Announcement of key findings of
the Second Population Health Survey (2014-15)

Background

The Department of Health (DH) conducted a press conference in the afternoon of 27 November 2017 to announce key findings of the Population Health Survey (PHS) 2014-15 related to common non-communicable diseases (NCD). The PHS is the second of its kind after the PHS in 2003-04 and the follow-up Heart Health Survey in 2004-05. The PHS is a large-scaled survey conducted through household interviews and health examination to collect pertinent information on the patterns of health status and health-related issues of the general population aged 15 and above in Hong Kong. The findings will strengthen the Government's information base on population health and facilitate the planning, implementation and evaluation of health promotion activities and health services for the prevention and control of chronic diseases.

The full report of this PHS is available on the websites of DH and the Centre for Health Protection (CHP). The following provides an outline of methodology and highlights key findings.

Methodology

This PHS takes reference from the World Health Organization (WHO) STEPwise approach to non-communicable disease (NCD) risk factor surveillance. The PHS collected core and expanded level data and included (1) a household survey and (2) a health examination, comprising physical and biochemical measurements. This PHS targeted land-based non-institutional population aged 15 or above in the household survey but persons aged between 15 and 84 who had been enumerated in the household survey for the health examination. Fieldwork started in December 2014 and ended in August 2016.

A total of 12 022 respondents from 5 435 households completed a set of structured questionnaires, representing an overall

response rate of 75.4% at household level. The scope covered self-rated health status and quality of life, physical health status, mental health status, health-related behaviours and lifestyle practices, injury prevention, preventive health practices and use of health services.

From 5 936 consenting respondents invited to health examination, 2 347 attended representing a participation rate of 39.5%. Physical measurements of blood pressure, body height and body weight, hip and waist circumferences were taken and biochemical testing of fasting lipid profile, fasting plasma glucose, glycated haemoglobin (HbA1c) and 24-hour urine for sodium and potassium was carried out

Key findings

Behavioural risk factors

1. Cigarette smoking:
   Among persons aged 15 or above who had ever smoked cigarette, 54.6% reported a habit of cigarette smoking i.e. including daily and occasional smoking, at the time of survey, which represented 14.8% of all persons aged 15 or above.

2. Alcohol consumption:
   Using the locally validated Alcohol Use Disorders Identification Test (AUDIT) promulgated by WHO, the proportions of persons aged 15 or above who drank alcoholic beverages occasionally (i.e. drank on three days or less a month) and drank regularly (i.e. drank at least once a week) in the 12 months preceding the survey were found to be 50.4% and 11.1% respectively.

   Among persons aged 15 or above who had drunk alcoholic beverages in the 12 months preceding the survey, 9.6% had experience of binge drinking (i.e. drinking at least five cans of beer, five glasses of table wines or five pegs of spirits on a single occasion) during this period.

3. Physical activity:
   The proportion of adult population aged 18 or above who had inadequate level of physical activities (i.e. did not meet the WHO recommendation of physical activity level) was 13.0%, as measured

by the Global Physical Activity Questionnaire (GPAQ). The GPAQ is a composite measure of physical activity undertaken during recreation, commuting (walking or cycling) and work. The WHO recommended that adults aged 18 or above should perform at least 150 minutes of moderate-intensity aerobic physical activity, 75 minutes of vigorous-intensity physical activity, or an equivalent of combination of moderate- and vigorous-intensity physical activity achieving at least 600 metabolic equivalent (MET)- minutes per week for health maintenance.

The mean duration of sitting or reclining (excluding sleeping time) per day among persons aged 15 or above was 7.0 hours. Overall, 19.1% of these persons reported spending on average 10 hours or longer per day on sitting or reclining.

4. Fruit and vegetables consumption:
   The proportion of persons aged 15 or above reported consuming an average of five or more servings of fruit and vegetables per day was 5.6%. On average, persons aged 15 or above ate 2.3 servings of fruit and vegetables per day.

5. Salt intake:
   This PHS collected 24-hour urine from a representative sample of the population aged 15-84 to estimate the population daily salt intake, in accordance with method prescribed by WHO.

   The mean daily salt intake in persons aged 15 to 84 was estimated at 8.8 grams (9.8 grams for male and 7.9 grams for female). Overall, 86.3% of persons aged 15 to 84 had daily salt intake above the WHO recommended limit of less than 5 grams per day in adults.

Chronic diseases and health conditions

6. Overweight and obesity:
   Based on the classification of body mass index (BMI) categories for Chinese adults, i.e. BMI at least 23 kg/m^2 for overweight/obese, 50.0% of population aged 15 to 84 were classified as overweight/obese.

7. Hypertension:
   According to the WHO criteria of systolic blood pressure at least 140 mmHg and/or diastolic blood pressure at least 90 mmHg, the prevalence of hypertension among persons aged 15 to 84 was 27.7%, including both cases of self-reported doctor-diagnosed hypertension and previously undiagnosed but measured high blood pressure. Among all persons who had hypertension, the proportion of previously undiagnosed but measured high blood pressure was 47.5%.

8. Diabetes mellitus (DM):
   Respondents were classified as having diabetes mellitus if they reported to have been diagnosed by doctor to have DM or were measured to have fasting blood glucose at 7.0 mmol/L or above, or HbA1c at 6.5% or above.

   The overall prevalence of DM among persons aged 15 to 84 was thus 8.4%. Among all persons with DM, the proportion of those without known history was 54.1%.

9. Hypercholesterolaemia:
   Respondents were classified as having hypercholesterolaemia (or high blood cholesterol) if they reported to have been diagnosed as such by the doctor or were measured to have total cholesterol at 5.2 mmol/L or above.

   The prevalence of hypercholesterolaemia among persons aged 15 to 84 was 49.5% among whom 70.2% had no history of the disease.

Cardiovascular diseases risk predicted by Framingham risk model

In this PHS, the Framingham risk prediction model was adopted to estimate the risk of cardiovascular disease (CVD) over the next 10 years in general adult population aged 30 to 74. The proportion of adults aged 30 to 74 who were classified as having high CVD risk (i.e. the risk of cardiovascular event over the next 10 years at 20% or above) was 16.4% (29.1% for male and 5.1% for female). The proportions classified as having medium risk (i.e. CVD risk at least 10% but below 20%) and low risk (i.e. CVD risk below 10%) were 18.3% and 65.4% respectively.

Among persons aged 30-74, the mean CVD risk over the next 10 years predicted by the Framingham risk model was 10.6%. That is, on average, about one in ten persons aged 30 to 74 would encounter CVD over the next 10 years.

Overview of survey findings

Overall speaking, unhealthy lifestyle practices are common, such as inadequate intake of fruit and vegetables, high salt diet, drinking, smoking and sedentary lifestyle. Overweight and obesity, hypertension, diabetes mellitus and hypercholesterolaemia are prevalent, with many people living with these conditions unrecognised. Prevalence of these diseases or conditions increases with age, and cardiovascular disease risk increases as the number of these conditions increases.

Way forward

Successful prevention and control of NCD relies on collaborative efforts of stakeholders across sectors in society. To promote healthy diet and physical activity participation and to reduce smoking and alcohol-related harm, DH appeals to all sectors for support to create conducive environments where healthy choices are made easier, everywhere and for everyone.

DH will continue to intensify a spectrum of health promotion programmes across the life course, from breast feeding and young child feeding to healthy lifestyle promotion in schools, families and the workplace. Efforts will be made to introduce and implement actions in collaboration with health promotion partners that are focused, sustainable, cost-effective and measurable in providing population health gains.

This September, the DH launched the Salt Reduction Scheme for School Lunches with an aim of reducing salt content by up to 10 per cent each year. The department is also scaling up efforts to educate youth on the harms of alcohol and a bill was introduced into the Legislative Council in June this year with an aim of prohibiting the sale of alcohol to minors. As for smoking, DH has adopted a progressive

and multi-pronged approach comprising legislation, enforcement, publicity, education, smoking cessation and taxation in the past 30 years. The DH is working on a new Pilot Public-Private Partnership Programme on Smoking Cessation which will be launched later this year to further enhance quit services for smokers. The Chief Executive's Policy Agenda has announced the setting up of a steering committee on primary health care development to prepare a development blueprint to invest and boost primary healthcare services to enhance public health.

In 2008, DH launched a framework titled "Promoting Health in Hong Kong: A Strategic Framework for Prevention and Control of Non-communicable Diseases". Under the leadership of Secretary for Food and Health as chairman of the Steering Committee that oversees implementation of the framework, a set of voluntary NCD targets and indicators is being developed to monitor progress and achievements in NCD control in the next ten years. Connected to this, household-based health behaviour surveys will be conducted every two years, with physical measurements and biochemical testing carried out every six years.

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