# 2 LOCAL SITUATION ANALYSIS

## 2.1 OVERVIEW OF DATA AVAILABILITY AND SOURCES FOR NON-COMMUNICABLE DISEASE SURVEILLANCE

2.1.1 Recognising that a well-planned monitoring system using indicators, definitions and data collection methods compatible with the World Health Organization (WHO)'s global monitoring framework (GMF) can serve as an important basis for tracking progress of non-communicable disease (NCD) control, a stock-taking exercise was carried out to review data availability and consider the relevance and feasibility of developing a NCD monitoring framework for Hong Kong using WHO's GMF as benchmark.

2.1.2 In Hong Kong, information on NCD morbidity and mortality and their related risk factors is available from various sources, such as disease registries (e.g. Hong Kong Cancer Registry) or administrative collections, health service data (e.g. the Department of Health (DH)'s Family Health Service and Student Health Service (SHS)'s data pertaining to children under age 15) or research-based data. Health-related data are also available from health surveys conducted by DH and other organisations, such as the DH's Population Health Survey (PHS) (that includes household questionnaire interviews, physical measurements and biochemical measurements for people aged 15 or above) about every 10 years; the DH's Behavioural Risk Factor Survey (which is a telephone survey of people aged 18-64) every year from 2004 to 2016; the DH's Injury Survey (which is a household survey of unintentional injuries of people of all ages) about every 10 years and the Census and Statistics Department (C&SD)'s Thematic Household Survey on pattern of smoking every 2 to 3 years. Social and demographic data used as denominators are provided through the Population Census and other regular household surveys conducted by C&SD of the Hong Kong Special Administrative Region Government.

2.1.3 In sum, local data sources and figures generally exist to enable local NCD tracking and international comparison. However, certain limitations and information gaps exist. For instance, some indicators might not be able to fully meet the definitions or specifications advised by WHO or satisfying surveillance and monitoring needs due to reasons such as incomplete coverage especially for younger age group, data collection methods potentially affecting accuracy of measurements (e.g. 'self-reported' but not 'measured' data), or too infrequent data collection limiting usefulness for tracking and trend analysis. To satisfy future data need for local NCD surveillance, a more systematic, streamlined and sustainable approach to NCD surveillance needs to be put in place.

2.1.4 At the same time, a few indicators are lacking. This refers to difficulty in setting quantifiable indicators for Target 8 (regarding access to drug therapy and counselling to prevent heart attacks and strokes) and Target 9 (regarding availability of affordable basic technologies and essential medicines to treat major NCD). In addition, there are concerns about a lack of incidence data on major NCD (except cancers) to assess the extent of growth of NCD problems; and well-planned cohort studies to keep track of evolving trends and risk profiles. Such information are considered important for priority setting, informing healthcare policies, resource allocation, better healthcare planning and service delivery, and equitable use of services for NCD control, irrespective of socioeconomic background, education level and income. To date, local studies to quantify social and economic benefits of behavioural risk factor reduction (e.g. correlation of increased physical activities with medical cost savings), which could produce strong evidence to inform policy, legislative or fiscal measures to support lifestyle changes, are limited. In moving forward, ongoing efforts are required to explore how these data collection needs could be met.

## 2.2 NON-COMMUNICABLE DISEASE STATUS OF LOCAL POPULATION

2.2.1 Notwithstanding the data limitations mentioned above, current data were able to reveal increasing burden of some NCD-related conditions, despite Hong Kong performing fairly well in some areas (e.g. premature mortality and prevalence of tobacco use have been steadily decreasing). In particular, the Report of PHS 2014/15[25] released in November 2017 was a wake-up call of the adult (aged 15 or above) population's behavioural patterns and NCD status.

2.2.2 The PHS 2014/15 showed that among the local population aged 15 to 84, the prevalence of hypertension, diabetes and high blood cholesterol were 27.7%, 8.4% and 49.5% respectively. For every person known to be suffering from any of these conditions, at least one other person with the disease went undiagnosed and untreated. It is estimated that at the age of 40, about half of local adults suffered from and would require treatment or counselling for at least one of the conditions listed above. By the usual retirement age of 65, about 10% of individuals will be suffering from all of the three conditions, with heavy reliance on the healthcare system for disease maintenance. The fact that half

[25] Report of Population Health Survey 2014/15. Hong Kong SAR: Department of Health. Available at: https://www.chp.gov.hk/en/static/51256.html

(50.0%) of local people aged 15 to 84 are overweight or obese[26] would make the situation worse as overweight/obesity are significant risk factors for NCD development, including cancers.

2.2.3 Comparing results of PHS 2014/15 with those from PHS 2003/04[27] or Heart Health Survey 2004/05[28], obvious increases were noted in the crude rates and absolute numbers of people with hypertension, diabetes and high blood cholesterol. The prospect looks gloomier if unhealthy lifestyle patterns are taken into consideration. For instance, PHS 2014/15 revealed that about 86.3% of local people aged 15 to 84 had salt intake in excess of WHO's recommended limit of less than 5 grams a day; among the local people aged 15 or above, 94.4% consumed less than the WHO recommended 5 servings of fruit and vegetables a day; 13.0% did not have adequate level of physical activity to be of benefit to health; and 61.4% had consumed alcohol (a proven cancer causing agent and factor for over 200 disease and injury conditions) in the last 12 months.

2.2.4 Data from other sources were also collected to compile the local NCD status and behavioural risk patterns. More details can be found in **Targets 1 to 9 of Chapter 3**.

## 2.3 OVERVIEW OF HONG KONG SITUATION VIS-A-VIS WORLD HEALTH ORGANIZATION'S "BEST BUYS" AND OTHER RECOMMENDED INTERVENTIONS FOR TACKLING KEY RISK FACTORS FOR NON-COMMUNICABLE DISEASES

2.3.1 To tackle the increasing challenges posed by NCD, public health actions taken should be based on the best available evidence. To examine the adequacy of current locally adopted NCD interventions, they were compared with and summarised against WHO's "best buys" and other recommended interventions for reducing NCD in **Tables 1a to 1e**. In summary, a range of NCD prevention and control work is being undertaken in Hong Kong. To a large extent, many interventions focus on raising public awareness and encouraging individual behavioural changes among the targeted audience. Unless upstream policy, fiscal and administrative means are implemented, the effect on improving population health is expected to be limited and, at best, short-lived.

[26] Prevalence of overweight or obesity was compiled based on the classification of body mass index (BMI) categories for Chinese adults adopted by the Department of Health, i.e. BMI ≥ 23.0 kg/m$^2$ and < 25.0 kg/m$^2$ as overweight and BMI ≥ 25.0 kg/m$^2$ as obese.

[27] Executive summary of the Report of Population Health Survery 2003/04. Hong Kong SAR: Department of Health. Available at: https://www.chp.gov.hk/files/pdf/report_on_population_health_survey_2003_2004_en.pdf

[28] Executive summary of the Report of Heart Health Survey 2004/05. Hong Kong SAR: Department of Health. Available at: https://www.chp.gov.hk/files/pdf/heart_health_survey_eng.pdf

## Overview of Hong Kong situation vis-a-vis World Health Organization's "best buys" and other recommended interventions (based on WHO-CHOICE analysis) for tackling key risk factors for non-communicable diseases

### Guide to interpreting these tables:

**a**

The WHO-CHOICE analysis assessed and categorised 88 interventions (published in peer reviewed journal with demonstrated and quantifiable effect size) based on their feasibility and cost-effectiveness ratio (expressed as International dollars (I$) per disability adjusted life year (DALY)) of ≤ I$ 100 per DALY averted in low- and lower middle-income countries (LMICs); cost-effectiveness ratio > I$ 100 per DALY averted; and those for which WHO-CHOICE analysis could not be conducted. The absence of WHO-CHOICE analysis does not necessarily mean that an intervention is not cost-effective, affordable or feasible – rather, there were methodological or capacity reasons for which the WHO-CHOICE analysis could not be completed at the current time. The subsequent tables show three categories of interventions:-

**"Best buys"**
are those interventions considered the most cost-effective and feasible for implementation, with an average cost effectiveness ratio ≤ I$100/DALY averted in LMICs

**"Effective interventions"**
are interventions with an average cost-effectiveness ratio > I$100/DALY averted in LMICs

**"Other recommended interventions"**
are interventions that have been shown to be effective but for which no cost-effective analysis was conducted

**b**

**Local Status :** Adopted | Partially adopted | Not adopted

### Table 1a: Unhealthy diet

| | WHO recommended interventions | Local situation (Refer to Targets 4, 6 and 7 of Chapter 3 for more details ) | |
|---|---|---|---|
| Best buys | Reduce salt intake through the reformulation of food products | • No policy exists. | |
| | Reduce salt intake through the establishment of a supportive environment in public institutions such as hospitals, schools, workplaces and nursing homes | • Hong Kong has been implementing various programmes and issued guidelines to encourage supply of healthy dishes/food with less salt, oil and sugar at different settings (e.g. Centre for Food Safety (CFS)'s "Reduce Salt, Sugar, Oil. We Do!" programme and "Trade Guidelines for Reducing Sodium in Foods"; DH's "EatSmart@restaurant.hk" Campaign and "EatSmart@school.hk" Campaign and "Nutritional Guidelines on Snacks for students", etc.). | |
| | Reduce salt intake through a behaviour change communication and mass media campaigns | • Hong Kong has been organising various publicity and education programmes to reduce population salt consumption. | |
| | Reduce salt intake through the implementation of front-of-pack labelling | • The "Salt/Sugar" Label Scheme for Prepackaged Food Products was launched in October 2017. | |

## Table 1a: Unhealthy diet (cont'd)

| | WHO recommended interventions | Local situation (Refer to Targets 4, 6 and 7 of Chapter 3 for more details) | |
|---|---|---|---|
| Effective interventions | Eliminate industrial trans fats through the development of legislation to ban their use in the food chain | • There is currently no legislation to limit saturated fatty acids or eliminate partially hydrogenated vegetable oils (the main source of industrially produced trans fats) in the food supply.<br>• Guidelines on reducing fats (total, saturated and trans fats) in food were provided to the trade by CFS. | |
| | Reduce sugar consumption through effective taxation on sugar-sweetened beverages | • No policy exists. | |
| Other recommended interventions | Promote and support exclusive breastfeeding for the first 6 months, including promotion of breastfeeding | • In April 2014, the Committee on Promotion of Breastfeeding was set up at Food and Health Bureau (FHB) to advise the Government on strategies and actions to promote and support breastfeeding. | |
| | Implement subsidies to increase the intake of fruit and vegetables | • No policy exists. | |
| | Replace trans fats and saturated fats with unsaturated fats through reformulation, labelling, fiscal policies or agricultural policies | • There is currently no legislation to limit saturated fatty acids or eliminate partially hydrogenated vegetable oils (the main source of industrially produced trans fats) in the food supply.<br>• Guidelines on reducing fats (total, saturated and trans fats) in food were provided to the trade by CFS. | |
| | Limit portion and package sizes | • No policy exists. | |
| | Implement nutrition education and counselling in different settings (e.g. in preschools, schools, workplaces and hospitals) to increase the intake of fruit and vegetables | • DH's SHS provides dietary advice and counselling on healthy weight management to help students make healthy lifestyle choices.<br>• DH's Central Health Education Unit has been implementing various health educational activities/programmes to promote intake of fruit and vegetables in schools, workplace and in the community. | |
| | Implement nutrition labelling to reduce total energy intake, sugars, sodium and fats | • The Government has implemented a mandatory nutrition labelling scheme for prepackaged foods since 1 July 2010 to help consumers make informed food choices. This labelling scheme requires prepackaged foods to present specified nutrition information, usually in a tabular format on the back or side of packaging. | |
| | Implement mass media campaigns on healthy diet to reduce the intake of total fat, saturated fats, sugars and salt, and promote the intake of fruit and vegetables | • Hong Kong has implemented various public awareness programmes to promote healthy eating. | |

## Table 1b: Physical inactivity

| | WHO recommended interventions | Local situation (Refer to Targets 3 and 7 of Chapter 3 for more details) | |
|---|---|---|---|
| Best buys | Implement community wide public education and awareness campaigns for physical activity | • Hong Kong has implemented various public awareness programmes to promote physical activity mainly through Leisure and Cultural Services Department (LCSD). | |
| Effective interventions | Provide physical activity counselling and referral as part of routine primary healthcare services | • No organised programme exists. | |
| Other recommended interventions | Implement whole-of-school programme that includes quality physical education, availability of adequate facilities and programmes | • Physical Game Workshop for Teachers in Pre-primary institutions was organised under the "StartSmart@school.hk" Campaign of DH.<br>• Curriculum Documents for Physical Education (PE) in Primary and Secondary schools were issued by Education Bureau (EDB) and basic facilities in local primary and secondary schools were available for the implementation of PE curriculum. | |
| | Ensure that macro-level urban design supports active transport strategies | • The Government is proposing to (i) incorporate "active design" considerations under the *"Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030"* (Hong Kong 2030+) to promote walking, cycling, exercising and recreational pursuits, by improving accessibility to nature and outdoor leisure pursuits, enhancing the connectivity of the city, creating desirable conditions for walking and cycling, reinventing our public spaces for the enjoyment of all, and adopting an enhanced standard for public open space provision; and (ii) to promote walkability under the theme "Walk-in-HK" with a view to fostering a pedestrian-friendly environment and encouraging people to walk more, etc. | |
| | Provide convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling | | |
| | Implement multi-component workplace physical activity programmes | • DH and the Occupational Safety and Health Council launched the "Joyful@Healthy Workplace" Campaign in August 2016 to assist employers and employees to create healthy and joyful working environment. The Campaign focuses on three areas, "mental well-being", "healthy eating" and "regular physical activity". | |
| | Promotion of physical activity through organised sport groups and clubs, programmes and events | • Hong Kong has been organising a wide variety of sports and recreational activities and sport events to promote physical activity mainly through LCSD. | |

## Table 1c: Harmful use of alcohol

| | WHO recommended interventions | Local situation (Refer to Target 2 of Chapter 3 for more details) | |
|---|---|---|---|
| Best buys | Increase excise taxes on alcoholic beverages | • Tax is not levied on alcoholic beverages (beer, wine, and spirits) with an alcohol strength of less than 30% in Hong Kong. | |
| | Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising | • Under the Broadcasting Ordinance (Cap. 562) and the Broadcasting (Miscellaneous Provisions) Ordinance (Cap. 391), all television programme service licensees and sound broadcasting licensees have to comply with the Codes of Practice issued by the Office of the Communications Authority. Under the Codes of Practice, there are restrictions on advertising alcoholic beverages to young people. There is no restriction on other advertising means or other forms of marketing and promotion of alcoholic beverages. | |
| | Enact and enforce restrictions on the physical availability of retailed alcohol | • It is an offence under the Dutiable Commodities (Liquor) Regulations (Cap. 109B) to sell liquor except on the authority of a liquor licence or a temporary liquor licence at any premises for consumption on those premises; or at a place of public entertainment or a public occasion for consumption at the place or occasion.<br>• There was no prohibition on the sale or supply of intoxicating liquor to minors in both licensed premises or non-licensed premises including retail stores. In order to plug the loophole, the Government had introduced the Dutiable Commodities (Amendment) Bill 2017 (the Bill) into the Legislative Council and the Bill was passed on 8 February 2018. The enacted regulation will commence in the second half of 2018. | |
| Effective interventions | Enforcing drink driving laws (breath-testing) | • With effect from 9 February 2009, uniform police officers can require a person who is driving or attempting to drive a vehicle on a road to perform an alcohol breath test without the need for reasonable suspicion (Cap. 374, Ref 39B). | |
| | Offer brief advice for hazardous drinking | • Under Actions 14 and 15 of the *'Action Plan to Reduce Alcohol-related Harm in Hong Kong'*, guidelines and health education materials for alcohol screening and brief intervention (A-SBI) for primary care professionals has been developed for promulgation. | |

## Table 1c: Harmful use of alcohol (cont'd)

| | WHO recommended interventions | Local situation (Refer to Target 2 of Chapter 3 for more details) | |
|---|---|---|---|
| Other recommended interventions | Carry out regular reviews of prices in relation to level of inflation and income | • There is currently no adjustment of level of taxation for inflation for beer, wine and spirits. | |
| | Establish minimum prices for alcohol where applicable | • No policy exists. | |
| | Enact and enforce an appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets | • Regulation 28 of the Dutiable Commodities (Liquor) Regulations (Chapter 109B) provides that 'no licensee shall permit any person under the age of 18 years to drink any intoxicating liquor on any licensed premises'. There is no prohibition on the consumption of alcoholic beverages by minors in non-licensed premises or public places. | |
| | Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people | • No legislation exists. | |
| | Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services | • Clinical and social services for people with alcohol-related problems are provided by the Tuen Mun Alcoholic Problem Clinic, a few psychiatric departments in the Hospital Authority and some non-governmental organisations. | |
| | Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol | • No governmental policies exist to mandate labelling of alcohol and nutritional content of alcoholic beverages. Currently, such practice is voluntary. | |

## Table 1d: Tobacco use

| | WHO recommended interventions | Local situation (Refer to Target 5 of Chapter 3 for more details) | |
|---|---|---|---|
| Best buys | Increase excise taxes and prices on tobacco products | • The duty on tobacco products was last increased by about 41.5% and about 11.7% in 2011 and 2014 respectively to tie in with the Government's tobacco control measures. | |
| | Implement plain/standardised packaging and/or large graphic health warnings on all tobacco products | • Graphic health warnings have appeared on tobacco products since 2007. | |
| | Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship | • All cigarettes advertising and sponsorship in the electronic media was banned in 1990 and subsequently all print and display tobacco advertising was banned in 1999. | |
| | Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport | • The Smoking (Public Health) Ordinance (Cap. 371) was amended in 2006 to, inter alia, extend the statutory smoking ban to cover all indoor working places and public places as well as many outdoor places. | |
| | Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke | • The Tobacco Control Office (TCO) of DH and the Hong Kong Council on Smoking and Health have implemented various mass media campaigns to inform and educate the public on smoking and health matters. | |
| Effective interventions | Provide cost-covered, effective and population-wide support (including brief advice, toll-free quit line services) for tobacco cessation services to all those who want to quit | • DH operates an integrated Smoking Cessation Hotline (Quitline: 1833 183) to provide general professional counselling and information on smoking cessation, and arrange referrals to various smoking cessation services in Hong Kong. | |
| Other recommended interventions | Implement measures to minimise illicit trade in tobacco products | • To protect revenue from dutiable commodities stipulated in the Dutiable Commodities Ordinance, Chapter 109, Laws of Hong Kong, the Illicit Cigarette Investigation Division under the Revenue and General Investigation Bureau of the Customs and Excise Department takes sustained and vigorous enforcement actions in combating illicit cigarettes[29]. | |
| | Ban cross-border advertising, including using modern means of communication | • Enforcement on cross-border advertising (e.g. online advertising on Facebook) is only possible for cases that happened within but not outside Hong Kong. | |
| | Provide mobile phone based tobacco cessation services | • A mobile Quit Smoking App has been launched by TCO of DH to assist smokers to overcome tobacco dependence. | |

[29] Source: http://www.customs.gov.hk/en/enforcement/revenue/index.html

## Table 1e: Primary and secondary prevention of major NCD

***Note:*** *Only selected items of WHO recommended interventions are highlighted*

| | WHO recommended interventions | Local situation (Refer to Targets 1 and 7 of Chapter 3 for more details) | |
|---|---|---|---|
| Best buys | Prevention of cervical cancer by screening women aged 30-49 years | • Women aged 25 to 64 who ever had sex are encouraged to have regular cervical cancer screening under the Cervical Screening Programme of DH.<br>• To strengthen cervical cancer screening services especially among low-income groups, a three-year Community Care Fund (CCF) Pilot Scheme on Subsidised Cervical Cancer Screening and Preventive Education for Eligible Low-income Women was launched in December 2017. | |
| | Vaccination against human papillomavirus of 9-13 year old girls | • The Scientific Committee on Vaccine Preventable Diseases and the Scientific Committee on AIDS and Sexually Transmitted Infections have regularly reviewed the scientific evidence and local situation and would make recommendations as appropriate.<br>• Three prophylactic vaccines against human papillomavirus (HPV) infection are currently available in Hong Kong.<br>• CCF provided financial support to a 3-year "Free Cervical Cancer Vaccination Pilot Scheme" to teenage girls from eligible low-income families with effect from October 2016. | |
| Other recommended interventions | Population-based colorectal cancer (CRC) screening at age >50 years, linked with timely treatment | • The CRC Screening Pilot Programme is being run by DH and will last for a period of 36 months. Experience gained will inform policy about regularisation of the programme. | |
| | Prevention of liver cancer through hepatitis B immunisation | • Hepatitis B vaccine is included in the Hong Kong Childhood Immunisation Programme of DH. | |
| | Lifestyle interventions for preventing type 2 diabetes | • The FHB issued the *"Hong Kong Reference Framework for Diabetes Care in Adults in Primary Care Settings"* and three other reference frameworks for the care of different chronic diseases and population groups in primary care settings, to support the tackling of NCD through primary care. | |