



TARGET 8

Prevent heart attacks
and strokes through
drug therapy and
counselling

A PREAMBLE

Cardiovascular diseases are the world's leading cause of mortality, accounting for approximately 17 million deaths in a year, and nearly one in three deaths. An estimated 7.4 million of these deaths were due to heart attacks and 6.7 million were due to strokes. The likelihood of cardiovascular diseases increase continuously as the level of a risk factor such as blood pressure increases. People with multiple risk factors, such as smoking, raised blood pressure, raised cholesterol and/or diabetes have a higher 10-year risk of cardiovascular events such as stroke, coronary heart disease, peripheral artery disease and heart failure occurring. Population-based interventions alone will not be sufficient to prevent heart attacks and strokes for people at such risk level. Providing drug therapy (including glycaemic control of diabetes and control of hypertension using a total-risk approach) and counselling to high-risk individuals are identified as "best buys"¹¹¹ by the World Health Organization (WHO) to prevent heart attacks and strokes^{112,113,114}. These can only be possible by having health systems that are effective, efficient, affordable, accessible and equitable.

B LOCAL SITUATION

- While elaborations under Target 9 clearly show that a dual healthcare system exists to provide affordable care to local citizens, access to services and quality of care could be further improved by increasing public awareness of lifestyle risk factors on health and utilisation of preventive and primary care services in identification and prompt management of biomedical risk factors such as high blood pressure, high blood sugar, abnormal lipid profile and overweight/obesity.
- The Population Health Survey (PHS) 2014/15 showed that among individuals aged 15-84 years, only 52.5% of individuals found to have high blood pressure reported their condition previously diagnosed by a doctor, only 45.9% of persons found to have diabetes had known history of the disease, and only 29.8% of individuals with hypercholesterolaemia had known history of the condition. The corresponding proportions among persons aged 40-84 years were 56.2%, 47.3% and 33.9% respectively.
- With a significant proportion of adult population undetected and untreated for existing biomedical risk factors, the tendency of their health conditions progressing to advanced diseases is high with risk of medical complications such as heart attack and stroke. The burden of these medical conditions to individuals, families, healthcare system and society is high.

¹¹¹ According to the updated Appendix 3 of the WHO Global NCD Action Plan 2013-2020, "best buys" are interventions that are considered to be the most cost-effective and feasible for implementation, for which the WHO-CHOICE analysis found an average cost-effectiveness ratio (expressed as International dollars (\$) per disability adjusted life year (DALY)) of ≤ 15 \$100/DALY averted in low- and lower middle-income countries. (Source: <http://apps.who.int/iris/bitstream/10665/259232/1/WHO-NMH-NVI-17.9-eng.pdf>)

¹¹² A global brief on hypertension: Silent killer, global public health crisis. Geneva: World Health Organization, 2013. Available at: http://apps.who.int/iris/bitstream/10665/79059/1/WHO_DCO_WHD_2013.2_eng.pdf

¹¹³ Noncommunicable Diseases Global Monitoring Framework: Indicator Definitions and Specifications. Geneva: World Health Organization, 2014. Available at: http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_Version_NOV2014.pdf

¹¹⁴ WHO Report 2011. Scaling up action against NCDs: How much will it cost? Geneva: World Health Organization, 2011. Available at: http://www.who.int/nmh/publications/cost_of_inaction/en/

C LOCAL TARGET

No specific target on “preventing heart attacks and strokes through drug therapy and counselling” at the moment¹¹⁵ due to lack of quantifiable indicator. Please refer to **Section E** for details.

D ACTIONS TO ACHIEVE TARGET

For Hong Kong to be able to achieve the ultimate target of “a 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancers, diabetes or chronic respiratory diseases by 2025” (i.e. Target 1), a healthcare system that can effectively manage non-communicable diseases (NCD) and prevent NCD deaths is most critical in the immediate-term, while behavioural risk factor reduction may take years to produce effect.

Specific action(s) to be taken, enhanced or explored to achieve target by 2025

- Explore to collect relevant data on drug therapy and counselling in the next round of the PHS, so as to better describe and quantify the local situation. Access to and analysis of big data may also shed light of these issues. In the meantime, the proportions of adults being diagnosed of hypertension, diabetes and/or hypercholesterolaemia among those found to be suffering from these conditions will be tracked by the PHS every 4 to 6 years. (Department of Health (DH)/Hospital Authority (HA))

- Continue to strengthen the health system at all levels, with emphasis on risk factor reduction, evidence-based screening for early detection and management of NCD using a locally relevant, effective and sustainable primary medical care approach. (Food and Health Bureau (FHB)/DH)
- The Steering Committee on Primary Healthcare Development announced in the Chief Executive’s 2017 Policy Address will comprehensively review the existing planning of primary healthcare services, develop a blueprint for the sustainable development of primary healthcare services for Hong Kong, devise service models to provide primary healthcare services via district-based medical-social collaboration in the community, and develop strategies to raise community awareness and exploit the use of big data to devise strategies that best fit the needs of the community. (FHB)
- On an ongoing basis, develop, update and promulgate use of the reference frameworks and evidence-based practices for preventive care in primary care settings to facilitate the provision of continuous, comprehensive and evidence-based care in the community. (DH)
- Regularly review and update drug lists and clinical protocols based on scientific and clinical evidence to ensure equitable access by patients to cost-effective drugs and therapies of proven safety and efficacy for treatment of major NCD in all public hospitals and clinics. (HA)

¹¹⁵ The WHO sets a voluntary global target of ‘at least 50% eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes by 2025’.

- Strengthen public education (using a life-course approach) and raise health literacy regarding aetiology, prevention, early detection and management of NCD. (DH/HA)

E LOCAL INDICATOR

Relevant local data source(s) for Indicator (18) set out under the WHO's global monitoring framework¹¹⁶ is NOT available. While data collected in the PHS 2014/15 allow calculation of the 'number of persons eligible for drug therapy and counselling' among the local population based on 10-year cardiovascular disease risk (CVD risk)¹¹⁷, the 'proportion of eligible person receiving drug therapy and counselling to prevent heart attacks and strokes' remains unknown, as data related to drug therapy and counselling¹¹⁸ to prevent heart attacks and strokes were not collected.



¹¹⁶ The WHO recommends an indicator for monitoring, namely:

- Indicator (18): Proportion of eligible persons (defined as aged 40 years and older with a 10-year CVD risk $\geq 30\%$ including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes (Expected frequency: every 5 years)

¹¹⁷ A 10-year CVD risk of $\geq 30\%$ is defined according to age, sex, other relevant socio-demographic stratifiers where available, blood pressure, smoking status (current smokers OR those who quit smoking less than one year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0 mmol/L (126 mg/dl)).

¹¹⁸ The WHO defines:

- 'drug therapy' as taking medication for raised blood glucose/diabetes, raised total cholesterol, or raised blood pressure, or taking aspirin or statins to prevent or treat heart disease; and 'counselling' as receiving advice from a doctor or other health worker to quit using tobacco or not start, reduce salt in diet, eat at least five servings of fruit and/or vegetables per day, reduce fat in diet, start or do more physical activity, maintain a healthy body weight or lose weight.