. There is a primary school for child patients, the staff of which hold evening classes for adults. Social activities continue as in a normal community.

Our Lady of Maryknoll Hospital

338. This hospital is located adjacent to a larger resettlement estate in the Wong Tai Sin area of Kowloon. The hospital, which contains 59 beds, is staffed by the Maryknoll Sisters who are assisted by locally-trained nurses and midwives. Laboratory, pharmacy, radiological and almoning services are available.

339. A general out-patient department is also maintained and this was attended by 63,651 patients during 1963.

Sandy Bay Convalescent Home

340. This home is maintained by the Hong Kong Society for the Relief of Disabled Children and contains 108 beds. All beds are for children requiring long-term orthopaedic care, particularly those suffering from bone and joint tuberculosis. Most of the patients have previously undergone major surgical operations at the Queen Mary Hospital, but there are also admissions from the Ruttonjee Sanatorium and from the Government Tuberculosis Service. A school teacher is provided for the children by the Hong Kong Branch of the British Red Cross Society.

341. The drought seriously affected the work of this hospital, and hydrotherapy was perforce discontinued. In June and July a number of patients were sent home and were recalled only when the water situation had eased somewhat towards the end of the year.

Hong Kong Society for Rehabilitation Kwun Tong Rehabilitation Centre

342. This centre, opened in September, 1962, accommodates 80 patients. It has occupational workshops and facilities for physiotherapy,

and is designed to assist in the quick return to full employment of those who have been injured in industrial occupations.

London Missionary Society Maternity Clinic, Sheung Shui

343. This maternity clinic of ten beds is conducted by a missionary Nursing Sister of the Society, assisted by locally appointed staff. Antenatal and maternal and child health sessions are also maintained at the clinic. The Sheung Shui Maternity Clinic Advisory Board, consisting of local residents, supports the work and the London Missionary Society also makes an annual contribution towards running costs. This is augmented by an annual recurrent subvention from Government funds.

OUT-PATIENT SERVICES

344. Pressure continued to increase throughout the year on all general out-patient and certain specialized clinics. However, there was marked reduction in attendances at tuberculosis clinics and consequently total attendances at all out-patient clinics maintained by Government fell by some 320,000 to a figure of 5,771,288; of these some 2,271,000 were new cases.

345. New facilities which became available during the year have already been detailed in paragraphs 18 to 21 of this report.

346. In addition to general out-patient services, regular specialist out-patient sessions were maintained at a number of clinics by staff from the tuberculosis, social hygiene, medical, surgical, ophthalmic, maternal and child health and ear, nose and throat services.

347. Evening out-patient sessions continued to be held at seven of the larger clinics in the more densely-populated areas, lasting from 6 p.m. until midnight. On Sundays and public holidays, clinic sessions are held at four centres in the urban area, two on each side of the harbour; these sessions cater for patients in need of emergency attention during week-ends and public holidays.

348. In the New Territories, apart from the fixed out-patient centres, two mobile dispensaries are operated on land, while two launches act as 'floating clinics' and serve the more remote islands and the outlying coastal areas of the mainland. A helicopter 'flying doctor' service continued to operate once weekly to villages in the New Territories not easily accessible by other routes. The helicopter service was also used to transfer patients, in urgent need of emergency medical care, from outlying areas to hospital.

349. Appendices 13 and 14 detail the work done during 1963 at the out-patient departments of Government and Government-assisted institutions.

SPECIALIST SERVICES

350. There are Government Specialist Clinical Units of medicine, surgery, obstetrics and gynaecology, anaesthesiology, dentistry, neurosurgery, ophthalmology, orthopaedic surgery, otorhinolaryngology, pathology, paediatrics, psychiatry, radiodiagnosis, radiotherapy, social hygiene, thoracic surgery and tuberculosis. In addition, the Professors and certain Senior Lecturers of the University Faculty of Medicine act as Consultants in medicine, surgery, obstetrics and gynaecology, orthopaedics, pathology and paediatrics. Certain of the Government Specialists act as Honorary Consultants to the Tung Wah Group of Hospitals and others give part-time services as lecturers in the Faculty of Medicine.

RADIOLOGY

351. The Radiological Service, under the overall direction of the Senior Specialist in Radiology, consists of three branches—radiodiagnosis, radiotherapy and medical physics. It serves mainly Government institutions, but consultant services are also available to Government-assisted hospitals and to private medical practitioners on request. The headquarters of the service was situated for most of the year in the Queen Mary Hospital, but was being transferred gradually to the Queen Elizabeth Hospital by March, 1964.

352. The Senior Specialist and his staff undertake the instruction of medical undergraduates of the Hong Kong University in the basic principles of radiology. They also conduct in-service post-graduate training courses for radiologists leading to the Diplomas in Medical Radiodiagnosis and Medical Radiotherapy (D.M.R.D. and D.M.R.T. respectively) awarded jointly by the Royal College of Physicians, London, and the Royal College of Surgeons, England. Courses of instruction for student radiographers in preparation for the examinations for the Membership of the Society of Radiographers (London) are also maintained.

Radiodiagnosis Branch

353. This branch provides a full X-ray diagnostic service in each of the following Government institutions:

Hong Kong Island

Queen Mary Hospital
Tsan Yuk Hospital
Sai Ying Pun Polyclinic
Sai Ying Pun Chest Clinic
Wan Chai Chest Clinic
Medical Examination Board
Victoria Remand Prison
Tang Shiu Kin Survey Centre
Mobile Mass Radiography Unit (1)

Kowloon and New Territories

Queen Elizabeth Hospital
Kowloon Hospital
Castle Peak Hospital
Lai Chi Kok Hospital
Shek Kip Mei Chest Clinic
Kowloon Chest Clinic
Mobile Mass Radiography Unit (2)

354. Details of the work done by the branch during the year are shown in Table 47.

TABLE 47

WORK OF THE RADIODIAGNOSTIC BRANCH 1963

	No. of Patients X-rayed	No. of Exams.	No. of films taken
<i>Hong Kong</i>			
Queen Mary Hospital	24,368	43,064	96,348
Sai Ying Pun Clinic (General Radiography Section)	17,615	21,621	52,917
Sai Ying Pun Chest Clinic	17,086	40,027	40,100
Wan Chai Chest Clinic	13,852	47,152	47,152
Tsan Yuk Hospital	7,299	8,466	9,987
Medical Examination Board	13,803	20,475	21,656
Tang Shiu Kin X-ray Survey Centre	16,987	16,987	16,987
Mobile MMR Unit No. 1	45,606	45,606	45,606
<i>Kowloon and New Territories</i>			
Kowloon Hospital	45,276	62,677	107,592
Queen Elizabeth Hospital	2,161	2,615	12,116
Kowloon Chest Clinic	40,417	82,881	72,974
Shek Kip Mei Chest Clinic	18,383	42,036	45,930
Lai Chi Kok Hospital	1,876	1,935	3,568
Castle Peak Hospital	2,943	3,070	3,902
Pok Oi Hospital	981	956	1,228
Mobile MMR Unit No. 2	53,783	56,723	57,014
Total	322,346	496,291	635,077

355. The total number of examinations performed showed a decrease of 1.8% from those performed during the previous year, while the total