

**For information
on 15 December 2014**

Legislative Council Panel on Health Services

Colorectal Cancer Screening Pilot Programme

PURPOSE

This paper briefs Members on the background and progress of the development of the Colorectal Cancer (“CRC”) Screening Pilot Programme (“the Pilot Programme”).

BACKGROUND

Burden of CRC in HK

2. The burden of CRC has been increasing in Hong Kong over the past three decades. In 2011, CRC overtook lung cancer for the first time and became the most common cancer in Hong Kong. There were 4 450 newly diagnosed CRC cases in that year, accounting for 16.5% of all new cancer cases. In 2013, CRC was the second most common cause of cancer death, resulting in a total of 1 981 registered deaths and accounting for 14.6% of all cancer deaths. The risk of CRC increases significantly from age 50 onwards. In view of a growing and ageing population, the number of new CRC cases and related healthcare burden are expected to continue to increase.

Primary Prevention of CRC

3. Risk factors for CRC are closely related to lifestyles. CRC can be effectively reduced through adoption of healthy lifestyles, such as increasing the intake of dietary fibre from vegetables, fruits and whole grains, reducing the consumption of red and processed meat, having regular physical activities, maintaining a healthy body weight and waist circumference, and avoiding tobacco and alcohol consumption. The Government established the Cancer Coordinating Committee (“CCC”) in 2001 to formulate comprehensive strategies and make recommendations for effective prevention and control of cancer. The Department of Health (“DH”) has been actively promoting healthy lifestyles as the

primary preventive strategy in reducing non-communicable disease burden on healthcare and the society, including that due to cancer.

Secondary Prevention of CRC

4. The Cancer Expert Working Group on Cancer Prevention and Screening (“CEWG”) was set up under the CCC to regularly review and discuss latest scientific evidence, local and worldwide, with a view to providing recommendations on suitable cancer prevention and screening measures for the local population. Screening as a tool for secondary prevention is effective against certain cancers such as cervical cancer¹ and CRC. In addition to primary prevention, the CEWG recommends persons aged 50 to 75 should discuss with doctors and consider screening for CRC prevention.

5. In medical terms, screening means examining people without symptoms with the aim to detect disease or find people at increased risk of disease. It is often the first step that leads to making a definitive diagnosis. For CRC screening, its purpose is to find people who have CRC or with lesions which are likely to develop into CRC, before they have any symptoms, in order to offer early treatment to improve disease prognosis.

6. Common screening tests for CRC include Faecal Occult Blood Test (“FOBT”), flexible sigmoidoscopy and colonoscopy. All three modalities have been shown to reduce mortality from CRC. It is worth noting that FOBT, compared with other options, has been shown to be more cost-effective for population-based CRC screening.

7. Many countries including Australia, New Zealand and Singapore in the Asia Pacific region have established their national screening programmes for CRC and are using faecal immunochemical test (“FIT”), a kind of FOBT, as the primary screening tool.

8. The planning and development of a population-based screening programme requires careful consideration and balancing of factors such as disease prevalence, participation of target population, system

¹ At present, cervical cancer screening is the only population-based cancer screening in Hong Kong which bears sufficient evidence on its effectiveness. The DH has been running a territory-wide Cervical Screening Programme in collaboration with public and private healthcare providers since March 2004, to encourage women aged 25 to 64 who have ever had sexual experience to have regular cervical smears to prevent cervical cancer.

infrastructure, colonoscopy capacity and resource availability. Taking Australia as an example, a pilot programme was conducted after careful design, which paved the way for today's national bowel cancer screening programme.

The Pilot Programme Under Planning

Objectives

9. To address the rapidly increasing burden of CRC in Hong Kong, the Government announced in the 2014 Policy Address for planning and implementing a pilot programme that subsidises CRC screening for specific age groups.

10. Evidence that CRC screening saves lives is clear. The challenge for Hong Kong is to design and implement a screening programme that is effective, efficient, affordable to the community, as well as accessible, acceptable and equitable for those who have a need. Specifically, the Pilot Programme will serve to –

- (a) determine the ability of the healthcare infrastructure to handle increase in demand for assessment and follow up treatment of cancer and pre-cancerous conditions;
- (b) assess public understanding, perception and acceptance of CRC screening;
- (c) devise a screening algorithm with assured quality which is most suited to local needs and circumstances; and
- (d) appraise performance of the screening programme.

These will form the basis for further deliberation whether and how best CRC screening service may be provided to the wider population.

Multi-disciplinary Taskforce

11. The DH, with support from the Hospital Authority (“HA”), established a multi-disciplinary taskforce (“the taskforce”) in January 2014 to embark on the study and planning of the Pilot Programme which covers, inter alia, design, implementation, publicity and evaluation matters, including determination of inclusion criteria for participation,

method of screening, funding model and operational logistics. The taskforce comprises representatives from the HA, relevant Colleges of the Hong Kong Academy of Medicine, medical associations, primary care doctors, academia and non-governmental organisation (“NGO”).

12. Four working groups underpin the deliberations of the taskforce, each focusing on different aspects of the Pilot Programme, namely (1) use of the FIT; (2) colonoscopy and assessment; (3) screening registry; and (4) promotion and publicity. The taskforce and working groups met regularly and have been making good progress.

Proposed workflow, target population and estimated number of beneficiaries

13. The Pilot Programme will build upon primary care concepts and promote public-private partnerships. Major players will include the DH, the HA, primary care doctors, accredited laboratories, colonoscopists, academic institutions, NGOs and so on.

14. A two-tier screening protocol will be adopted. That is, participants with a positive FIT result will be assessed by colonoscopy. Where polyps are found, they will be removed to confirm or exclude malignancy as well as to reduce the chance of developing cancer. Processes, activities, transactions, test results and screening outcome will be captured and tracked by a dedicated CRC Information Technology (“IT”) system. Riding on the territory-wide electronic Health Record Sharing System (“eHRSS”), the CRC IT system will enable screening participants to be served by a multi-disciplinary team of healthcare providers based on shared data. The system will also provide important reminder functions for service providers and recall functions for participants.

15. As the Pilot Programme aims at assessing the performance and implications of population-based screening on the healthcare system, the target population must be sufficiently representative and yet the programme must not overwhelm current service capability. After due consideration, the taskforce supports the proposal to invite, by phases over a period of three years, eligible Hong Kong residents aged 61 to 70 at the time of programme launch to undergo FIT screening.

16. Assuming that around 30% of the target population will participate in the Pilot Programme, and around 90% of those who are FIT positive (i.e. around 4.5% of the FIT recipients for the first year) will be willing to undergo colonoscopy, it is estimated that the Pilot Programme may attract a total of 278 045 participations (in terms of person-time) for FIT test and more than 10 000 colonoscopies for FIT positive cases. The projected new cases of adenoma, advanced neoplasm and CRC detected will be 2 712, 1 636 and 292 respectively making reference to detection rates experienced in a recent five-year study undertaken by the Chinese University of Hong Kong.

Publicity and Education

17. The taskforce is working on a publicity strategy to promote the Pilot Programme with the aim of increasing participation among eligible individuals and healthcare professionals. A designated website for the Pilot Programme will be developed, coupled with territory-wide publicity activities through multiple channels to raise public awareness on CRC prevention and screening. Community leaders, local groups, NGO partners and the media will be enlisted to support and promote the Pilot Programme. Targeted professional development, promotion and recruitment activities will also be organised for healthcare professionals.

Subsidy

18. To promote participation, the Administration will provide financial subsidy to participants under the Pilot Programme. The amount of subsidy will be determined by taking into consideration market practice and experience of existing subsidy schemes, as well as issues that relate to affordability, accessibility and equity of screening activities.

Monitoring and Evaluation

19. A comprehensive framework for evaluation covering a list of process indicators, output indicators and outcome indicators is being developed. A research will be commissioned to evaluate performance of the Pilot Programme.

WAY FORWARD

20. Planning and preparation of the Pilot Programme are ongoing. Operational details of the Pilot Programme will be confirmed in due course. We expect that invitation of primary care doctors and colonoscopists to take part will be issued in the second half of 2015, and the Pilot Programme will be launched by end 2015 the earliest.

ADVICE SOUGHT

21. Members are invited to note the contents of this paper.

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