

Chapter 8

Health

The Government aims to ensure no one in Hong Kong is deprived of medical care because of lack of means. It provides a wide range of public services and facilities to meet the healthcare needs of the community. It also works endlessly to safeguard public health — combating infectious diseases and promoting health education. Second-hand smoking is dealt with severely. The law on tobacco control has been further strengthened, and smoking in most indoor and outdoor places such as restaurants, bars, offices and leisure grounds is now banned.

2006 Figures at a Glance

<i>Infant Mortality Rate</i>	1.8 per 1 000 registered live births	
<i>Maternal Mortality Ratio</i>	0.0 per 100 000 registered live births (Nil cases of registered maternal death)	
<i>Life Expectancy 2006</i>	79.5 (Male)	85.6 (Female)
<i>2033</i>	82.5 (Male)	88.0 (Female) <i>projected</i>

Hong Kong has a quality healthcare system supported by a highly professional team of healthcare workers. The infant mortality rate has declined steadily over the past 20 years to become the lowest in the world in 2006. Hong Kong people's life expectancy has improved notably. In 2004, male life expectancy was 79 years, the highest in the world; while female life expectancy at 84.8 years was the third highest, or slightly lower than that of Japan and Monaco.

But Hong Kong's healthcare system comes at a price. According to the Government's Domestic Health Accounts (DHA)¹, Hong Kong's health bill increased from 3.8 per cent of GDP in 1989-90 to 5.5 per cent in 2001-02.² The Government's share of this expenditure rose from 43 per cent to 57 per cent in the same period. The Government's total spending on health-related matters in the 2004-05 financial

¹ A series of accounts compiled over the years in accordance with the International Classification for Health Accounts (ICHA) Framework developed by the Organisation for Economic Cooperation and Development to keep track of Hong Kong's health spending and to allow for international comparison.

² The statistics from Domestic Health Accounts for 2004-05 were not yet available at the time of publication.

year amounted to \$37.8 billion, equivalent to 14.7 per cent of total public expenditure, or 2.9 per cent of GDP. Hong Kong's ageing population, rising expectations of healthcare, and soaring medical costs pose a challenge for the Government in the long run and is a matter of concern to the community.

Organisational Framework

The Health, Welfare and Food Bureau is responsible for, among other things, formulating policies and allocating resources for the running of Hong Kong's health services. It also oversees the implementation of these policies to protect and promote public health, provide lifelong holistic healthcare to every citizen of Hong Kong, and ensure that no one is denied adequate medical treatment through lack of means.

The Department of Health is the Government's health adviser and agency to execute healthcare policies and statutory functions. It safeguards the community's health through a range of promotional, preventive, curative and rehabilitative services.

The Hospital Authority is a statutory body established in 1990 under the Hospital Authority Ordinance to provide public hospital and related services. It offers medical treatment and rehabilitation services to patients through hospitals, specialist clinics, general outpatient clinics, and outreaching services that are administratively organised into seven clusters together covering the whole of Hong Kong.

The Health and Medical Development Advisory Committee, chaired by the Secretary for Health, Welfare and Food, has 12 members drawn from different sectors of the community. Its role is to review regularly the way healthcare services are provided in Hong Kong and to draw up a long-term plan for maintaining and financing quality services. In July 2005, the Committee issued a discussion paper on the desired future healthcare service delivery model, which won wide public support. Its key recommendations included:

- (a) paying greater attention to primary health care and promoting the family doctor concept;
- (b) more collaboration and cooperation between the public and private sectors and focusing the public sector in its priority areas;
- (c) caring for the elderly, patients with chronic diseases, and patients in the rehabilitation stage in the community as far as possible; and
- (d) making use of information technology to establish a territory-wide electronic patient record system.

The recommendations in the discussion paper are being gradually taken in hand and implemented. Issues related to healthcare reform and financing arrangements are now being studied with a view to initiating public consultation in 2007.

Primary Healthcare Services

Primary health care is the first point of contact where individuals and their families are subject to a continuing healthcare process, which aims at avoiding hospitalisation and improving their health condition in general.

Clinic Services

Public general outpatient services are primarily targeted at low-income families, patients with chronic diseases and other vulnerable groups. Throughout the territory, the Hospital Authority operates 75 general outpatient clinics. In 2006, about 4.9 million visits by 1.3 million patients were recorded at those clinics. Since October 2006, appointments for consultation can be made by telephone. Some \$1.3 billion were spent on public general outpatient services in the financial year 2005-06. There were continuing efforts at these clinics to promote the development of family medicine and enhance the interface and integration of primary and secondary care, as well as enhance the quality and efficiency of primary healthcare services.

To promote the development of 'evidence-based' Chinese medicine practice and to enhance training opportunities for local Chinese medicine graduates, the Hospital Authority has opened five new Chinese medicine outpatient clinics in 2006, increasing the total number of Chinese medicine outpatient clinics from three to eight.

In 2006, a subvention of \$32.4 million was provided for the clinics. A total of 25 793 patients made an aggregate of 132 062 visits to the eight clinics and 37 graduates were newly recruited.

The majority in the community seek outpatient services from the private sector, provided by around 6 000 medical practitioners in private practice and 165 clinics registered under the Medical Clinics Ordinance. Services from 5 268 registered, 68 limited registered and 2 897 listed Chinese medicine practitioners in private practice are also available.

It has been estimated that there are about 27 million and 6 million outpatient attendances at western private practitioners' clinics and Chinese medicine private practitioners' clinics respectively each year. These services are generally affordable to the majority of the population.

Family Health

Apart from general outpatient services, the public sector provides specialised services targeted at citizens of particular age groups or medical conditions.

For children up to five years of age, and women aged 64 or below, the Department of Health provides a comprehensive range of health promotion and disease prevention services through its 31 maternal and child health centres and three woman health centres. At the centres, anticipatory guidance on child care and parenting is provided for parents and care-givers. Immunisation, health and developmental surveillance services are offered to children. Antenatal, postnatal, family planning, cervical screening services and health education are provided for women. Some 24 000 expectant mothers and 57 000 newborns attended maternal

and child health centres, representing about 36 per cent and 87 per cent respectively of the total in 2006. The majority of the remaining expectant mothers and newborns seek antenatal services from the private sector.

Concerning sexual and reproductive health services, the government-subsidised Family Planning Association (FPA) of Hong Kong offers a range of fertility treatments, check-ups, counselling, and pre-marital and pre-pregnancy preparation through its various clinics, youth healthcare centres, women's clubs, and libraries. In 2006, the subvention amounted to \$29.6 million and over 120 000 clients were served. With the objective of strengthening family life and promoting sexuality education, FPA opened the new Tsuen Wan centre and co-organised the First Hong Kong Sex Cultural Festival with various local organisations in 2006.

Student Health

For primary and secondary school students, the Department of Health offers health assessment, health education and individual health counselling with an emphasis on health promotion and disease prevention through its 12 student health service centres and three special assessment centres. In 2006, services were provided to 756 054 students between the ages of six and 19.

Furthermore, to safeguard students' health, school health inspectors, health officers and nurses pay regular visits to schools to disseminate information on environmental hygiene and sanitation, to advise on the control of communicable diseases and to organise immunisation campaigns.

Elderly Health

For people aged 65 or above, a comprehensive primary healthcare service is offered by the Department of Health through 18 elderly health centres and 18 visiting health teams. The services include health assessment, physical check-up, counselling, curative treatment, and health education. Such services are aimed at enhancing primary healthcare for the elderly, improving their ability to care for themselves, encouraging healthy living and strengthening family support to minimise illness and disability of their elders. The 18 visiting health teams reach out to the community and residential care settings to conduct health promotion activities for the elderly and to provide training to carers to enhance their health knowledge and skill in caring for the elderly. In 2006, the elderly health centres recorded 38 042 enrolments and 186 167 attendances for health assessment and medical consultation, while the visiting health teams made 276 941 client contacts.

Community Health

In view of the international trend of focusing on the development of ambulatory and community care programmes, the allocation of public funding for public hospital services has been changing from the institution-based approach to a population-based approach to encourage the mobilisation of resources from institutions to community settings.

In 2006, the Hospital Authority continued to step up training for family physicians, community paediatricians, community physicians, general practitioners

and community allied health practitioners to support the development of the community mode of healthcare delivery. To provide outreach medical, nursing and allied health services to support discharged patients for rehabilitation in the community, the Hospital Authority has also strengthened its community-based outreach teams: community nursing services, community geriatric assessment teams, community psychiatric teams and nursing services, and community allied health services. Through on-site training, home carers are also empowered to deliver community health services on a collaborative basis. In the financial year 2005-06, the Authority spent \$600 million on community health services. In 2006, 801 500 community nurse home visits as well as 809 600 outreach attendances for elderly and psychiatric patients were recorded.

Over 80 per cent of the clients of community nurses are elders. In recent years, medical support for elders discharged from public hospitals has been enhanced through the implementation of a number of new initiatives. For example, visiting medical officers were deployed under the supervision of community geriatric assessment teams to provide weekly on-site medical visits covering over 200 homes for the aged in 2006. Volunteer networks were established to provide immediate essential assistance to discharged elderly patients. The telephone nursing consultation service was introduced to provide home instructions and advice on disease management. More community nurses were deployed to station at care centres and non-governmental organisations to provide on-site care at the care homes of patients.

With regard to rehabilitation and palliative services, the Hospital Authority has re-modelled the Tang Shiu Kin Hospital into an ambulatory care centre in early 2006 to take on discharged patients for short-term rehabilitation and to start an integrated palliative day care centre to provide a full spectrum of physical, rehabilitative, psychological and spiritual services to the patients and families in need.

Dental Health

Preventive dental services including annual dental examination and basic dental care are provided by the Department of Health to about 398 000 children per year, aged six to 12 years, covering about 92.7 per cent of the primary school children of Hong Kong. For the general public, there are 11 designated dental clinics that provide emergency dental service for pain relief and extraction. The department also offers specialist oral healthcare services to hospital in-patients and those with special oral health needs. The majority of general dental services are provided by the private sector. The department also monitors the level of fluoridation in the communal water supply in order to reduce dental decay among the population.

Mental Health

See Chapter 10 for contents relating to public mental health services.

Other Special Services

The Department of Health operates a number of specialised clinics for the public: 20 methadone clinics, 19 tuberculosis and chest clinics, seven social hygiene clinics, four dermatology clinics, two integrated treatment centres, four clinical genetic

clinics, seven child assessment centres, two travel health centres and other clinic services. About 7.5 million visits to these clinics were recorded in 2006.

Secondary, Tertiary and Specialised Healthcare Services

Secondary, tertiary and specialised healthcare services are provided mainly in the hospital setting. As at December 31, 2006, there were 27 755 hospital beds run by the Hospital Authority, comprising 20 238 acute, 2 151 infirmary, 4 666 mentally ill and 700 rehabilitative beds. In addition, there were 3 124 beds in private hospitals, 2 998 in nursing homes and 762 in institutions under the Correctional Services Department. In aggregate, the average number of beds per thousand population is 5.0.

Specialist Out-patient Service

Secondary and tertiary ambulatory services in the public sector are mainly provided through the specialist clinics of the Hospital Authority. At these clinics, patients' symptoms are assessed, and specific investigations will be arranged to facilitate diagnosis, treatment, and follow-up of patients requiring long-term specialist care. In the financial year 2005-06, about \$5.6 billion were allocated for the provision of such services. Most public hospitals offer a range of specialty clinics, encompassing Internal Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Orthopaedics and Traumatology, Ophthalmology, Ear Nose and Throat, Neurosurgery, Oncology and Cardiothoracic Surgery. Many have also designated subspecialty clinics such as Cardiology, Respiratory Medicine, Nephrology, Neurology, Endocrine and Diabetology, Haematology, Gastroenterology and Hepatology, Geriatrics and Rehabilitation Medicine.

In 2006, there were almost 6 million specialist outpatient attendances and about 1.9 million allied health outpatient attendances in public hospitals. To manage the high patient demand, the specialist clinics in public hospitals have implemented a triage system for screening new referrals so that patients requiring more urgent medical attention will be given earlier clinic appointments. Patients with priority I and II medical conditions would be seen within two weeks and eight weeks respectively. The triage criteria have been communicated to private practitioners to facilitate preliminary investigation of patients. The specialist clinics in many public hospitals have also worked with the family medicine specialist clinics within the same cluster to assess preliminarily patients with stable and low-risk medical conditions so as to shorten the waiting time for new referrals. Patients with stable conditions would either be referred back to the primary care practitioners in the private sector or the step-down clinics (general out-patient clinics) of the Hospital Authority for further follow-up and treatment.

Acute In-patient Service

In-patient services are offered to patients who require intense therapy for their acute illness. In the financial year 2005-06, about \$16.8 billion were allocated for the provision of such services. These services are available in 15 major acute hospitals under the Hospital Authority. Supported by full ancillary services, clinicians in public hospitals are able to effectively treat patients with different medical needs through a

comprehensive range of clinical specialties, including Internal Medicine, Surgery, Neurosurgery, Clinical Oncology, Cardiology, Obstetrics and Gynaecology, Ophthalmology, Orthopaedics and Traumatology, Otorhinolaryngology, Paediatrics, Pathology, Psychiatry, Radiology, Anaesthesiology, Intensive Care and others.

In 2006, there were 1.1 million in-patient and day patient discharges in public hospitals. As mentioned above, in line with international trend, the Hospital Authority has started to shift the delivery of healthcare away from hospitals to settings that are nearer to the patient's home. This represents a paradigm shift in the provision of health service from a disease model to a holistic health model, and from focusing on episodic acute hospital care to adopting a life-course approach with an emphasis on preventive, curative and rehabilitative health care. As a result, despite rapid increase in service demand due to the ageing population, the number of patient days, bed occupancy rates and average length of stay in public hospitals remained relatively constant over the past few years.

Accident and Emergency Services

There are 15 public hospitals under the Hospital Authority providing Accident and Emergency Services. Their missions are to provide a high standard of emergency care to those in need of acute treatment, to offer emergency life support to the critically ill, and to manage disasters that bring in massive casualties. In the financial year 2005-06, about \$1.5 billion were allocated for the provision of such services.

In 2006, the Accident and Emergency Departments of public hospitals had about 2 million attendances by 1.2 million patients, or 5 558 attendances per day. Since April 1999, patients attending the Accident and Emergency Departments are classified into five different categories according to their medical conditions, namely, Critical (Category 1), Emergency (Category 2), Urgent (Category 3), Semi-urgent (Category 4), and Non-urgent (Category 5). The triage system has proven to be an effective means to ensure that patients with more urgent conditions are promptly attended to. In 2006, over 95 per cent categories 1 and 2 patients were seen within the pledged waiting time.

Medical Charges and Waiver

Medical charges of hospital services in Hong Kong are affordable to the public, with government subsidy for public sector services representing a high level of 97 per cent of costs for in-patient services and 91 per cent of costs for ambulatory services. Recipients of Comprehensive Social Security Assistance (CSSA) are exempted from payment of public medical charges. In addition, an enhanced medical fee waiver mechanism has been implemented to protect vulnerable groups other than CSSA recipients, including low-income patients, chronically ill patients and elderly patients with economic difficulties, against financial hardship arising from healthcare needs.

Private Hospitals

The statistics gathered in 2005 showed that the 12 private hospitals served about 17.1 per cent of the total hospital in-patients in Hong Kong. The specialty beds in these hospitals provide mostly medicine, obstetrics and gynaecology, and surgery services.

Public Hospital Development Programmes

Projects in the hospital development programme progressed satisfactorily. Ongoing projects included the redevelopment and expansion of Pok Oi Hospital, the redevelopment of Staff Quarters at Tuen Mun Hospital into a Rehabilitation Block, the construction of a new infectious disease centre attached to Princess Margaret Hospital, the provision of additional lifts and associated works at Block S of United Christian Hospital, the improvement of infection control provision for autopsy facilities in public hospitals, and the improvement of facilities in the Specialist Out-patient Block of Pamela Youde Nethersole Eastern Hospital.

Health Promotion

Healthy Lifestyle

In the financial year 2005-06, the Department of Health spent \$212.2 million on health promotion initiatives. Among all key health promoters, the Central Health Education Unit of the Department of Health continues to play a leading role in formulating the direction of, and providing resources for, public health education. The unit comprises professionals from different disciplines to facilitate health promotion in a knowledge-based, need-driven and effective manner.

This year, the unit focused on a variety of health promotion activities that involved all levels of the community. The promotion included the 'Exercise Prescription Project' to promote physical activities; the 'EatSmart@school.hk' campaign to promote healthy eating among primary school students; health education and promotion activities related to influenza, avian influenza and influenza pandemic preparedness; and the campaign 'Wash Hands for Better Health' to raise public awareness on hand hygiene. Major studies like 'Baseline Assessment of Promoting Healthy Eating in Primary Schools', 'Health Needs Assessment Study for the Community Development Project for the Ethnic Minority Groups' and 'The Food, Personal and Environmental Hygiene Survey' were also carried out in 2006.

Considerable efforts have been made in promoting the psychosocial health in secondary school as well. A total of 346 secondary schools with around 122 000 students and 7 000 parents and teachers enrolled and received services under the Adolescent Health Programme organised by the Department of Health in the school year 2005-06.

Oral Health Education

Educational and promotional activities were organised throughout the year by the Oral Health Education Unit of the Department of Health to enhance the community's general level of oral health awareness. These activities included outreach programmes delivered through the 'Oral Health Education Bus', and target-specific programmes delivered through kindergartens and pre-school centres to over 100 000 pre-schoolers every year. Information on oral health is disseminated to the public by means of the oral health education homepage, www.toothclub.gov.hk, and the 24-hour interactive oral health education telephone hotline.

In 2006, the annual Love Teeth Campaign took place in September, with the theme, 'It's not good enough to brush twice a day. Proper teeth cleaning technique is the way!' The campaign aims to help the public understand the correct concept and techniques of teeth cleaning.

AIDS Counselling and Education

Human immunodeficiency virus (HIV) prevention and health promotion programmes in Hong Kong are underpinned by the concerted efforts of the Government as well as non-governmental organisations (NGOs). The Red Ribbon Centre of the Department of Health collaborates with a number of community partners to promote public awareness of HIV and acceptance of people living with HIV/Acquired Immune Deficiency Syndrome (AIDS). In 2006, the centre organised 25 major activities and 127 focused programmes, benefiting around 70 000 participants.

Information on AIDS and Sexually Transmitted Diseases, individual counselling and HIV antibody tests are offered to the public through the 24-hour, trilingual AIDS hotline, (852) 2780-2211. In 2006, the AIDS hotline received around 16 000 telephone calls. Over 1 million condoms were distributed to promote safer sex. A new AIDS Hotline (852) 2117-1069 and a new website www.21171069.com were launched to enhance the dissemination of AIDS prevention messages to men who have sex with men.

Organ Donation

The Department of Health joined hands with the Hospital Authority, the Hong Kong Medical Association and some NGOs to actively promote organ donation both inside and outside hospital settings. In collaboration with the Hong Kong Medical Association, a territory-wide organ donation promotion campaign entitled "Light up lives. Support organ donation" was launched in December 2006.

Appeals were also made to various government departments, NGOs and private companies to solicit their support in making organ donation cards/forms readily accessible to their staff and clients, and actively encourage them to sign in. They were also requested to motivate their member/partner organisations to do the same. Other promotion activities include talks, seminars, exhibitions in hospitals, universities and shopping malls, and press conferences to arouse the public awareness of the needs of patients with end stage organ failure.

In 2006, there were 23 liver transplants, seven heart transplants, 53 renal transplants, one lung transplant and 213 cornea transplants conducted in the public hospitals of Hong Kong.

Smoking and Health

Legislation

To further protect the public from the hazards of second-hand smoking, the Government introduced the Smoking (Public Health) (Amendment) Bill 2005 into the Legislative Council to expand statutory no-smoking areas to all indoor workplaces

and public places, to strengthen the regulation on advertisement, promotion, packaging and labelling of tobacco products, as well as to strengthen our law enforcement efforts. The amendment bill was passed by the Legislative Council on October 19, 2006 and gazetted on October 27, 2006. The Amendment Bill has significantly enhanced the tobacco control regime in Hong Kong and its compliance with the Framework Convention on Tobacco Control (FCTC) of the World Health Organisation (WHO) of which China is a signatory and which therefore applies to Hong Kong. With effect from January 1, 2007, statutory no-smoking areas will include indoor workplaces, indoor areas of restaurant premises, bars open to all age groups, karaoke establishments and other indoor public places, indoor and outdoor areas of child care centres, schools, hospitals, escalators, parks, swimming pools and beaches.

Implementation and Enforcement

To coordinate the Government's tobacco control efforts, enforce the relevant anti-smoking legislation and promote a smoke-free culture in Hong Kong, the Tobacco Control Office was set up in 2001 under the Department of Health to foster inter-sectoral collaboration and community participation.

Recognising the complexity of tobacco control issues, the office has adopted a multi-pronged approach to achieve its goals. One of the priority areas is to assist managers and staff working in statutory no-smoking areas to comply with and enforce the Smoking (Public Health) Ordinance. In 2006, the Tobacco Control Office organised over 150 workshops for more than 6 500 staff responsible for management of venue involving statutory no-smoking areas, including the catering industry and other sectors. In addition, officers of the Tobacco Control Office visited over 170 restaurants and 230 shopping malls to explain the legal requirements of no-smoking areas to managers of these premises. Furthermore, more than 80 smoke-free workplace workshops were conducted for over 2 000 managers and other staff members of workplaces.

Since 27 October 2006, inspectors of the Tobacco Control Office have been empowered to take enforcement actions under the Smoking (Public Health) Ordinance. Up to the end of 2006, the office had issued 13 summonses to people who contravened the ban on smoking in statutory no smoking areas.

Publicity and Education

Apart from the Department of Health, an independent body, called the Hong Kong Council on Smoking and Health was established under statute to acquire and disseminate information on the hazards of using tobacco products and to advise the Government on matters related to smoking, passive smoking and health.

During 2006, to coincide with the passage of the Smoking (Public Health) (Amendment) Ordinance, the council conducted publicity and community involvement campaigns with particular emphasis on nurturing a smoke-free culture in public places and workplaces.

The council continued carrying out its health education programmes in schools. It gave 203 talks to primary and secondary schools and staged an interactive drama programme in 32 primary schools. In addition, the council launched a territory-wide publicity campaign called Smoke Free Hong Kong which included announcements in the public interest broadcast on TV and radio. The council has a website www.smokefree.hk as well as a hotline to receive enquiries and suggestions from the public on matters related to smoking and health.

Taxation

Taxation is widely recognised as one of the most effective tobacco control measures especially among younger smokers. The Government currently imposes a duty on tobacco products amounting to \$804 for each 1 000 cigarettes, or \$16 for a pack of 20 cigarettes.

Smoking Cessation

Recognising the importance of smoking cessation to a comprehensive tobacco control policy, smoking counselling and cessation services are offered to smokers and their family members by trained nurses and pharmacists at 16 full-time and 14 part-time smoking counselling and cessation centres in public hospitals and general out-patient clinics. Counselling and medications are offered to quitters in treating their tobacco dependence. A 'quit-line' telephone hotline has been set up to provide enquiry and appointment services.

During 2006, the number of enquiry and counselling cases handled at these centres amounted to 18 000 and the success quit rate as surveyed during one of the months was around 80 per cent. These centres also organised a number of support groups, health exhibitions and educational talks to further promote smoking cessation.

Disease Prevention and Control

Including the disease prevention efforts made by the maternal and child health centres and elderly health centres mentioned above, the Department of Health spent \$1,182.8 million on disease prevention and control.

Centre for Health Protection

The Centre for Health Protection (CHP) was set up under the Department of Health on 1 June 2004, with the mission of achieving effective prevention and control of communicable and non-communicable diseases in Hong Kong in collaboration with local and international stakeholders.

Much effort has been put into the development of information systems, including launching of the Public Health Information System and the Laboratory Information System. A consultancy study has been conducted to draw up a development plan for the Communicable Disease Information System that enables real-time data exchange on communicable diseases among different sectors in the community.

To enhance laboratory services, the centre has strengthened diagnostic capacity, epidemiological surveillance, data analysis and detection sensitivity, as well as laboratory safety and quality assurance. By strengthening control of tuberculosis, HIV/AIDS and sexually transmitted infection, protection against and prevention of known diseases were also reinforced. In order to pool professional expertise, a Board of Scientific Advisers with seven Scientific Committees was set up. Training and research programmes were launched regularly.

In addition to formulation of risk communication strategies and action plans for the centre, communication with the community was strengthened through support from District Councils, educational campaigns and publicity programmes. Local, regional and international collaborative work, including meetings, international symposium, video links and attachment/exchange programmes, were carried out to reinforce networks with other health authorities and agencies in the Mainland, Macao and other places, as well as the World Health Organisation, to share professional knowledge and experience in combating diseases.

Contingency Planning for Infectious Disease Outbreaks

To enhance government and community preparedness to cope with major outbreaks of infectious diseases, the Centre for Health Protection has developed and updated preparedness plans on various infectious diseases. To build up surge capacity, a mechanism for mobilising volunteers in the private and voluntary sectors during major public health emergencies has been developed.

Furthermore, the centre has conducted and participated in drills and exercises to enhance emergency preparedness and response of relevant departments and agencies for infectious disease outbreaks. In September 2006, Exercise CYPRESS was conducted in collaboration with the Health, Welfare and Food Bureau, the Hospital Authority and the Fire Services Department to review frontline operations in the event of human cases of avian influenza. More than 500 participants took part in the exercise, and over 30 experts from the Mainland, Macao and Hong Kong were invited to be observers. In June 2006, the centre participated in the first regional exercise on influenza pandemic organised by the Asia-Pacific Economic Cooperation (APEC) to test the emergency responses and communication efficiency among APEC's member economies.

There is a need to maintain effective communication and cooperation with the Mainland and other neighbouring areas in the combat and control of infectious diseases. In November 2006, the Centre for Health Protection organised Exercise Great Wall jointly with the health authorities in the Mainland and Macao to test the emergency response and notification mechanism among the three places in handling cross-boundary public health emergencies. The Implementation Framework Article under the Cooperation Agreement on Response Mechanism for Public Health Emergencies was signed with the Ministry of Health on the Mainland and the Health Bureau of Macao in April 2006 to further enhance exchange of epidemic intelligence and collaboration among the three places in handling major public health emergencies. In addition, a cooperation agreement on emergency response mechanism was signed with the Department of Health of Guangdong and Health

Bureau of Macao in June 2006 to further strengthen cooperation and communication mechanism in the fight against infectious diseases.

Other Communicable Diseases

Under the laws of Hong Kong, there are a total of 31 notifiable infectious diseases including three quarantinable diseases, namely cholera, plague and yellow fever that require mandatory reporting. During the year, 22 555 cases of notifiable infectious diseases were reported, of which 26 per cent were due to tuberculosis.

Apart from mandatory reporting, an immunisation programme consisting of vaccination against tuberculosis, hepatitis B, poliomyelitis, diphtheria, tetanus, pertussis, measles, mumps and rubella, is in place for children. The incidence of many communicable diseases has been declining or has remained at relatively low levels. On the other hand, emerging and re-emerging infections such as avian influenza, tuberculosis, HIV/AIDS, and antibiotic resistance continue to pose important challenges.

The estimated number of people living with HIV/AIDS in Hong Kong is about 3 200. Each year, about 300 new cases of HIV infections are reported. Sexual transmission remains the most common mode of spreading the infection, and in recent years, there has been a growing concern over the rising number of HIV infections among men who have sex with men. Although HIV prevalence remains low among injecting drug users, there is a need to remain vigilant with HIV prevention efforts in this vulnerable group.

Non-communicable Diseases

Health problems in Hong Kong are mostly associated with lifestyle-related chronic diseases. Among the leading causes of death, cancer, diseases of heart and cerebrovascular diseases together accounted for about 56.6 per cent of all registered deaths during the year. These diseases affect mainly elderly people and will continue to dominate the mortality statistics as the population ages. To reinforce protection against non-communicable diseases and environmental health hazards, the Centre of Health Protection established a Behavioural Risk Factor Surveillance System in 2006.

Cancer is the top killer in Hong Kong and claimed more than 12 000 lives in 2006. A Cancer Coordinating Committee has been established to formulate comprehensive strategic plans and make recommendations for the effective prevention and control of cancer in Hong Kong.

To reduce the number of women developing and dying from cervical cancer, the Department of Health, in collaboration with other health care providers, launched a Cervical Screening Programme in 2004 to promote screening service among women aged 25 to 64. In addition, a Cervical Screening Information System (CSIS) has been developed by the Department to collect and analyse data on cervical smears. In 2006, 105 296 women have undergone cervical screening as recorded by the CSIS.

At the district level, the Hospital Authority has launched a number of disease prevention and control programmes. In 2006, it continued to enhance its fall prevention programmes by conducting district-based 'fall risk' home assessment in

collaboration with NGOs and organising Tai Chi classes for elders with over 100 community organisations. To raise public awareness and understanding of hypertension and to encourage regular blood pressure measurement among citizens, the Hospital Authority also collaborated with private practitioners and community pharmacies to implement a hypertension awareness programme.

Health Regulatory Activities

Healthcare Professionals

Under existing legislation, 12 types of healthcare professionals are required to be registered with their respective boards or councils before they are allowed to practise in Hong Kong. As at December 31, 2006, the professionals registered with their respective boards and councils numbered: 11 739 doctors, 1 976 dentists, 5 336 Chinese medicine practitioners, 36 444 nurses (including registered and enrolled nurses), 4 648 midwives, 1 649 pharmacists, 90 chiropractors, 2 034 physiotherapists, 1 225 occupational therapists, 2 584 medical laboratory technologists, 1 925 optometrists and 1 605 radiographers.

To become a registered Chinese medicine practitioner (CMP) qualified for practice in Hong Kong, a person must have satisfactorily completed an approved undergraduate degree course of training in Chinese medicine practice or its equivalent, and have passed a licensing examination. As a transitional arrangement for the registration of CMPs, persons who were practising Chinese medicine in Hong Kong on January 3, 2000 were eligible to become listed CMPs. Depending on their practising experience and academic qualification, listed CMPs could become registered through direct registration, passing the Registration Assessment or passing the licensing examination. The Chinese Medicine Council of Hong Kong conducted Part I and Part II of the 2006 Chinese Medicine Practitioners Licensing Examination in June and August respectively. By year-end, 5 336 and 2 897 Chinese medicine practitioners were registered (including 68 Chinese medicine practitioners with limited registration) and listed respectively with the Chinese Medicine Council of Hong Kong.

Western Medicines

The regulation of Western medicines in Hong Kong is stipulated under the Pharmacy and Poisons Ordinance. Acting on the authority of the Pharmacy and Poisons Board, the Department of Health registers and approves the marketing of pharmaceutical products, issues licences to drug manufacturers, importers, wholesalers and retailers, and takes action against illegal sale of controlled drugs in collaboration with the Hong Kong Police Force. Legislative controls are also enforced on poisons, antibiotics and dangerous drugs.

During 2006, 3 873 applications for registration of pharmaceutical products were approved. At year-end, there were 19 940 pharmaceutical products registered in Hong Kong.

Chinese Medicines

The subsidiary legislation on Chinese medicines was passed by the Legislative Council in April 2003. Since then, any persons engaged in retail or wholesale of Chinese herbal medicines, manufacture or wholesale of proprietary Chinese medicines (pCm), are required to be licensed. Any pCm sold, imported or possessed in Hong Kong must be registered. The Chinese Medicine Council of Hong Kong is now the responsible body for devising and implementing regulatory measures for Chinese medicine. Applications for Chinese medicine trader licences and for registration of proprietary Chinese medicines have been opened since April 2003. By the end of 2006, 8 554 and 16 143 applications were received respectively.

Organ Transplantation

Under the Human Organ Transplant Ordinance, transplant of human organs and importation of human organs for transplant purposes are regulated, and commercial dealings in human organs intended for transplant are prohibited. Approval from the statutory Human Organ Transplant Board is required for transplantation of human organs between persons who are not genetically related or a couple whose marriage has subsisted for not more than three years. The board also collects certain information about transplant operations in prescribed statutory forms.

In 2006, the board received 25 applications for organ transplants between living non-related persons. No organs were imported into Hong Kong for transplant purposes during 2006.

Human Reproductive Technology

Human reproductive technology activities are regulated to ensure safety of the procedures and welfare of the child born with such technology. The Human Reproductive Technology Ordinance³, enacted in 2000, confines the application of reproductive technology procedures to infertile married couples, regulates surrogacy arrangements and the use of embryos and gametes for research and other purposes, and prohibits commercial dealings in gametes or embryos and using donated gametes in surrogacy arrangement. The use of reproductive technology in permitted circumstances is regulated through a licensing system to be administered by the Council on Human Reproductive Technology established under the ordinance. For the purpose of regulating human reproductive technology activities, the council has made reference to international practices and consulted with the reproductive technology profession, social workers, legal practitioners, academia and ethical groups to draw up a code of practice setting out requirements, standards and best practices for embryo researchers and reproductive technology practitioners.

Port Health

To prevent the introduction of quarantinable diseases and other serious infectious diseases into Hong Kong via air, land or sea immigration control points, the Port Health Office under the Department of Health enforces measures stipulated by

³ The provisions in the ordinance on prohibitions, licensing and enforcement have yet to come into operation. These parts of the ordinance are expected to commence together with the relevant subsidiary legislation setting out licensing procedures in 2007.

the International Health Regulations and the Quarantine and Prevention of Disease Ordinance.

Travellers arriving in Hong Kong at various immigration control points are required to go through temperature screening as a precautionary measure to reduce the risk of bringing in avian influenza into Hong Kong. Preventive service including medical consultation, vaccination, prophylactic medication and advice on travel-related risks are offered to travellers. Collaboration is forged with the travel industry. Travel health information is further disseminated via the website, www.travelhealth.gov.hk

Radiation Health

Under the Radiation Ordinance, the Radiation Board was set up to control the import, export, possession and use of radioactive substances and irradiating apparatus. On the other hand, the Radiation Health Unit of the Department of Health advises the Government on the health effects of radiation fields and protection of public health in areas such as nuclear incidents and management of radioactive materials and wastes. It safeguards public health against ionising radiation through licensing control and inspection of premises where radioactive substances or irradiating apparatuses are present. It also conducts radiation monitoring measurements for occupationally exposed persons, maintains the radiation dosimetry metrology standards for environmental level and occupational protection level radiation dosimetry measurements of Hong Kong, and provides the related standard calibration services.

As a service improvement initiative, it has taken up the import licensing services for radioactive substances and irradiating apparatus from the Trade and Industry Department from July 10, 2006 onwards. This arrangement enables a 'one-stop shop' service for traders and users of radiation sources, and 'cradle to grave' management of radioactive substances, all under one centralised office.

In 2006, the unit assessed and issued 9 540 licences and permits according to the Radiation Ordinance, and 1 874 licences and permits according to the Import (Radiation) (Prohibition) Regulations, and provided monitoring service to 8 978 occupationally exposed persons. The average radiation exposure of the occupationally exposed persons was 0.08 mSv against an annual statutory limit of 20 mSv.

Training of Medical and Health Personnel

Doctors

The University of Hong Kong and the Chinese University of Hong Kong provide basic training of doctors. They took in 126 and 130 medical students respectively in 2006. During the year, nine medical graduates with professional qualifications obtained outside Hong Kong passed the licensing examination conducted by the Medical Council of Hong Kong. The Hong Kong Academy of Medicine is an independent statutory body with the authority to approve, assess and accredit

specialist training within the medical and dental professions. Its 15 colleges conduct training and examinations to award specialist qualifications to qualifying candidates.

Dentists

Training in dentistry is available at the University of Hong Kong, which enrolled 53 dental students in 2006. During the year, six candidates who completed their dental training outside Hong Kong passed the licensing examination conducted by the Dental Council.

Chinese Medicine Practitioners

Three local universities offer full-time undergraduate degree courses in Chinese medicine. In 2006, 83 full-time local Chinese medicine graduates who passed the licensing examination were registered as Chinese medicine practitioners.

Allied Health Professionals

For allied health professionals, degree programmes in the areas of medical laboratory science, physiotherapy, occupational therapy, optometry and radiography were offered by the Hong Kong Polytechnic University, with an enrolment of 35, 61, 44, 37 and 35 students respectively in 2006.

Nurses

The University of Hong Kong, the Chinese University of Hong Kong and the Hong Kong Polytechnic University provide basic training of Registered Nurses. The three universities recruited 553 nursing students into their four-year general nursing degree programmes in 2006. Furthermore, the Hong Kong Polytechnic University enrolled 120 nursing students into its three-year higher diploma nursing programme. In addition, the Hong Kong Sanatorium and Hospital Limited provides basic training of Enrolled Nurses. It recruited 83 nursing pupils into its two-year certificate nursing programme. During the year, 21 nurses with professional nursing qualifications obtained outside Hong Kong passed the licensing examinations for Registered Nurses or Enrolled Nurses conducted by the Nursing Council of Hong Kong. The Hospital Authority provides basic training of Registered Nurses through its three-year higher diploma programme at the School of Nursing at Queen Elizabeth Hospital. A total of 105 Registered Nurses graduated from this course in 2006. During the year, the school also recruited 220 pupil nurses in two intakes into its two-year enrolled nurse training programme specifically designed for the welfare sector.

Laboratory Services

Government Laboratory

The Government Laboratory offers a comprehensive range of analytical and advisory services to support the Government in upholding its various commitments in the protection of public health. In the financial year 2005-06, \$79.1 million were spent for the Government Laboratory to provide analytical services for public health purposes.

In 2006, 112 421 tests on a wide range of food samples were carried out for surveillance and for verifying compliance with the statutory standards. Increasing

public concern about food quality and safety issues is evidenced by a general increase in workload. The laboratory has also rendered urgent analytical services on various ad hoc issues during the year, including the examination of suspected Sudan dyes and residues of malachite green and other antibiotics in egg and fish samples respectively. Enhanced analytical support was provided to reinforce the existing food surveillance programme.

The laboratory has continued to provide a comprehensive analytical service to ensure the quality of Western and Chinese medicines that constitute an indispensable part of the healthcare system. In 2006, a total of 41 626 tests were carried out on western pharmaceutical products for compliance with the international or other acceptable standards in quality and safety. At the same time, 56 076 tests were conducted on proprietary Chinese medicines and Chinese herbal medicines for their toxic elements and pesticide residue contents, and for the detection of adulteration with western drugs or controlled substances. In addition, the laboratory provided full support for investigations into cases of adverse reaction or intoxication incidents related to inadvertent substitution or contamination of herbs in Chinese medicines. Active participation was sustained in the development of regulatory standards for Chinese medicinal herbs in Hong Kong.

The laboratory sustained year-round surveillance of tar and nicotine yields in cigarettes. Some 14 064 examinations were conducted during the year. Results were published in the annual table for public information and affirmation of the data declared by tobacco traders.

Public Health Laboratory Services

Clinical diagnostic and public health laboratory services are centrally provided to the public and private health sectors for both patient care and public health functions by the Public Health Laboratory Centre and the Clinical Pathology Laboratory Centre of the Department of Health. The centres also process clinical and surveillance specimens from the public and private sectors to screen for infections and monitor immunity, and regularly collect baseline laboratory epidemiological data for outbreak investigation. In 2006, 2 240 000 tests relating to public health were conducted.

The Public Health Laboratory Centre has been designated by the World Health Organisation as the National Influenza Centre, the National Poliovirus Laboratory, the National Measles Laboratory, Avian (H5) Influenza Reference Laboratory, SARS Reference Laboratory and a Supranational TB Reference Laboratory.

Hospital Laboratory Services

Hospital laboratories located in regional hospitals under the Hospital Authority provide a wide range of laboratory services in anatomical pathology, chemical pathology, haematology, blood bank, microbiology, immunology and tissue typing to ensure that all public hospitals, including those without onsite laboratories, have access to comprehensive laboratory services. These laboratories are supported by advanced information technology systems and automated devices to achieve operational efficiency. They were also accredited by a number of local and international accreditation bodies. In 2006, these hospital laboratories performed

about 130 million tests. In addition, a Toxicology Reference Laboratory, housed in Princess Margaret Hospital, was established in 2004 to provide toxicology service for all public hospitals.

Auxiliary Medical Service

The Auxiliary Medical Service (AMS) is a government department formed under the Security Bureau with a staff of 95 civil servants. It manages a government-financed auxiliary service with 4 418 volunteers. In addition to doctors and nurses, all of its members are qualified Disaster Medical Assistants. Its main role is to reinforce medical, health and ambulance services during emergencies and to provide backup during ordinary times. The Director of Health is AMS's commissioner and is responsible to the Chief Executive for the efficient running of the service.

AMS makes sure it is prepared at all times to deal with unexpected and urgent situations affecting public health. AMS members receive training on how to tackle outbreaks of infectious diseases such as the avian flu and influenza. They take part regularly in joint exercises with the Department of Health. Up to 1 200 AMS members have received this kind of training so far. AMS has set up a Health Protection Unit which formulates plans for dealing with disease outbreaks of pandemic proportions. The unit also holds drills and helps promote the 'Building Healthy Cities' programme.

AMS pays great attention to its Voluntary Service Programme. Its first aid bicycle team provides first aid services along the cycling track between Tai Wai and Tai Po and mans the first aid posts at cycling tracks in Ma On Shan, Sha Tin and Tai Po during weekends and public holidays. Instructors from the Voluntary Service Group run programmes on first aid and on safety at schools for teachers, students and their parents in Sha Tin, Yuen Long, Tuen Mun, Wong Tai Sin and Kowloon City. AMS has also published a manual entitled 'Our Victory Over Infections', which teaches people how to observe proper hygiene and how to avoid contracting infectious diseases. It received a 'Caring Organisation' award from the Hong Kong Council of Social Services in recognition of its community work.

Home Pages

Health, Welfare and Food Bureau: www.hwfb.gov.hk

Department of Health: www.dh.gov.hk

Centre for Health Protection: www.chp.gov.hk

Hospital Authority: www.ha.org.hk

Auxiliary Medical Service: www.ams.gov.hk