

**Legislative Council Panel on Health Services
Subcommittee on Issues Relating to the Support for Cancer Patients**

**Progress of the commissioned study on risk factors associated with breast
cancer for local women**

PURPOSE

This paper briefs members on the latest situation of the Government-commissioned study for the University of Hong Kong (“HKU”) on the risk factors associated with breast cancer for local women.

BACKGROUND

2. Cancer is a major public health issue in Hong Kong and the burden of cancer on public health has been increasing. In 2017, there were 33 075 newly diagnosed cancer cases. Breast cancer is among the most common cancers and amounts to 13.3% of new cancer cases. In 2018, there were 14 594 cancer deaths, 5.2% of which are caused by breast cancer.

3. The Government attaches great importance to cancer prevention and control. As early as 2001, the Government established the Cancer Coordinating Committee (“CCC”). Chaired by the Secretary for Food and Health and comprising members who are cancer experts, academics, doctors in public and private sectors, as well as public health professionals, the CCC formulates strategies on cancer prevention and control and steers the direction of work covering prevention and screening, surveillance, research and treatment.

4. The Cancer Expert Working Group on Cancer Prevention and Screening (“CEWG”) set up under the CCC regularly reviews international and local evidence and makes recommendations on cancer prevention and

screening applicable to the local situations. CEWG adopted the list of criteria promulgated by the World Health Organization for instituting a screening programme as guiding principles in considering population-based screening (**Annex**). Based on the above considerations, not all screening methods justify with evidence a population-based screening programme. Furthermore, all screening tests have their limitations as they are not 100% accurate. They include false positive and false negative results, leading to the possibility of over-diagnosis and over-treatment.

5. At present, CEWG has made recommendations on prevention and screening for nine selected cancers, including breast cancer. As regards population-based mammography screening, after considering the emerging scientific evidence, CEWG considers that it is still unclear whether population-based mammography screening does more good than harm to local asymptomatic women. Therefore, CEWG concludes that there is insufficient scientific evidence to recommend for or against population-based mammography screening for women at average risk in Hong Kong.

COMMISSIONED STUDY

6. In October 2015, the Government commissioned HKU to conduct a study, funded by the Health and Medical Research Fund administered under the Food and Health Bureau (“FHB”), on risk factors associated with breast cancer for local women. This study is conducted by the research team led by Professor Gabriel Leung from the School of Public Health of the HKU. Other research team members include Professor Ava Kwong from the Department of Surgery; Dr Irene Wong, Dr Wendy Lam, Professor Joseph Wu and Dr Kathy Leung from the School of Public Health; Professor Khoo Ui-soon from the Department of Pathology; and Professor Roger Ngan from the Department of Clinical Oncology of the HKU.

7. The study aims at developing a breast cancer risk prediction model for Hong Kong, identifying risk factors among the local population through a case-control study, via analysing the difference between the case patients and control subjects. For the case-control study, the research team has established collaboration with public hospitals, private hospitals and private practitioners to collect local breast cancer data and samples. More than 3 000 breast cancer cases and control cases were recruited respectively.

8. The study was completed in December 2019 and a personalised risk stratification model was developed to incorporate a list of risk factors such as family history of breast cancer in first-degree relatives, age, age of menarche, age of first live birth, prior benign breast diseases, body mass index and physical inactivity.

9. The CEWG had taken into consideration of the study findings and reviewed its recommendations for breast cancer screening. Its consideration that would be reported to the CCC for the Government to consider the way forward for breast cancer screening. FHB will assess in detail the relevant factors (including local prevalence of breast cancer, accuracy and safety of the screening tests, effectiveness in reducing incidence and mortality rates of breast cancer, feasibility of implementation of a screening programme, the capacity of the healthcare system with respect to resources, manpower and infrastructure, public acceptance and whether screening does more good than harm to the society), and will consider, based on scientific evidence, what types of screening is to be adopted for women of different risk profiles.

WAY FORWARD

10. The said topic is controversial with a considerable quantity of stakeholders. Therefore, we will rely on scientific evidence and complete detailed deliberation and established procedure. We expect to announce the way forward for breast cancer screening within 2020.

ADVICE SOUGHT

11. Members are invited to note the contents of the paper.

Food and Health Bureau
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Criteria for Instituting a Population-based Screening Programme¹

- (i) the condition sought should be an important health problem;
- (ii) there should be an accepted treatment for patients with recognised disease;
- (iii) facilities for diagnosis and treatment should be available;
- (iv) there should be a recognizable latent or early symptomatic stage;
- (v) there should be a suitable test or examination;
- (vi) the test should be acceptable to the population;
- (vii) the natural history of the condition, including development from latent to declared disease, should be adequately understood
- (viii) there should be an agreed policy on whom to treat as patients;
- (ix) the cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole; and
- (x) case-finding should be a continuing process and not a “once and for all” project.

¹ Source : Wilson JMG, Jungner G. Principles and practice of screening for disease. Geneva: WHO; 1968. Available at: <http://www.who.int/bulletin/volumes/86/4/07-050112bp.pdf>