

**Population-wide Breast Screening for Breast Health
Submission from the Hong Kong Breast Cancer Foundation
(for Chief Executive’s 2020 Policy Address)**

I. Purpose

1. This Submission sets out the latest position of the Hong Kong Breast Cancer Foundation (HKBCF) with regards to the proposed implementation of population-wide breast cancer screening.

II. Summary of 2018 and 2019 Submission

2. The HKBCF has handed in two submissions for the Chief Executive’s Policy Address respectively in 2018 and 2019. The Submissions highlighted a number of figures to illustrate that the local breast cancer situation was worsening, including the data published by the Hong Kong Cancer Registry (HKCaR) of the Hospital Authority. In 2019, the HKCaR updated the latest figures on breast cancer: new breast cancer cases in 2017 reached 4,373; The lifetime risk of developing breast cancer has also increased from one in 16 women to one in 15 women, indicating a rise in the risk of women having breast cancer locally. In addition, 721 women died of breast cancer in 2017, making breast cancer the third most common cause of cancer deaths among women in Hong Kong.¹

3. The two Submissions revisited a number of breast cancer-related studies conducted in Hong Kong and overseas, which generally demonstrated positive benefits as to whether population-wide breast cancer screening can reduce breast cancer mortality and the number of advanced breast cancer cases. In particular, the 2018 Submission has put its focus on a study conducted in Taiwan where, like Hong Kong, have a predominantly Chinese population: the study conducted between 1999 and 2009 covering 1.43 million asymptomatic women showed that universal biennial mammography, compared with annual clinical breast examination, was associated with a 41% mortality reduction and a 30% reduction of stage II+ breast

¹ Hong Kong Cancer Stats 2017. Hong Kong Cancer Registry, Hospital Authority. https://www3.ha.org.hk/cancereg/pdf/factsheet/2017/breast_2017.pdf. Published 2019. Accessed 25 September 2020.

cancer.²

4. It was proposed in both Submissions that the Government should adopt a three-phase approach in implementing population-wide breast screening:

- Firstly, put in place a screening programme for high risk women as soon as possible, as per current government strategy;
- Secondly, implement a district-based pilot scheme for average risk women to better assess the feasibility of the programme; and
- Thirdly, adopt a population-wide screening in the mid to long term, based on the experience of the first two phases.

III. Position on the Food and Health Bureau's Latest Revision on the Current Breast Cancer Screening Recommendations

5. On 10 July 2020, the Government informed the Legislative Council (LegCo) Panel on Health Services of its revised recommendations on breast screening, i.e. for women with certain risk factors and at moderate and average risk of breast cancer, who are now recommended to undertake mammography every two years.

6. In the past, the Government advised that all women should be 'breast aware', stay vigilant of the disease and report any change to their doctors. The Government only recommended that "women at high risk of breast cancer (should) see a doctor and undergo Mammography every year, starting at age 35 or 10 years prior to the age at diagnosis of the youngest affected relative (for those with a family history), whichever is earlier, but not earlier than age 30".³ According to Department of Health (DH), women are at high risk of breast cancer only if they have any one of the risk factors below:

- a) Carriers of BRCA1/2 deleterious mutations** confirmed by genetic testing
- b) Family history** of breast cancer or ovarian cancer, such as
 - any first-degree female is a confirmed carrier of BRCA1/2 deleterious mutations

² Yen AM, Tsau HS, Fann JC, *et al.*, Population-Based Breast Cancer Screening with Risk-Based and Universal Mammography Compared With Clinical Breast Examination: A Propensity Score Analysis of 1 429 890 Taiwanese Women. *JAMA Oncol.* 2016;2(7):915-21. doi: 10.1001/jamaoncol.2016.0447.

³ Lam TH, Wong KH, Chan KK, *et al.* Recommendations on prevention and screening for breast cancer in Hong Kong. *Hong Kong Med J.* 2018;24(3):298-306. doi: 10.12809/hkmj177037.

- any first- or second-degree female relative with both breast cancer and ovarian cancer
- any first-degree female relative with bilateral breast cancer
- any male relative with a history of breast cancer
- 2 first-degree female relatives with breast cancer and one of them diagnosed at age ≤ 50 years
- ≥ 2 first- or second-degree female relatives with ovarian cancer
- ≥ 3 first- or second-degree female relatives with breast cancer or a combination of breast cancer and ovarian cancer

c) Personal risk factors

- history of radiation therapy to chest for treatment between age 10 and 30 years, e.g. Hodgkin's disease
- history of breast cancer, including DCIS; lobular carcinoma
- history of atypical ductal hyperplasia or atypical lobular hyperplasia

7. The HKBCF welcomes the revised recommendation and considers it a first step forward to addressing the worsening breast cancer situation in Hong Kong. In fact, the recommendation echoes the HKBCF's call for breast screening measures for women at high risk of developing breast cancer.

IV. Criteria for a Quality-assured Breast Screening Programme

8. Despite the Government's revision on breast screening recommendations, the HKBCF put forth a number of elements it considers decisive in establishing an effective breast screening programme in a paper submitted to the LegCo Subcommittee on Issues Relating to the Support for Cancer Patients in March 2017:

- a) Standard of hardware (machine) and software (standard of radiologist and radiographer conducting screening) should be on par with the criteria set out by the Hong Kong College of Radiology;
- b) A dedicated organised screening programme should send out reminders to target individuals to remind them of undertaking breast screening every one or two years;
- c) To ensure the quality of screening, results of radiologists participating in screening and output of breast screening centres should be audited;

- d) Backup diagnostic service should be ready in case of any abnormal screening findings emerges.
- e) Confirmed breast cancer patients should be given fast track for treatment;
- f) To drive at public-private partnership to make it a successful breast screening programme launched by the Government.

V. The Way Forward: Pilot Breast Screening Programme and Government-NGO Partnership

9. Now that the Government has taken its first step to tackle breast cancer, the HKBCF recommends that a pilot programme should be considered as the next step to mitigating the threat of breast cancer to the more vulnerable community of Hong Kong – women residing in districts with lower average household income.

A. District-based pilot scheme for average risk women residing in districts with lower household income

10. In 2011, HKBCR Report No. 3⁴ published by the HKBCF revealed disparities in breast screening awareness among districts in terms of income level. In Wanchai, the district with the highest household income, more than half of the interviewed breast cancer patients had had regular mammography before diagnosis. It was the other way round in districts with lower household income: more than 80% of breast cancer patients residing in Kwun Tong had never undertaken mammography before diagnosis. It was also found that the proportion of advanced stage breast cancers in low-income districts was higher, e.g. the proportion of advanced stage breast cancer cases were 3.8% in Wanchai and 14.4% in Kwun Tong. The predicament in attending regular breast screening these women face warrants timely intervention.

B. Government-NGO Partnership: HKBCF Breast Health Centre as an example

11. In light of the above findings, the HKBCF has sought to expand the scope of its breast screening service from North Point, its original base, to Kowloon and the New Territories. Thanks to the support of the Government and the Hong Kong

⁴ Hong Kong Breast Cancer Registry Report No. 3, published in 2011, Hong Kong Breast Cancer Foundation. Available from https://www.hkbcf.org/en/our_research/main/424/. [Accessed on 30 August 2018].

Jockey Club Charities Trust, the HKBCF opened a breast health centre in Ngau Chi Wan in 2018 to serve women residing in Kowloon.

12. At present, limited screening services are provided by the Government and the non-profit sector.⁵ Since the 90s, the three Women Health Centres of DH in Lam Tin, Chai Wan and Tuen Mun had started to provide screening to all women who wished to have breast screening, but, in recent years, the centres have been turning away screening requests of average risk women to focus on high risk screening only.

13. In the 2017 Policy Address, the Chief Executive initiated the idea of having District Health Centres across Hong Kong to step up its efforts in primary healthcare and disease prevention. There are nonetheless only one District Health Centre now in Kwai Ching and another one under construction in Sham Shui Po, rendering it difficult to actually implement any breast health screening programme in the short run.

14. As for services provided by the private sector, they are more readily available but the charges are much higher than the public sector. For instance, the average charge for mammography screening in the private sector is about HK\$1,700, which is unaffordable for financially challenged women. NGOs, such as the HKBCF, also provide screening services but at more affordable charges and may provide free screening for women with financial difficulties.

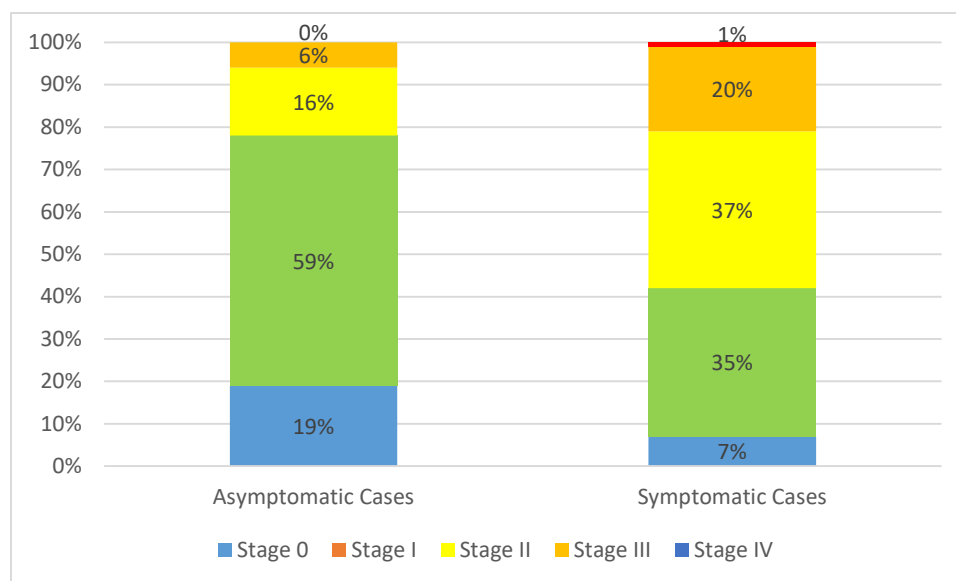
15. Currently, the HKBCF has two Breast Health Centres (BHC) respectively in North Point and Ngau Chi Wan. The BHCs provide breast health education, risk assessment and breast screening and diagnostic services, including mammography and ultrasound screening, needle biopsy and consultation with surgeons. The BHCs operate a free and a paid mammography screening programme and have provided screening services for more than 62,526 times as at 31 August 2020. Among the screened cases, it was found that women were more likely diagnosed with more advanced stage breast cancer if detected at a symptomatic stage:

⁵ The facilities include two Well Women Clinics in Tung Wah Group of Hospitals, three existing Woman Health Centres as well as other non-governmental organisations.

Table 1: Details of Breast Cancer Cases Detected among Asymptomatic and Symptomatic Cases at HKBCF BHC

	Asymptomatic Cases	Symptomatic Cases	Total
No. of Screened Cases	41,509	21,017	62,526
No. of Cancer Detected	309	1,346	1,655
Cancer Detection Rate	0.74%	6.40%	2.65%

Graph 1: Distribution of Breast Cancer Stages Detected at HKBCF BHC



16. Not only did the screening services provided by the HKBCF be able to find out 7 breast cancer cases in every 1,000 asymptomatic women screened and fulfil international screening standards. It was also worthy of note that among the diagnosed cancer cases, there was 78% of early stage breast cancer cases in the asymptomatic group as compared to only 42% in the symptomatic group. This indicated the advantage of mammography in detecting breast cancer early, if implemented well.

17. Besides, the BHC serves as an education centre responsible for disseminating breast health information to public. As at 1 June 2020, the BHC has organised regular education talks and breast health exhibitions that were attended for over 97,413 times. In considering which NGO to include in its network of providing breast screening services, the Government should look for one that is well

experienced in both promoting breast health awareness and providing quality-assured breast screening services.

VI. Recommendations

18. The HKBCF recommends that a pilot programme be implemented promptly in districts with lower average household income, lower screening rate and higher number of advanced cancer cases, as evidence showed that these women have a greater risk of detecting cancer at a later stage. In an advanced society like Hong Kong, women should not be deterred from obtaining timely breast screening due to financial reasons.

19. The HKBCF volunteers itself for the Government-NGO partnership model proposed, given its track record of operating a quality assured breast screening programme of its own for the past 10 years, if not longer. In the long run, the Government should put in place a population-wide breast cancer screening programme. It can be done through a co-payment scheme, in which the Government and the women interested in getting screened share the fee for screening, or through ways such as rolling out outreach breast screening services via mobile mammography van. The HKBCF has the infrastructure, facilities and personnel to take up Government-commissioned screening as a pilot project to serve women who are in need.