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Panel on Health Services

Background brief prepared by the Legislative Council Secretariat for the meeting on 10 July 2020

Breast cancer screening

Purpose

This paper provides background information and summarizes the concerns of members of the Subcommittee on Issues Relating to the Support for Cancer Patients ("the Subcommittee") on breast cancer screening and the commissioned study on risk factors of breast cancer.

Background

2. According to the latest figures in 2017 released by Hong Kong Cancer Registry in October 2019, a total of 33 075 new cancer cases were diagnosed in 2017, hitting a record high with 1 607 more cases (or a rise of 5.1%) compared with 2016. The most common cancers were colorectal cancer (17.0%), lung cancer (15.7%), breast cancer (13.3%), prostate cancer (6.8%) and liver cancer (5.5%). For females, the leading cancer was breast cancer (27.0%). The proportion of registered deaths in Hong Kong attributed to cancers was 31% (i.e. 14 354 cases), with breast cancer ranked fourth (i.e. 5.0%) in the causes of cancer deaths.

3. According to the World Health Organization ("WHO"), 30% to 50% of all cancer cases are preventable by raising awareness, reducing exposure to cancer risk factors and adopting healthy lifestyles. Separately, when planned effectively, screening can reduce deaths from cancer and the risk of developing cancer in some cancer types. In Hong Kong, the Cancer Coordinating Committee ("the Committee") under the Department of Health is tasked to

advise the strategies on cancer prevention and control and steer the direction of work covering prevention and screening, surveillance, research and treatment. The Cancer Expert Working Group on Cancer Prevention and Screening ("the Working Group") set up under the Committee regularly reviews international and local evidence and makes recommendations on cancer prevention and screening applicable to the local setting. For breast cancer, the prevailing recommendations of the Working Group is that there is insufficient evidence to recommend for or against population-based mammography screening for asymptomatic women at average risk in Hong Kong.

4. To facilitate the formulation of the future strategies for breast cancer screening in Hong Kong, the Administration has commissioned The University of Hong Kong to conduct a study on risk factors associated with breast cancer for local women ("the HKU Study"). The objective of the HKU Study, which, according to the Administration, was completed in December 2019, is to formulate a risk prediction model for breast cancer in Hong Kong with a case-control study approach under which a comparison is made between women with and without breast cancer. It also aims to find out the relations between risk factors (such as age, body mass index and other personal characteristics, physical activity, family history of breast cancer, history of benign breast disease, etc.) and breast cancer development. Taking into account scientific evidence and the outcome of the HKU Study, the Administration will review and consider what type of screening is to be adopted for women of different risk profiles.

Deliberations of the Subcommittee

5. The Subcommittee discussed issues relating to breast cancer screening at its meetings held between April 2019 and March 2020. The deliberations and concerns of members are summarized in the following paragraphs. The Subcommittee has received views from deputations at two of these meetings.

6. Sharing the deputations' view that mammography screening was effective in detecting breast cancer at an earlier stage and citing the experience of the Colorectal Cancer Screening Programme as a reference, members considered that the Administration should step up its effort on cancer prevention and early detection and diagnosis of cancer by implementing population-based mammography screening, in particular for those under-privileged population who had a higher risk of developing cancers, and making use of mobile mammography screening vehicles. In their views, the increasing incidence rate for different types of cancer in Hong Kong, in particular breast cancer, had demonstrated the ineffectiveness of the existing measures on cancer prevention.

The Administration should not turn a deaf ear to the call for the introduction of various screening programmes for early detection of cancer because of the lack of conclusive scientific evidence but should be more proactive in promoting the benefits of undergoing breast cancer screening and introduce free or subsidized mammography screening. A concrete timetable for the introduction of risk and district-based mammography screening programme in Hong Kong should also be formulated.

7. Some members, however, remarked that population-based screening might not be suitable for all types of cancer because screening tests for cancer had their limitations and false-positive result in screenings would lead to additional investigations which turned out to be unnecessary as well as anxiety and stress of the person who underwent the tests. They called on the Administration to enhance public education in this regard.

The Administration advised that a cochrane review in 2013 and studies in 8. Canada, Switzerland and the United States suggested that organized breast screening programmes by mammography were effective in detection of tumours at an earlier stage and reduction in breast cancer mortality in their populations. However, harms such as false-positives, false-negatives, overdiagnosis, overtreatment and potential complications arising from subsequent invasive investigations or treatment might outweigh benefits. The Administration would consider what type of breast cancer screening was to be adopted for women of different risk profiles having regard to the scientific evidence and the outcome of the HKU Study, which aimed to formulate a risk prediction model for breast cancer in Hong Kong using a case-control study approach under which a comparison was made between women with and without breast cancer. Over the years, the Administration had all long encouraged women to be familiar with the normal look, feel and cyclical changes of the breasts so that any unusual features could be noticed early through breast self-examination. More efforts in this regard would be made through the District Health Centres.

9. Members enquired whether the development of breast cancer-specific registry by the Hong Kong Cancer Registry to collect and compile comprehensive clinical and outcome data on breast cancer would facilitate the introduction of population-based mammography screening programme. The Administration advised that the HKU Study would develop a breast cancer risk prediction model for Hong Kong, identify risk factors among the local population through a case-control study, and build a comprehensive tissue bank and clinical database. The study team would translate predicted risk values into recommendations on whether women in Hong Kong should undergo regular breast cancer screening. If any tools were introduced in the future for the prevention of breast cancer, the data of breast cancer registry developed by the Hong Kong Cancer Registry could serve as the base for comparison.

10. At the last meeting of the Subcommittee on 17 March 2020, members expressed grave concern and disappointment about the slow progress made by the Committee and the Administration in mapping out the way forward for the implementation of breast cancer screening in Hong Kong after the completion of the HKU Study in December 2019. Members requested the Administration to release as soon as possible the full report, or at the very least the major observations and the conclusion, of the HKU Study, and announce the timetable for implementing breast cancer screening so as to reduce breast cancer mortality due to early detection and treatment.

11. The Administration advised that the Working Group had reviewed the findings of the HKU Study and would put forward its recommendations for consideration of the Committee. The timing for the Committee to meet for the purpose would be subject to the situation of coronavirus disease 2019. The Administration would then determine the way forward by considering the type of screening for women of different risk profiles, in particular narrowing down the scope of those of average risk, and taking into account various factors including the capacity of the local healthcare system. It would release the framework with details on the scope and coverage of breast cancer screening as soon as practicable and receive views from different stakeholders. Same as other studies funded by the Health and Medical Research Fund administered under the Food and Health Bureau, the findings of the HKU Study would be released in the publication of research dissemination reports. In response to members' follow-up enquiry, the Administration advised that the project grant for the HKU Study was \$19 million. Members sought information as to whether the HKU Study had examined whether the absence of screening for early breast cancer detection would result in a delay in the diagnosis of breast cancer and an increase in mortality and morbidity to facilitate consideration of whether breast cancer screening should be put in place. Citing the Cervical Screening and Colorectal Cancer Screening Programmes as reference, the Administration explained that the decision of whether screening for a particular cancer should be implemented would be based on the incidence rate and scientific evidence of the cancer.

12. The Subcommittee decided to refer the subject of the implementation of breast cancer screening to the Panel on Health Services ("the Panel") for follow-up. The Administration was requested to revert to the Panel in May 2020 the findings of the HKU Study and the way forward for implementing breast cancer screening in Hong Kong.

Recent development

13. The Administration would brief the Panel on 10 July 2020 on breast cancer screening.

Relevant papers

14. A list of the relevant papers on the Legislative Council website is in the **Appendix**.

Council Business Division 2 Legislative Council Secretariat 6 July 2020

Appendix

Committee	Date of meeting	Paper
Subcommittee on Issues	26.4.2019	Agenda
Relating to the Support for	(Item I)	<u>Minutes</u>
Cancer Patients		
	20.5.2019	<u>Agenda</u>
	(Item I)	<u>Minutes</u>
		<u>CB(2)1462/18-19(01)</u>
		<u>CB(2)1727/18-19(02)</u>
		<u>CB(2)1733/18-19(01)</u>
	25.6.2019	Agenda
	(Item I)	<u>Minutes</u>
		<u>CB(2)1864/18-19(01)</u>
	18.11.2019	Agenda
	(Item II)	<u>Minutes</u>
	17.3.2020	Agenda
	(Item II)	

Relevant papers on breast cancer screening

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