

Chapter 9

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.

The Food and Health Bureau formulates policies and allocates resources for healthcare services, with the aim of protecting and promoting public health, providing lifelong holistic care to every resident and ensuring no one is denied medical help due to lack of means.

The Department of Health is the government's health adviser and executes policies and statutory functions. It safeguards the community's health through promotional, preventive, curative and rehabilitative services.

The Hospital Authority, established under the Hospital Authority Ordinance, provides public hospital and related services. It offers medical treatment and rehabilitation services through hospitals, specialist clinics, general outpatient clinics and outreach services organised into seven clusters that together serve the whole city.

2017 Figures at a Glance

<i>Infant Mortality Rate</i>			1.6* per 1,000 registered live births
<i>Maternal Mortality Ratio</i>			1.8* per 100,000 registered live births
<i>Life Expectancy at birth</i>	2017	81.7* (Male)	87.7* (Female)
	2066 (projected)	87.1 (Male)	93.1 (Female)

*provisional figures

Hong Kong has a quality healthcare system supported by a highly professional team of workers. The infant mortality rate was 1.6* per 1,000 live births in 2017, one of the lowest in the world. Male and female life expectancy at birth, respectively at 81.7 years and 87.7 years, were among the world's highest.

Hong Kong's Domestic Health Accounts (DHA)¹ show total health expenditure increased from 3.6 per cent to 6.0 per cent of Gross Domestic Product from 1989-90 to 2014-15. Over the same period, public health spending (\$68.8 billion in 2014-15, or 3.0 per cent of GDP) rose from 40 per cent to 50 per cent of total health expenditure. The government's recurrent funding for health has risen substantially over the past five years, from \$46.2 billion in 2012 to \$61.9 billion by 2017, registering an increase of about \$15.7 billion, or 34 per cent. Recurrent expenditure on health accounted for 17 per cent of the government's recurrent expenditure in 2017.

On a year-on-year basis, the government's recurrent funding for health in 2017 grew about \$4.6 billion from \$57.3 billion in 2016, registering an increase of more than 8 per cent.

Healthcare Reform

In response to the challenges of an ageing population, the government is undertaking a number of initiatives to enhance the long-term sustainability of the healthcare system:

- **Private insurance** – The bureau published a consultation report on the Voluntary Health Insurance Scheme in January 2017 and is preparing to implement the scheme in 2018 so as to protect consumers better and encourage more people to use private health services.
- **Manpower planning and professional development** – The *Report of the Strategic Review of Healthcare Manpower Planning and Professional Development* was published in June, setting out 10 recommendations with a view to planning ahead for long-term manpower demand and fostering professional development.
- **Development of private services** – The Private Healthcare Facilities Bill was introduced into the Legislative Council in June for scrutiny to revamp the regulatory regime for private healthcare facilities.

Primary Care Services

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

Primary care services are provided mainly by the private sector and non-governmental organisations (NGOs). On average, private Western clinics handle about 30 million outpatient visits each year. NGOs operate community clinics, and many also organise health promotion, educational and related activities. Some NGOs provide health assessments for the elderly and medical check-ups for women.

¹ A series of accounts compiled over the years in accordance with the International Classification for Health Accounts 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.

The Hospital Authority operates 73 general outpatient clinics, including community health centres. These focus on serving the elderly, low-income families and chronic disease patients. The body also runs family medicine specialist clinics as a key component of its primary care services. In 2017, some 1.6 million people used these services, with 6.4 million attendances recorded.

Eighteen Chinese Medicine Centres for Training and Research promote the development of evidence-based Chinese medicine and provide training placements for graduates of local Chinese medicine bachelor's degree programmes under a tripartite collaboration model involving the Hospital Authority, NGOs and local universities. These centres served about 180,000 patients involving about 1.2 million attendances in 2017. Private Chinese medicine clinics record about eight million attendances each year.

Family Health

The Department of Health provides health promotion and disease prevention services through its 31 maternal and child health centres and three women's health centres for children from birth to five years of age and women aged 64 or below. The centres offer an Integrated Child Health and Development Programme for parents and caregivers to promote the holistic health and well-being of children.

For women, these centres offer antenatal, postnatal, family planning and cervical screening services, as well as health education on areas including psycho-social health, personal relationships, physical health and healthy lifestyles. Some 27,700 expectant mothers and 57,400 newborn children attended the centres in 2017.

The Family Health Service under the department disseminates information on child and woman health. The Family Planning Association of Hong Kong offers services and information on sexual and reproductive health treatments and counselling. In 2017, more than 400,000 people used its services or took part in its programmes.

Student Health

Health screening and individual counselling are available to primary and secondary students through the department's 12 student health service centres and three special assessment centres. In the 2016-17 school year, about 626,000 students joined these programmes. School health inspectors check schools' hygiene conditions in accordance with the Education Ordinance, while the department's Centre for Health Protection sends School Immunisation Teams to primary schools every year to administer free vaccinations for students.

Under the School Dental Care Service, the department's eight school dental clinics provided preventive dental services, including annual check-ups and basic care, in the 2016-17 school year to about 336,500 primary students, comprising 97 per cent of all Hong Kong primary students. At special schools, students with disabilities can use these services until age 18.

Elderly Health

The department's 18 elderly health centres and 18 visiting health teams provide primary health care to the elderly, improve their ability to care for themselves, encourage healthy living and

strengthen family support so as to minimise illness and disability. The centres provide health assessment, treatment, education and counselling to people aged 65 and above. The visiting teams conduct health promotion activities for the elderly and provide training to improve carers' skills. In 2017, the centres recorded about 45,000 enrolments and 178,000 attendances for health assessment and medical consultation, while the visiting teams recorded 294,000 attendances at health promotion activities.

The Elderly Health Care Voucher Scheme subsidises the elderly to receive private primary health care in the community that best suits their needs. In July, the eligibility age was lowered from 70 to 65. The annual voucher amount for each eligible elder is \$2,000 with a maximum accumulation limit of \$4,000. More than 950,000 elders had made use of the vouchers by end-2017. Eligible Hong Kong elders may use the vouchers to pay for designated outpatient services at the University of Hong Kong-Shenzhen Hospital under a pilot scheme provided by the government.

Community Health

Community health care aims to reduce reliance on inpatient services and help patients recover in the community. In 2017, the Hospital Authority conducted 2.05 million home visits and outreach care services, including for elderly and mental patients.

More than 80 per cent of those receiving the Hospital Authority's community nursing services are elderly. In addition, community geriatric assessment teams visit residential care homes for the elderly regularly to provide medical and nursing care to frail residents who are unable to attend specialist outpatient clinics. These teams train carers at the homes to care for their residents as well. Since 2015-16, the Hospital Authority has been strengthening its community geriatric assessment team services in collaboration with palliative care teams and the homes, to enhance care for residents with terminal illness and to train the staff.

The Community Health Call Centre provides telephone support to high-risk elderly patients discharged from public hospitals, offering advice on disease management and care support, and arranging referrals to appropriate services for patients in need.

Oral Health

Eleven government dental clinics provide emergency services in pain relief and tooth extraction, while seven public hospitals offer specialist oral health care. The department also monitors the level of fluoridation in public drinking water to reduce dental decay.

The department's Oral Health Education Unit holds targeted educational activities to promote oral health, such as the Bright Smiles Mobile Classroom for primary students. Information on oral health is available through the unit's homepage. The department also organises an annual Love Teeth Campaign to encourage good dental habits.

Outreach dental teams set up by NGOs receive government subsidies and provide free dental services, including fillings, extractions and dentures, for elders in residential care homes and similar facilities.

A four-year pilot project launched in 2013 provides dental services for adults with intellectual disability who are recipients of Comprehensive Social Security Assistance (CSSA), the Disability Allowance or the Hospital Authority's medical fee waiver. Eligible patients get subsidised check-ups, treatment and oral health education at designated clinics, and treatment under intravenous sedation or general anaesthesia at designated hospitals. The government will continue to subsidise the participating organisations to provide these services in 2018 to meet the needs of patients who are already on the waiting list of the pilot project.

Mental Health

The government adopts an integrated approach in promoting mental health, through a service delivery model that covers prevention, early identification, timely intervention and rehabilitation. Cross-sectoral and multidisciplinary support and care are available through the collaboration of government bodies including the Food and Health Bureau, Labour and Welfare Bureau, Education Bureau, Hospital Authority, Social Welfare Department and Department of Health.

The Hospital Authority is a major medical service provider for people with mental disorders. Its psychiatric services include inpatient facilities, day hospitals, specialist outpatient clinics and community outreach. In 2016-17, about 240,900 people received treatment and support through these services.

In April, the Review Committee on Mental Health completed a review of mental health policies and services that aimed to map out future directions for the development of services and ensure mental health policies could rise up to the challenges of a growing and ageing population. In its *Mental Health Review Report*, the committee set out 40 recommendations, most of which have been implemented over the course of the review. The relevant bureaus and departments will follow up on the remaining recommendations as appropriate to provide more suitable and adequate services to people with mental health needs.

Based on the recommendations, the government announced forming a standing committee, the Advisory Committee on Mental Health, on 28 November. This committee will advise the government on mental health policies, including the establishment of more integral and comprehensive approaches to tackle multifaceted mental health issues. It will help the government develop policies, strategies and measures to enhance mental health services. It will also follow up on and monitor the implementation of the recommendations.

A case management programme implemented by the Hospital Authority provides intensive community support citywide for patients with severe mental illness, in line with an international trend to focus more on community and ambulatory care in treating mental illness.

A pair of two-year pilot schemes are in place to enhance support for children and adolescents with mental health needs and elderly people with mild or moderate dementia. The Student Mental Health Support Scheme, implemented in the 2016-17 school year, brings together cross-sectoral professional teams comprising teachers, educational psychologists, school social workers and psychiatric nurses to discuss the progress of each case and provide more adequate support to students with mental health needs in schools. As at December 2017, the scheme

was supporting 111 students from 17 schools. The Dementia Community Support Scheme, launched in February 2017, provides support services at the community level for the elderly with mild or moderate dementia and their carers through District Elderly Community Centres, and 1,079 elderly people with dementia and their carers were receiving support as at December.

Other Special Services

Specialist facilities under the department include 19 methadone clinics, 17 chest clinics, seven social hygiene clinics, four dermatology clinics, two integrated treatment centres, four centres and clinics providing services related to clinical genetics, six child assessment centres and two travel health centres. These facilities recorded about 2.64 million attendances in 2017.

Secondary, Tertiary and Specialised Health Care

These services are available mainly in the Hospital Authority's hospitals and specialist outpatient clinics. As at end-2017, the city had 28,329 public hospital beds, comprising 22,001 general beds, 2,041 infirmary beds, 3,607 beds for the mentally ill and 680 beds for the mentally handicapped. There were also 4,644 beds in private hospitals, 5,830 in nursing homes and 880 in institutions run by the Correctional Services Department. There are 5.3² beds per 1,000 people. Public hospitals spent \$38.2 billion on inpatient services in 2016-17 and discharged 1.81 million inpatients and day inpatients in 2017.

The Hospital Authority's specialist outpatient clinics arrange appointments for new patients based on the urgency of their clinical conditions, to ensure those with acute conditions receive priority. Patients in stable condition are referred to family medicine and general outpatient clinics, or to primary care practitioners in the private sector for follow-up. In 2017, the Hospital Authority's specialist outpatient clinics recorded about 7.7 million attendances.

In 2014-15, spending on both public and private secondary, tertiary and specialised health care totalled about \$70.2 billion, of which 72 per cent was spent on public inpatient and specialist outpatient services. In 2016-17, the Hospital Authority's specialist clinics spent about \$11.1 billion on providing medical services.

Allied Health Service

Allied health professionals working under the Hospital Authority 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 to help patients receiving inpatient, outpatient, ambulatory and community care services to reintegrate into society. In 2017, the Hospital Authority's allied health outpatient departments recorded about 2.75 million attendances.

Accident and Emergency Services

Eighteen public hospitals provide accident and emergency services, delivering a high standard of service for critically ill or injured people and victims of disasters.

² Consisting of all beds in the Hospital Authority's hospitals, private hospitals, nursing homes and correctional institutions.

Patients are classified under five categories according to their clinical conditions: critical cases come 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 patients with more urgent needs receive prompt treatment. In 2017, all Category 1 patients received immediate treatment while 97 per cent of Category 2 patients were treated within 15 minutes.

These services spent some \$2.9 billion in 2016-17 and handled 2.2 million visits by 1.28 million people in 2017, an average of about 6,000 attendances per day.

Medical Charges and Waivers

Fees for public hospital and clinic services are subsidised at a rate of 97.1 per cent by the government. Under a medical fee waiver mechanism, waivers are granted for needy groups including CSSA recipients, low-income patients, the chronically ill and elderly patients with financial difficulties. In July, the Hospital Authority extended the coverage of medical fee waivers for public health care to older Old Age Living Allowance recipients with more financial needs, so as to reduce their medical expenses.

Private Hospitals

The private care sector complements the public sector by providing a range of specialist and hospital services.

The 11 private hospitals served 389,486 inpatients in 2016, representing 18 per cent of the city's total number of inpatients. Spending on private inpatient services amounted to \$19.9 billion in 2014-15, accounting for 37 per cent of overall expenditure on inpatient services in the public and private sectors.

Major Developments

Public Hospital Development Projects

In 2017, construction of the Hong Kong Children's Hospital and preparatory works for phase 1 redevelopment of Queen Mary Hospital were substantially completed. The government began main works for the extension of Tuen Mun Hospital's Operating Theatre Block, and preparatory works for the construction of New Acute Hospital at Kai Tak Development Area and phase 2 stage 1 redevelopment of Prince of Wales Hospital. Other ongoing projects include substructure and utilities diversion works for the extension project at Tuen Mun Hospital, phase 1 redevelopment of Kwai Chung Hospital, demolition and substructure works to expand United Christian Hospital, refurbishment of Hong Kong Buddhist Hospital, expansion of the Hong Kong Red Cross Blood Transfusion Service Headquarters and Haven of Hope Hospital, and demolition and substructure works for phase 1 redevelopment of Kwong Wah Hospital.

Public-private Partnership Projects

The government takes part in clinical public-private partnership projects through the Hospital Authority, including programmes about cataract surgery, patient empowerment, haemodialysis, radiological investigation, infirmary services and colon assessment.

The Hospital Authority's General Outpatient Clinic Public-Private Partnership Programme subsidises hypertension and/or diabetes mellitus patients (with or without hyperlipidemia) of stable condition from its general outpatient clinics to receive treatment by private doctors. The programme has been rolled out to 16 districts, and is expected to cover all 18 districts by 2018-19. It had covered 310 participating service providers and 19,497 patients by end-2017.

Sharing of Electronic Health Records

A territory-wide Electronic Health Record Sharing System (eHRSS) allows healthcare providers in the public and private sectors to share the health information of participating patients. The system, regulated by the Electronic Health Record Sharing System Ordinance, aims to enhance the continuity of patient care, promote public-private partnership and improve the quality and efficiency of health care. The eHRSS has been operating smoothly since its commissioning in 2016.

Healthcare recipients and providers are encouraged through engagement and promotional activities to join the eHRSS. As at end-2017, over 650,000 healthcare recipients and over 1,400 organisations, including the 12 private hospitals, private clinics, elderly homes and welfare groups, had registered in addition to the Hospital Authority and the Department of Health. More than 43,700 accounts had been created for healthcare professionals, including about 10,400 doctors, 28,800 nurses, 430 dentists and 4,060 other healthcare professionals specified under the ordinance, to view and share patients' health information on the system.

Genomic Medicine

The bureau established a Steering Committee on Genomic Medicine in November to harness the potential of new technology for better public health policies and clinical outcomes.

Health Promotion

Healthy Lifestyle

The Department of Health's Central Health Education Unit formulates and implements health promotion strategies. It provides information and advice on health-related topics and encourages healthy eating and regular physical activity. The unit also updates information and health advice on infectious diseases, and produces materials in various languages to raise awareness among ethnic minorities of how to prevent communicable diseases.

The department works with the Education Bureau to conduct campaigns such as StartSmart@school.hk and EatSmart@school.hk, which respectively drew the participation of more than 590 pre-primary institutions and over 470 primary schools, including special schools, in the 2016-17 school year. The Joyful@School campaign, another joint collaboration with the Education Bureau, promotes mental well-being among primary and secondary students.

The Adolescent Health Programme fosters mental health and healthy use of the internet among 314 participating secondary schools as well as over 900 parents, teachers, social workers and other stakeholders.

The department's EatSmart@restaurant.hk campaign encourages restaurants to provide healthier choices for the community. Nearly 650 restaurants joined the campaign in 2017.

Joyful@Healthy Workplace is carried out jointly by the department and the Occupational Safety and Health Council. As at December, the programme had drawn over 700 organisations involving 260,000 employees.

AIDS Counselling and Education

The department's Red Ribbon Centre works with community partners to enhance public awareness and prevention of human immunodeficiency virus (HIV) and to promote the care and acceptance of HIV patients. In 2017, the centre organised 74 major activities for 81,700 participants.

Information on Acquired Immune Deficiency Syndrome (AIDS), sexually transmitted infections and multilingual AIDS hotlines is available at the department's website.

Appointments for counselling and HIV antibody tests may be made on the hotline 2780 2211 or the 27802211 website. In 2017, the hotline received about 19,150 calls. Nurse counsellors handled 19,100 calls for AIDS counselling, while about 897,000 condoms were distributed to promote safer sex. There are also a 21171069 website and a Gay Men HIV Testing Hotline (2117 1069), which received 145 calls in 2017 for counselling and HIV antibody tests.

Organ Donation and Transplant

The department, working with the Hospital Authority, healthcare professional bodies and NGOs, promotes organ donation on different fronts. The promotion work is coordinated by the Committee on Promotion of Organ Donation. It invites companies, schools and other organisations to become partners and signatories of the Organ Donation Promotion Charter to promote organ donation.

By end-2017, more than 550 organisations had signed the charter, and more than 278,000 people had registered with the Centralised Organ Donation Register to express their wish to donate their organs after death.

The number of patients waiting for kidney, liver, heart and double-lung transplants stood at 2,153, 87, 48 and 20 respectively. During the year, there were 40 liver, 61 renal, 13 heart, 12 double-lung and 367 cornea donations from the deceased in public hospitals. There was one single-lung donation.

The Human Organ Transplant Ordinance regulates the transplant of human organs and import 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 the transplant of human organs between living persons who are not genetically related or a couple whose marriage has subsisted for not more than three years. In 2017, the board received 20 applications for organ transplants between living non-related persons and Hong Kong imported 46 human organs for transplant purposes.

Under the ordinance, applications can be made to the department to exempt certain commercial products made from processed human tissue, enabling patients with genuine medical needs to benefit from the use of these products. As at the end of 2017, the department had approved the exemption of 42 products since the ordinance took effect in 2011.

Smoking and Health

China is a state party to the Framework Convention on Tobacco Control of the World Health Organisation (WHO), so provisions of the convention are applicable to Hong Kong. The city's tobacco control policy aims to discourage smoking, contain the proliferation of tobacco use and minimise the impact from passive smoking through a progressive and multi-pronged approach comprising legislation, publicity, education, enforcement, smoking cessation and taxation.

The Smoking (Public Health) Ordinance stipulates statutory no-smoking areas, regulates the packaging and labelling of tobacco products, and prohibits all advertisements and promotions for such products. Smoking is banned in all indoor areas of workplaces and public places, including restaurants and bars, as well as some outdoor areas, including the open areas of schools, leisure grounds, bathing beaches and public transport facilities. Offenders are liable to a fine of \$1,500 under the Fixed Penalty (Smoking Offences) Ordinance. On 21 December, the sizes of health warnings were increased from 50 per cent to 85 per cent of the two largest surfaces of a packet of tobacco products.

The department's Tobacco Control Office enforces regulations set out in the two ordinances above. In 2017, it conducted 33,159 inspections and issued 149 summonses and 9,711 fixed penalty notices for smoking offences. A special task force was formed to enhance the enforcement action at night and during holidays. The office also distributes guidelines, posters, no-smoking signs and pamphlets to the public and the venue managers of statutory no-smoking areas.

In addition, the office provides advice on how to quit smoking, counselling services and pharmaceutical treatment through a smoking cessation hotline (1833 183), clinics and an interactive online cessation centre. In 2017, the hotline handled more than 7,300 phone calls. The office also conducts seminars and issues materials to increase awareness of the harmful effects of smoking and second-hand cigarette smoke. It works with NGOs to run community-based smoking cessation programmes that include the use of Chinese medicine acupuncture, peer-led phone counselling, smoking cessation services at the workplace, programmes for ethnic minorities and new immigrants, and school activities.

The Hong Kong Council on Smoking and Health, an independent statutory body, advises the government on smoking, passive smoking and health, and publicises the hazards of smoking. The council also conducts publicity, education and community involvement campaigns, and operates a website and a hotline to receive enquiries and suggestions from the public on smoking and health.

The Hospital Authority provides counselling and cessation services through its 15 full-time and 52 part-time smoking counselling and cessation centres. It also operates a hotline providing booking and enquiry services for people who wish to quit smoking.

Disease Prevention and Control

The department spent \$3.5 billion on disease prevention and control at its maternal and child health centres, elderly health centres and similar facilities in 2016-17.

Centre for Health Protection

The Centre for Health Protection collaborates with 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. The centre keeps track of communicable diseases and issues surveillance reports regularly, as well as reports on laboratory data.

A board of scientific advisers and six scientific committees meet periodically to help the centre formulate policies to improve the health protection system.

The centre liaises closely with District Councils and Healthy Cities projects at the district level and solicits their support to disseminate health information and guidelines, to alert the public to health threats and facilitate rapid implementation of preventive measures, and to carry out other health promotion activities. It also shares professional knowledge and experience in combating diseases with health authorities on the Mainland, in Macao and at the WHO.

Prevention and Control of Infectious Diseases

The Prevention and Control of Disease Ordinance specifies 50 statutory notifiable infectious diseases in Hong Kong. In 2017, 18,774 cases were reported, of which about 9,353 and 4,550 were diagnosed as chickenpox and tuberculosis respectively.

The centre continually reviews and updates its strategies for coping with major outbreaks of infectious diseases, including an influenza pandemic, the Ebola virus disease, Middle East Respiratory Syndrome and Zika virus infection, ensuring both the government and the community are prepared to deal with them.

Up to December 2017, Hong Kong had confirmed 21 human cases of avian influenza A (H7N9) since the city reported its first human case in December 2013. All were sporadic imported cases.

Vaccination

Children are protected against communicable diseases such as tuberculosis, hepatitis B, poliomyelitis, diphtheria, tetanus, pertussis, measles, mumps, rubella, chickenpox and pneumococcal disease under the Childhood Immunisation Programme.

The government provides free and subsidised seasonal influenza vaccinations to elderly people, children and other target groups under the Government Vaccination Programme and Vaccination Subsidy Scheme. The programme provides eligible people with free vaccinations each year at public hospitals and clinics, residential care homes for the elderly, residential care homes for persons with disabilities, and designated institutions serving persons with intellectual disability. The scheme offers private doctors a subsidy of \$190 for each seasonal influenza vaccination they give to eligible people.

Both initiatives have been providing free and subsidised 23-valent pneumococcal polysaccharide vaccine (23vPPV) to eligible elderly people aged 65 years or above since 2009. As from 2017-18, an additional dose of free or subsidised 13-valent pneumococcal conjugate vaccine (PCV13) has been offered to elderly people aged 65 years or above who have high-risk conditions. The subsidies paid to private doctors for the PCV13 and 23vPPV are \$730 and \$190 per dose respectively.

Non-communicable Diseases

The major killers in Hong Kong are cancer, heart and cerebrovascular diseases, which together accounted for about 51 per cent of all registered deaths in 2017. Elderly people are the major victims of these chronic non-communicable diseases.

The Cancer Coordinating Committee, chaired by the Secretary for Food and Health, steers and recommends the strategies and work for the prevention and control of cancer, which claimed more than 14,300 lives locally in 2017. The Department of Health's Cervical Screening Programme encourages women aged 25 to 64 who have ever had sex to undergo regular cervical cancer screening. In 2017, about 106,700 women underwent screening.

In September 2016, the department launched a three-year Colorectal Cancer Screening Pilot Programme to provide subsidised screening for Hong Kong residents born in the years 1946 to 1955 in phases to prevent colorectal cancer. By end-2017, 55,000 participants had joined the programme.

Regulatory Activities

Healthcare Professionals

As at end-2017, 14,290 doctors, 2,500 dentists, 10,048 listed and registered Chinese medicine practitioners, 54,231 registered and enrolled nurses, 4,611 midwives, 2,753 pharmacists, 218 chiropractors, 3,091 physiotherapists, 2,070 occupational therapists, 3,567 medical laboratory technologists, 2,198 optometrists, 2,293 radiographers and 443 dental hygienists were registered in Hong Kong.

The Pilot Scheme of Accredited Registers for Healthcare Professions was launched in 2016 to enhance the society-based registration arrangements of healthcare professions currently not subject to statutory regulation, so as to ensure the professional competency of healthcare personnel and provide more information for the public to make informed decisions. The profession of speech therapist is the first to undergo accreditation under the scheme.

Western Medicine

Western medicine in Hong Kong is regulated under the Pharmacy and Poisons Ordinance. Acting on the authority of the Pharmacy and Poisons Board, the department evaluates and approves applications for registration of pharmaceutical products, issues licences to drug manufacturers, wholesalers and retailers, and takes action against the illegal sale of controlled drugs. The department also enforces regulatory controls on poisons, antibiotics and dangerous drugs for medicinal use.

In 2017, the board approved 3,008 applications for registration of pharmaceutical products. As at the year end, 18,120 pharmaceutical products were registered.

Chinese Medicine

Chinese medicine is 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. The Chinese Medicine Council of Hong Kong is the statutory body that devises and implements regulatory measures for Chinese medicine. 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 sold in Hong Kong on 1 March 1999 are eligible for a transitional registration status if an application is made within a specified period and upon the submission of acceptable basic test reports. As at end-2017, there were 6,930 licensed Chinese medicine traders, including 18 holding the Certificate for Manufacturer; 7,149 proprietary Chinese medicines with transitional registration status; and 1,291 with a Certificate of Registration of Proprietary Chinese Medicine.

The department has released reference standards for 275 commonly used Chinese medicines under the Hong Kong Chinese Materia Medica (HKCMM) Standards Project. The project aims to ensure the safety and quality of common Chinese herbal medicines and is supported by local universities and overseas and Mainland experts. A pilot study on setting standards for Chinese medicinal decoction is under way.

A temporary testing centre for Chinese medicine has been operating in phases from March 2017 following the 2015 Policy Address, while the department worked on establishing a permanent centre.

The department's Chinese Medicine Division, which is designated by the WHO as a WHO Collaborating Centre for Traditional Medicine, helps the WHO formulate policies and strategies and sets regulatory standards for traditional medicine.

Integrated Chinese-Western Medicine Pilot Programme

The Hospital Authority is implementing an Integrated Chinese-Western Medicine Pilot Programme with the aims of using such medicine to maximise the outcome of patient care, gaining experience in the development of Chinese medicine inpatient services, and facilitating postgraduate Chinese medicine development and training. The pilot programme is operating in seven public hospitals: Tung Wah Hospital, Pamela Youde Nethersole Eastern Hospital, Tuen Mun Hospital, Prince of Wales Hospital, Shatin Hospital, Kwong Wah Hospital and Princess Margaret Hospital.

Human Reproductive Technology

Activities using human reproductive technology 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. The Human Reproductive Technology Ordinance confines the application of human 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. Reproductive technology service providers and embryo researchers who wish to conduct relevant activities under the ordinance must apply for a licence issued by the Council on Human Reproductive Technology set up under the legislation. As at the end of 2017, the council had issued 48 valid licences, including 17 treatment licences, 29 artificial insemination-by-husband licences and two research licences.

The council's Code of Practice on Reproductive Technology and Embryo Research sets out the requirements, standards and good practices for embryo researchers and reproductive technology practitioners.

Port Health

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

The office also operates two travel health centres to provide outbound travellers with disease preventive services, including medical consultation, vaccination, prophylactic medication and advice on travel-related risks. It works closely with the travel industry and provides travel health information on the department's website.

Radiation Health

Set up under the Radiation Ordinance, the independent Radiation Board controls the import, export, possession and use of radioactive substances and irradiating apparatus. The board's executive arm is the department's Radiation Health Unit, which carries out licensing controls and inspects radioactive substances or irradiating apparatus. It also provides health surveillance and radiation monitoring for radiation workers, maintains metrology standards in radiation dosimetry measurements and provides the related standard calibration services. The unit advises on the management of radioactive substances and wastes and, in case of nuclear incidents, on matters concerning the protection of public health.

Training of Medical Personnel

Doctors

Degree courses in medicine and surgery are offered at the University of Hong Kong (HKU) and the Chinese University of Hong Kong (CUHK), which admitted a total of 470 medical students to their bachelor's degree programmes in 2017. Another 53 medical graduates with professional qualifications obtained outside Hong Kong passed licensing examinations conducted by the Medical Council of Hong Kong.

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.

The Hospital Authority trains specialist doctors, offering appointments to nearly all the medical graduates of the two universities each year for on-the-job specialist training. In 2016-17, about 360 doctors were recruited for specialist training. Around 260 doctors were awarded specialist qualifications by the Hong Kong Academy of Medicine in 2017.

Dentists

HKU offers degree courses in dentistry, admitting 73 students to its bachelor's degree programme in 2017. Twenty-three candidates who completed their dental training outside Hong Kong passed licensing examinations conducted by the Dental Council of Hong Kong.

Chinese Medicine Practitioners

CUHK, HKU and Hong Kong Baptist University offer full-time undergraduate degree courses in Chinese medicine. In 2017, 74 full-time local bachelor's degree graduates who passed the licensing examination were registered as Chinese medicine practitioners.

The 18 Chinese Medicine Centres for Training and Research employ fresh graduates as Chinese medicine practitioner trainees for three years. As at end-2017, these centres provided 216 training places, including 72 places for their first year of training.

Allied Health Professionals

Hong Kong Polytechnic University (PolyU) and Tung Wah College offer degree programmes for allied health professionals. In 2017, PolyU admitted 134, 103, 101, 55 and 45 students to its publicly funded degree programmes in physiotherapy, radiography, occupational therapy, medical laboratory science and optometry respectively. Tung Wah College admitted 31, 17 and 45 students to its self-financing degree programmes in medical laboratory science, radiation therapy and occupational therapy respectively. The professional accreditation process has been completed for all three Tung Wah degree programmes. In the 2017-18 academic year, the government started subsidising 20 and 12 Tung Wah College students to pursue accredited degree programmes in medical laboratory science and radiation therapy respectively.

The Hospital Authority's Institute of Advanced Allied Health Studies devises structured long-term training plans for allied health staff members and runs courses on specialist and multidisciplinary training, and clinical and personal development. These include three years of in-service training for new recruits of allied health grades. In 2017, the institute offered 58 training courses and 59 overseas scholarships.

Nurses

HKU, CUHK, PolyU, the Open University of Hong Kong (OUHK), Tung Wah College and the Caritas Institute of Higher Education provide pre-registration nursing training. They recruited 1,621 students into their nursing degree programmes in 2017. PolyU and CUHK enrolled another 117 students in their Master's Degree of Nursing programmes.

Hong Kong Baptist Hospital, Hong Kong Sanatorium and Hospital, St Teresa's Hospital, Union Hospital, HKU Space Community College and Tung Wah College provide pre-enrolment nursing training. They recruited 384 pupil nurses into their two-year Higher Diploma in Enrolled Nurse

(General) training programmes in 2017. OUHK enrolled 241 and 40 pupils in its two-year Higher Diploma in General Health and Higher Diploma in Mental Health Nursing programmes respectively. Another 36 nurses with professional nursing qualifications obtained outside Hong Kong passed the Nursing Council of Hong Kong's licensing examinations and received practising certificates for registered nurses or enrolled nurses.

Self-financing undergraduate programmes in nursing that are subsidised by the government offered 480 places in 2017-18.

The Hospital Authority's three-year higher diploma programme provides basic registered nurse training and enrolled 300 students in 2017. Another 100 pupil nurses were admitted to its two-year enrolled nurse basic training programme.

The Hospital Authority's Institute of Advanced Nursing Studies seeks to strengthen specialty care training for nurses and encourage them to improve professional standards through continuous learning. The institute provides simulation training for new graduates to strengthen their skills in clinical care and medical emergencies. Experienced nurses can apply for scholarships to attend overseas training for international exposure.

Laboratory Services

Government Laboratory

The Government Laboratory offers a comprehensive range of analytical, investigatory and advisory services to support the government in upholding its commitment to protect public health. It spent \$238 million in 2016-17 on providing the required services.

In 2017, the laboratory carried out 194,543 tests on foods to ensure they were fit for consumption and complied with legal requirements, and conducted 14,889 tests arising from investigations into food complaints. Some routine testing was outsourced to private laboratories to better utilise its own resources for developing new testing methods and coping with a broadened scope of testing services, and to develop the capabilities of the private laboratory sector.

The laboratory performed more than 54,500 tests on pharmaceutical products and over 83,800 tests on Chinese medicines to ensure they met recognised quality and safety standards and to verify proprietary Chinese medicines were free from western drug adulteration or harmful ingredients. It also supported investigations into the use of undeclared western drugs in preparations and incidents of intoxication suspected to have been caused by misused or contaminated Chinese herbal medicines.

The laboratory provides analytical support in certifying the chemical markers of unregistered proprietary Chinese medicines, and helps develop the HKCMM Standards. It conducts year-round surveillance of tar and nicotine yields in cigarettes.

Public Health Laboratory Services

The Department of Health's Public Health Laboratory Services Branch conducts laboratory tests on clinical and surveillance specimens and provides clinical diagnostic and public health laboratory services to the public and private sectors for patient care and other public health purposes.

The branch's Public Health Laboratory Centre is designated by the WHO as a National Influenza Centre, National Poliovirus Laboratory, National Measles Laboratory of the Hong Kong Special Administrative Region, Supranational TB Reference Laboratory, Regional Reference Laboratory for measles in the Western Pacific Region, Global Influenza A(H5) Reference Laboratory and Severe Acute Respiratory Syndrome Reference Laboratory.

Auxiliary Medical Service

The Auxiliary Medical Service is a government department under the Security Bureau, with 99 civil servants and about 6,000 adult volunteers and cadets. It reinforces regular medical and ambulance services during emergencies and provides backup in normal circumstances. The volunteers come from all walks of life and include doctors, nurses, pharmacists and paramedics. All are qualified Disaster Medical Assistants. The cadets, aged 12 to 17, receive training in discipline and medical skills to develop self-discipline and a sense of responsibility.

During weekends and public holidays, the department deploys members at first aid stations in country parks and along cycling tracks, and assigns First Aid Bicycle Teams to cycling tracks in the New Territories. It also runs programmes on first aid at schools and gives talks to the public on cardiopulmonary resuscitation and other health topics.

Websites

AIDS Hotline Website: www.27802211.com

Auxiliary Medical Service: www.ams.gov.hk

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

Cervical Cancer Screening: www.cervicalscreening.gov.hk

Colorectal Cancer Screening Pilot Programme: www.colonscreen.gov.hk

Department of Health: www.dh.gov.hk

eHealth Record Office: www.eHealth.gov.hk

Family Health Service: www.fhs.gov.hk

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

Gay Men HIV Testing Hotline: www.21171069.com

Hong Kong Council on Smoking and Health: www.smokefree.hk

Hospital Authority: www.ha.org.hk

Oral Health Education Unit: www.toothclub.gov.hk

Organ Donation: www.organdonation.gov.hk

Red Ribbon Centre: www.rrc.gov.hk

School Dental Care Service: www.school dental.gov.hk/wsmile/aboutus_intro_c.html

Travel Health Service: www.travelhealth.gov.hk

Virtual AIDS Office: www.info.gov.hk/aids/