

Chapter 8

Health

Hong Kong's public and private medical sectors provide extensive healthcare services, including a low-cost public healthcare 'safety net' that ensures no one in Hong Kong is denied medical care due to lack of means.

2012 Figures at a Glance

<i>Infant Mortality Rate</i>	1.5*	per 1,000 registered live births
<i>Maternal Mortality Ratio</i>	2.2*	per 100,000 registered live births
<i>Life Expectancy 2012</i>	80.6*	(Male) 86.3* (Female)
2041	84.4 (Male)	90.8 (Female) <i>projected</i>

(*provisional figures)

Hong Kong has a high quality healthcare system supported by a highly professional team of healthcare workers. The infant mortality rate has fallen steadily over the past 20 years, from 5.9 per cent in 1990 to 1.7 per cent in 2010, one of the lowest in the world. Hong Kong's male and female life expectancy, at 80.6 years and 86.3 years respectively, were among the highest in the world in 2012.

Hong Kong's Domestic Health Accounts (DHA)¹ show that Hong Kong's total health expenditure increased from 3.6 per cent to 5.2 per cent of Gross Domestic Product (GDP) over the period 1989-90 to 2009-10. Over the same period, public health spending (\$43.8 billion in 2009-10, or 2.6 per cent of GDP) rose from 39 per cent to 49 per cent of total health expenditure. The Government's recurrent funding for health has witnessed substantial year-by-year increases over the past five years. By 2012, the total funding had increased by over \$13 billion to \$44.7 billion, representing an increase of over 40 per cent from \$31.6 billion in 2007. Healthcare expenditure accounted for 17 per cent of the Government's recurrent expenditure in 2012. The Food and Health Bureau (FHB) has also strengthened the public healthcare services safety net

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 Co-operation and Development to keep track of Hong Kong's health spending and to allow for international comparison.

to provide better protection for patients requiring costly drugs and treatment, including the Government grant of \$10 billion to the Samaritan Fund in 2012. The Government will continue to take forward various healthcare service reform measures, including enhancing primary care services, promoting public-private partnership in health care and developing a territory-wide electronic health record sharing system.

Organisational Framework

The FHB formulates policies and allocates resources for Hong Kong's health services, with the aim of protecting and promoting public health, providing lifelong holistic health care to every citizen, and ensuring that no one is denied adequate medical treatment due to lack of means.

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

The Hospital Authority (HA), established under the Hospital Authority Ordinance, provides public hospital and related services. It offers medical treatment and rehabilitation services to patients through hospitals, specialist clinics, general outpatient clinics, and outreaching services organised into seven 'clusters' that together serve the whole of Hong Kong.

The Health and Medical Development Advisory Committee (HMDAC), chaired by the Secretary for Food and Health and with members from different sectors of the community, reviews the way healthcare services are provided and advises Government on the formulation of healthcare policies.

Healthcare Reform

In response to the challenges of an ageing society, advances in medical technology, and rising healthcare costs, the Government has embarked on a number of new initiatives to enhance the long-term sustainability of the healthcare system:

- **Private health insurance** – a study is being conducted by the FHB on the implementation of a voluntary and government-regulated private health insurance scheme, the Health Protection Scheme (HPS), to encourage private insurers in the market to introduce health insurance products with better protection and more clarity of terms for the insured.
- **Healthcare manpower planning** – a strategic review on healthcare manpower planning and professional development, covering 13 statutorily regulated healthcare professions, is being conducted by the FHB to plan for an adequate supply of healthcare manpower to meet long-term demand and to strengthen professional training and development to ensure the healthy and sustainable development of Hong Kong's healthcare system.
- **Private healthcare service development** – the Government has set aside new land for private hospital development and a review is being undertaken by the FHB to enhance the regulation of private healthcare facilities and private hospitals for greater transparency of fees and charges and better safety and quality of private healthcare services.

Primary Healthcare and Medical Services

Primary health care is the first step in the healthcare process and covers a wide range of public health services, including health promotion and disease prevention, as well as general outpatient services and special health services provided for people in specific age groups who do not require hospital care.

The FHB formed a Working Group on Primary Care (WGPC) under the HMDAC and published the 'Primary Care in Hong Kong: Strategy Document' in 2010.

In 2012, the first purpose-built Community Health Centre was opened, a sub-directory of Chinese medicine practitioners under the Primary Care Directory was launched, and the core documents of the reference frameworks for preventive care for older adults and children in primary care settings were published. The HA has launched various programmes including the chronic disease management programme, the Risk Assessment and Management Programme with diabetes mellitus and hypertension patients as major target groups, and a Patient Empowerment Programme with the aim of improving chronic disease patients' knowledge of the diseases and enhancing their self-management skills.

Clinic Services

Primary care services are mainly provided by the private sector. Public general outpatient clinic services are offered primarily to low-income families, chronic disease patients and other vulnerable groups. The HA operates 74 general outpatient clinics in Hong Kong with some providing family medicine specialist outpatient services. In 2012, some 1.43 million people used these services, with 5.89 million attendances recorded.

To promote the development of 'evidence-based' Chinese medicine practice and to increase training opportunities for local Chinese medicine degree programme graduates, the HA, NGOs and local universities have collaborated to set up 17 Chinese medicine outpatient clinics. In 2012, the Government provided a \$90 million subvention to run these clinics, to which 154,885 patients made 916,308 visits. About 29 million outpatient visits are made to Western medicine clinics and seven million to Chinese medicine practitioners' clinics in the private sector each year.

Family Health

The DH provides a range of health promotion and disease prevention services through its 31 maternal and child health centres and three women's health centres for children up to five years of age, and women aged 64 or below. These centres offer an Integrated Child Health and Development Programme for parents and caregivers to promote children's holistic health and well-being. The programme's core components are parenting, immunisation, and health and developmental surveillance.

Antenatal, postnatal, family planning, and cervical screening are provided for women. The centres also provide health education, including psycho-social health, personal relationships, and physical health and healthy lifestyle for women. Some 31,000 expectant mothers and 73,400 newborn children attended maternal and child health centres in 2012 respectively,

representing about 34 per cent and 80 per cent of the total numbers of expectant mothers and newborn children in Hong Kong.

The Family Health Service also provides information on child care, parenting and health to the general public through various channels such as information leaflets, seminars/workshops, websites and a 24-hour information hotline. The Family Planning Association (FPA) of Hong Kong offers services and health information on sexual and reproductive health treatments and counselling at its clinics, youth healthcare centres, activity and resource centres and women's clubs. The FPA received \$39.54 million in government subsidies in 2011-12 and over 200,000 people used its services in 2012.

Student Health

The DH provides health screening and individual counselling to primary and secondary school students at its 12 student health service centres and three special assessment centres. In the 2011-12 school year, 696,122 primary one to secondary seven students used its services. In addition, school health inspectors check schools' hygiene standards. School Immunisation Teams under the auspices of the department's Centre for Health Protection visit primary schools every year to administer free vaccinations for students.

Elderly Health

The DH's 18 elderly health centres and 18 visiting health teams provide primary health care to the elderly, improve their ability to care for themselves and encourage healthy living and their family's support. These centres provide health assessments, curative treatment, health education and counselling to people aged 65 and above. The visiting health teams conduct health promotion activities for the elderly and provide training to improve carers' skills. In 2012, the centres recorded 38,989 enrolments and 172,782 attendances for health assessment and medical consultation, while the health teams provided service to 297,301 persons.

Community Health

The HA's development of community healthcare services aims to reduce reliance on inpatient services and help patients' rehabilitation in the community. In 2012, the HA conducted 1,941,600 home visits and outreach care services, including those for elderly people and mental patients.

Over 80 per cent of those receiving community nursing care are elderly people. Community geriatric assessment teams make regular visits to residential care homes for the elderly to provide medical and nursing care to residents who are unable to visit the specialist outpatient clinics. These teams also train the staff to help them take care of frail residents.

The HA provides transitional integrated support services to elderly patients after their discharge from hospital where there is a high risk that they may require re-admission. Healthcare professionals prepare a discharge plan according to each patient's condition on admission and provide such services as care and rehabilitation services and counselling on the use of drugs. In collaboration with social welfare organisations, they also provide home care and personal care services to needy and high-risk elderly patients and monitor their progress after discharge.

Other services aimed at assisting discharged elderly patients living in the community include the Telephone Nursing Consultation Service, the HA's community health call service, district elderly community centres and the community nursing service.

Extended care hospitals provide specialist programmes for the rehabilitation of pulmonary, orthopaedic, geriatric and cardiac patients, while short-term rehabilitation programmes are provided for discharged patients in day and outpatient clinics. Integrated palliative day care centres provide a full range of services for reducing the pain or stress of patients with incurable illnesses.

Dental Health

The DH's eight school dental clinics provided preventive dental services including annual dental check-ups and basic dental care to about 307,000 primary students (about 95 per cent of all Hong Kong primary students) in the 2011-12 school year.

Eleven government dental clinics provide emergency dental services to the general public for pain relief and tooth extraction, and seven public hospitals offer specialist oral healthcare services to inpatients and others with special oral health needs. The DH also monitors the level of fluoridation in water supplied to the public to reduce dental decay.

Mental Health

Over the last 5 years, Government resources allocated to mental health services have steadily increased, from \$3.39 billion in 2007-08 to \$4.42 billion in the 2011-12 financial year.

Providing care and community support to mental patients after their discharge from hospital can help reduce the risk of relapse. As at the end of 2012, an HA programme providing intensive, continuous and personalised support to persons with severe mental illness had been extended to cover 12 districts (Eastern, Wan Chai, Central and Western, Southern, Islands, Kwun Tong, Sham Shui Po, Kowloon City, Sha Tin, Kwai Tsing, Tuen Mun and Yuen Long), helping patients' rehabilitation and reintegration into the community.

To strengthen its community support for very high-risk patients and to provide rapid and prompt response to emergency referrals in the community, the HA set up crisis intervention teams in all of its seven clusters in 2011-12.

The HA's psychiatric specialist outpatient clinics have common mental disorder clinics providing assessment and consultation services for patients with common mental disorders. An Integrated Mental Health Programme (IMHP) at general outpatient clinics was extended to all seven HA clusters in 2011-12 to provide appropriate treatment to patients with mild mood disorders in a primary care setting. In 2011-12, the HA's programme for the early assessment and detection of psychosis in young persons (EASY), targeting young people aged between 15 and 25 with first episodic psychosis, was expanded to include adults. Support under EASY was also extended from the first two to the first three years of illness. The EASY programme's specialist teams offer one-stop, phase-specific and ongoing support for the target patients.

The HA's psychogeriatric outreach service provides consultations for residents of care homes for the elderly with mental health problems such as dementia, depression and chronic psychosis. It also trains and supports carers and staff of these homes. In 2011-12, the consultation service was extended to about 80 more private residential care homes for the elderly.

In 2011-12, the HA expanded its professional team of healthcare practitioners in various disciplines providing early identification, assessment and treatment services for children suffering from autism and hyperactivity. The team also help parents and caregivers understand the children's condition and treatment needs.

In 2011-12, over 40,000 HA patients were prescribed with anti-psychotic drugs with less disabling side effects but proven efficacy, an increase of 100 per cent from 2007-08.

Other Special Services

The DH's specialist clinics and centres for the public comprise 20 methadone clinics, 19 tuberculosis and chest clinics, seven social hygiene clinics, four dermatology clinics, two integrated treatment centres, four clinical genetic clinics, six child assessment centres, and two travel health centres. About seven million visits to these clinics were recorded in 2012.

Healthcare Services Provided by Private and Non-governmental Organisations

The private healthcare sector is the main provider of primary care, and complements the public sector by providing a range of specialist and hospital services. Private hospitals and Western medical practitioners' offices and clinics in the private sector provide the public with various healthcare choices, including a choice of doctors and amenities. Doctors of Western medicine and other healthcare professionals (including Chinese medicine practitioners, dentists, nurses, chiropractors, physiotherapists, occupational therapists, pharmacists and optometrists) provide health care in the private sector. In general, private healthcare services are not subsidised (except for certain institutional or day-time long-term medical and nursing care) and patients have to bear the full cost of using these services.

NGOs also provide healthcare services at different levels in Hong Kong and a large number operate community clinics offering primary healthcare services. They include Caritas-Hong Kong, Ching Chung Taoist Association, the Hong Kong Christian Service, the Hong Kong Sheng Kung Hui Welfare Council, Lok Sin Tong Benevolent Society, Sik Sik Yuen, the United Christian Nethersole Community Health Service and Yan Oi Tong. The Hong Kong Buddhist Association, the Hong Kong Federation of Trade Unions, Pok Oi Hospital, Yan Chai Hospital and other organisations provide Chinese medical services. Two Chinese medicine clinics belonging to the Tung Wah Group of Hospitals offer members of the public free Chinese medicine services subsidised by the Government.

In addition, many NGOs organise health promotion, educational and other healthcare-related activities. Some NGOs also provide health assessment services for the elderly, and medical check-ups for women. The Hong Kong St John Ambulance provides first aid training and services, while the Hong Kong Red Cross provides first aid training to promote first aid knowledge and skills. The Hong Kong Cancer Fund raises public awareness of cancer and encourages people to undertake regular cancer screening to minimise cancer risks.

Secondary, Tertiary and Specialised Healthcare Services

Secondary, tertiary and specialised healthcare services are provided mainly in the HA's hospitals and specialist clinics. At the end of 2012, there were 27,153 public hospital beds, comprising 20,845 general beds, 2,041 infirmary beds, 3,607 beds for the mentally ill and 660 beds for the mentally handicapped. In addition, there were 4,033 beds in private hospitals, 4,571 in nursing homes and 822 in institutions run by the Correctional Services Department. There are five beds per thousand of population. Spending on secondary, tertiary and specialised healthcare services, including public specialist outpatient and inpatient services, as well as private inpatient services, amounted to about \$44.8 billion in 2009-10, of which spending on public specialist outpatient and inpatient services accounted for 75 per cent.

In the 2011-12 financial year, about \$7.9 billion was spent on secondary and tertiary ambulatory medical services provided by the HA's specialist clinics. The HA has specialist clinics for a wide range of specialties, including internal medicine, surgery, obstetrics and gynaecology, paediatrics, orthopaedics and traumatology, ear, nose and throat, ophthalmology, psychiatry, neurosurgery, oncology and cardio-thoracic surgery.

In 2012, members of the public made over 6.6 million visits to public hospital specialist outpatient clinics². Appointments for new patients are made on the basis of the severity of their condition in order to ensure that patients with acute conditions will be given priority in the allocation of services. Patients in stable condition are referred to primary care practitioners in the private sector or the HA's general outpatient clinics for follow-up.

Allied Health Service

Allied health professionals working under the HA include audiologists, clinical psychologists, dietitians, occupational therapists, optometrists, orthoptists, physiotherapists, podiatrists, prosthetists and orthotists, speech therapists and medical social workers. They provide rehabilitative and extended care for patients receiving inpatient, outpatient, ambulatory and community care services to help them reintegrate into society. In 2012, members of the public made about 2.25 million visits to allied health outpatient departments.

Inpatient Services

In the 2011-12 financial year, \$26.4 billion was spent on providing inpatient services by HA hospitals and a total of 1.55 million inpatients and day-patients were discharged from public hospitals.

Accident and Emergency Services

Accident and emergency services are provided at 16 HA hospitals, delivering a high standard of service for critically ill or injured persons who need urgent medical attention and providing medical support for victims of disasters. In the 2011-12 financial year, \$2 billion was spent on these services. In 2012, 1.31 million people paid 2.3 million visits to the accident and emergency departments of public hospitals, an average of 6,285 attendances per day.

² Including all hospital beds provided by hospitals under the HA, private hospitals, nursing homes and correctional institutions included in the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance

Patients attending the accident and emergency departments of public hospitals are classified under five categories according to their clinical condition: critical cases are classified under Category 1, emergency cases under Category 2, urgent cases under Category 3, semi-urgent cases under Category 4, and non-urgent cases under Category 5. The triage system ensures that patients with more urgent needs receive prompt attention. In 2012, all Category 1 patients received immediate treatment while over 95 per cent of Category 2 patients were treated within 15 minutes.

Medical Charges and Waiver

Fees for public hospital and clinic services for the general public are subsidised up to 95.7 per cent by the Government, with people receiving assistance under the Comprehensive Social Security Assistance Scheme exempted from paying. Other needy groups (including low-income patients, the chronically ill, and elderly patients with financial difficulties) are assisted through a medical fee waiver scheme.

Private Hospitals

Hong Kong's private hospitals served 399,687 inpatients in 2011, representing 21 per cent of the total number of inpatients in the territory. As at end 2012, there were 11 private hospitals in operation in Hong Kong. Spending on private inpatient services amounted to \$11 billion in 2009-10, accounting for 32 per cent of overall expenditure on inpatient services in the public and private sectors.

Healthcare Service Development and Infrastructure

Public Hospital Development Projects

A number of public hospital development projects are in progress to help improve healthcare services in different parts of Hong Kong. North Lantau Hospital Phase 1 was completed in 2012; Tseung Kwan O Hospital Ambulatory Block also came into operation in 2012, with the remaining works of the Hospital Main Block to be completed in 2013. Other ongoing projects include the redevelopment of Caritas Medical Centre Phase 2 and the redevelopment of Yan Chai Hospital.

Public-private Partnership Projects in Healthcare Services

The Government has launched a series of public-private partnership (PPP) pilot projects through the HA, including the Cataract Surgeries Programme which subsidises patients for cataract surgery performed by private ophthalmologists. By the end of 2012, 106 ophthalmologists had participated in the programme, 18,268 patients had enrolled in the programme and 13,889 had received cataract surgery.

Under the HA's Tin Shui Wai Primary Care Partnership Project, chronic disease patients living in Tin Shui Wai who need long-term follow-up treatment at the HA's general outpatient clinics can choose to receive subsidised treatment from private doctors. As at the end of 2012, 11 private doctors and 1,618 patients had enrolled in the programme.

The Haemodialysis Public-Private Partnership Programme provides private haemodialysis services to eligible patients with end-stage renal disease currently under the HA's care. A total of 108 haemodialysis places will be provided under the programme in 2013-14.

In May 2012, the Pilot Project on Enhancing Radiological Investigation Services through Collaboration with the Private Sector was launched, fully subsidising patients from selected cancer groups for Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) services at private healthcare service providers. By the end of 2012, five private healthcare service providers had participated in the project involving 1,040 attendances with 2,324 investigations completed.

The Elderly Health Care Voucher Pilot Scheme gives healthcare vouchers to those aged 70 or above to subsidise their use of private primary healthcare services within their neighbourhood community. Up to the end of 2012, 3,627 healthcare service providers and 470,000 elders (or 66 per cent of eligible elderly people) had joined this scheme and about \$348.2 million paid in subsidies.

Developing Electronic Health Record (eHR) Sharing

The Government's Public-Private-Interface Electronic Patient Record Sharing Pilot Project, launched in 2006, aims to enhance continuity of care for patients by enabling participating private healthcare providers and other registered institutions to view the HA's records, subject to patients' consent. By the end of 2012, more than 273,300 patients, 2,769 private doctors and healthcare providers, 11 private hospitals and 73 other private organisations or NGOs providing healthcare-related services (including their 411 residential care homes or centres) had participated in the project.

Building on the experience and success of the Pilot Project, the Government is implementing a 10-year programme to develop a territory-wide, patient-oriented, voluntary eHR Sharing System. In 2012, the FHB's Electronic Health Record Office completed public consultation on the legal, privacy and security framework for eHR sharing and started preparing for drafting the necessary legislation. It also commissioned the first phase of Privacy Impact Assessment to address concerns about personal data privacy. The first phase of the eHR Sharing System is planned to come into operation in 2014.

Health Promotion

Healthy Lifestyle

The DH's Central Health Education Unit formulates and implements health promotion strategies. The unit runs various promotional campaigns and programmes to provide the public with information and advice on a range of health-related topics. In 2012, the unit extended its health promotion work at the pre-school and workforce settings via 'StartSmart@school.hk' campaign and 'Health@work.hk' project respectively.

In the 2011-12 school year, over 440 (about 70 per cent) primary schools (including special schools) participated in the 'EatSmart@school.hk' campaign and about 600 restaurants took part in the 'EatSmart@restaurant.hk' campaign.

In addition, for prevention of communicable diseases, the unit provided the public with updated information and health advice on infectious diseases through the media, webpages, promotional leaflets, posters, and telephone hotlines. It also produced health education materials in various languages, including leaflets, posters, handbooks and souvenirs to raise awareness of personal and environmental hygiene among ethnic minorities.

In addition, some 324 secondary schools, 91,000 students and 2,000 parents and teachers enrolled in the Adolescent Health Programme and received its services.

Oral Health Education

The DH's Oral Health Education Unit carries out various target-oriented educational activities to promote oral health, such as the 'Bright Smiles Mobile Classroom' for primary students. Information on oral health is also provided through the department's oral health education homepage (www.toothclub.gov.hk) and a 24-hour interactive telephone hotline. In October 2012, the DH launched the annual Love Teeth Campaign – 'Let's act for our teeth' – to encourage good dental habits.

AIDS Counselling and Education

The Government and NGOs collaborate in running Hong Kong's human immunodeficiency virus (HIV) prevention and health promotion programmes. The DH's 'Red Ribbon Centre' collaborates with its community partners to enhance public awareness and prevention of HIV and to promote caring and acceptance of HIV patients. In 2012, the centre organised 17 major activities and 75 special programmes, with some 81,000 participants. In 2012, 513 new cases of HIV infection were reported, compared with 438 cases in 2011.

Information on Acquired Immune Deficiency Syndrome (AIDS) and sexually transmitted infections is available on the DH's 24-hour multilingual AIDS hotlines:

AIDS Hotline (Cantonese, Putonghua and English)	2780 2211
AIDS Hotline (Tagalog, Vietnamese and Thai)	2359 9112
AIDS Hotline (Hindi, Indonesian, Nepali and Urdu)	2112 9980

Appointments for counselling and HIV antibody/rapid tests may be made on the hotline 2780 2211. In 2012, the hotline received a total of 29,209 calls, of which 17,335 calls sought AIDS counselling from nurse counsellors. About one million condoms were distributed to promote safer sex. There are also a Gay Men HIV Testing Hotline (2117 1069) and a website (www.21171069.com). In 2012, the Gay Men HIV Testing Hotline received a total of 391 calls for counselling and HIV antibody/rapid testing.

Organ Donation

The DH promotes organ donation in various ways (including a dedicated page on Facebook) together with the HA, healthcare professional bodies and voluntary organisations. As at the end of 2012, over 110,000 persons had registered at the Centralised Organ Donation Register, launched in 2008 for the general public to register their wish to donate their organs after death.

The number of patients waiting for kidney, liver, heart and double-lung transplants stood at 1,808, 121, 17 and 15 respectively as at the end of 2012, whereas there were 45 liver, 84 renal, 17 heart, 3 double-lung and 259 cornea donations from the deceased in Hong Kong's public hospitals in 2012.

Smoking and Health

China is a state party to the Framework Convention on Tobacco Control (FCTC) of the World Health Organisation (WHO), making provisions of the convention applicable to Hong Kong. The Hong Kong Special Administrative Region Government's tobacco control policy aims to discourage smoking, contain the proliferation of tobacco use and protect the public from second-hand smoking to the maximum extent possible through a progressive and multi-pronged approach, including legislation, publicity, education, enforcement, smoking cessation and taxation.

Legislation and Enforcement

The Smoking (Public Health) Ordinance stipulates statutory no-smoking areas and enforcement arrangements, and regulates the advertisement, promotion, packaging and labelling of tobacco products. Smoking is banned in all indoor areas of workplaces and public places, including restaurants and bars, as well as outdoor areas, including the open areas of schools, leisure grounds, bathing beaches and public transport facilities. Persons smoking in statutory no-smoking areas and on public transport carriers are liable to a fixed penalty of \$1,500 under the Fixed Penalty (Smoking Offences) Ordinance. All advertisements and promotions for tobacco products are prohibited in Hong Kong.

The DH's Tobacco Control Office (TCO) enforces the smoking ban at statutory no-smoking areas. In 2012, the TCO conducted over 26,000 inspections and issued over 170 summonses and over 8,000 fixed penalty notices for smoking offences. It also organised 13 seminars attended by some 270 people. The TCO also distributed health education materials (including guidelines, posters, no smoking signs and pamphlets) to venue managers of statutory no-smoking areas and to the public.

Taxation

Duty-free concessions on tobacco products for incoming passengers at border entries (except for a small quantity for self-consumption) were abolished on 1 August 2010 and the Government increased tobacco duty rates by 41.5 per cent in February 2011 to curb cigarette consumption.

Publicity and Education

The Hong Kong Council on Smoking and Health (COSH), an independent statutory body, advises the Government on smoking, passive smoking and health, and on publicising the hazards of smoking. The COSH conducts various publicity, education and community involvement campaigns. It also operates a website, www.smokefree.hk, and a telephone hotline to receive enquiries and suggestions from the public on smoking and health. In 2012, the COSH's publicity and educational programmes attracted an attendance of about 163,500 people.

Smoking Cessation and Prevention of Youth Smoking

The DH provides advice on how to quit smoking, counselling services and pharmaceutical treatment through various channels, including a hotline, clinics and an interactive online cessation centre. In 2012, 13,262 telephone calls were received by the smoking cessation hotline. The DH also broadcasts announcements on TV and radio, conducts seminars and issues health education materials to increase public awareness of the harmful effects of smoking and second-hand smoke. It also seeks the support of local organisations in promoting smoking cessation and since 2010 has collaborated with Pok Oi Hospital in providing a smoking cessation programme involving acupuncture.

In 2012, the DH organised the enterprise outreach and counselling programme in collaboration with the Lok Sin Tong Benevolent Society Kowloon to help frontline staff to quit smoking.

The HA also provides smoking counselling and cessation services through its nine full-time and 43 part-time 'Smoking Counselling and Cessation Centres'. It operates a telephone hotline providing booking and enquiry services for smokers who wish to quit smoking.

Disease Prevention and Control

The DH spent \$1.8 billion on disease prevention and control at its maternal, child health and elderly health centres and similar facilities in the 2011-12 financial year.

Centre for Health Protection

The Centre for Health Protection (CHP) collaborates with its local and international counterparts to prevent and control diseases in Hong Kong. It works on three principles: real-time surveillance, rapid intervention and responsive risk communication. To carry out its mission, the centre works to protect the health of the community, promote healthy living in the community, and partner with stakeholders to achieve its objectives. The centre keeps track of communicable diseases and issues surveillance reports on a regular basis, as well as reports on laboratory data.

A board of scientific advisers, comprising experts from different disciplines, and seven scientific committees meets periodically to assist the centre in formulating effective policies to improve the local health protection system. Regular training and research programmes are also conducted.

The centre also uses health education campaigns and publicity programmes run in association with district councils to provide information and guidelines on diseases, alerting the public to health threats and facilitating rapid implementation of preventive measures. In addition, professional knowledge and experience in combating diseases is shared with other health authorities and agencies in the Mainland, in Macao and at the WHO.

Prevention and Control of Infectious Diseases

The CHP continually reviews and updates its strategies for coping with major outbreaks of infectious diseases, ensuring that both the Government and the community are prepared to deal with them. A plan for mobilising volunteers in the event of an outbreak is also in place.

The centre organises drills every year to test Hong Kong's preparedness. In 2012, the centre organised an exercise to test interdepartmental procedures and government contingency actions for the isolation and evacuation of a building and to enhance preparedness and interdepartmental co-ordination and co-operation. Fifteen Government departments and public sector organisations took part in the exercise, with observers from the Mainland and Macao health authorities.

There are 48 statutory notifiable infectious diseases in Hong Kong. During 2012, about 17,500 cases were reported, of which about 8,600 and 4,969* (*provisional figure) were diagnosed as chickenpox and tuberculosis respectively.

According to the CHP's 2012 surveillance data, the influenza season lasted from January to July and was characterised by two waves caused by sequential circulation of influenza B virus followed by influenza A (H3N2) virus. From 13 January to 26 July 2012, the CHP recorded 347 intensive care unit admissions (of which 227 died), with the majority of these serious cases among the elderly. Sixteen paediatric cases of severe influenza-associated complications with two fatalities were recorded.

The CHP's approach to preventing and controlling influenza included setting up laboratory surveillance and sentinel surveillance networks which cover childcare centres, residential care homes for the elderly, HA out-patient clinics, clinics of private practitioners and Chinese medicine practitioners; establishing a surveillance mechanism with public and private hospitals; reminding relevant personnel such as doctors, staff of institutions and schools to take prevention and infection control measures; and strengthening publicity, health education and risk communication.

Vaccination Programmes

Children in Hong Kong are protected against communicable diseases such as tuberculosis, hepatitis B, poliomyelitis, diphtheria, tetanus, pertussis, measles, mumps, rubella and pneumococcus under a 'Childhood Immunisation Programme'. The Government provides target groups with free seasonal influenza vaccinations each year at public hospitals and clinics. The vaccination programme also provides one free pneumococcal vaccination to all elderly persons living in residential care homes for the elderly or the disabled, those aged 65 or above with chronic medical problems attending public clinics, and those aged 65 or above receiving CSSA, who have not yet been vaccinated.

The Childhood Influenza Vaccination Subsidy Scheme (for children aged between six months and less than six years) and the Elderly Vaccination Subsidy Scheme (for persons aged 65 or above) provide subsidised seasonal influenza vaccinations at private clinics. The two vaccination subsidy schemes, with a total of over 1,600 participating private doctors, were launched on 24 September 2012.

These various vaccination programmes help protect high risk groups against infection and related complications, hospitalisation and mortality.

Non-communicable Diseases

The biggest killers in Hong Kong are cancer, heart and cerebrovascular diseases, which together accounted for about 52* per cent (*provisional figure) of all registered deaths in 2012. Elderly people are the major victims of these chronic non-communicable diseases which will continue to cause an increasing number of deaths in Hong Kong as the population ages.

A Cancer Co-ordinating Committee regularly makes recommendations for the prevention and control of cancer, which claimed more than 13,000* (*provisional figure) lives in Hong Kong in 2012. In 2012, about 105,000 women registered and were screened under the DH's cervical screening programme, which provides screening for women aged between 25 and 64.

Health Regulatory Activities

Healthcare Professionals

As at 31 December 2012, 13,006 doctors, 2,258 dentists, 9,372 Chinese medicine practitioners (CMPs) (including both listed and registered CMPs), 43,698 nurses (including both registered and enrolled nurses), 4,504 midwives, 2,127 pharmacists, 172 chiropractors, 2,428 physiotherapists, 1,517 occupational therapists, 3,088 medical laboratory technologists, 2,072 optometrists, 1,891 radiographers and 344 dental hygienists were registered in Hong Kong.

Western Medicines

Western medicines in Hong Kong are regulated under the Pharmacy and Poisons Ordinance. Acting on the authority of the Pharmacy and Poisons Board, the DH evaluates and approves applications for the registration of pharmaceutical products, issues licences to drug manufacturers, importers and exporters, wholesalers and retailers, and takes action against the illegal sale of controlled drugs in collaboration with the Hong Kong Police Force. Regulatory controls on poisons, antibiotics and dangerous drugs are also enforced by the DH.

In 2012, 3,410 applications for registration of pharmaceutical products were approved and as at year-end, 19,093 pharmaceutical products were registered in Hong Kong.

In 2009, a committee set up by the Government to review the regulation of pharmaceutical products issued a report putting forward 75 recommendations. As of December 2012, 36 of those recommendations relating to the DH had been implemented, including increasing the requirement for microbiological monitoring in the process of drug manufacturing by local drug manufacturers, stepping up inspections of local drug traders and providing more information on drug safety on the Drug Office's website. The DH is following up with the implementation of the remaining 30-odd recommendations, including 17 recommendations which involve amendments to the Pharmacy and Poisons Ordinance.

Chinese Medicines

Chinese medicines are regulated under the Chinese Medicine Ordinance, which requires any person engaged in the retail or wholesale of Chinese herbal medicines or the manufacture or wholesale of proprietary Chinese medicines to obtain a licence. Licensed manufacturers may apply for a Certificate for Manufacturer, certifying that they follow the requirements of Good Manufacturing Practice (GMP) in the manufacture and quality control of proprietary Chinese

medicines. The Chinese Medicine Council of Hong Kong is the statutory body responsible for devising and implementing regulatory measures for Chinese medicines. All proprietary Chinese medicines must be registered before they can be sold, imported or possessed in Hong Kong. As a transitional arrangement, proprietary Chinese medicines manufactured or on sale on 1 March 1999 are eligible for a transitional registration status upon submission of acceptable basic test reports. By the end of 2012, there were 6,680 licensed Chinese medicine traders (including 10 holding Certificate for Manufacturer), and 8,990 proprietary Chinese medicines had obtained transitional registration status, and 306 proprietary Chinese medicines had been issued with 'Certificate of registration of proprietary Chinese medicine.'

Since December 2011, registered products must have the relevant registration number affixed. Their labels and package inserts should also comply with the relevant requirements.

Provisions relating to clinical trials and medicinal tests also took effect on 3 December 2010, which stipulate that an application for a certificate for clinical trial and medicinal test can be made to the Chinese Medicine Board for the purpose of conducting a clinical trial or medicinal test of any proprietary Chinese medicine.

Human Organ Transplantation

The Human Organ Transplant Ordinance (HOTO) regulates the transplant of human organs and importation of human organs for transplant purposes, and prohibits commercial dealings in human organs intended for transplant. Approval from the statutory Human Organ Transplant Board is required for transplantation of human organs between living 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. Applications can be made to the DH for exemption from the HOTO of certain commercial products made from human tissue that have been subjected to processing, enabling patients with a genuine medical need for a transplant to benefit from the use of these products. As at the end of 2012, the DH had received 22 applications for exemption and approved 18 products.

In 2012, the Human Organ Transplant Board received a total of 25 applications for organ transplants between living non-related persons and 12 human organs were imported into Hong Kong for transplant purposes.

Human Reproductive Technology

Human reproductive technology activities are regulated to ensure the procedures are conducted in a safe and informed manner, and to safeguard the welfare of children born through the technology. Reproductive technology service providers and embryo researchers who wish to conduct relevant activities regulated by the Human Reproductive Technology Ordinance must obtain a licence issued by the Council on Human Reproductive Technology. Up to the end of 2012, the council had issued 50 licences, including 12 treatment licences, 36 artificial insemination-by-husband licences and two research licences.

The ordinance 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 embryos or gametes and the use of donated gametes in surrogacy arrangements. With reference to international practice and in consultation with the reproductive technology profession, social workers, the legal profession, academia and ethical groups, the council has established a code of practice setting out the requirements, standards and good practices for embryo researchers and reproductive technology practitioners.

Port Health

To prevent and control cross-boundary spread of infectious and other serious diseases into and out of Hong Kong, the DH's Port Health Office enforces quarantine measures according to the International Health Regulations and the Prevention and Control of Disease Ordinance. Travellers arriving in Hong Kong at boundary control points are required to undergo temperature screening as a precautionary measure.

The Port Health Office also provides Hong Kong residents with disease preventive services including medical consultation, vaccination, prophylactic medication and advice on travel-related risks before they travel. The office has a close working relationship with the travel industry. Travel health information is available via the website at www.travelhealth.gov.hk.

Radiation Health

The Radiation Board, set up under the Radiation Ordinance, controls the import, export, possession and use of radioactive substances and irradiating apparatus. As the executive arm of the Radiation Board, the DH's Radiation Health Unit safeguards the public against ionising radiation by means of licensing controls and inspection of premises where radioactive substances or irradiating apparatus are present or in use. It also provides health checks and radiation monitoring for radiological practitioners, maintains the radiation dosimetry metrology standards for environmental and occupational protection level radiation dosimetry measurements, and provides the related standard calibration services. The unit advises the Government on the health effects of radiation fields and protection of public health with regard to nuclear incidents and management of radioactive materials and wastes.

In 2012, the unit assessed and issued 13,437 and 3,893 licences/permits under the Radiation Ordinance and the Import (Radiation) (Prohibition) Regulations respectively and monitored 11,117 occupationally exposed persons. The average radiation exposure of occupationally exposed persons was 0.11 mSv against an annual statutory limit of 20 mSv.

Medical Device Control

The DH's voluntary Medical Device Administrative Control System was established in 2004 to raise public awareness of the importance of medical device safety and pave the way to statutory control in the long term. Under this administrative control system, medical devices are classified by the DH into four classes based on their risk levels. Products that conform to requirements on safety and are effective as declared can be listed. The manufacturers and traders must comply with the relevant listing requirements and management measures, and report adverse incidents. The DH maintains lists of high-risk and medium-risk devices, and high-risk in-vitro diagnostic medical devices. In 2012, the DH approved 435 applications for listing medical devices, and processed 1,498 safety alerts and 18 adverse incident reports.

Training of Medical and Health Personnel

Doctors

Degree courses in medicine and surgery are offered at the University of Hong Kong and the Chinese University of Hong Kong, which admitted a total of 417 medical students to the five-year programme and 413 medical students to the six-year programme in 2012. During 2012, 47 medical graduates with professional qualifications obtained outside Hong Kong passed the licensing examination conducted by the Medical Council of Hong Kong. Doctors are also encouraged to pursue continuing education and enhance their professional skills and expertise in order to meet the present needs of professional practice.

The Hong Kong Academy of Medicine is an independent statutory body which approves, assesses and accredits specialist training within the medical and dental professions. Its 15 colleges conduct training and examinations to award specialist qualifications to qualifying candidates.

The HA also trains specialist doctors. Each year, the majority of medical graduates of the two local universities are offered appointment to the HA for specialist training while working in the HA. The HA recruited about 275 doctors for specialist training in 2012 and some 320 doctors completed training at the HA and obtained specialist qualifications.

Dentists

Training in dentistry is available at the University of Hong Kong, which admitted 54 dental students to the five-year programme and 53 dental students to the six-year programme in 2012. During 2012, seven candidates who completed their dental training outside Hong Kong passed the licensing examination conducted by the Dental Council of Hong Kong. Dentists are also encouraged to study further to enhance their professional competence.

Chinese Medicine Practitioners

The Chinese University of Hong Kong, the Hong Kong Baptist University and the University of Hong Kong all offer full-time undergraduate degree courses in Chinese medicine. In 2012, 57 full-time local Chinese medicine bachelor's degree graduates who passed the licensing examination were registered as Chinese Medical Practitioners (CMPs).

The Chinese Medicine Centres for Training and Research are required to employ new graduates of Hong Kong degree courses in Chinese medicine as junior CMPs and to provide them with three years of training, including pre-employment training and training programmes provided by commissioned Western Medical Practitioners. As at the end of 2012, 17 Chinese Medicine Centres for Training and Research had provided 68 CMPs places for their first year of training and 136 CMPs places for their second and third years of training.

Allied Health Professionals

The Hong Kong Polytechnic University offers degree programmes for allied health professionals in physiotherapy, radiography, occupational therapy, medical laboratory science and optometry. In 2012, 226, 197, 172, 89 and 68 students enrolled in these programmes respectively.

The HA's Institute of Advanced Allied Health Studies devises structured long-term training plans for allied health staff and runs courses on specialist and multi-disciplinary training, clinical and personal development. These include a three-year in-service training course for new recruits of allied health grades. In 2012, 60 training courses and a number of overseas scholarships were offered.

Nurses

The University of Hong Kong, the Chinese University of Hong Kong, the Hong Kong Polytechnic University, the Open University of Hong Kong and the Tung Wah College provide pre-registration nursing training. They recruited 1,916 nursing students into their four/five-year full-time nursing degree programmes in 2012, while the Hong Kong Polytechnic University and the Chinese University of Hong Kong enrolled another 118 nursing students into their three-year Master's Degree of Nursing programmes. In addition, the Hong Kong Polytechnic University enrolled 169 students into its three-year higher diploma nursing programme.

The Hong Kong Sanatorium and Hospital, St Teresa's Hospital, the Hong Kong Baptist Hospital, the Union Hospital and the Tung Wah College provide pre-enrolment nursing training. They recruited 377 pupil nurses into their two-year Higher Diploma or Diploma in Enrolled Nurse (General) training programmes in 2012. In addition, the Open University of Hong Kong enrolled 99 and 72 pupils into their two-year Higher Diploma in Nursing programme and Higher Diploma in Mental Health Nursing programme respectively. During 2012, 46 nurses with professional nursing qualifications obtained outside Hong Kong passed the Nursing Council of Hong Kong's licensing examinations and were awarded practising certificates for registered nurses or enrolled nurses.

The HA's three-year higher diploma programme provides basic registered nurse training and 300 registered nurse students were recruited in 2012. The HA also recruited 75 pupil nurses to its two-year enrolled nurse basic training programme in 2012 and recruited 335 pupil nurses to its two-year enrolled nurse basic training programme for the social welfare sector.

The HA's Institute of Advanced Nursing Studies seeks to strengthen the training of nurses in the speciality care services to encourage nurses to improve their professional standards through continuous learning. The institute provides simulation skills training for new nursing graduates to strengthen their skills in clinical care and management of medical emergencies. It also provides experienced nurses with clinical leadership training to enhance clinical management and supervision, and offers new overseas scholarships to experienced nurses to enable them to attend overseas training for more international exposure. The HA also promotes exchanges between nurses in Hong Kong and the Mainland, Macao and other countries.

Laboratory Services

Government Laboratory

The Government Laboratory offers a comprehensive range of analytical, investigatory and advisory services to support the Government in upholding its various commitments to the protection of public health. In the financial year 2011-12, it spent \$165.64 million on providing analytical services for the protection of public health.

In 2012, a total of 186,319 tests were carried out on a wide range of foods to ensure they were fit for consumption and complied with the legal requirements. The laboratory also conducted 17,051 tests arising from investigations into food complaints. The laboratory outsources some routine testing work to commercial laboratories to optimise its resources for developing new food testing methods and conducting more analytical work resulting from the broadened scope of food surveillance operations.

The laboratory also provides services for analysing the quality and safety of western and Chinese medicine. In 2012, it carried out 56,036 tests on western pharmaceutical products and 77,784 on Chinese medicine to ensure they met recognised quality and safety standards, including tests on proprietary Chinese medicines to ensure they were not adulterated with western drugs, controlled substances, or harmful ingredients. The laboratory provided support for investigations into cases involving undeclared western drug ingredients and incidents of intoxication suspected to have been caused by misused or contaminated herbs in Chinese medicine. The laboratory assists the Department of Health in the development of Hong Kong Chinese Materia Medica Standards. It also conducts year-round surveillance of tar and nicotine yields in cigarettes, carrying out 13,536 checks on data declared by tobacco traders, and regularly releases the results to the public.

Public Health Laboratory Services

The DH's Public Health Laboratory Services Branch conducts laboratory tests for clinical and surveillance specimens and provides clinical diagnostic and public health laboratory services to the public and private health sectors for patient care and for other public health purposes. The branch conducted more than five million such tests in 2012.

The branch's Public Health Laboratory Centre has been designated by the WHO as the National Influenza Centre, the National Poliovirus Laboratory, the National Measles Laboratory, a Supranational TB Reference Laboratory, a Regional Reference Laboratory for measles, and designated as one of the Influenza A(H5) Reference Laboratories and one of the SARS Reference Laboratories worldwide.

Hospital Laboratory Services

Hospital laboratories located in the HA's regional hospitals 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 on-site laboratories, have access to comprehensive laboratory services. These laboratories are supported by advanced information technology systems and automated devices to achieve operational efficiency. They are also accredited by a number of local and international accreditation bodies and carried out more than 240 million tests in 2012.

Auxiliary Medical Service

The Auxiliary Medical Service (AMS) provides its government-financed services through 4,602 volunteers and 700 cadets. Volunteers come from all walks of life and include doctors, nurses, pharmacists and paramedical personnel. All AMS members are qualified Disaster Medical Assistants. The main role of the AMS (which is a government department under the Security

Bureau, staffed by 96 civil servants) is to reinforce regular medical, health and ambulance services during emergencies and to provide backup during ordinary times.

The AMS has a Psychosocial Response Team with about 40 members possessing psychosocial first aid knowledge and skills. Following the collision of two passenger vessels near Lamma Island on 1 October, 29 members of the team were mobilised to assist people suffering emotional shock at hospitals and the public mortuary. In June 2012, 588 volunteer members completed a Psychosocial First Aid Training Course jointly organised by the AMS and the Chinese University of Hong Kong to strengthen the psychosocial first aid support services.

The AMS first aid bicycle team provides first aid coverage along the cycling tracks between Tai Wai and Tai Po and mans the first aid posts on the tracks in Ma On Shan, Sha Tin and Tai Po during weekends and public holidays. In 2012, the team deployed about 6,440 man-hours on first aid services. The AMS also runs programmes on first aid and on safety at schools for teachers, students and their parents, and gives talks to the public on cardiopulmonary resuscitation, drug abuse and other such matters.

Websites

Food and Health Bureau: www.fhb.gov.hk

eHealth Record Office: www.eHealth.gov.hk

Department of Health: www.dh.gov.hk

Organ Donation Website under the Department of Health: www.organdonation.gov.hk

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

Hospital Authority: www.ha.org.hk

Auxiliary Medical Service: www.ams.gov.hk

Health and Medical Development Advisory Committee: www.fhb.gov.hk/hmdac

Healthcare Reform: www.myhealthmychoice.gov.hk