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HONG KONG
ANNUAL DEPARTMENTAL REPORT
BY THE
DIRECTOR OF MEDICAL
AND HEALTH SERVICES
FOR THE
FINANCIAL YEAR 1960-61

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I. GENERAL REVIEW

ON March 7th, 1961, the first census for thirty years was held in Hong Kong. It revealed a total population of 3,128,044, a figure which corresponds closely with the estimate of 2,981,000 for the mid-year population in 1960. Although a detailed breakdown of census returns is not available at the time of writing, preliminary results show the following distribution of the population:

Hong Kong Island	...	...	...	...	...	1,004,917
Kowloon and New Kowloon	...	...	...	...	...	1,574,915
New Territories	...	...	...	...	...	409,905
Boat population	...	...	...	...	...	138,307

The population is a young one, approximately forty per cent being below the age of fifteen years and only five per cent being over the age of sixty; it is increasing at a rate of at least three per cent per annum.

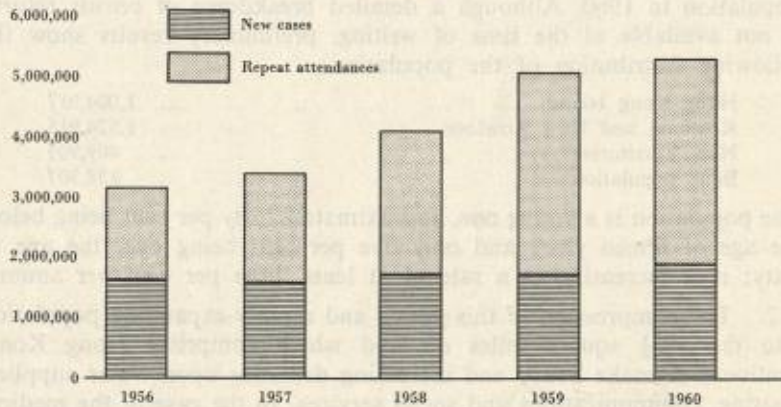
2. The compression of this young and rapidly-expanding population into the 398½ square miles of land which comprises Hong Kong, continues to make heavy and increasing demands upon water supplies, housing, communications and social services. In the case of the medical and health services, these demands have been further augmented by an increasing tendency to seek medical treatment by western methods. Although the greatest number of the population still have recourse first to traditional Chinese herbal methods of treatment for minor maladies, in the event of more serious illness they are turning more and more to public clinics and hospitals for aid.

3. The Medical and Health Department provides hospital and clinic facilities throughout both urban and rural areas. It also maintains maternal and child health, school health, port health and specialist services; it has the responsibility for measures to control epidemics and the endemic diseases of major public health importance. All these facilities have been subject to heavy and increasing pressure during the past few years and, although the year 1960-61 saw the first fruits of the planned building programme, there was little alleviation of the strain on most branches of the Department's activities.

4. This pressure on hospitals and clinics was particularly heavy, not only on those maintained by Government but also on those controlled

by voluntary and charitable bodies in receipt of financial assistance from Government. The situation can be gauged from Figure I which shows new and total attendances at Government out-patient clinics alone during the past five years.

FIGURE I
OUT-PATIENTS ATTENDANCES AT GOVERNMENT CLINICS
1956-60

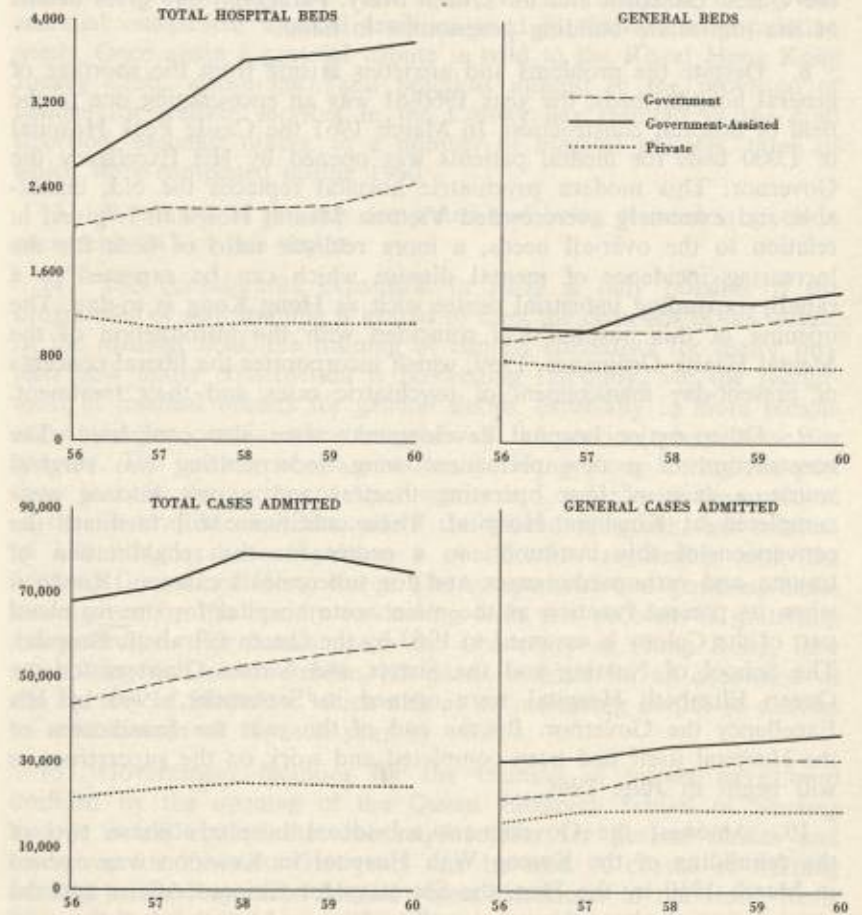


5. The shortage of low cost or free hospital beds has been the most serious single problem and has been aggravated by a number of factors. One of these, the increasing demand for western medicine, has already been mentioned. In addition, the rapid increase in population has resulted in a greatly augmented incidence of all forms of trauma and hospital admissions from this source have risen by fifty two per cent during the past four years. Moreover, the gradual ageing of a relatively young population has been reflected in the increasing number of patients suffering from malignant neoplasms and from cardiovascular and cerebrovascular disasters.

6. This burden has fallen most heavily upon the general medical and surgical beds of the Colony which are maintained in Government and Government subsidized hospitals especially upon those on the Kowloon peninsula where the most rapid industrial development has taken place during recent years. Although there has been some interim emergency provision of extra wards in existing hospitals and widespread use of camp beds in the wards the problem has had, perforce,

to be met mainly by a markedly increased rate of turnover of inpatients. This can be appreciated by a study of Figure II, which shows the number of beds available in all hospitals and the numbers of patients admitted during the past five years.

FIGURE II
HOSPITAL BEDS
(Excluding Maternity Homes)



7. In spite of these emergency measures, the pressure on general hospital beds is likely to continue, especially on the Kowloon peninsula, until the major projects of the Queen Elizabeth and the new Kwong Wah Hospitals, now under construction, are completed in 1963. On Hong Kong Island, an extension of 180 beds has been planned for the Queen Mary Hospital and building is expected to begin in 1962. Planning is now in progress for other major hospital projects designed to be complementary to the two main acute and specialist hospitals, the Queen Elizabeth and the Queen Mary. Paragraph 347 gives details of the immediate building programme in hand.

8. Despite the problems and anxieties arising from the shortage of general hospital beds, the year 1960-61 was an encouraging one in the field of hospital construction. In March 1961 the Castle Peak Hospital of 1,000 beds for mental patients was opened by His Excellency the Governor. This modern psychiatric hospital replaces the old, unsuitable and extremely overcrowded Victoria Mental Hospital. It gives, in relation to the over-all needs, a more realistic ratio of beds for the increasing incidence of mental disease which can be expected in a rapidly-expanding industrial centre such as Hong Kong is to-day. The opening of this hospital has coincided with the introduction of the Mental Health Ordinance, 1960, which incorporates the liberal concepts of present-day management of psychiatric cases and their treatment.

9. Other major hospital developments were also completed. The construction of a new permanent wing, incorporating two surgical wards, a suite of four operating theatres and a new kitchen were completed at Kowloon Hospital. These additions will facilitate the conversion of this institution to a centre for the rehabilitation of trauma and orthopaedic cases and for tuberculosis cases in Kowloon when its present function as the main acute hospital for the mainland part of the Colony is assumed in 1963 by the Queen Elizabeth Hospital. The School of Nursing and the Sisters and Nurses Quarters for the Queen Elizabeth Hospital were opened in September, 1960 by His Excellency the Governor. By the end of the year the foundations of the Hospital itself had been completed and work on the superstructure will begin in June 1961.

10. Amongst the Government subsidized hospitals phase two of the rebuilding of the Kwong Wah Hospital in Kowloon was opened in March 1960 by the Hon. the Secretary for Chinese Affairs and the construction of phase three was well under way by the end of the year.

In the New Territories an extension to the Pok Oi Hospital at Yuen Long was opened by His Excellency the Governor in February 1961.

11. At South Lantau a small Government cottage hospital designed to serve the Shek Pik Reservoir construction workers and the villagers in that area was opened in June 1960.

12. Forward planning has naturally taken account of out-patient, as well as of in-patient, needs and during the year a number of clinics were completed which fit into a programme designed to provide essential out-patient medical facilities sited in relation to population needs. Once again a grateful tribute is paid to the Royal Hong Kong Jockey Club, whose keen and practical interest in the provision of finance for welfare services in the Colony has resulted in the construction, amongst others, of a number of medical projects, three of which were completed during 1960.

13. A full list of projects completed and being planned is given in paragraph 347 of this report.

14. The considerable expansion in hand is only possible if the programme of staff training is geared to meet the demands of the future. In the medical field, the training of clinical specialists for major projects now under construction is proceeding smoothly, but the recruitment of medical officers for general duties, especially in more remote areas and for certain other branches of the service, gives cause for concern. The holding of examinations in Hong Kong during the past three years by the Society of Apothecaries in London, with the approval of the General Medical Council of the United Kingdom, has resulted in 126 refugee doctors gaining a qualification registrable with the Medical Council of Hong Kong. The sympathetic and generous assistance given by the Society in dealing with this problem is gratefully acknowledged. For future needs the University of Hong Kong, now celebrating its Golden Jubilee, has plans in hand for an expansion of the Faculty of Medicine, which aim at an increasing output of doctors to a maximum of 80 each year by 1968.

15. Government facilities for the training of nurses have been doubled by the opening of the Queen Elizabeth School of Nursing and it is anticipated that the requirements for general nurses and midwives for the next five years can be met. A course of training leading to the Registered Mental Nurse Certificate of the Hong Kong Nursing Board has been established at the Castle Peak Hospital.

16. The training of other categories of staff is also carried out in the Colony where this is economic and practicable. Courses of departmental training are maintained and the curricula aim at preparing students for examinations held by recognized examining bodies in the Commonwealth. For example, during the year arrangements were made to hold the Intermediate Examination for the Institute of Medical Laboratory Technology in Hong Kong during 1961. Examinations are already being held for the Membership of the Society of Radiographers and the Health Visitors Certificate of the Royal Society of Health. Another advance in local training facilities was the inauguration of a Physiotherapy Training School under the direction of a qualified physiotherapy tutor. On the other hand, where the number of qualified personnel required makes it uneconomic to train in Hong Kong, scholarship are given by Government for training overseas. At present such scholarships are available for training in dentistry, and will be available soon for training in pharmacy. More detail is given in the section of this report dealing with the programme of training.

17. Certain other important aspects of the work of the year are worthy of mention in this general review. In the fields of environmental sanitation, food hygiene, food and drugs standards and public amenities, control has been effected for the past 24 years under a series of disconnected Ordinances, the provisions of which have become inapplicable, in many instances, to present day conditions in Hong Kong. The revision and consolidation of these Ordinances has been undertaken by a Select Committee appointed by the Urban Council, with the continuous co-operation of the Medical and Health Department and in consultation with other Government Departments as and when necessary. The result has been the promulgation of the Public Health and Urban Services Ordinance, 1960, which is described in more detail later.

18. The legislation governing the practice of midwifery in Hong Kong has continued unchanged for the past fifty years. To ensure the maintenance of the highest standards in midwifery practice throughout the Colony, the Midwives Ordinance of 1910 was repealed during 1960 and re-enacted with modifications. These modifications include more adequate provisions for the registration of midwives, wider disciplinary powers for the Midwives Board, and improved control of the practice of the profession.

19. The problem of drug addiction in Hong Kong was described in a White Paper published in November 1959. The treatment and rehabi-

litation of drug addicts amongst convicted prisoners had already been placed on a sound basis by the establishment of Her Majesty's Prison at Tai Lam Chung. There remained, however, an unknown number of drug addicts who had not come into conflict with the law and who still retained sufficient strength of character to wish to terminate their craving. It was to assist such persons that the Drug Addicts (Treatment and Rehabilitation) Ordinance, 1960, was enacted, and a voluntary treatment centre of 120 beds has been opened within the Castle Peak Hospital. To this centre addicts are admitted who voluntarily seek treatment and who are willing to surrender their liberty for a period of six months.

20. In March 1961, the first of fourteen dosing plants commenced the fluoridation of Hong Kong's water supply. The fluoride ion concentration to be maintained during the six winter months is 0.9 parts per million and during the six summer months 0.7 parts per million. This will bring the concentration in the public water supplies up to the optimum for the preservation of dental health and the prevention of caries in the child population.

ADMINISTRATION OF THE MEDICAL AND HEALTH SERVICES

21. 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 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 with environmental sanitation in the urban areas of Hong Kong Island and Kowloon, through the Urban Services Department. 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

22. 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.

23. 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 principal adviser to that body on health matters. The Principal Matron is the Chief Nursing Officer and administers the Nursing Division which provides nursing, midwifery, health visitor and health sister services.

24. 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 special experience and training. The respective spheres of responsibility of the two Divisions are outlined in Appendix 2.

25. 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 Medical and Health Department institutions, for the processing of building plans and for the detail of the forward planning of expansion of the Department's activities. In addition, advice and assistance are given on request to voluntary and private organizations engaged in the planning and erection of medical institutions.

26. The Auxiliary Medical Service, which is a branch of the Civil Defence Service, 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.

27. 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 Board section is co-ordinated by the Boards Secretary.

28. The pharmaceutical and dispensing activities are the responsibility of the Chief Pharmacist who also has inspectorial duties in connexion with the Dangerous Drugs and Pharmacy and Poisons Ordinances. The Government Chemist is responsible for the work of the Government Chemical Laboratory.

29. The Chief Hospital Secretary is responsible for the supply of equipment and the day-to-day lay administration of the hospital and clinic services. The hospitals and clinics are at present grouped into two large units to each of which is posted an Hospital Secretary. Assistant Hospital Secretaries are posted to the larger and more important institutions within these groups.

30. Appendix 1 shows the establishment at 31st March, 1961.

FINANCE

31. The actual expenditure of the Medical and Health Department for the financial year ended 31st March, 1961 was \$56,573,091 to which should be added a further \$21,910,889 disbursed in the form of subventions. Capital expenditure on medical projects under the Public Works Non-Recurrent head totalled \$12,369,272. These amounts represent 10.75% of the Colony's total expenditure during the year. This does not include expenditure on environmental sanitation by the Urban Services Department.

32. A Statement of Expenditure for the five years from 1956-57 to 1960-61 is shown at Appendix 3.

33. The total revenue collected from all sources by the Department totalled \$3,311,019.

34. The largest subventions was made to the Tung Wah Group of Hospitals which received \$11,317,366; in addition, a further capital grant of \$4,317,732 was made towards the cost of continuing work on the redevelopment of the Kwong Wah Hospital. Other large subventions were \$2,882,750 to the Grantham Hospital, \$1,000,000 to the Hong Kong Anti-Tuberculosis Association and \$575,000 to the Mission to Lepers, Hong Kong Auxiliary.

LEGISLATION

35. The following legislation dealing with medical and health matters was enacted during the year 1960-61. Mention is made of the purpose of the more important ordinances in the body of this report.

Ordinances:

- (i) Medical Registration (Amendment) Ordinance, 1960.
- (ii) Quarantine and Prevention of Disease (Amendment) Ordinance, 1960.
- (iii) Drug Addicts Treatment and Rehabilitation Ordinance, 1960.
- (iv) Mental Health Ordinance, 1960.
- (v) Medical Registration (Amendment) (No. 2) Ordinance, 1960.
- (vi) Midwives Registration Ordinance, 1960.
- (vii) Radiation (Amendment) Ordinance, 1960.

Rules and Regulations:

- (a) Medical Practitioners (Registration and Disciplinary Procedure) (Amendment) Regulations, 1960, (G.N.A. 34/60).
- (b) Poisons List (Amendment) (No. 2) Regulations, 1960, (G.N.A. 42/60).
- (c) Poisons (Amendment) (No. 2) Regulations, 1960, (G.N.A. 43/60).
- (d) Dangerous Drugs (Amendment of Schedule) Order, 1960, (G.N.A. 52/60).
- (e) Poisons List (Amendment) (No. 3) Regulations, 1960, (G.N.A. 53/60).
- (f) Poisons (Amendment) (No. 3) Regulations, 1960, (G.N.A. 54/60).
- (g) Drug Addicts Treatment and Rehabilitation Regulations, 1960, (G.N.A. 93/60).
- (h) Poisons List (Amendment) (No. 4) Regulations, 1960, (G.N.A. 118/60).
- (i) Poisons (Amendment) (No. 4) Regulations, 1960, (G.N.A. 119/60).
- (j) Dangerous Drugs (Amendment) Regulations, 1960, (G.N.A. 136/60).
- (k) Nursing and Maternity Homes Registration (Exemption) Order, 1960, (G.N.A. 138/60).
- (l) Midwives (Registration and Disciplinary Procedure) Regulations, 1960, (G.N.A. 143/60).
- (m) Dangerous Drugs (Amendment) Regulations, 1961 (G.N.A. 12/61).

PROFESSIONAL REGISTERS

36. There are five statutory bodies dealing with the registration of medical practitioners, dentists, pharmacists, nurses and midwives. The Hong Kong Medical Council is responsible for the registration of medical practitioners and has responsibilities in connexion with disciplinary proceedings and offences; it is not an examining body. The Dental Council, Pharmacy Board, Nursing Board and Midwives Board all maintain registers, regulate training, hold examinations leading to registration or enrolment and have disciplinary powers.

37. At the 31st March, 1961, the numbers of persons on the statutory registers were as follows:

Register of Medical Practitioners	...	...	...	...	952
Register of Dentists	...	...	...	...	397
Register of Pharmacists	...	...	...	...	92
Register of Nurses (Female)	...	...	...	...	1,789
(Male)	...	...	...	...	104
Register of Midwives	...	...	...	...	1,740

WORK OF THE STATUTORY COUNCILS AND BOARDS

Medical Council

38. The Council met seven times during the year for the transaction of routine business; two notices to medical practitioners were issued for guidance on points of ethics. The Preliminary Investigation Committee met twice to consider complaints of advertising and one of these complaints was referred to the Council for inquiry. The Council met once to hear this complaint and found the defendants 'not guilty'.

Dental Council

39. The Council met five times during the year for the transaction of routine business and once to hold an inquiry into a complaint concerning a conviction for 'covering an unregistered person to practise dentistry' referred by the Preliminary Investigation Committee. At the inquiry the defendant was found 'Guilty' and sentenced to have his name removed from the Register for three months.

40. Twenty two applications for registration were considered of which sixteen were accepted without examination. Of the remaining applications, one was rejected on the grounds that the curriculum of training was not of the standard required by the Council for entry to its examinations; five candidates were required to sit the Council's

examinations of whom one was accepted for registration after passing the examinations.

41. In addition, one application for restoration to the Register was approved.

Pharmacy Board

42. The Board met four times during the year, the main items of business being concerned with agricultural poisons and with a difficulty that arose over the use of scheduled poisons in traditional Chinese herbal medicines.

43. Twelve applications for registration were considered of which only one was accepted without examination. Of the remaining eleven applicants, two were accepted after examination and nine were required to undertake further practical training before sitting the Board's examinations.

Nursing Board

44. The qualification of Registered Nurse granted by the Board has been recognized by the Nursing Councils in the United Kingdom since 1939. Statutory preliminary and final examinations are held twice each year in the English and Chinese languages, under the general supervision of the Board, which appoints examiners, conducts the examinations and approves the results.

45. The Board held four ordinary meetings and one special meeting during the year. In addition to routine business in connexion with examinations and registration the Board considered and approved the final drafts of the Nurses Registration Ordinance and Regulations. It is expected that the Ordinances and Regulations will become law in mid-1961.

46. For the examinations leading to registration as a General Nurse, 397 candidates were entered by the approved Training Schools for the Preliminary Examinations and 270 passed in all subjects; 194 candidates were accepted for the Final Examinations of whom 158 passed in all subjects.

47. The first Preliminary Examination in Mental Nursing was held in January and the four candidates who entered passed in all subjects.

48. There were 190 applicants for registration as general nurses and 178 were accepted. Of these, 154 were nurses who had qualified at the Hong Kong Training Schools recognized by the Board and their names were entered in the Register after passing the Board's Final

Examination. Twenty one nurses trained outside the Colony were accepted without examination and two after passing the Final Examination; four applicants were required to sit the Final Examination; eight others were rejected on the grounds that their training was not of a standard equal to that set by the Board in the Colony; one application is still under consideration by the Board.

49. Four applications for re-inclusion in the Register were approved.

Midwives Board

50. This Board meets four times each year and conducts examinations in April, July, October and January. The course of training in midwifery lasts two years for pupil midwives entering the course direct but registered nurses are accepted for entry to the examination after one year's full-time training in midwifery.

51. Owing to the social conditions existing in the Colony there is very little scope for domiciliary midwifery and the majority of confinements take place in hospitals and maternity homes. Therefore the qualification given by the Board is not fully recognized by the General Midwives Board of the United Kingdom for registration there. There is, however, a remission of three-quarters of the period of training in the United Kingdom granted to midwives registered in Hong Kong who may wish to sit the United Kingdom State Certified Midwives examinations.

52. One special meeting was held during the year at which the Board approved the final draft of the revised Midwives Registration Ordinance. This legislation was enacted in December 1960.

53. There were 142 candidates from approved Training Schools in the Colony accepted for the Board's examinations; of these 131 passed and were registered. There were three further applications for registration; one was accepted without examination and two after passing the examinations.

54. In addition five applications for restoration to the Register were approved.

Radiation Board

55. The Board, which was constituted by the Radiation Ordinance, No. 35 of 1957, met once to consider draft regulations governing irradiating apparatus, and a number of amendments to the principal Ordinance. These amendments, which were approved, concern certain technical definitions, give the Board some powers of exemption where it appears

expedient in the public interest, and they define the liability of the managements of companies. The regulations however were subjected to extensive amendments and a further draft is now in course of preparation.

II. PUBLIC HEALTH

GENERAL COMMENTS

56. Despite the density of population, the overcrowding and an annual movement of some 2,078,763 persons in and out of Hong Kong the general level of health has been well maintained and for the eighth year in succession no case of any of the quarantinable diseases was reported. Morbidity and mortality from diphtheria have declined appreciably as a result of an intensive and continuing inoculation campaign. The toll exacted by this disease and by the enteric fevers is still unnecessarily high and it is as yet too early to attach any significance to the lower incidences. A severe epidemic of measles occurred during the winter months and caused a number of deaths amongst the younger age groups of the large child population.

VITAL STATISTICS

57. The registration of all deaths and live births occurring in Hong Kong is compulsory under the Births and Deaths Registration Ordinance. Still births are not registrable but the numbers received by cemeteries for burial are recorded. Table 1 shows the annual returns for births and deaths during the past five-year period.

TABLE 1
BIRTHS AND DEATHS 1956-60

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)
1956 ...	2,440,000	96,746	39.7	988	19,295	7.9
1957 ...	2,583,000	97,834	37.9	1,245	19,365	7.5
1958 ...	2,748,000	106,624	38.8	1,297	20,554	7.5
1959 ...	2,857,000	104,597	36.6	1,393	20,250	7.1
1960 ...	2,981,000	110,667	37.1	1,680	19,146	6.4

58. Following the slight drop during 1959 in the total births recorded and the birth rate, there was a further upsurge during 1960 and the recorded natural increase of 91,521 was the highest in Hong Kong's history. The pilot census confirmed previous presumptions that the population is a young one, approximately forty per cent being below

the age of 15 years and only five per cent being aged 60 or over. This age structure is reflected by the low crude death rate, the continuing decline of which can be attributed largely to the concomitant fall in infant mortality; almost twenty five per cent of deaths at present occur in children under the age of one year.

59. The mortality pattern continues to show the same trends observed during previous years, namely, decreasing mortality from the infectious and febrile diseases and increases in deaths from diseases of later life, particularly neoplasms and cerebro-vascular disorders. An analysis of mortality for the years 1956 to 1960 can be found in Appendix 4.

TABLE 2
INFANTILE AND MATERNAL MORTALITY 1956-60

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)
1956 ...	60.9	24.2	0.90
1957 ...	55.6	23.8	1.06
1958 ...	54.3	23.4	0.85
1959 ...	48.3	21.3	0.73
1960 ...	41.5	20.9	0.49

60. Table 2 shows the recent trends in infantile and maternal mortality. There have been further reductions in infant deaths from bronchopneumonia and gastroenteritis and tuberculosis is now an almost insignificant factor in mortality amongst children under the age of one year. However, neonatal mortality is not declining at the same rate.

61. An analysis of maternal mortality over the past four years is shown in Table 3. It will be seen that toxæmias and hæmorrhages of pregnancy remain the principal fatal complications although marked reductions have occurred; ectopic gestations are becoming relatively more prominent as a cause of maternal death.

TABLE 3
ANALYSIS OF MATERNAL MORTALITY 1957-60
(per 1,000 total births)

Year	Sepsis (excluding Septic Abortions)	Toxæmias	Hæmorrhages	Abortions	Ectopic Pregnancies	Others
1957 ..	.020	.373	.334	.040	.060	.132
1959 ..	—	.340	.226	.028	.066	.056
1960 ..	.010	.179	.143	.045	.072	.045

III. WORK OF THE HEALTH DIVISION

HYGIENE AND SANITATION

62. The enactment of the Public Health and Urban Services Ordinance, 1960, was one of the major health advances of the past few years, for it revised, consolidated and co-ordinated a mass of disconnected legislation which had become unsuitable for the conditions prevailing in present-day Hong Kong. As a consequence certain administrative changes have been made, designed to centralize functions in connexion with the environmental health services in the urban areas and in the very rapidly growing townships in the New Territories.

Urban Areas

63. Responsibility for environmental sanitation in Hong Kong Island, Kowloon and New Kowloon continues to rest with the Urban Council. The Deputy Director of Medical and Health Services now serves as Vice-Chairman of the Urban Council and is the co-ordinating link between the two Departments for the control of communicable disease through improved environmental sanitation, food hygiene and vector control. Medical and Health Officers are seconded 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, in the day-to-day management of health problems.

64. Medical and 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 local 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 the routine house inspections and the regular visits to licensed food premises carried out by the Health Inspectorate, a great amount of health education is possible in connexion with immunization against diphtheria and with the control of intestinal infections. With the assistance of fully trained Health Visitors, the Health Officers maintain investigations

into the sources of known cases of diphtheria, tetanus neonatorum, poliomyelitis, typhoid and certain other intestinal diseases.

65. These activities are closely co-ordinated with the activities of teams of inoculators from the Epidemiological Section of the Medical and Health Department which work under the immediate direction of area Health Officers and offer prophylactic immunization against small-pox, diphtheria and enteric fever. Such measures are described in detail elsewhere in this report.

Rural Areas

66. The Public Health and Urban Services Ordinance provided for the gradual transfer from the District Commissioner, New Territories to the Director of Urban Services of the various statutory powers and functions controlling environmental sanitation and food hygiene in the New Territories. By the end of the year the Director of Urban Services had assumed responsibility for all cleansing, amenity and allied services in the more developed townships of the area, while the District Commissioner remained the licensing authority for all hawkers and premises where food is handled. The Principal Medical Officer of Health, New Territories, continues to advise the respective authorities on all health matters affecting the area and, in addition, co-ordinates all curative and personal health services provided by the Medical and Health Department in the New Territories.

67. The responsibility for the extension of environmental health services to rural areas remains with the Medical and Health Department; the problem has been considered in detail with the aid of an Inter-Departmental Committee consisting of representatives of Departments interested in the improvement of village economy. The main emphasis is on health education stemming from the curative centres and designed to stimulate self-help through village schemes of environmental sanitation. Plans have been drawn up for a two-year pilot scheme. The principles behind the schemes have already been applied wherever possible by such means as insistence on the construction of aqua-privies in place of insanitary latrines. This type of latrine is becoming increasingly accepted as a sanitary installation which also provides a useful source of fertilizer for the traditional intensive cultivation of crops.

68. The problem of malaria in the New Territories was surveyed in detail during the year and is described later in this report.

69. Other questions which have given rise to environmental health problems during the year have been the increasing demand for cheap

meals in the New Territories townships, resulting in lowered standards in cooked-food stalls and the smaller restaurants; the need for better methods of control of theatrical performances in temporary matsheds; the control of sanitation standards in workmen's settlements around new development; and the prevention of illegal slaughter of animals for food.

EPIDEMIOLOGY

70. During the year 1960 there was a decrease in the number of cases of the more common notifiable diseases, the decrease being most marked for tuberculosis and diphtheria. Although this is encouraging, it is not yet possible to say it is an indication of success attending, at last, the intensive campaigns which have been waged against these diseases. Acute anterior poliomyelitis and malaria were the principal diseases showing an increase in the number of cases reported. Appendix 5 details the numbers of cases and deaths from notifiable infectious diseases recorded during the period 1956-60.

71. Free prophylactic vaccinations against smallpox, cholera, enteric fever and diphtheria continued to be available to members of the public at all Government Hospitals and Clinics, Port Health Inoculation Centres and District Health Offices. During the year, the main emphasis was laid on inoculation against diphtheria and no general anti-typhoid campaign was held during the summer months as had been the practice in previous years. The numbers of prophylactic immunization carried out during 1959 and 1960 are detailed in Appendix 6.

Amoebiasis

72. Although there was a marked rise in the number of cases of amoebiasis notified, mortality remained low and only nine deaths were registered. The extent of the problem presented by amoebiasis is difficult to assess as it occurs sporadically throughout the Colony in direct relation to extremely high population densities, further complicated by frequent changes of address.

Bacillary Dysentery

73. The incidence remained virtually unchanged with *Sh. flexneri* as the preponderant organism. The emerging resistance of many bacillary strains to antibiotics, notably to those of the sulphonamide group, gave rise to concern in the management of patients suffering from the dysenteries.

74. Much intensive health education in the prevention of these infections is carried out by Health Officers amongst those connected with the handling, preparation and sale of food.

Cerebro-spinal Meningitis

75. This disease continued to occur sporadically throughout the Colony but, with its very low incidence, did not present a public health problem.

Chickenpox

76. During 1960 the incidence remained virtually unchanged, but there was a widespread outbreak during the first three months of 1961; however, few deaths resulted.

Diphtheria

77. The intensive inoculation campaign which commenced in the autumn of 1959 was continued throughout the year and resulted in a drop of 30.5% in the numbers of cases of diphtheria recorded as compared with 1959. However, the incidence still remains high and as yet there can be no complacency with regard to control.

78. Diphtheria remained particularly prevalent in the densely-populated tenements and squatter areas of Kowloon and the clinical picture was mainly that of laryngeal involvement due to *C. diphtheriae mitis*; only in rare instances was an *intermedius* or a *gravis* strain isolated. Eighty per cent of cases occurred in children under the age of 10 years.

79. As previously mentioned, the intensive inoculation campaign was continued throughout the year, with particular emphasis on inoculation facilities being made available as close as possible to the home. To encourage the widest acceptance of this immunization, a plastic figurine symbolizing 'Health' was given initially to each child receiving two doses of P.T.A.P. at the prescribed intervals; the response to the figurine was unenthusiastic and in the middle of the year it was replaced as an incentive by sweets, which were naturally accorded a better reception by the children. House-to-house visits were conducted in Resettlement and other crowded areas, inoculators visited squatter areas both on hillsides and roof-tops, and the villages of the New Territories were served by mobile teams or by inoculators working on the floating clinics. In the urban areas, the systematic coverage by inoculators of individual district health units in rotation, has resulted

in a marked decrease in diphtheria in those sections which have been completed. However, even in such areas, complete control of the disease has not yet been achieved owing to internal movements of population and to the apathy shown by certain sections of the community towards the immunization facilities offered.

Enteric Fever

80. During 1960, there was no marked increase in the incidence during the summer months and the numbers of notifications received showed a fall of twenty three per cent compared to 1959. A close epidemiological study of typhoid fever is now being made and preliminary results indicate the possibility that water from polluted sources does not play such an important role in the dissemination of the disease as had been supposed previously.

81. Owing to the priority given to diphtheria immunization throughout the year, no intensive prophylactic drive against enteric fever was possible. However, facilities for inoculation remained freely available to the public and the annual campaign was maintained in schools, as the highest incidence recorded during the past few years has been consistently in the 10-14 age group.

Malaria

82. The number of cases of malaria notified increased markedly following a widespread survey undertaken in the New Territories; the survey is described later in this report. There were no deaths from malaria reported.

Measles

83. With over 100,000 births occurring each year, measles is widespread in the Colony. It is a disease of the cooler months, from November to March and, as elsewhere, recurs in two-year cycles. An epidemic, occurring in the winter and spring of 1960-61, was the most extensive recorded in recent years and caused a large number of deaths which were mainly due to intercurrent bronchopneumonia. Measles ranks second only to tuberculosis as a cause of death from infectious disease.

Poliomyelitis

84. A small seasonal rise during the summer months accounted for the increased incidence of cases of poliomyelitis recorded during 1960,

but the case fatality rate fell to 15.5 per cent compared with 23.2 per cent in 1959. The attack rate was 4.96 per 100,000 of population.

85. A polio-virus laboratory was established early in the year by the Government Institute of Pathology in co-operation with the Department of Pathology in the University of Hong Kong. Two surveys were undertaken to determine the prevalence of poliomyelitis in the Colony. The first survey was designed to provide information on the prevalence of excretors of the virus; faecal specimens from healthy children under the age of 5 years were collected in a number of clinics and child health centres and despatched to the laboratory for culture. Table 4 presents the findings.

TABLE 4

TYPES OF POLIOVIRUS FOUND AND EXCRETOR RATE

No. of specimens examined	Poliovirus positive			Total positive	Excretor rate per 1,000
	Type 1	Type 2	Type 3		
438	8	—	1	9	20.5

86. The second survey was a serological survey designed to assess again, after 3 years, the immunological status of the Chinese population of Hong Kong. Samples of blood were collected at various hospitals, clinics and maternal and child centres throughout the urban areas of the Colony, mainly from healthy children between the ages of 7 months and 9 years; none of the persons from whom the samples were collected had received immunization against poliomyelitis. The prevalence of poliomyelitis antibodies in the samples was then determined and the results are detailed in Table 5.

TABLE 5

DISTRIBUTION OF POLIOMYELITIS ANTIBODIES IN DIFFERENT AGE-GROUPS

Age-group	No. of sera	No. with no antibody	Number with antibodies to poliovirus types						Total	three types	
			one type			two types					
			Type 1	Type 2	Type 3	Total	Type 1 & 2	Type 1 & 3	Type 2 & 3	Total	
7-12 months	146	83(56.9)	42	13	2	57(39.0)	2	2	—	4(2.7)	2(1.4)
13-24 months	151	44(29.2)	34	17	7	58(38.4)	21	9	7	37(24.5)	12(7.9)
25-36 months	179	18(10.1)	20	25	12	57(31.8)	25	17	19	61(34.1)	43(24.0)
37-48 months	138	7(5.1)	8	4	3	15(10.9)	25	6	14	45(32.6)	71(51.4)
49-60 months	112	1(0.9)	6	2	3	11(9.8)	12	10	9	31(27.7)	69(61.6)
5-9 years	145	1(0.7)	1	—	2	3(2.1)	6	13	9	28(19.3)	113(77.9)

Figures in parentheses denote percentage of total sera examined in each age-group.

87. From the results of the two surveys it is apparent that there is wide circulation of the three types of poliomyelitis virus amongst the child population, that by the age of 5 years over 99% of children have

been exposed to at least one type, and that more than half have, by the same age, developed immunity to all three types.

Tuberculosis

88. Tuberculosis remains the major public health problem of Hong Kong and although there are indications that control measures are beginning to exert an effect, particularly in regard to the disease in childhood, much remains to be done. The problem is considered in detail elsewhere in this report.

Other Notifiable Infectious Diseases

89. Influenza, which has been notifiable on a voluntary basis since 1957, did not present a problem during 1960. There were few notifications of scarlet fever and whooping cough, and only one case of puerperal fever was recorded. Reports of ophthalmia neonatorum remained almost unchanged in numbers as compared to the previous year.

Other Communicable diseases which are not notifiable

Tetanus

90. Of 165 cases of tetanus admitted to hospital, 61 occurred in new born children. Most of these cases of tetanus neonatorum, which carry an average fatality rate of sixty four per cent, occur in the children of mothers who, having previously borne a number of infants delivered in institutions, have decided for one reason or another to have the next baby at home. In such cases, assistance by an untrained person, the use of unsterile material and instruments and the common practice of applying ground ginger root to the umbilicus as a styptic, all combine to give a grave risk of tetanus neonatorum.

Food Poisoning

91. Three hundred and fifty six cases of food poisoning were recorded. Of these, forty six were due to coagulase positive staphylococci, many of which had developed a resistance to a wide range of antibiotics.

TUBERCULOSIS

92. Tuberculosis continues to present the major public health problem in Hong Kong and there still remains a large volume of undiagnosed cases in the community. An investigation into the individual deaths notified suggests that less than half of such cases have been recognized prior to death. Furthermore, morbidity, as measured by the

number of cases reported annually, has varied very little amongst the adult age-groups during recent years.

93. It is in the prevention of tuberculosis amongst children and in the reduction of mortality at all ages that the control programme has achieved the main successes. Table 6 details the progress over the past five years.

TABLE 6
TUBERCULOSIS IN HONG KONG 1956-60

Year	Estimated population	Death rate per 100,000	TUBERCULOSIS	
			Percentage of total deaths	Percentage of tuberculosis deaths below 5 years
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

94. It will be noted that there has been a steady fall in the death rate although the proportion of the total deaths from all causes resulting from tuberculosis has declined only slowly. However, the mortality amongst children under the age of five years has been falling rapidly during recent years.

95. Parallel to the fall in child mortality from tuberculosis, there has been a marked reduction in the morbidity, as measured by the number of notifications received in spite of the increasing numbers at risk. There is little doubt that there have been improvements in general child health during recent years due to better economic and social conditions; should these have played a great part in the reduction of child tuberculosis, it would be expected that there would have been some reflection of them in a reduced incidence in adults and this has not happened. A further possibility is a reduced reservoir of infection; this also is not the case. In the year 1952, the percentage of reactors to tuberculin in the age-group 0-6 years was thirty four. In 1960, all children in this age-group attending Maternal and Child Health centres, who gave a definite history of not having received B.C.G. vaccination, were tuberculin-tested and the percentage showing a positive reaction was thirty eight. It is therefore reasonable to assume that the B.C.G. vaccination of new-born babies, along with chemo-prophylaxis, using I.N.A.H., in the limited group with tuberculin sensitivity naturally acquired under the age of three years, have been the major factors in effecting this reduction.

TABLE 7

TUBERCULOSIS NOTIFICATIONS IN CHILDREN

	Under Five Years		Under One Year	
	All Forms	T.B. Meningitis	All Forms	T.B. Meningitis
1956 ...	1,459	454	275	126
1957 ...	1,441	448	270	114
1958 ...	1,137	309	224	105
1959 ...	975	276	190	80
1960 ...	660	181	74	39

Agencies Engaged in Tuberculosis Control

96. Government policy is to encourage and assist voluntary agencies to participate in medical, social and welfare schemes which can be integrated into the programme of tuberculosis control. Because of the magnitude of the problem most cases of active disease are treated by ambulatory chemotherapy, the greatest number being under treatment at the Government Chest Clinics. Hospital treatment on the other hand is provided largely by the Hong Kong Anti-Tuberculosis Association, the Tung Wah Group of Hospitals, the Junk Bay Medical Relief Council and the Society for the Relief of Disabled Children. All these organizations receive recurrent grants-in-aid from Government; certain other hospitals also maintain a limited number of beds for tuberculosis patients. There is a close liaison between the voluntary agencies and the Government Tuberculosis Service.

97. The control programme is based on the following measures:

- (i) Ambulatory chemotherapy in known cases.
- (ii) Prophylactic chemotherapy of young contacts.
- (iii) B.C.G. vaccination of new-born children and of older tuberculin negative reactors.
- (iv) Hospital treatment of selected cases that will respond to medical or surgical in-patient treatment.
- (v) Limited case-finding through X-ray surveys, subject to sick leave and re-employment guarantees.
- (vi) An annual X-ray survey of all Government employees.

GOVERNMENT TUBERCULOSIS SERVICE FACILITIES

Ambulatory Chemotherapy

98. Ambulatory chemotherapy is now the standard form of treatment used in the Government Chest Clinics. The routine regimen is streptomycin daily by injection together with the combined P.A.S. and I.N.A.H. tablets until the tuberculous lesion is apparently stable; the streptomycin is then discontinued. Thereafter, the combined P.A.S. and

I.N.A.H. tablets are administered for a minimum period of two years. All treatment at the chest clinics is free of charge.

99. The principal problem arising out of this form of treatment is the failure of patients to follow completely the course advised. Attendance registers show that exact regularity of attendance for injections is infrequent and the testing of urine samples indicates that a proportion of patients, which may be as high as twenty five per cent in certain areas, fail to take the combined P.A.S. and I.N.A.H. tablets. In addition, approximately twenty per cent of cases failed to continue treatment despite home visits and other follow-up methods. There are indications that one major reason for the latter is an influx of cases from outside Hong Kong who return home before treatment is completed.

100. The Jockey Club Clinic, Sai Ying Pun, opened during the year, contains a major chest clinic, bringing to four the number of full-time centres of ambulatory treatment; two are in Hong Kong and two in Kowloon. In addition, there are eleven part-time out-patient clinics and ten injection centres, while the staff of certain general clinics in the New Territories maintain an injection service for patients referred by the Tuberculosis Service. In all full-time centres, evening sessions are held and these are proving increasingly popular.

101. For the second successive year there was a fall in the number of persons presenting themselves for the first time at the chest clinics. Although the total number of cases of tuberculosis under active treatment continues to increase, the indications are that patients are presenting themselves earlier in the course of disease and that fewer advanced cases are being seen. Nevertheless, pressure on the clinics remains substantially unchanged and the volume of work undertaken which is detailed in Table 8, continues to increase.

TABLE 8

GOVERNMENT CHEST CLINICS 1956-60

	1956	1957	1958	1959	1960
First attendances	34,607	35,126	39,454	39,008	35,991
Cases of tuberculosis discovered ..	10,733	11,428	12,270	14,406	12,937
Total attendances for treatment ..	401,568	539,282	*803,326	1,655,100	2,001,960
Under treatment from previous year	1,703	5,887	9,132	13,733	16,062
Started treatment during the year	7,861	7,964	11,546	11,357	12,617
Completed treatment	1,037	1,213	1,048	2,064	3,724
Failed to attend	2,022	2,868	3,048	5,391	4,975
Admitted to Hospital from Chest Clinics	1,029	1,078	1,511	1,587	1,592
Still on treatment at end of year ..	5,887	9,132	13,733	16,062	16,433

* Streptomycin course extended by daily injections.

Chemoprophylaxis

102. A large proportion of the deaths from tuberculosis in childhood are caused by acute post-primary disease; this is especially true in the case of tuberculous meningitis. Efficient B.C.G. vaccination offers good protection against the disease at such time of life, but in those children without such protection and who acquire a natural and hence, virulent, infection the possibility of progressive development of the disease is ever present. To such cases, discovered by Mantoux testing of home contacts and attenders at Child Health Clinics under the age of three who have not received B.C.G., I.N.A.H. is administered for a period of one year.

103. This is a measure which is applicable to a small number of children and during the year only 180 were given this treatment. It is expected that the number will be further reduced as the popularity of infant B.C.G. vaccination increases.

B.C.G. Vaccination

104. The B.C.G. vaccination campaign is now incorporated into the general organization of the Tuberculosis Service, with the assistance of certain other branches of the Medical and Health Department such as the School Health and Maternal and Child Health Services. The central B.C.G. office is mainly a supply organization but it is responsible for the examination and vaccination of contacts, surveys of children in certain groups and for the operation of the campaign to offer vaccination to all new-born children. It is in the last-mentioned sphere of activity that the most spectacular results have been achieved and, due to the central organization of the campaign plus the increasing co-operation of voluntary and private hospitals and doctors and midwives in private practice, the percentage of new-born infants who receive such protection rose during 1960 to the satisfactory figure of 71.5 per cent. The progress during the past five years is shown in Table 9.

TABLE 9
B.C.G. VACCINATION OF NEW-BORN BABIES 1956-60
(within 48 hours of birth)

Year	Percentage Vaccinated
1956	24.21
1957	35.93
1958	46.86
1959	59.53
1960	71.54

105. By the end of the year, almost all infants delivered in Government or Government-assisted institutions were receiving this protection. It is now in the field of private midwifery practice that further advances must be made and a refresher course was organized accordingly, for all private midwives, in the technique and value of B.C.G. vaccination. Attendance and interest were most encouraging and there is already an increase in the number of B.C.G. vaccinations performed by these members of the profession. For new-born babies the vaccine is administered by the multi-puncture method.

106. Vaccination of other groups of children is carried out by the classical intradermal method and is administered to all tuberculin-negative contacts of known cases of tuberculosis. It is also performed on tuberculin-negative children attending School Health and Maternal and Child Health Clinics and at the B.C.G. clinic operated by the Hong Kong Anti-Tuberculosis Association.

107. Reference has already been made to the findings from Maternal and Child Health centres which suggest that exposure to infection amongst the young age groups remains virtually unchanged from that existing eight years ago. Further, home conditions and the number of active cases of tuberculosis amongst adults have not changed materially. It would appear, therefore, that the improvements recorded in morbidity and mortality from tuberculosis amongst young children of five years and under can be attributed to the extent of the B.C.G. vaccination campaign, particularly in the new-born. The prophylactic regime of I.N.A.H. for child contacts is administered to so few that it cannot have had any significant impact on the total situation in the 0-5 age group.

Chest Surgical Clinics

108. Chest surgical clinics are held at regular intervals in the Wan Chai Chest Clinic by both the Government Thoracic Specialist and by the Chest Surgeon attached to the Grantham Hospital, while cases are also referred to the Ruttonjee Sanatorium for surgical treatment there. The waiting list was considerably reduced during the year, but there still remains a number of more complicated cases requiring pneumonectomy who are harbouring resistant organisms as a result of an unsatisfactory response to ambulatory chemotherapy.

Orthopaedic Clinics

109. Regular sessions for patients suffering from bone and joint tuberculosis are held in a number of Chest Clinics under the combined

direction of the University Consultant Orthopaedic Surgeon and the Government Orthopaedic Specialist. Medical, clerical, nursing and social assistance is provided by Government and all necessary out-patient treatment is carried out in the various Government clinics. The radiological investigations are undertaken by the Hong Kong Anti-Tuberculosis Association or by the Government Radiological Service, depending on which of these facilities is most easily available. Hospital treatment is provided in the surgical wards of the Queen Mary and Kowloon Hospitals, at the Grantham Hospital, at the Sandy Bay Convalescent Home and at the Ruttonjee Sanatorium.

110. The number of new cases presenting at these orthopaedic clinics continues to decline and the new cases are of comparatively recent origin. It is believed that the greatest number of chronic cases has now been treated and that the falling attendance at the clinics is an indication of the effect of B.C.G. vaccination in infancy upon the incidence of tubercular bone disease in the youngest age groups.

Radiology

111. All radiological work in connexion with the Government Tuberculosis Service is carried out by the staff of the Radiological Branch of the Department, under the direction of the Senior Radiological Specialist. Static X-Ray units are installed in the major clinics and subsidiary centres are served, as far as possible, by two mobile units. The increase in the radiological work undertaken can be seen from Table 10.

TABLE 10
TUBERCULOSIS RADIOLOGICAL WORK 1959-60

	1959	1960
Total exposures	194,181	234,181
Large films or papers	128,894	146,784

Bacteriological Examinations

112. All bacteriological work for the Government Tuberculosis Service is carried out by the staff of the Government Institute of Pathology under the direction of the Government Pathologist. A constant watch is kept for atypical acid-fast organisms resembling the tuberculosis bacillus, but the number found and identified have been very few and do not pose a clinical problem.

Hospital Treatment

113. The detailed distribution of beds for tuberculosis in the civil hospitals throughout the Colony is shown in Appendix 10; this represents the average number of beds available during the year for the treatment of tuberculosis. For convenience, a summary of the distribution is given in Table 11.

TABLE 11
TUBERCULOSIS BEDS IN HONG KONG 1960

Government Hospitals	216
Hong Kong Anti-Tuberculosis Association	870*
Tung Wah Group of Hospitals	326
Haven of Hope Sanatorium	210
Other Government-Assisted Hospitals	26
Private Hospitals	241
Total	<u>1,889</u>

* Includes Grantham Hospital, Ruttonjee Sanatorium & the Freni Memorial Home.

114. In addition to the beds available to the Tuberculosis Service in the Government Hospitals, there are 444 beds in the Grantham Hospital and 336 beds in the Ruttonjee Sanatorium, which includes the Freni Memorial Convalescent Home. Admission is governed by the need for using the beds to the greatest advantage and they are occupied mainly by patients whose recovery can be hastened by medical, surgical or orthopaedic treatment or who require emergency admission for complications arising during ambulatory chemotherapy. Segregation of open cases on a large scale is not yet possible, but this aspect of control is being studied by voluntary organizations and it is probable that long-term isolation facilities for an increasing number of infectious and chronic cases may become available in the near future.

Radiological Surveys

115. No general population surveys have, as yet, been possible. However, during 1960 small pilot surveys were carried out in Resettlement areas with the object of learning case-finding techniques; results were disappointing as co-operation by the public was very poor. Although facilities are available now to launch these surveys on an increasing scale further investigations will have to be made into methods suitable to local conditions which will enlist public interest and co-operation.

116. Case finding X-Ray surveys continue to be made on request by industrial and commercial firms who agree to certain sick leave and re-employment guarantees for employees with active disease. The number of firms taking advantage of these facilities continued to increase. The annual survey of all Government servants and the examination of all prisoners, except those serving very short sentences, continued as in previous years. Results of such surveys are detailed in Table 12.

TABLE 12
RADIOLOGICAL SURVEYS 1960

	<i>Government Servants</i>	<i>Private concerns</i>	<i>Prisoners</i>
Total examined	42,482	17,311	9,481
Re-examined clinically	4,822	1,267	3,105
Active Tuberculosis	372	217	985
Percentage with active tuberculosis	0.88%	1.25%	10.4%

117. A further survey was made of all school children showing a reaction of more than 15 mms. to the standard Mantoux test. A total of 822 such children were X-rayed and subsequently examined clinically. The number of cases showing active tuberculosis was less than had been expected, only twelve such cases, or 1.4% of the total, being found.

118. Teachers in Government schools are X-rayed annually in the course of the Government surveys. In all other registered schools, teachers are required to register with the Education Department and before being passed fit to teach they have to undergo a chest X-ray, not necessarily by the Government Radiological Service. Only those teachers with positive X-ray findings are referred to the Government Chest Clinics and the numbers so referred are detailed in Table 13.

TABLE 13
TUBERCULOSIS IN SCHOOLTEACHERS 1956-60

	1956	1957	1958	1959	1960
Referred to Chest Clinics owing to suspicious X-ray findings	455	318	249	179	338
Unfit to teach on account of pulmonary tuberculosis ...	49	53	23	32	28
Percentage of referred cases found unfit	10.7%	16.6%	9.2%	17.9%	8.3%

119. Those found to be unfit are offered priority of admission to hospital, but there is no compulsion and it is suspected that, in addition, a number of teachers with active disease may be teaching in unregistered schools.

Medical Social Work

120. This is carried out by Almoners assisted by a staff of Tuberculosis Workers. This work is of paramount importance in view of the local living and economic conditions, the absence of comprehensive social insurance and the emphasis on ambulatory chemotherapy.

121. The roles of the Tuberculosis Almoners and of the Tuberculosis Workers are complimentary. The Almoners interview all new patients in whom tuberculosis has been diagnosed to assess social and economic circumstances and they maintain a constant check on the regularity of individual attendances for ambulatory treatment. Waiting lists of patients recommended for admission to hospital, according to the category of treatment required, are kept by the Almoners who also assist in the settlement of all foreseeable social problems prior to admission. Thereafter they pay regular visits to patients in hospital. On discharge from hospital all patients are given a small supply of drugs to continue treatment until arrangements have been made for further care at the Chest Clinic most convenient to the patient.

122. The Tuberculosis Workers assist in the reception of patients and the maintenance of records in clinics. They maintain under the supervision of the Almoners the distribution of drugs prescribed for oral administration. A district is allotted to each Tuberculosis Worker and in it she is responsible for home visiting, health education and the organization of contact examinations. Recruited specifically for field work in connexion with the social aspects of tuberculosis in Hong Kong, the Tuberculosis Workers have no nursing training, but receive an in-service course of training lasting from six to twelve months.

123. The Almoners have available a sum of money from Government funds for the assistance of tuberculosis patients and their families. This is used to provide financial assistance to the families of those patients whose admission to hospital has caused great economic hardship, to give food supplements in the form of milk powder where required and to alleviate the burden caused in certain instances by such items as travelling expenses, domestic help, or orthopaedic appliances.

Tuberculosis Contacts

124. Efforts are made in the course of home visiting to have every close family contact of known cases of tuberculosis examined. The results of this work are detailed in Table 14 and it will be seen that,

while the number of examinations have increased, the significance of the contact as a case-finding source would appear to be decreasing.

TABLE 14
CONTACT EXAMINATIONS 1959-60

		1959	1960
<i>Under 8 years of age</i>			
Tuberculin Tests	{ Negative	996	907
	{ Positive	1,928	2,392
Clinical findings of Contacts showing Positive Mantoux	{ Active	110	69
	{ Inactive	65	101
	{ Suspicious	324	473
	{ Free of T.B.	1,429	1,749
Percentage of Contacts found to have active tuberculosis	3.72%	2.09%	
<i>Over 8 years of age</i>			
Results of Clinical examination following 'Contact' X-rays	{ Active	336	318
	{ Inactive	159	387
	{ Suspicious	658	1,043
	{ Free of T.B.	6,856	8,766
Percentage of Contacts found to have active tuberculosis	4.19%	3.02%	
Grand total of Contacts examined	10,933	13,813	

The Hong Kong Anti-Tuberculosis Association

125. The major part of the work of the Hong Kong Anti-Tuberculosis Association lies in the provision of hospital facilities for the treatment of tuberculosis. To this end the Association maintains three institutions—the Grantham Hospital, the Ruttonjee Sanatorium and the Freni Memorial Convalescent Home. The affairs of the Association are managed by a Board of Directors which appoints two Management Boards, one for the Grantham Hospital and one for the Ruttonjee Sanatorium and Freni Memorial Home. In addition, the Association maintains a B.C.G. Clinic, a Tuberculosis Insurance Scheme and a Health Education Service.

126. The Association's work receives considerable voluntary support and this is augmented by a Government subvention in respect of the Ruttonjee Sanatorium and Freni Memorial Home, the B.C.G. Clinic and the Health Education service. The insurance scheme is, of course, self-supporting.

Ruttonjee Sanatorium and Freni Memorial Convalescent Home

127. Containing 340 beds and operated as a single unit, these two institutions are financed by funds from the parent Association, by Government subvention and by the maintenance of a number of sponsored beds.

128. Medical and senior nursing staff are provided by the Sisters of the St. Columban Roman Catholic Mission; staff of the Medical Faculty of Hong Kong University act in a consultant capacity. Admission is through the sponsoring agencies, the University Clinical Units and the Government Tuberculosis Service. Full medical and surgical treatment is available free of charge, and a follow-up clinic is maintained by the Sanatorium for all discharged patients. All necessary social work is provided by the Almoners of the Government Tuberculosis Service.

129. The work of these two institutions during 1960 as compared to 1959 is outlined in Table 15.

TABLE 15
RUTTONJEE SANATORIUM AND FRENI MEMORIAL CONVALESCENT HOME 1959-60

	1959	1960
Adults admitted through Government Clinics	279	350
Children (Pulmonary) from Government Clinics	55	52
Children (Orthopaedic) from Government Clinics	51	39
Other admissions and re-admissions	277	252
Total admissions	662	693

Grantham Hospital

130. This modern hospital, maintained by the Association through a Board of Management, contains 532 beds. Of these, 444 are maintained by a Government grant based on a daily maintenance charge and patients are admitted to these beds through the Government Tuberculosis Service for treatment free. For the remainder of the beds, maintenance fees are charged but all fees are calculated on a non-profit-making basis.

131. Clinical supervision of the 444 subsidized beds is divided between the medical staff of the Hospital and of the Government Specialist units dealing with the medical and surgical aspects. The work done during 1960 is outlined in Table 16.

TABLE 16
SUBSIDIZED ADMISSIONS TO GRANTHAM HOSPITAL 1960

	Beds	Admissions
Grantham Hospital Pulmonary Unit	240	277
Government Pulmonary Unit	128	214
Government Orthopaedic Unit	76	100
Total	444	591

132. Subsidized patients, on discharge, attend the Government Chest Clinics for further treatment but full follow-up facilities are available in such clinics to the medical staff of the Hospital. Medical social work for all subsidized patients is carried out by the Almoners of the Government Tuberculosis Service.

The Tung Wah Group of Hospitals

133. This Group of Chinese Charitable Hospitals maintains 326 beds for the treatment of tuberculosis patients. In addition, approximately one-third of all births in the Colony occur in the maternity wards of these hospitals, and hence they play a most important part in the B.C.G. vaccination campaign amongst the new-born. During 1960, 86.1% of all babies born in the three hospitals received such protection.

The Haven of Hope Sanatorium

134. This hospital, situated in the New Territories, is governed by the Junk Bay Medical Relief Council, and is supported mainly by a group of Protestant Missions. Government gives an annual subvention for the maintenance of 60 beds. An out-patient service for tuberculosis patients is maintained by the Sanatorium in the adjacent Rennie's Mill settlement and during the year a tuberculosis survey of the inhabitants of that area was conducted.

Sandy Bay Convalescent Home

135. This institution is maintained by the Society for the Relief of Disabled Children and is staffed in part by the Hong Kong Branch of the British Red Cross Society. It provides convalescent care for children suffering from orthopaedic conditions, many of which are due to tuberculosis.

136. During World Refugee Year, the work of this institution aroused great interest in many countries and a number of donations have been received both of equipment and of money from most parts of the globe. Plans are now in hand to build a new wing containing another 50 beds.

Rehabilitation Projects

137. Although the need for rehabilitation of tuberculosis patients has been considerably modified in Hong Kong by the wide use of ambulatory chemotherapy, there is still a steady flow of cases which require some assistance, both physical and mental, in their adjustment to the circumstances arising as a result of the infection. A large amount of this work

is carried out as part of the normal routine of the Almoners' section with a special emphasis on re-employment. It is encouraging to note that the situation with regard to re-employment has somewhat improved in comparison with previous years.

138. During the year, the Lutheran World Service started a Tuberculosis Rehabilitation Project and is working closely with all agencies involved in the treatment of tuberculosis, including the Government Tuberculosis Service. As yet, the numbers assisted have been small but results are promising and it is expected that the scope of the scheme will expand significantly during the next few years.

MALARIA BUREAU

139. The Malaria Bureau, under the direction of the Government Malariologist, is responsible for all malaria control operations throughout Hong Kong and, in certain instances, it also undertakes the control of breeding of culicine mosquitoes. Lectures are given on malaria and allied subjects to various groups of health personnel under training and expert advice is offered 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

140. The important malaria vectors are *A. minimus* and *A. jeyporiensis* var. *candidiensis*, while *A. maculatus* and *A. hyrcanus* have also been proved to be potential carriers.

141. The great majority of the population of Hong Kong are protected from the risk of malaria infection, for the whole of the urban area comprising Hong Kong Island, Kowloon and New Kowloon is covered by anti-larval measures. These measures consist of rough training of streams, ditching and larviciding; the latter is effected by the use of anti-malarial oil except on agricultural lands where Gammexane dispersible powder is used instead. In addition, certain relatively small centres of population in the New Territories, such as Rennie's Mill Camp, the township on Cheung Chau Island and the island of Hei Ling Chau are also protected zones.

142. Results of the malaria control work in the urban areas continue to be most satisfactory and the incidence of natural malaria transmission has been reduced virtually to zero. However, vector mosquitoes abound just outside the boundaries of the protected areas and hence there is no room for complacency or relaxation of control measures.

143. In the rural areas there is no overall vector control programme except in the limited areas previously mentioned. The scattered population, the widespread wet cultivation and the unprotected contiguous borders render unfeasible the adoption in these areas of either anti-larval or anti-adult measures. Therefore, paludrine prophylaxis continues as the main line of defence against malaria for disciplined groups stationed in the New Territories.

144. The cost of the control measures during the year under review was thirty eight cents per head of population living in the protected areas.

Incidence of Malaria

145. Malaria is a notifiable disease, and the returns for the past five years are set out in Table 17.

TABLE 17
MALARIA 1956-60

Year	Cases Notified	Deaths
1956	496	4
1957	447	0
1958	659	1
1959	442	1
1960	833	0

146. The marked increase in notifications during 1960 is due to a survey designed to give an accurate picture of the prevalence and distribution of malaria in the New Territories.

147. The survey, which was carried out in conjunction with the Principal Medical Officer of Health, New Territories, and the Government Institute of Pathology, was designed to take a blood smear from every child under 10 years of age with pyrexia attending at a clinic in the New Territories and to subsequently examine such smears for the presence of malaria parasites. At times it was impossible to complete the investigation on every child attending the travelling and floating clinics, but the number so omitted was small; there was no selection of cases. At the same time, all notified cases of malaria were analysed and grouped into areas comparable with those in which the blood smears had been taken. The results are detailed in Table 18.

TABLE 18

MALARIA IN NEW TERRITORIES 1960

District	1 Population	2 Malaria cases 1960	3 % of total N.T. cases	4 Incidence per 1,000	5 Positive blood smears	6 Positives as Percentage of total smears	7 Rate per 1,000 population
Tai Po	147,307	13	1.7	0.09	8	0.5	0.05
Yuen Long	104,632	2	0.3	0.02	0	0	0
Tsuen Wan	89,905	8	1.0	0.09	2	0.1	0.02
Sai Kung	14,427	383	50	27	262	43	13
Sai Kung Boats	5,376	110	14.5	20.5			
South Lantau	7,696	210	27.5	27	63	25	8.2
Islands	40,336	39	5.0	0.7	34	2.8	0.85
Total	409,679	765	100	—	369	—	—

148. The experience of previous years is repeated in that the large majority of cases came from the area surrounding the small town of Sai Kung on the east coast. However, South Lantau has now appeared as an important endemic focus and, although the increase in the number of cases reported in that area can be attributed to the posting of a full-time medical officer to the waterworks project and to the presence of a large number of workers who have not developed tolerance to the symptoms of malaria, there is still a relatively high incidence in the villagers of the district, as shown by the smear survey.

149. It will be seen that in every district surveyed there is close agreement between the incidence of malaria and its latent frequency in children, suggesting that reporting of cases may be more complete than might have been supposed. Nearly all cases occur in the littoral rather than in inland districts; the possibility that the vector is carried by boats must obviously be taken into account but is not supported by the evidence available, particularly when the absence of cases of malaria in other islands is considered. Further investigations are in progress but, meantime, treatment is given whenever possible to all cases with a positive blood smear.

150. Of the few cases of malaria reported from the areas of the Colony covered by control operations, none could be traced to an infection contracted locally and in all cases except two there was strong presumptive evidence that the infection had in fact been contracted outside the protected zones. Of the parasites identified, 95% were *P. vivax*, 4.5% *P. falciparum* and 0.5% *P. malariae*.

Laboratory

151. The Bureau laboratory continued to carry out the routine identification and dissection of mosquitoes and field tests were conducted into the efficacy of various insecticides and the susceptibility of anophelines to them. Information on tests of insecticide resistance in adult mosquitoes was forwarded to the World Health Organization.

SOCIAL HYGIENE SERVICE

152. The Social Hygiene Service provides free facilities for the diagnosis and treatment of venereal disease and leprosy in thirteen centres in the urban districts and in five part-time centres in the New Territories. It operates the Wan Chai Hospital for female patients suffering from skin disease, and maintains a number of dermatological sessions in various clinics.

Venereal Diseases

153. The most disturbing feature of 1960 was a marked rise in the number of cases of primary and secondary syphilis presenting; this was due, in part, to the inability of four cases of the disease in its primary stage to identify their contacts. However, the number of cases presenting with syphilis in its later stages showed a further decline and no case of congenital syphilis was seen in a new-born infant for the first year on record.

154. The incidence of gonorrhoea and of lymphogranuloma venereum continued to decline, as did that of non-gonococcal urethritis, but chancroid showed an increase of one hundred and sixty nine per cent as compared to 1959. The annual incidences and trends in these diseases are shown in Appendix 7.

155. Penicillin remains the treatment of choice for both gonorrhoea and syphilis, but the slightest sign of intolerance to the drug is followed by a change in therapy; in the case of syphilis, chloramphenicol is used as the alternative and in the case of gonorrhoea either chloramphenicol or streptomycin is exhibited. No death from anaphylactic shock was recorded.

156. Since 1959, the extent of venereal disease in prostitutes has been under investigation, and the results, detailed in Table 19 are of interest.

TABLE 19

VENEREAL DISEASE IN PROSTITUTES

Year	No. of first attendances	No V.D. found	Gonorrhoea	Syphilis	
				Early Latent	Late Latent
1959	1,086	692 (63.8)	235 (21.6)	63 (5.8)	96 (8.8)
1960	952	613 (64.4)	124 (13.0)	69 (7.2)	146 (15.4)

Remarks: Figures in brackets represent percentage of number of first attendances.

157. Many patients suffering from venereal disease do not appreciate the importance of prolonged treatment or of regular assessment after treatment has been completed. In each case where recommended attendance at a Social Hygiene Clinic is not observed, the patient is contacted by letter and reminded of the necessity for further clinical examination or treatment. If there is no response to such letters, visits are paid to the patients' homes by Social Hygiene Visitors, who also carry out epidemiological investigations into each new case of venereal disease reported.

Leprosy

158. Thirteen clinical sessions are held weekly in eight centres solely for leprosy patients, while two other sessions each week are held in conjunction with other social hygiene clinics; in addition, one session is devoted to the care of leprosy patients suffering from trophic ulcers. During the year, infectious cases numbering 124 were admitted to the Hei Ling Chau Leprosarium which is maintained by the Hong Kong Auxiliary of the Mission to Lepers; a very close liaison with this institution, which is referred to in paras. 235-238 of this report, is maintained by the Social Hygiene Service.

159. For routine out-patient treatment at the Leprosy Clinics, dapsone remains the drug of choice and is administered orally or intramuscularly; if there is intolerance to dapsone, diphenyl thiourea is exhibited instead. In selected cases bi-weekly injections of ditophal are used, combined with routine systemic therapy, but results have not been promising and, in addition, there have been instances where a contact dermatitis has resulted.

160. Surgical rehabilitation of patients suffering from deformities and disfigurements is carried out at the Maxwell Memorial Hospital at the Hei Ling Chau Leprosarium; it is also provided in certain Govern-

ment hospitals where a limited number of beds is available for this purpose.

161. In the epidemiological field, it is a routine for the home of each new patient to be visited by a Social Hygiene Visitor within a month of the diagnosis being made; personal advice is given, contacts are requested to attend for examination and it is urged that child contacts receive B.C.G. vaccination. After the initial examination, contacts are advised to return for re-examination at least once a year; those who do not return are re-visited as are patients defaulting from treatment. Unfortunately, the insidious nature of the disease is such that many persons are unwilling to attend early, as they neither see nor feel any indication of illness.

162. The work done by the Leprosy Out-Patient Service during recent years is detailed in Table 20.

TABLE 20
LEPROSY OUT-PATIENT SERVICES 1956-60

	1956	1957	1958	1959	1960
New Attendances at Clinics	751	981	976	767	705
Total Clinic Attendances	25,789	31,204	36,338	31,986	26,329
Lepromatous cases seen	160	173	160	111	97
Intermediate cases seen	1	1	5	3	16
Tuberculoid cases seen	262	262	214	183	126
Total cases of leprosy seen	423	436	379	297	239

Dermatology Service

163. Patients with skin diseases may attend any of the Social Hygiene clinics and, in addition, there are nine consulting sessions each week, five on Hong Kong Island and four in Kowloon, solely for patients with skin complaints referred for an expert opinion. Female patients requiring hospital treatment are admitted to the Wan Chai Hospital, while beds are available for males at the Lai Chi Kok Hospital.

164. Appendix 8 shows the classification and relative frequency of dermatological cases seen. It will be observed that contact dermatitis, boils, impetigo and eczema continue to be the predominant diseases encountered. All cases of industrial dermatitis were notified to the Industrial Health Officer, as were cases of other dermatological conditions suspected of being due to an industrial hazard.

165. There is an Almoner attached to the Leprosy section of the Social Hygiene Service but the major part of the contact follow-up and home visiting for the Social Hygiene Service as a whole is carried out by the Social Hygiene Visitors. These visitors are analogous to the Tuberculosis Workers and on appointment are given a short course of in-service training in their duties and responsibilities.

PORT HEALTH

166. 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; for the compilation of epidemiological statistics and reports and for the general organization of prophylactic vaccination campaigns. 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 Singapore.

167. All persons entering the Colony through the recognized ports of entry by land, sea or air are subject to a quarantine inspection and all immigrants without valid vaccination certificates are vaccinated against smallpox.

168. Other routine work carried out include the deratting and disinsecting, including 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*; inspection of all vessels carrying more than twenty unberthed immigrants; a service rendering medical advice by wireless 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 an ambulance service in the port area.

Prophylactic Vaccination and Other Measures

169. The Port Health Office is responsible for the provision of vaccination facilities for travellers making international journeys and for the general organization of immunization campaigns in the Colony. Inoculators are posted to twenty five centres throughout the Colony and are responsible for the field-work of these inoculation and vaccination

campaigns which are carried out under the immediate supervision of Medical and Health Officers.

170. By the beginning of 1960, the outbreaks of cholera and small-pox reported during 1959 in nearby countries of South-East Asia had subsided and no case of either disease occurred in the Colony.

171. The number of persons entering by rail through Lo Wu showed an increase of 14.8% over the previous year; of the total of 488,187 persons inspected there, 37,825 were without valid documents and were vaccinated against smallpox.

DISTRICT MIDWIFERY SERVICES

172. The dramatic fall in maternal mortality during recent years can be attributed, at least in part, to the widespread desire for attention during labour by trained personnel in a hospital or maternity home. Owing to existing housing conditions the preference is for institutional midwifery and only six per cent of all births registered take place in the home. By December 1960, there was a ratio of one maternity bed for every 66 births.

173. Prior to 1959, Government policy in the urban areas was to provide specialist institutional care in the Tsan Yuk Maternity Hospital, in the maternity block of Kowloon Hospital and in a few maternity homes attached to existing clinics; all other areas were served by midwives based on clinics and offering facilities for domiciliary midwifery in the surrounding districts. Despite the domiciliary facilities available, the greatest part of the normal midwifery was conducted in Government-assisted or private hospitals or in private maternity homes. This demand for institutional facilities has now been recognized in the development plan and all new clinics under construction or being planned for the urban areas will include maternity beds for normal cases wherever the district needs warrant the provision of such service. One such clinic was opened during the year, at Aberdeen, and plans have been prepared on this basis for six more. At the Jockey Club Clinic in Kennedy Town opened on 7th June, 1960 a domiciliary midwifery service was arranged; the demand for this service was so poor that, at the end of the year, five beds were provided in the clinic. Within a fortnight there was a marked increase in the number of ante-natal attendances at the clinic's Maternal and Child Health Centre and the beds were soon fully utilized. In the New Territories, the policy

has been and still continues to be to include maternity beds in all new clinics.

174. The work of the Government Midwifery Service during 1960 is summarized in Table 21.

TABLE 21

GOVERNMENT MIDWIFERY SERVICE 1960

Maternity beds in hospitals	337
Maternity beds in maternity homes (urban)	70
(rural)	119
Midwives (excluding hospitals)	57
Cases attended (excluding hospitals)	15,418
Average case-load for each midwife (excluding hospitals)	270

175. Thirty seven per cent of all births are attended by midwives in private practice, the great majority 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 inspection of such homes and for general supervision of the work of the midwives; in this task, she is assisted by a qualified Health Visitor. The work undertaken in 1960 by these midwives is outlined in Table 22.

TABLE 22

PRIVATE MIDWIFERY SERVICE 1960

Number of midwives in active practice	193
Number of registered maternity homes	117
Number of beds	517
Maternity home deliveries	38,143
Domiciliary deliveries	3,260
Total deliveries	41,403

176. Apart from their role in safeguarding the lives of mothers and infants, the midwives of the Colony play an extremely important part in general public health measures, for they are all 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 71.5 per cent of all children born during 1960 received B.C.G. protection—a measure which has resulted in a dramatic fall in child mortality from tuberculosis.

MATERNAL AND CHILD HEALTH SERVICES

177. In this most important and popular aspect of the work of the Department, the emphasis is on health education and the prevention of

disease. All facilities are provided without charge, and once disease, exclusive of minor ailments, is detected the child or mother concerned is referred to the appropriate branch of the curative service for the investigation and treatment necessary. When cured the patient is encouraged to return to the relevant clinic. The Health Education of groups of mothers in the clinics and of individuals while home-visiting is a permanent and continuing activity of the Health Visitors. The advice proffered is generally much appreciated, especially in the infant welfare clinic sessions and it is an encouraging sign that, during 1960, nearly one-quarter of all children born in Hong Kong were brought by their mothers, or sometimes by their fathers, to these sessions. In the clinics all forms of group education are available: simple talks, film and puppet shows, flannel-graph illustrations, practical demonstrations and group discussions are widely used, the choice of medium depending on the subject and on the audience.

178. 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. The work performed during 1960, as compared to that of 1959, is detailed in Table 23.

TABLE 23

MATERNAL AND CHILD HEALTH SERVICES 1959-60

	1959	1960
Number of full-time centres	7	9
Number of subsidiary centres	17	17
Number of ante-natal sessions each year ...	1,922	2,023
New ante-natal attendances	17,418	20,296
Total ante-natal attendances	61,891	77,741
Number of post-natal sessions each year ...	789	816
New post-natal attendances	3,530	4,686
Total post-natal attendances	4,870	6,399
Number of infant welfare and toddler sessions each year	4,012	4,358
New infant welfare attendances	24,102	29,634
Total infant welfare attendances	292,360	307,956
New toddler attendances	4,125	5,052
Total toddler attendances	35,538	40,187
Total home visits	46,248	59,071

179. Two full-time centres were opened during the year in the Jockey Club Clinics in Kennedy Town and Aberdeen; the latter replaced a part-time centre which had been maintained in cramped and unsuitable

premises. Additional work undertaken consisted of ante-natal and infant welfare clinics held once a month in Tai O, on Lantau, and of infant welfare clinics held twice weekly in the Wong Tai Sin Resettlement Estate.

180. The infant welfare sessions are undoubtedly the most popular aspect of the work of this branch of the service but many mothers still regard these clinics as centres primarily for the treatment of ailments. However an increasing number are now appreciating the need for routine inspections and the discussions of minor problems and the 'well baby' concept is becoming much more widely understood. It is encouraging to report that during 1960 only 1.53% of infants attending for the first time at infant welfare clinics showed any abnormality. Immunization against diphtheria, whooping cough and tetanus is given as a routine, using a triple vaccine. Smallpox vaccination is given where necessary and all children not known to have had B.C.G. are tuberculin tested, those with a negative reaction receiving B.C.G. Those who are tuberculin positive but without pathological signs of active disease are given prophylactic I.N.A.H. for a period of one year.

181. Toddler clinics are increasing in popularity, mainly by 'promotions' from the infant welfare sessions. Here the inculcation of good habits of hygiene receives the emphasis so essential for the future health of the child.

182. Ante-natal sessions held in Government Maternal Health centres show the satisfactory average rate of 3.8 attendances by each expectant mother; however, the number of women who take advantage of the facilities offered represent only eighteen per cent of the total number of pregnancies. This is largely due to the demand, previously mentioned, for institutional midwifery and the consequent attendances at hospitals or at private nursing homes for ante-natal examinations. As this usually means a 'booked bed', this is all to the good.

183. Post-natal clinic sessions are still the least popular and, as 22.08% of all women attending present some defect, it would appear that the need for a post-natal examination is, in general, appreciated only by those who either are acutely conscious of an abnormality or who wish to take advantage of an opportunity for an investigation which will banish anxieties regarding their state of health.

SCHOOL HEALTH

184. The School Health Service has two main functions in the schools of the Colony. The first comprises the control of environmental sanita-

tion and communicable disease as a general public health measure applied to all registered schools. It includes the dissemination of health education to school children, parents and teachers. During the year, the main effort continued to be concentrated on raising the level of immunity to diphtheria.

185. The other function is to provide personal curative services, including dental and ophthalmic facilities, to a limited number of voluntary participants in a fee-paying scheme. The entry to this scheme has had to be limited since 1955 and during 1960 the number of participants was 24,919.

186. To provide curative services for all school-children in the Colony, numbering some 600,000 is beyond the staff and other resources of the Medical and Health Department. Consequently, a scheme is being considered for the replacement of the existing limited service by a service in which private practitioners would be invited to accept responsibility for curative services, within defined limits, to all pupils on the basis of a per capita remuneration. It is proposed that entry to the scheme would be voluntary and would be financed partly by contributions from participants and partly by a Government subsidy. Detailed proposals for the scheme have been submitted to the Hong Kong Branch of the British Medical Association and to the Chinese Medical Association and, at the end of the year, were under discussion with the Council of the two Associations.

INDUSTRIAL HEALTH

187. 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 which is staffed by personnel seconded from the Medical and Health Department, is chiefly concerned with the prevention of occupational disease and the protection of workers against health hazards arising from their working environments. To this end, an advisory service is given to industry on problems connected with the hygiene of workplaces or with the provision of clinic or first-aid facilities. Investigations are made into the working environments of trades known to be hazardous to health and medical supervision is maintained of workers in certain dangerous trades such as those in which lead or luminizing powders are handled. Health Visitors carry out individual case work on injured persons claiming compensation under the Workmen's Compensation Ordinance.

188. With the co-operation of private practitioners and Government Medical Officers, cases of silicosis and of industrial dermatitis are notified to the Industrial Health Section. Surveys of working conditions in quarries and stone-grinding factories continue and further X-ray surveys have been carried out on quarry workers exposed to the risk of silicosis.

189. Field surveys continue into the contamination of various working environments by toxic gases or fumes or by dust and temperature and ventilation studies have been made in a number of factories.

190. Lectures on Industrial Health are given to probationer Labour Inspectors, Health Inspectors, Health Visitors and medical students of the University of Hong Kong. First Aid training classes for industry are organized by the Industrial Health Section and are conducted by the St. John Ambulance Association.

HEALTH EDUCATION

191. A better appreciation by the Colony's population of the basic principles of environmental hygiene and the prevention of disease continues to be the main health objective. A very wide field is covered by many branches of the Medical and Health Department and all available methods of Health Education are used in the various programme undertaken. In general, those methods designed for individual or group education have proved the most effective, being used with success in the Maternal and Child Health Service, the Tuberculosis Service and the Social Hygiene Service. On the other hand, methods suitable for widespread dissemination of health education, as in the immunization campaigns, are accorded a somewhat apathetic reception.

192. Certain other departments are concerned with various aspects of Health Education in their respective spheres. The Inter-departmental Committee on Health Education, formed during the previous year, continued to concentrate its efforts on the furtherance of the anti-diphtheria campaign.

193. The co-operation of all voluntary bodies interested in health topics is actively sought and Kai Fong Associations and Welfare Societies are particularly active in this field. A most encouraging development during the year was the interest taken in the subject by the Women's Section of the Kai Fong movement, which organized a three-month drive throughout the Colony to promote improved standards of maternal and child health.

IV. THE WORK OF THE MEDICAL DIVISION

194. General comment has already been made on the heavy and increasing pressure on the clinic and hospital facilities. The programme of hospital and clinic construction and of staff training which got under way in 1957 is now beginning to show results. It is anticipated that, by the end of 1963, with the completion of the two major hospital projects in Kowloon and a number of large clinics in the urban areas and the growing townships in the New Territories, there will be a significant easing of the present shortage of these facilities.

HOSPITALS

195. The year marked a number of events of major importance in the expansion of curative and preventive services available to the population of the Colony. The inauguration of the School of Nursing for the Queen Elizabeth Hospital has doubled the facilities for the training of nurses. The opening of the Castle Peak Hospital has provided for the first time a near adequacy of beds for mental illness. The third phase of the new Kwong Wah Hospital was launched and there were welcome extensions to other existing hospitals, both Government and Government-subsidized. In addition, there was the opening of the Canossa Hospital on Hong Kong Island, an extension to St. Theresa's Hospital in Kowloon, both privately-maintained institutions, while the Fanling Lutheran Mission Hospital of 70 beds was opened in March, 1960, in the New Territories.

196. By the end of March 1961, there were 37 civil hospitals and nursing homes in the Colony, of which 13 hospitals are maintained wholly by Government; 10 hospitals are managed by voluntary or missionary bodies which receive recurrent subventions from public funds. There are 9 private hospitals and 5 nursing homes. Details of the accommodation provided are at Appendix 10. An analysis of the work done at the Government and Government-assisted hospitals is at Appendices 9 and 11.

GOVERNMENT HOSPITALS

Queen Mary Hospital

197. This, the largest of the Government hospitals, is an acute hospital situated on Hong Kong Island and is the main specialist centre for the Colony. It is also the teaching hospital for the Medical Faculty of the University of Hong Kong and is one of the two main Government centres for the training of nurses.

198. Of the hospital's 601 beds, 234 are under the clinical care of the staff of the University Departments of Medicine, Surgery, and Obstetrics and Gynaecology; in addition, there is a combined University and Government Paediatric unit of 29 beds. The remaining 338 beds are allocated to the Government clinical units, each unit being headed by a Government Specialist. Out-patient sessions are held regularly by both University and Government specialist staff, the former mainly in the Jockey Club Clinic, Sai Ying Pun, and the latter in the Violet Peel Polyclinic mainly but also in certain other Government general clinics.

199. The administration of the Queen Mary Hospital is the responsibility of the Medical Superintendent, who is a Principal Medical and Health Officer of the Department, and who is assisted by a lay Hospital Secretary. Nursing care and all ancillary facilities, both medical and non-medical, are maintained by Government.

200. There is no out-patient department at the Queen Mary Hospital, but the Casualty Department is the only public casualty centre on Hong Kong Island with the necessary full time specialist cover. This department receives, therefore, most of the traumatic, emergency and forensic cases arising in a densely populated area of one million inhabitants.

Kowloon Hospital

201. This is the main acute hospital and casualty centre for Kowloon and the mainland portion of the New Territories and serves a population of two million people. The beds are grouped in clinical units each of which is headed by a Government Specialist. All hospital staff is provided by Government and the hospital is a Training School for general nurses and midwives.

202. Kowloon Hospital has been under heavy and increasing pressure during recent years and emergency extensions have been necessary. A block containing two wards, each of 34 beds, and four operating theatres was opened in April 1960, but this only temporarily relieved the strain. By the end of March 1961, two more wards of semi-permanent construction and containing 108 beds had been opened. Thus, the total bed strength of the hospital rose from 339 beds on April 1st, 1960, to 521 beds on March 31st, 1961, an increase of 57 per cent. The average duration of in-patient bed occupancy during the year 1960 was 7.4 days. An indication of the heavy load carried by Kowloon Hospital is given in Table 24 which details the work carried out during the last five years.

TABLE 24

KOWLOON HOSPITAL 1956-60

	1956	1957	1958	1959	1960
Maternity Cases	2,867	2,861	3,472	3,646	4,372
General In-patients (excluding maternity)	7,256	7,819	10,695	13,242	16,052
Out-patient attendances	481,169	547,026	558,010	532,492	547,592
Casualties attended	Not Available	51,986	70,191	71,627	80,333
Operations (excluding minor ones)	4,629	4,884	5,704	6,571	7,584

203. The large out-patient department adjacent to the hospital deals with general cases and also serves as a centre for specialist out-patient sessions conducted by the staff of the hospital clinical units who also hold specialist sessions at certain Government clinics in Kowloon and in the New Territories. The Casualty Department, attached to the out-patient centre, attended an average of 219 emergency and accident cases every 24 hours throughout the year.

Tsan Yuk Maternity Hospital

204. This is the main specialist obstetric hospital in the Colony and is maintained by Government which also provides the Medical Superintendent, the resident house officers and the nursing and administrative staff. Clinical work in this hospital of 200 beds is the responsibility of the Professor of Obstetrics and Gynaecology in the University of Hong Kong assisted by members of the University staff and by a number of Government Medical Officers. All tuition of medical students in obstetrics is conducted here and it is the Colony's main teaching centre for student midwives who have not previously qualified as general nurses.

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

206. Routine admissions are now limited to cases registered in the ante-natal clinics, which are in the main primiparae, 'grand' multigravidae, women with a previous abnormal obstetric history or referred cases requiring specialist care; such admissions comprised 94.8% of the total. The remaining 5.2% of cases admitted were suffering from complications of pregnancy or labour and were referred by practising

midwives, private practitioners or the Government Midwifery Service. As Tsan Yuk now deals with all complicated cases the duration of in-patient stay has been increased, with a corresponding reduction in the total of cases admitted.

207. The work of the hospital during the year is detailed in Table 25.

TABLE 25

WORK OF THE TSAN YUK HOSPITAL 1959-60

	1959	1960
Total admissions	8,196	7,251
Total deliveries	7,440	6,416
Still-birth rate (per 1,000 total births)	13.97	9.70
Neo-natal mortality rate (per 1,000 live births)	14.31	12.17
Maternal mortality rate (per 1,000 total births)	0.80	0.16
Percentage operative deliveries	14.12	20.12

Lai Chi Kok Hospital

208. This hospital, situated on the outskirts of Kowloon, is accommodated in converted buildings and performs three functions. It receives all cases of infectious diseases requiring admission to hospital which occur on the mainland part of the Colony; it serves as a convalescent unit for the Queen Mary and Kowloon Hospitals and it provides a number of beds for tuberculosis patients. For the convalescent and tuberculosis patients both physiotherapy and occupational therapy are provided on a full-time basis, while the Hong Kong Branch of the British Red Cross Society maintains a school for long-stay child patients.

209. The extremely heavy incidence of diphtheria experienced during the winter of 1959-60 was not repeated during this last year and only twelve beds were re-allocated temporarily to deal with the number of diphtheria cases admitted. In fatal cases the cause of death was either overwhelming toxæmia or advanced bronchopneumonia not responding to the administration of various antibiotics. Over ninety per cent of the cases admitted had received no prophylactic immunization, and, of the remainder, most had received only one injection of toxoid.

210. As in previous years a number of cases of typhoid were admitted but mortality remained low. In measles, a high case fatality rate reflects the advanced stage of the intercurrent bronchopneumonia encountered in such cases on their arrival in hospital, many being seen too late for treatment to be able to take effect.

211. Other infectious diseases admitted were tetanus, mainly tetanus neonatorum, tuberculous meningitis, amoebic and bacillary dysenteries, poliomyelitis and encephalitis.

212. A small quarantine unit of four beds was added to the hospital during the year.

Sai Ying Pun Hospital

213. This hospital on Hong Kong Island is used entirely for the treatment of cases of infectious diseases, of which the main types seen are as detailed previously for Lai Chi Kok Hospital.

214. An increasing number of shigella and staphylococcal organisms are being encountered which show strong resistance to the common wide-spectrum antibiotics and in certain cases furadantin and kanamycin were the only therapeutic substances of effect. Admissions of patients suffering from acute rheumatic fever are also increasing, almost all being children, but is of interest that four adult cases were seen during the year, all female.

215. The work of the two infectious disease hospitals is summarized in Table 26.

TABLE 26
INFECTIOUS DISEASE HOSPITALS 1960

	Cases Admitted	Deaths	Case Fatality Rate (per cent)
Diphtheria	1,510	90	5.96
Typhoid	343	5	1.46
Tetanus	168	80	47.62
Amoebic Dysentery	131	3	2.29
Bacillary Dysentery	234	3	1.28
Poliomyelitis	124	17	13.71
Tuberculous Meningitis	39	16	41.03
Measles	249	49	19.68

St. John Hospital

216. This hospital of 100 beds, situated on the island of Cheung Chau, is staffed and maintained by Government, the buildings being leased from the St. John Ambulance Association. It not only offers in-patient and out-patient facilities, but serves as a base for the floating clinic covering the Colony's south-western waters and as a convenient centre for various specialist clinics. There are 42 beds set aside for patients convalescing from pulmonary tuberculosis. Patients requiring major surgical procedures or other specialist in-patient care are transferred to the appropriate hospitals on Hong Kong Island.

Wan Chai Hospital

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

218. 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

219. This small hospital of 17 beds serves the workers on the Shek Pik Reservoir project and the villagers on the south-west coast of Lantau Island. The Medical Officer-in-charge is also responsible for the dispensary at Mui Wo, serves as Health Officer for the area and visits the sick bay at Her Majesty's Prison at Chi Ma Wan.

Mental Health Service

220. March 1961, saw the completion of the Castle Peak Hospital providing modern facilities for the accommodation and treatment of 1,000 psychiatric patients. With this institution as a nucleus, it has been possible to expand the basis of the mental health service by the conversion of the old Victoria Mental Hospital into a day hospital and centre for out-patients and by the commencement of out-patient sessions at certain other clinics. The work performed during the year is outlined in Table 27.

TABLE 27
MENTAL HEALTH SERVICE 1959-60

	1959	1960
Patients admitted to hospital	1,497	1,687
New out-patient attendances	752	845
Repeat out-patient attendances	5,205	7,685
Attendances of discharged in-patients	449	227

221. A further step in the advancement of the Mental Health Service was the enactment of the Mental Health Ordinance, 1960, which embodies a number of liberal concepts and simplified procedures pertaining to the treatment and care of the mentally ill that are in keeping with the progress made in psychiatry during recent years. The Ordinance will be brought into effect later in 1961.

222. A block containing 120 beds has been set aside in the Castle Peak Hospital for the treatment of drug addicts who voluntarily request

assistance to conquer their craving and who are prepared to surrender their liberty for six months. This latter has been made possible under the provisions of the Drug Addicts Treatment and Rehabilitation Ordinance of 1960.

223. In the therapeutics of mental illness in Hong Kong, chlorpromazine and trifluoperazine remained the most effective of the tranquillizing drugs while certain of the monoamine-oxidase inhibitors have proved of value in the treatment of depressive states. All orthodox physical and biological methods of therapy are employed, including leucotomy. Protracted individual psychotherapy is limited by the large case load borne by the individual medical officers, but group psychotherapy is used, especially for out-patients and day patients.

Prison Hospitals

224. Hospitals under the care of Medical Officers are maintained at the Stanley Male Prison, the Victoria Remand Prison, the Lai Chi Kok Female Prison and the Tai Lam Prison which is used exclusively for the rehabilitation of prisoners who are also drug addicts. A small sick-bay at Chi Ma Wan Prison is visited regularly by a Government Medical Officer.

225. At Stanley Prison there is a hospital of 82 beds for the accommodation of prisoners who require treatment for conditions which do not warrant transfer to another hospital. Regular visits are paid by specialist staff from the units in general medicine, tuberculosis and social hygiene. In July 1960, an in-service course of training for Prison Hospital staff was commenced.

226. At Victoria Remand Prison, the hospital has been expanded to a total of 30 beds to provide isolation facilities and to accommodate the numbers of drug addicts under remand who are suffering from withdrawal symptoms. One of the prison blocks is being converted into a Psychiatric Observation Unit which will eventually be fully staffed by trained mental nurses. This unit is to be under the clinical control of a Psychiatrist who is a member of the Mental Health Service seconded to the Prisons Department and who also pays regular visits to all main prisons and training centres to advise on the numerous psychiatric and personality problems encountered amongst prisoners.

227. The specialized prison at Tai Lam Chung for the treatment and rehabilitation of convicted male drug addicts continues to give encouraging immediate results, but no assessment of the relapse rate after discharge has yet been possible.

GOVERNMENT-ASSISTED HOSPITALS

The Alice Ho Miu Ling Nethersole Hospital

228. This hospital, operated by the London Missionary Society has 281 beds and offers general medical, surgical and maternity care; there is also a large out-patient department. The hospital caters for all classes of patients but the major part of its work is amongst the poor; it is supported by a substantial annual subvention from Government funds. Serious staffing difficulties were encountered during the year but, in spite of these, the hospital continued to make an essential contribution to the Colony's medical services.

The Tung Wah Group of Hospitals

229. During 1960, the Tung Wah celebrated the ninetieth anniversary of its founding. This charitable organization in the Chinese tradition is managed by a Board of Directors elected annually and provides medical care, primary school education and various welfare services for the poor. It maintained three hospitals, namely the Tung Wah and the Tung Wah Eastern Hospitals situated on Hong Kong Island and the Kwong Wah Hospital in Kowloon; in addition there are two infirmaries. These institutions are maintained in part by voluntary contributions raised by the Board of Directors and in part by a large annual subvention from Government. There is a total of 1,650 beds in the five institutions.

230. The work of the hospitals and infirmaries is subject to the general direction of the Tung Wah Hospitals' Medical Committee which consists of representatives of the Tung Wah Board of Directors and of Government under the chairmanship of the Director of Medical and Health Services. The Medical Superintendents of the three hospitals are Government Medical Officers on secondment.

231. General medical and surgical facilities are available and each hospital contains a large maternity unit. In addition to the treatment and care of acute cases, accommodation is provided for patients with chronic illnesses requiring prolonged hospitalization and the two separate infirmaries are maintained for the care of those suffering from incurable diseases. Consultant services are provided, either by specialists in private practice or by Government specialists; all such services are given voluntarily.

232. During the year, extensive renovations of the older parts of the Tung Wah Hospital were completed. The construction of the new Kwong Wah Hospital continues to progress satisfactorily; phase two

of the development scheme, which replaces accommodation in the old buildings, was completed during the year and work on phase three was begun.

Pok Oi Hospital

233. This hospital, situated near Yuen Long in the New Territories, is maintained by a Board of Directors and is largely supported by charitable donations augmented by an annual Government subvention. An extension of 74 beds was opened by His Excellency the Governor in January 1961; this brought the accommodation in the hospital to a total of 124 beds and also provided badly-needed ancillary services including an operating theatre, a laboratory and radiodiagnostic facilities.

234. The general administration of the hospital is under an Executive Committee comprising six representatives of the Board of Directors and six representatives of Government. A Government Medical Officer is seconded to the hospital to act as Medical Superintendent.

Hei Ling Chau Leprosarium

235. This institution is maintained by the Mission to Lepers, Hong Kong Auxiliary, with the aid of a substantial recurrent subvention from Government. It contains accommodation for up to 540 leprosy patients, and the Maxwell Memorial Medical Centre provides fifty beds for the care of patients undergoing reconstructive surgery or suffering from intercurrent disease.

236. There is a close liaison with the Government Leprosy Clinics, and all patients, who are mostly infectious, are admitted through these clinics. Treatment is mainly by the sulphone group of drugs; ditophal by inunction has been tried but was not popular with patients. Reconstructive surgery was carried out on a number of patients and much work has been done on the prevention of damage to anaesthetic hands and feet. The staff of the Leprosarium produced a simple booklet of rules to instruct patients how to prevent injuries and deformities of the limbs.

237. The work done during 1960 is outlined in Table 28.

TABLE 28
WORK OF HEI LING CHAU LEPROSARIUM 1959-60

	1959	1960
Number of admissions ...	138	119
Total number of discharges ...	119	116
Number of discharges with 'negative' certificate ...	87	69
Deaths ...	2	5
Reconstructive operations ...	189	196

238. 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 and social activities continue as in a normal community.

Tuberculosis Hospitals

239. Reference has already been made in paragraphs 130-132 and 134-136 to the work carried out by the Grantham Hospital, the Ruttonjee Sanatorium, the Haven of Hope Sanatorium and the Sandy Bay Convalescent Home.

OUT-PATIENT SERVICES

240. The year 1960-61 was a notable one for, as previously stated, it marked the completion of the first stages of the planned building programme. Four clinics of varying size and scope were opened, three of which were built and donated by the Royal Hong Kong Jockey Club. The largest of these is the nine-storey polyclinic at Sai Ying Pun, which accommodates a large general out-patient department, chest and social hygiene clinics, a radiodiagnostic and superficial radiotherapy department, modern out-patient teaching facilities for all clinical units of Hong Kong University and the Government Institute of Pathology. Other Jockey Club clinics completed were at Aberdeen and Kennedy Town, each of which contains a general out-patient clinic, a dental centre, and a maternal and child health department; in addition, the former has a maternity ward of 26 beds. An out-patient clinic and maternity home of seven beds, built by Government, was opened in the small border town of Sha Tau Kok.

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

242. Evening out-patient sessions are held at seven of the larger clinics in the more densely populated areas, which last 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 weekends and public holidays.

243. The New Territories contain fifteen out-patient centres, in seven of which one or more doctors are stationed permanently. The more remote areas of the New Territories are served by two mobile dispensaries and two 'floating clinics'; the latter are launches, donated by the Royal Hong Kong Jockey Club, which provide curative and preventive facilities to isolated centres on the eastern and western coasts and on adjacent islands. At the end of March 1961, the first of a series of experimental visits by helicopter was undertaken by a small medical team to certain isolated villages on the eastern seaboard where direct sea-to-shore communication is often impossible owing to weather conditions.

244. Reference has already been made to the increasing pressure on Government out-patient clinics. This pressure has been no less severe on such clinics maintained by Government-assisted institutions or by the various missionary and charitable organizations.

245. At Appendices 12 and 13 are details of the work done during 1960 at the out-patient departments of Government and Government-assisted institutions throughout Hong Kong.

SPECIALIST SERVICES

246. There are Government Specialist Clinical Units of medicine, surgery, obstetrics and gynaecology, anaesthesiology, dentistry, neuro-surgery, ophthalmology, orthopaedic surgery, otorhinolaryngology, pathology, 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

247. The Radiological Service, under the direction of the Senior Radiological Specialist, maintains radiodiagnostic, radiotherapeutic and medical physics facilities. Such facilities are provided mainly for Government hospitals and clinical services, but consultant services are readily available to certain Government-assisted hospitals and, on request, to private medical practitioners. In addition, the Service undertakes the instruction of medical students of Hong Kong University in the basic

principles of radiology and it conducts in-service training courses for both radiologists and radiographers; such courses are fully recognized by the various examining bodies in the United Kingdom.

Radiodiagnosis

248. This branch provides a diagnostic service in nine Government hospitals and clinics in the urban areas, operates two mobile mass radiography units, and provides assistance to the Tung Wah Group of Hospitals, the Pok Oi Hospital and the Alice Ho Miu Ling Nethersole Hospital. All aspects of radiodiagnostic work required by the Medical and Health Department are covered, including the radiological work for the Tuberculosis Service; the number of X-ray examination performed during 1960 increased by 9% compared with 1959.

249. During the year a radiodiagnostic department with three fully-equipped X-ray rooms was opened in the Jockey Club Clinic, Sai Ying Pun, together with a smaller department attached to the Chest Clinic in the same building. Much-needed extensions to the X-ray department of Kowloon Hospital relieved some of the pressure resulting from the rapid increase of work in that institution.

Radiotherapy

250. This section is based entirely at the Queen Mary Hospital except for a recently-completed superficial radiotherapy unit in the Jockey Club Clinic, Sai Ying Pun. Deep X-ray and radiocobalt machines are used, a large stock of radium and radiocobalt needles is held and facilities are available for the use of radio-isotopes in the diagnosis and treatment of disease.

251. The major part of the work is amongst patients suffering from malignant disease, most of whom are treated as out-patients owing to the shortage of beds. Details of the work performed during the year are given in Table 29.

TABLE 29

WORK OF THE RADIOTHERAPEUTIC SECTION 1959-60

	1959	1960
No. of new malignancy cases seen	684	962
No. of new benign cases seen	217	377
Total attendances for treatment	11,865	15,572
Cases of nasopharyngeal carcinoma	348	318
Cases of carcinoma cervix uteri	152	220
Cases of carcinoma breast	134	88

Medical Physics

252. This section, under the immediate direction of the Senior Physicist, assists in the planning and development of radiotherapeutic procedures, provides a radiation protection service and prepares radium and radio-isotope appliances. In addition, it operates a workshop which undertakes the maintenance, repair and calibration of all Government radiological and physics equipment and produces numerous gadgets for the improvement and development of radiological techniques.

DENTAL SERVICE

253. The Government Dental Service, under the direction of the Senior Dental Specialist, provides a general dental service for the Civil Service and a School Dental Service. In addition, emergency dental treatment is given to patients in Government hospitals, in Her Majesty's Prisons and at certain of the Government out-patient clinics.

254. There was a rapid expansion of the general service during the year, seven new dental clinics, comprising thirteen surgeries, being opened. Of these, the most notable was a three-surgery clinic, situated in the Central Government Offices, which incorporates a number of innovations including high volume suction apparatus designed and made in Hong Kong. The expansion of the work can be seen in Table 30.

TABLE 30
WORK OF THE GENERAL DENTAL SERVICE

	1959	1960
Dental Surgeries	16*	29*
Attendances by Government Officers ...	27,026	39,018
Attendances by Dependants of Government servants	27,615	42,216
Attendances by General public	19,907	24,789
Total attendances	<u>74,548</u>	<u>106,023</u>

* Figure includes one mobile unit used partly for School Dental Services.

255. Six school dental clinics are maintained for participants in the School Health Service. Although the proportion of fillings compared to extractions continues to rise, over nine thousand extractions were necessary during the year. It is confidently expected that this indication to the extent of dental caries in children in Hong Kong will be considerably reduced in a few years' time as a result of the fluoridation of the Colony's water supply.

256. Delays continue to occur in starting routine inspections and treatment in persons not suffering from emergency dental conditions.

Even greater delays occur in the provision of prosthetic appliances, owing to the shortage of dental technicians. The appointment of a qualified Dental Technologist during 1960 and the establishment in December 1960 of a course of training in dental technology, for six students annually, at the Hong Kong Technical College should materially improve this situation in the near future.

Dental Services provided by Welfare and Missionary Organizations

257. A number of welfare organizations maintain free or low-cost dental clinics, many dentists in private practice giving their services free of charge for this purpose. The Hong Kong Dental Society also operates free evening clinics in the urban areas. The St. John Ambulance Brigade opened a dental clinic in its Hong Kong Headquarters' building for the treatment of under-privileged children by civilian and military dentists who give their services without charge. Two mobile dental clinics provide free or low-cost dental treatment for poor people in the New Territories, in resettlement areas and in orphanages; one unit is maintained by the Church World Service and the other by the Lutheran World Service.

Control of Dental Practice

258. Two Dental Inspectors were employed throughout the year in connexion with the supervision and control of private dental practice, including regular inspections of premises. There were fourteen prosecutions for alleged dental practice by unregistered persons, and seventeen individuals were convicted of this offence.

OPHTHALMOLOGY

259. This Service, under the direction of the Ophthalmic Specialist, operates two full-time centres, one on Hong Kong Island and one in Kowloon. It also holds regular sessions in a number of urban and rural clinics. In addition, the Mobile Ophthalmic Unit, maintained by the Hong Kong Branch of the British Red Cross Society for work in the New Territories, was staffed during the year by members of the Service. Operative procedures have been limited to a certain extent by shortage of beds, but much surgery is now carried out in the operating theatres of the two main clinics, the patients being followed-up by Health Visitors. During 1960, over eighty per cent of the operations performed were on an out-patient basis and the complications arising have not exceeded those that would be expected after comparable surgery in hospitals. Refraction clinics are maintained for participants in the School Health

Service and an ophthalmic workshop provides spectacles, on a fee-paying basis, to those children requiring them.

TABLE 31

WORK OF THE OPHTHALMIC SERVICE 1959-60

	1959	1960
New out-patient attendances	73,846	79,075
Total out-patient attendances	161,302	192,397
Operations performed	4,787	5,001
Home visits by Health Visitors	2,562	3,370
Spectacles provided for children	2,702	2,392

260. A survey of blind persons was conducted during 1960 on similar lines to that undertaken in 1953. The most important change has been the marked decrease in the importance of blindness ascribed to keratomalacia; only two children were discovered to have been blinded by this deficiency disease during the past seven years. Blindness due to trachoma has remained at a comparatively constant level, but all such patients are over the age of forty and no new cases are presenting in children. There is a marked increase in blindness due to geriatric causes. The details of the two surveys are shown in Table 32.

TABLE 32

INCIDENCE OF BLINDNESS BY CAUSE IN HONG KONG 1953 AND 1960

Cause	Percentage of Total Blind Persons	
	1953	1960
	Keratomalacia	44	15
Cataract	16	42
Trachoma	11	12
Injury and infection	10	7.5
Syphilis	6	4
Congenital defects	4	3
Glaucoma	3.5	9
N.S. Uveitis/Optic Atrophy	2.5	6
Others	3	1.5
	<u>100.0</u>	<u>100.0</u>

FORENSIC PATHOLOGY

261. All medico-legal work in connexion with the investigation of crime is carried out from laboratories situated in the Police Headquarters building. The laboratories, under the direction of the Principal Forensic Pathologist, are staffed jointly by the Medical and Health and

Police Departments. Lectures are given in various aspects of medico-legal work to Police personnel and the Principal Forensic Pathologist is Lecturer in Forensic Medicine in the University of Hong Kong. Work undertaken during 1960 is detailed in Table 33.

TABLE 33

WORK OF THE FORENSIC PATHOLOGY LABORATORIES 1960

Examinations of victims and suspects	412
Attendances at scenes of crime	160
Attendances at court	105
Medico-legal post-mortems	507
Medico-legal examinations of weapons	89
Examinations of hair, fibres and other slides	465
Examination of clothing	721
Examination of miscellaneous articles	445
Blood-grouping (Medico-legal)	1,977
Blood-grouping (Police Officers)	492
Lectures to Police Officers	32
<i>Assistance in Raids</i>	
Breaches of Pharmacy and Poisons and Penicillin Ordinances	93
Unregistered Medical Practitioners	28
Abortionists	5
Unregistered Dental Practitioners	16

Public Mortuaries

262. Two public mortuaries are maintained by Government, one on Hong Kong Island and the other in Kowloon. It is to these institutions that all cases of sudden, unnatural or uncertified death are brought; hence they lie correctly within the sphere of forensic pathology. Consequently, in May 1960, the mortuaries were transferred from the control of the Government Pathologist to that of the Principal Forensic Pathologist. At the same time, administrative arrangements were made with the judiciary to expedite the formalities concerning the issue by Coroners of permission to undertake post-mortem examinations and of permits for burial.

263. An account of the work done in the Mortuaries is in Table 34.

TABLE 34

PUBLIC MORTUARIES 1960

	Victoria	Kowloon
Total number of bodies received	1,271	2,616
Total number of autopsies performed	1,161	2,377
Number of bodies claimed	746	1,162
Number of bodies unclaimed	525	1,454

TABLE 34—(Contd.)

		Victoria	Kowloon
Deaths due to natural causes	...	993	2,159
Deaths due to unnatural causes	...	278	457
Sex	{ Male	838	1,620
	{ Females	433	995
	{ Unknown	—	1
Race	{ Chinese	1,261	2,606
	{ Non-Chinese	10	10
Age groups	Over 60 years	247	311
	45 - 59 years	303	456
	30 - 44 years	225	365
	15 - 29 years	89	211
	1 - 14 years	202	479
	1 month - 1 year	118	431
	Under 1 month	87	360
Age unknown	—	3	
Still births received	...	15	175

GOVERNMENT CHEMIST'S LABORATORY

264. This laboratory carries out a wide range of analytical and consultant work for Government Departments, for the Armed Services and for commercial and industrial concerns.

265. The work of the laboratory increased by seven per cent during the year compared to 1959, and is outlined in Table 35. During the year the major part of the work was concerned with biochemical analyses and with the examination of narcotics.

TABLE 35

WORK OF THE GOVERNMENT CHEMIST'S LABORATORY 1960

	Samples Analysed
Biochemical	20,230
Narcotics Control	13,724
Dutiable Commodities	7,148
Water & Waterworks Chemicals	731
Food & Drugs	353
Forensic	1,029
Toxicology	723
Dangerous Goods Regulations	230
Commercial	492
Import/Export (Prohibition) (Specified Articles) Orders	11
Miscellaneous	553
Total	45,224

266. The chemical examination of public water supplies is carried out as a routine, as are analyses of samples of food and drugs for adulteration. Apart from the close co-operation with the Police Department in narcotics control, a wide field of exhibits were examined in connexion with crimes ranging from acid-throwing and manslaughter by motor vehicle to counterfeiting. Of interest has been the use of paper chromatography for such diverse purposes as the identification of ink in a forgery case and the proof that certain discharged oil came from a particular ship.

267. Toxicological examinations were predominantly for cases of human poisonings, either accidental or suicidal, for homicidal poisoning is rare in Hong Kong. Only one accidental death from parathion poisoning was seen during the year, as the import of this very dangerous organophosphorous insecticide is now prohibited. Suicide by poisoning is common, the much less toxic organophosphorous compound malathion being the most widely used, followed in frequency by barbiturates and cyanide.

268. Work in connexion with dutiable commodities was carried out for the Department of Commerce and Industry and the checking of standards of a wide variety of commodities was undertaken for the Government stores and for certain commercial firms. Analyses of alleged inflammable materials and other dangerous goods are carried out for the Department of Fire Services. In this connection an investigation was undertaken into a tenement fire, followed by an explosion, in which seven people lost their lives; this was traced to the storage of organic blowing agents used in the manufacture of foam rubber and the storage and use of such agents have now been placed under control.

269. In the industrial health field, a survey was undertaken, in conjunction with other Departments concerned, into the occurrence of methane gas in wells in the Kwun Tong industrial area and experiments are continuing into methods of controlling this problem.

270. A native sulphide of arsenic, known locally as 'Hung Wong', is widely used in traditional Chinese medicine, particularly in powders for insufflation into the mouth and pharynx. This is a formal contravention of the Pharmacy and Poisons Ordinance, but chemical analysis and subsequent animal feeding experiments have shown that 'Hung Wong' is not assimilated to any appreciable extent and that its administration, either internally or externally to the skin, produces no ill-effects. However, as an irritant powder when insufflated into the inflamed or infected throats of children it has given rise to unfortunate

complications. Meetings were held with the Herbalists Guilds to seek their co-operation towards the abolition of this form of traditional medication.

GOVERNMENT INSTITUTE OF PATHOLOGY

271. For over fifty years the pathology services of the Medical and Health Department have been conducted from premises in Caine Lane on Hong Kong Island. In July 1960, the Government Institute of Pathology moved into modern and more commodious premises in the Jockey Club Clinic, Sai Ying Pun, retaining part of the old building for the purpose of vaccine production only.

272. The Government Institute of Pathology provides clinical pathology and public health laboratory services and branches are maintained in the Kowloon, Castle Peak and Lai Chi Kok Hospitals; at the Queen Mary Hospital, all routine clinical pathology, excluding medico-legal work, is carried out by the University Department of Pathology.

273. All branches of public health bacteriology and of clinical pathology are provided at the Government Institute including a newly-established chemical pathology division; the work undertaken has increased by 12.4% compared to 1959. At Appendix 15 is a summary of the examinations carried out at the Institute and its branches during 1960.

274. In the field of haematology, 2,942 members of the Auxiliary Medical Services were blood-grouped during the year by staff of the Institute. Incidental to this very necessary measure a picture of the A.B.O. distribution amongst southern Chinese was obtained. Results are shown in Table 36.

TABLE 36

BLOOD GROUPS IN AUXILIARY MEDICAL SERVICE PERSONNEL

Blood Group	Chinese		Non-Chinese	
	Total	Percentage Frequency	Total	Percentage Frequency
O	1,140	40.16	51	48.57
A	781	27.60	39	37.15
B	699	24.62	10	9.52
AB	217	7.62	5	4.76
Total	2,837	100.00	105	100.00

Virus Laboratory

275. A small Virus Laboratory, established in conjunction with the Department of Pathology in the University of Hong Kong, started work in May 1960. Apart from the surveys on poliomyelitis described in paragraphs 85 to 87 of this report, the laboratory has carried out virus diagnostic work, mainly in the field of influenza and enteroviruses, and has prepared its own stock of neutralising sera.

276. Primary monkey kidney cell tissue is employed chiefly for the cultivation and identification of viruses, but Hela cell cultures and amnion cell cultures are also used.

Hospital Mortuaries

277. In May 1960, the supervision of the two public mortuaries was transferred to the Principal Forensic Pathologist. However, medico-legal autopsies on patients dying in the Queen Mary or Kowloon Hospitals are performed by medical officers on the staff of the Government Institute of Pathology.

Examinations of Rodents

278. Technicians from the Institute of Pathology continue to examine, as an anti-plague measure, all specimens sent to the public mortuaries by the Pest Control Section of the Urban Services Department. These examinations which are performed in an unit attached to these mortuaries are detailed in Table 37.

TABLE 37

EXAMINATIONS OF RODENTS 1960

Number of rats examined	324,376
Number dissected and examined microscopically	123,093
Number subjected to complete bacteriological examination	120
Number found infected	Nil

Vaccine Production

279. The Government Institute of Pathology prepares a number of vaccines which are used by the Medical and Health Department or distributed free to registered medical practitioners as a public health measure. The amounts prepared and issued during 1960 are listed in Table 38.

TABLE 38

VACCINE PRODUCTION 1960

	<i>Amount Prepared</i>	<i>Amount issued</i>
Anti-smallpox vaccine	50,396 mls.	23,377 mls.
Anti-rabies vaccine 2%	32,280 mls.	37,080 mls.
Anti-rabies vaccine 4%	29,240 mls.	28,000 mls.
Anti-typhoid-paratyphoid vaccine (Adult)	61,350 mls.	36,600 mls.
Anti-typhoid-paratyphoid vaccine (children)	71,800 mls.	44,650 mls.
Anti-plague vaccine	28,060 mls.	600 mls.
Anti-cholera vaccine	—	34,750

P.P.D. Tuberculin diluted and issued 8,550 mls.

THE PHARMACEUTICAL SERVICE

280. The purchase of drugs, dressings and instruments and their distribution to Government and, to a lesser degree, to certain Government-assisted institutions is the responsibility of the Pharmaceutical Service under the direction of the Chief Pharmacist.

281. During the year the headquarters of the Service was able to expand its previously limited accommodation at the Central Medical Store, located at North Point on Hong Kong Island. There is also a branch Medical Store in Kowloon which acts as the distribution centre for Kowloon and the mainland part of the New Territories. Manufacture in bulk of certain pharmaceuticals is undertaken at both these centres and fluids for parenteral administration are prepared at North Point and at the Queen Mary Hospital.

282. The Chief Pharmacist, who is a member of the Pharmacy Board, has important responsibilities in connexion with the enforcement of the Ordinances dealing with Dangerous Drugs, Pharmacy and Poisons and the control of antibiotics. He has a staff of qualified pharmacists of whom two are occupied full-time on inspectorial duties. The inspection of premises, both manufacturing and retail, and of their records, is carried out regularly.

TABLE 39

WORK OF THE PHARMACEUTICAL SERVICE 1959-60

	1959	1960
Parenteral fluids prepared	104,325 litres	116,000 litres
Other sterile preparations	106,362 items	120,475 items

TABLE 39—(Contd.)

	1959	1960
Wholesale Poisons Licences issued	350	414
Authorized Sellers Licences issued	32	32
Listed Sellers Licences issued (Part II Poisons only)	282	536
Antibiotic Permits issued	203	223
Licences for movements of Dangerous Drugs	309	294
Premises inspected	1,104	1,625
Prosecutions initiated	3	25

THE ALMONER SERVICE

283. Under the conditions existing in Hong Kong there is a vast amount of medical social work necessary to support the curative services; the provision of this facility is the responsibility of the Principal Almoner whose staff of Almoners is distributed amongst the hospitals, the larger clinics and certain specialist services. Responsibilities additional to the day to day medical social work include the administration of the Samaritan Fund and of the Special Treatment vote, the distribution of free foods donated by various welfare organizations and the in-service training of newly-recruited almoners. The Almoner Service also participates in the training of medical and social-studies students and of social workers undergoing in-service training in various other Government departments.

284. At the Queen Mary and Kowloon Hospitals much of the work of the Almoners was devoted to the orthopaedic service, particularly in connexion with accidents and early rehabilitation. In the Queen Mary Hospital considerable time was devoted to patients with cancer undergoing radiotherapy. In the convalescent wards of Lai Chi Kok Hospital, the most difficult problem that continued to arise was the finding of suitable employment for the disabled.

285. At the Tsan Yuk Maternity Hospital the Almoners arranged for diversional therapy to be started, through the good offices of the Hong Kong Branch of the British Red Cross Society, amongst women who spend prolonged periods in the hospital due to various complications of pregnancy.

286. With the opening of the Castle Peak Hospital and the establishment of a mental day hospital, there was an increase in the number of Almoners working in the Mental Health Service. An important and additional aspect of the work has been the collection of the social histories of patients requesting admission to the Drug Addiction Centre

and the provision of social assistance to the families of patients undergoing treatment there.

287. At the larger out-patient clinics, the medical-social needs of various aspects of the general curative service are met as far as possible and certain Almoners work full-time with the Tuberculosis, Ophthalmic and Social Hygiene Services, particularly in the leprosy branch of the latter.

288. The assistance and co-operation of the Family Welfare Society, the Church World Service, the Lutheran World Service, C.A.R.E., the Family Planning Association, the Hong Kong Branch of the British Red Cross Society and the Po Leung Kuk in the medical social work are gratefully acknowledged. The Social Welfare Department continued to give close and valuable co-operation in this field.

Samaritan Fund

289. Expenditure from this fund rose by \$569.75 to a total of \$15,057.50 during 1960. As in previous years, most of the grants were in the form of travelling expenses and the re-imbusement of loss of earnings to the escorts of disabled patients.

Special Treatment Vote

290. With the establishment of the Surgical Appliances Section of the Department a wider range of assistance can be given to amputees and to other physically disabled persons. Consequently there was a marked increase in expenditure from this vote, rising from \$20,518 in 1959-60 to \$31,730 in 1960-61.

PHYSIOTHERAPY

291. The Headquarters of this service is at the Physiotherapy Training School which was opened during the year in part of the old Pathology Institute on Hong Kong Island. Physiotherapy units are maintained in the Queen Mary, Kowloon and Lai Chi Kok Hospitals and in the Wan Chai Polyclinic; regular visits are also paid to the Castle Peak Hospital.

292. Clinics for post-poliomyelitis cases are held at the Wan Chai Polyclinic and in the Kowloon Hospital where treatment and the fitting of appliances is carried out on the advice of the orthopaedic surgeons; hydrotherapy tanks are available at both centres. The size of the classes of children being taught medical exercises increases steadily and all the mothers are also taught how these exercises can be continued in the

home. In a number of cases very irregular attendances has prevented any improvement in the condition of the children and Health Visitors of the Maternal and Child Health Service assist by paying home visit to stress the importance of continued physiotherapy.

293. At the Queen Mary Hospital the number of pre and post-operative chest surgery cases referred for physiotherapy have shown a steady increase and the regular supervision of breathing and other exercises has produced excellent results. There has been further expansion of the work of the physiotherapists in connexion with the work of the Neurosurgical Specialist.

294. For the convalescent cases at Lai Chi Kok Hospital, there is close co-operation with the occupational therapists in rehabilitation, particularly of the orthopaedic cases. There is a slowly growing number of paraplegic patients in this hospital and, although each is now provided with a wheel chair, their return to normal community life is made difficult by prevailing housing conditions and by difficulty in obtaining suitable employment.

ORTHOPAEDIC AND PROSTHETIC APPLIANCES

295. The appointment of a Surgical Appliance Technician has enabled an expansion in the numbers and variety of prostheses which can be produced in Hong Kong. During the year the major part of the work has been directed at developing methods for the production of artificial legs which are suitable for the climatic and social conditions existing in Hong Kong. This has included an investigation into methods of reducing the time required for their production, while retaining the standards normally attained only by experienced artisans of long standing.

296. Two student technicians were recruited for training in this field and efforts are being made to encourage local suppliers of appliances to improve their standards.

OCCUPATIONAL THERAPY

297. The Senior Occupational Therapist, assisted by a staff of Occupational Therapists and Handicraft Instructors, is responsible for providing diversional, specific occupational and re-educative therapy throughout the Department. These activities are concentrated in the institutions where there are 'long-stay' patients, namely the Queen Mary, Castle Peak and Lai Chi Kok Hospitals, while a small unit has been

maintained in the Mental Day Hospital on Hong Kong Island following on the transfer to Castle Peak Hospital of all in-patients of the Victoria Mental Hospital.

298. A sum of \$69,500 was available for the purchase of raw materials and miscellaneous stores and for the provision of 'incentive payments'. Articles produced were sold by the Welfare Handicrafts shop in Kowloon and at the Annual Exhibition of Crafts at the Mental Hospital. In addition, a number of items such as brooms and waste paper baskets are made in quantity for the Government Stores Department.

299. Incentive payments are made to patients in the Castle Peak Hospital who produce articles for sale; this money is used to pay for entertainments such as film shows, Chinese operas, concerts and Chinese dinners. A wide range of articles is produced including paintings, rattan and wooden furniture, baskets of many types, toys, needlework, tapestries and woven articles.

300. The opening of the Drug Addiction Centre in the Castle Peak Hospital has created certain problems in the provision of diversional therapy; a start has been made by the provision of musical instruments and by the organization of physical exercises and ball games. A wider variety of activities is being developed in order to prepare the discharged addicts for resumption of their employment and their re-integration into the community.

301. At the Queen Mary Hospital occupational therapy has been gradually increasing, mainly amongst longer-stay patients suffering from tuberculosis or from orthopaedic conditions which require therapy designed for the early rehabilitation of injured limbs.

302. At Lai Chi Kok Hospital there is a wide field for both specific and diversional occupational therapy, and archery and quoit games have been commenced for wheel-chair patients. Close co-operation has been maintained with the Physiotherapy Department, particularly in the assistance of disabled patients in the re-acquisition of skills for the essential activities of daily life.

MEDICAL EXAMINATION BOARD

303. This Board performs the medical examination of all new entrants to the Government and the Auxiliary Defence Services. Members of the Civil Service prior to confirmation to the permanent establishment, promotion, or transfer outside Hong Kong are also medically

examined by the Board. In addition, work is carried out for countries which require prospective emigrants to submit a certificate of physical fitness. Each examination involves a comprehensive physical examination, certain routine laboratory investigations, an X-ray of the chest and any other special investigations which may be considered necessary. Specialist advice is available from the Government clinical units.

304. The work continued to increase during 1960, and it was found necessary to post an extra medical officer to the Board for a period of four months to assist in reducing the waiting list. The work of the year is summarized in Table 40.

TABLE 40
WORK OF THE MEDICAL EXAMINATION BOARD 1959-60

	Govt. Appointments		Aux. Defence Units		Miscellaneous		Total	
	1959	1960	1959	1960	1959	1960	1959	1960
New examinations ..	7,125	6,284	2,192	2,187	137	99	9,454	8,570
Re-examinations ..	3,764	5,433	2,436	3,902	81	76	6,281	9,411
Annual Total ..	10,889	11,717	4,628	6,089	218	175	15,735	17,981

305. Of the persons referred for a specialist opinion, the great majority are suffering from abnormalities of the respiratory system. Pulmonary tuberculosis accounts for the rejection of 88.5% of all persons rejected as unfit for service. The analysis of the causes of rejection is given in Table 41.

TABLE 41
UNFITNESS BY CAUSES 1959-60
(per 1,000 total examination)

	1959	1960
Pulmonary Tuberculosis	60.12	41.27
Diseases of the Respiratory System (excluding tuberculosis)	2.41	1.84
Diseases of the Circulatory System	2.66	1.06
Diseases of the Alimentary System	1.01	0.11
Diseases of the Skeletal System	0.50	0.06
Diseases of the Genito-urinary System	0.50	0.33
Diseases of the Nervous System	0.57	0.44
Diseases of the Endocrine System	0.38	0.39
Diseases of the Eye System	1.90	0.22
Diseases of the Skin System	0.69	0.06
Miscellaneous diseases	1.14	0.83
Total	71.88	46.61

306. The Board also undertakes the immunization of candidates appointed to posts which carry special risks. Immunization procedures consist of tuberculin testing and Schick testing followed by B.C.G. or diphtheria toxoid vaccination as required and T.A.B. inoculations.

BLOOD BANKS

307. 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 Queen Mary and Kowloon Hospitals; the laboratory work in connexion with blood donations was undertaken by the Government Institute of Pathology.

308. Although the greater part of the blood donated again came from members of the Armed Services or from visiting Royal Navy and United States warships, there is a gradually increasing band of regular donors amongst the Chinese residents and the Donors 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 is donated directly to the Blood Banks by relatives of patients in the various hospitals. The sources and distribution of blood received by the Blood Banks during the past two years are detailed in Tables 42 and 43.

TABLE 42

SOURCES OF BLOOD DONATED 1959-60

British Red Cross Society	...	...	...	6,860 pints
Patients' Relatives and Friends	...	...	...	712 pints
Other sources	...	...	...	74 pints
Total received	...	...	...	<u>7,646 pints</u>

TABLE 43

DISTRIBUTION OF BLOOD 1959-60

Government Hospitals	...	...	...	5,383 pints
Government-Assisted Hospitals	...	...	...	1,400 pints
Private Hospitals	...	...	...	231 pints
Military Hospitals	...	...	...	15 pints
Manufacture of Plasma	...	...	...	105 pints
Unusable due to various causes	...	...	...	400 pints
Total issued	...	...	...	<u>7,534 pints</u>

HOSPITAL MAINTENANCE AND SUPPLY

309. This branch of the Medical and Health Department is the responsibility of the Chief Hospital Secretary, assisted by a staff of Hospital and Assistant Hospital Secretaries. There are two group Hospital Secretaries, one at the Queen Mary Hospital and the other at Kowloon Hospital, who are responsible for the routine supply and lay administration of the medical institutions on their respective sides of the harbour. In addition, one Hospital Secretary is working in the Planning Unit at Headquarters and another is stationed at the Castle Peak Hospital. Assistant Hospital Secretaries are posted to major institutions within the two main groups.

310. The function of this branch is the maintenance of the routine administrative work in the hospitals and clinics. This includes the supply of fuel, rations and medical and surgical equipment, the maintenance of equipment and furniture, the recruitment and discipline of all male menial staff, the maintenance of transport, the accounting for hospital stores, and the initiation of alterations, maintenance and repair work to the fabric of buildings. The Chief Hospital Secretary is also the Departmental Welfare Officer and the U.N.I.C.E.F. Liaison Officer.

311. During the year, preparations were made to transfer the day-to-day running and maintenance of the steam and engineering services in the major institutions to the Electrical and Mechanical Engineering branch of the Public Works Department.

Staff Welfare

312. The Medical and Health Department Staff Welfare Association was inaugurated in July 1960, an event closely followed by the formation of a Branch of the Association in Kowloon. Staff recreation centres are provided in the Queen Mary and Kowloon Hospitals and the Association continues to support a number of welfare schemes to aid the families of members or of pensioners; notable assistance was rendered to an Hospital Orderly whose house collapsed during Typhoon Mary with the consequent loss of many of his possessions.

313. A new departure has been undertaken in the Jockey Club Clinic, Sai Ying Pun, where the staff canteen and a light refreshment kiosk for out-patients are being administered by the Association.

314. Staff relations continued to be very good and there were very few cases requiring disciplinary action, in relation to the size of the staff concerned.

U.N.I.C.E.F. Projects

315. Despite supply difficulties encountered by U.N.I.C.E.F. during the early part of the year, the skimmed milk distribution was reduced by less than 10 per cent; 102,852 lbs. of milk powder were distributed to welfare organizations throughout the Colony and the total number of supplementary meals given at feeding centres was 1,096,589.

AUXILIARY MEDICAL SERVICE

316. Recruitment for the Auxiliary Medical Service was continued under the provisions of the Essential Service Corps Ordinance, 1950. The Service reached a strength of over 4,500 men and women who, in the event of a major emergency, are trained and available for the expansion of hospital and ambulance services. The Medical Defence Staff Officer is responsible for the routine administration and training activities. The Director of Medical and Health Services is the Unit Controller. The ambulance and first aid sections of the Service come under the operational control of the Civil Aid Services during an emergency.

317. By March 1961, three sub-units were active in the New Territories at Tai Po, Tsuen Wan and Cheung Chau and are progressing well. During Typhoon 'Mary' the members of the sub-unit on Cheung Chau rendered valuable aid in rescue and welfare operations.

318. Emphasis is on training and the First Aid Demonstration teams, one on each side of the harbour, have continued to do very good work. Members of ambulance teams have attended the Casualty Department of the Queen Mary Hospital regularly at week-ends and have gained valuable experience in the expert handling and treatment of casualties; others have been attached to the Ambulance division of the Fire Services Department where they gain valuable practical experience.

319. Co-operation with the Civil Aid Services continued to be of a high standard. During the year, four combined Civil Defence Exercises were staged which covered most of the urban areas of the Colony. The use of wound-faking and acting techniques have contributed considerably to the attainment of a marked degree of realism during these exercises.

320. Over sixty per cent of the members of the Auxiliary Medical Service had their blood groups determined during the year, and a further eighteen per cent notified their individual grouping.

TABLE 44

WORK OF THE AUXILIARY MEDICAL SERVICES 1960

Total members	4,558
Number of qualified Auxiliary Dressers	996
Number of qualified Auxiliary Nurses	380
Number of qualified Drivers	150
Courses of Instruction:	
Basic First aid	35
Basic Auxiliary Dressers	56
Auxiliary Dressers Ward Course	49
Auxiliary Nurses Hospital Training	111
Ward Refresher Course	504
Telephonists/Message writing	75
Driving	32
Storekeeping	46

V. TRAINING PROGRAMME

DOCTORS

321. Undergraduate training is carried out at the University of Hong Kong which confers the degrees of M.B., B.S., recognized by the General Medical Council of the United Kingdom. At the present between 35 and 50 students graduate each year from the Faculty of Medicine, but the University, in consultation with the Medical and Health Department, has planned to expand facilities to enable an annual output of eighty doctors.

322. Post-graduate training for higher qualifications is under the supervision of the Panel on Post-Graduate Medical Education which consists of University and Government members. A number of clinical posts in the major hospitals are recognized for post-graduate training by the majority of the examining bodies in the United Kingdom. In most specialist fields, the Department is now assured of an adequate supply of doctors holding higher qualifications who will be needed for the staffing of the Queen Elizabeth Hospital. Certain specialities such as anaesthetics and psychiatry do not as yet attract a sufficient number of recently-qualified doctors to enable a satisfactory training programme to develop.

323. For the third year in succession, the Part I examinations for the Diplomas in Medical Radiology in Diagnosis and Therapy were held in the Colony and the assistance of the Examining Board in England in according this facility is gratefully acknowledged.

DENTISTRY

324. To meet Hong Kong's need for more dentists, Government awards annually seven scholarships to candidates selected by a Committee consisting of members of the Department and of the University. By the end of March 1961, there were thirty five Government dental scholars studying in Australian Universities; six scholarship students returned to Hong Kong having graduated as Bachelors of Dental Surgery in the University of Malaya.

325. Three dental nurses assumed duty in Hong Kong after training overseas, two in New Zealand and one in Penang; no student dental nurses were sent for training during the year. The role of the Dental Nurse is to carry out preventive and minor operative work under the supervision of a Dental Officer and so enable the dental surgeons to concentrate on the major aspects of conservative and curative dentistry.

NURSES

326. One of the major events of the year was the opening by His Excellency the Governor in September 1960, of the Sisters' and Nurses' Quarters and the School of Nursing at the Queen Elizabeth Hospital. It is anticipated that during the next five years an output of 120 trained nurses each year will be required to staff the new hospitals and clinics planned or under construction. This new School has doubled the Government facilities for the training of nurses, the other Nurses' Preliminary Training School remaining at the Queen Mary Hospital.

327. The new School of Nursing is a two-storied building connecting the nurses' quarters and the sisters' quarters for the Queen Elizabeth Hospital. It contains two air-conditioned lecture theatres, two model wards, a diet kitchen, libraries and study rooms and it is equipped with all modern teaching aids.

328. There is full reciprocity of registration between the Nursing Board in Hong Kong and the General Nursing Council of England and Wales. In Government hospitals the medium of instruction is English, while in the other approved nurses' training schools, which are at the Tung Wah Hospitals, the Alice Ho Miu Ling Nethersole Hospital and the Hong Kong Sanatorium and Hospital, the teaching is carried out in Chinese. Each year a number of qualified nurses go overseas to gain further experience in different aspects of nursing.

329. At the Castle Peak Hospital a course of training for the Registered Mental Nurse Certificate of the Nursing Board is conducted

by a qualified Tutor. However, female applicants for training in Psychiatric Nursing have been very few, largely due to prejudice and a lack of understanding of modern mental hospital techniques.

MIDWIVES

330. Registered general nurses who have trained in the Government Schools of Nursing are expected to proceed to a one-year course in midwifery, conducted in English as the teaching medium, in the maternity wards of the Queen Mary and Kowloon Hospitals. Nurses who have trained in the other approved training schools can also take a similar course, conducted in Chinese, in the maternity wards of their respective hospitals.

331. For student midwives who are not registered nurses there is a two-year training course conducted in Chinese by Government staff at the Tsan Yuk Hospital.

HEALTH VISITORS

332. As in previous years, a course of training was held at the Harcourt Health Centre for ten student Health Visitors. Each entrant to this course has previously obtained qualifications both in general nursing and in midwifery. After one year's tuition and study, the students take the examination for the Health Visitor's Certificate which is conducted by the Hong Kong Examination Board of the Royal Society for the Promotion of Health.

RADIOGRAPHERS

333. The training for radiographers at the Queen Mary Hospital in radiodiagnosis is recognized by the Society of Radiographers in the United Kingdom. Examinations for both Parts I and II of the Membership of the Society have been held annually in the Colony for a number of years.

LABORATORY TECHNICIANS

334. The Government Institute of Pathology is recognized by the Institute of Medical Laboratory Technology in the United Kingdom as a teaching laboratory from which entrance can be gained directly to the Intermediate examination of the Institute. Up to and including 1960, it has been necessary for the students to go to the United Kingdom to sit this examination and to subsequently undergo a further period of instruction there for qualification for entrance to the Associateship