



**Hong Kong Breast Cancer Registry Report No. 10**  
**Fight Breast Cancer:**  
**Act NOW to Reduce Risk and Introduce Screening Scheme**

(PRESS RELEASE – 20 September 2018) The Hong Kong Breast Cancer Registry established by the Hong Kong Breast Cancer Foundation (HKBCF) in 2007 released its 10<sup>th</sup> annual research report on breast cancer facts in Hong Kong, and in the meantime unveiled the findings of Hong Kong’s first-ever case-control study on risk factors of breast cancer. The study will serve as a reminder for Hong Kong women to reduce breast cancer risks by being aware of their lifestyle.

Prior to the Policy Address this year, the HKBCF handed in a submission to Mrs Carrie Lam, the Chief Executive, calling for measures to mitigate the threat of breast cancer, as well as the implementation of population-wide screening in the mid to long term. The HKBCF urges the Government to consider a phased approach for implementing breast cancer screening programme which would in turn promote the early detection of breast cancer and reduce mortality rate and advanced breast cancer cases. (see [Annex 2](#))

Local Case-Control Study Affirms Ties Unhealthy Lifestyle with Breast Cancer

The Hong Kong Breast Cancer Registry collected data of breast cancer patients /survivors from 60 medical institutions in the territory, covering 40 percent of the reported new cases in Hong Kong. The newly published *Hong Kong Breast Cancer Registry Report No. 10* analysed the data of a cohort of 17,099 survivors, and indicated that only 10 percent of the cases were detected through mammography screening while the rate of stages III and IV cancer at diagnosis took up nearly 20 percent of the overall cases.

Researchers at the Hong Kong Breast Cancer Registry also conducted a case-control study on 5,102 patients/survivors selected from the Registry and 5,520 breast cancer-free women whose demographics (e.g. age, residential district and education level) match the cases. By comparing the rates of the 15 factors (relating to lifestyle, hormonal level in the body and family history of breast cancer) carried by women in the two groups, the study examines the connection between various factors and the incidence of breast cancer. The more significant the difference of the rate between the two groups suggests the factor is more attributable to breast cancer risk.

**Professor Emily Chan, Member of Breast Cancer Registry Steering Committee** who is in charge of the study, remarked at the press conference that there is a significantly higher rate of risk factors carriers in the case group (see [Table 1](#)). For example, women who felt high level of stress had 240 percent higher risk of breast cancer. Meat and dairy products-based meals would increase risk of breast cancer by 80 percent; obesity and lack of exercise increased breast cancer risk by 46 percent and 53 percent respectively. Obviously unhealthy lifestyle and diets are connected with breast cancer.

The study also showed that risk factors related to hormone level would increase the risk of breast cancer as well. For instance, risk of breast cancer among women who had no experience in breastfeeding were 37 per cent higher; the risk doubled in those who gave first birth after the age of 35. Use of hormonal contraceptives also increased risk by 37 percent. The rate of women at high risk of breast cancer in the case group was significantly higher than that in the control group.

Table 1: Summary of case-control study on risk factors for breast cancer in Hong Kong women

	Risk factors for breast cancer before diagnosis	Adjusted odd ratio	Case group (N=5102) (women affected by breast cancer)	Control group (N=5520) (women without breast cancer)
Modifiable risk factors for breast cancer	High level of stress	3.40	40.8%	16.7%
	Meat or dairy product rich	1.80	15.6%	7.5%
	Exercise <3 hours per week	1.53	80.5%	71.6%
	Obesity (BMI $\geq$ 25)	1.46	24.1%	16.3%
	Use of hormonal contraceptives	1.37	30.3%	23.9%
	No breastfeeding	1.37	69.8%	61.2%
Non-modifiable risk factors for breast cancer	1 <sup>st</sup> degree relative with breast cancer	2.88	11.2%	4.0%
	Early menarche ( $\leq$ age 12)	1.35	16.9%	11.6%
	1 <sup>st</sup> live birth after age of 35	2.06	5.2%	2.8%

Professor Chan emphasised that the case-control study is of high value because the analysis of local cases is much more relevant and reliable than overseas research reports. Moreover, the study results underlined the inadequacy of the current policy that only women at high risk is recommended to undertake regular screening. Although having family history of breast cancer is proven to be a strong risk factor (e.g. having a first-degree family relative with breast cancer history doubled the risk), there are far more risk factors attributing to the incidence of breast cancer that are modifiable by lifestyle adjustment.

#### Call for a Phased Implementation of Population-wide Screening Programme

**Dr. Polly Cheung, Founder of the HKBCF and Chairman of Hong Kong Breast Cancer Registry Steering Committee**, spoke at the press conference that the incidence rate of breast cancer of Hong Kong is among the highest in Asia and has tripled over the past 30 years. One in 16 local women would be afflicted by breast cancer throughout her lifetime. The HKSAR Government ought to take actions to mitigate the threat of breast cancer and improve its existing policy.

After years of research, the HKBCF Breast Cancer Research Centre has consolidated data and studies to affirm that population-wide screening programme is an effective way to lower breast cancer mortality rates and advanced stage cases. To date, at least 34 countries/regions, including Taiwan, South Korea and Japan, have implemented national/provincial breast cancer screening programme. Their programmes are funded by the Government to provide eligible women with examination that can detect breast cancer at an asymptomatic stage, i.e. regular mammography screening and other means of examination. In Taiwan, a research study found that when compared to the annual clinical breast examination, population-wide biennial mammography screening programme reduced breast cancer mortality by 40 percent and cut down on the cases of stage II or above breast cancer by nearly 30 percent in 10 years (see [Annex 1](#)).

The HKBCF recommends that the Government considers a phased approach and take immediate action to put in place a screening programme for high risk women in accordance with the current strategy, in addition to a district-based pilot programme for average risk women. The district-based pilot scheme should give priority to those in need, for instance, women living in lower income districts with higher rate of advanced stage breast cancer and lower cancer screening rate. As capacity may be an issue, the resources and facilities in the private sector and NGOs can be mobilised.

### Women Shun Mammography Screening for Thin Awareness and High Fee

The HKBCF conducted a phone survey in August, interviewing some 800 women aged 18 or above about their awareness on breast cancer. The results showed that only half of the respondents realised breast cancer is the most common cancer among women in Hong Kong; 35 percent mistook cervical cancer to be the most common cancer affecting local women. The findings also found that the awareness of the signs of breast cancer remains low among the respondents. About 65 percent of them knew that lump is a sign of breast cancer while less than 20 percent had knowledge of other signs such as nipple discharge, nipple retraction and enlarged lymph node in the underarm.

Among those aged 40 or above, half of them had had mammography screening and only 20 percent received mammography screening every two years. The major reasons for them to not have regular mammography screening include “I don’t any problem in myself” (20%), “the doctor said I am healthy after checking” (13%), “expensive fee” (12%), “lack of time” (8%), and “I think the chance of having breast cancer is low” (8%). When asked if they would take up free-of-charge mammography screening on a regular basis, over 80 percent of them gave an affirmative response.

The HKBCF has been advocating “Early Detection Saves Lives”. Dr Polly Cheung said, “Nearly 80 percent of local breast cancer cases were detected by the patients themselves accidentally, and among them 20 percent were advanced stage cases (stage III and IV). All breast cancer develop from stage 0; if it could be detected before the sign is observed or felt, the treatment could be very easy and survival rate could reach over 90 percent. Hence a government-led population-wide screening programme is seen a much more effective measure to promote early detection and fight the threat of breast cancer, compared with individuals’ practice of screening and screening programme administered by NGOs.”

### Patients Not at High Risk Have the Right to be Detected Early

According to the existing guidelines issued by the Department of Health, only women at high risk (i.e. carriers of BRCA1/2 mutations, having family history of breast cancer or ovarian cancer and having radiotherapy treatment to breast before age of 30) are advised to receive regular mammography screening. “Most local breast cancer patients are of moderate risk and only 5% of breast cancer patients harbor the high risk articulated by the Government. In that case, we should not deprive the remaining 95% of the chance to have breast cancer detected at an asymptomatic stage and minimise the trauma the disease can possibly cause,” Dr Cheung explained.

**Mrs Eliza Fok, Chairman of HKBCF** said, “The HKSAR government introduced the Cervical Screening Programme in 2014 and Colorectal Cancer Screening Programme in 2016. No pilot study, however, has been conducted on population-wide screening for breast cancer notwithstanding the increasing threat of the disease. This is not acceptable.” She added that since cervical and colorectal screening programmes can also induce false positive results, there is no point for the Government not to consider population-wide breast cancer screening programme for “there is insufficient evidence to recommend for or against it”. The Government should prioritise lives over convenience, join hands with medical professionals to improve breast cancer detection with the aim to reduce false positive outcomes, and implement population-wide breast screening.

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### **Hong Kong Breast Cancer Registry**

The Hong Kong Breast Cancer Registry (BCR), was established in 2007 by the Hong Kong Breast Cancer Foundation as the most comprehensive registry on breast cancer in Hong Kong. The Registry has already collected more than 20,000 breast cancer patients’ data for statistics and follow-up studies. The population-based BCR is aimed to collect data from all local breast cancer cases, including risk exposures, clinical examination, treatments, clinical outcomes and survival. The analysis and research will allow patients, medical professionals and public health policy makers to gauge local breast cancer facts, leading to improved prevention, detection, treatment and care of the disease.  
[https://hkbcf.org/en/our\\_research/main/184/](https://hkbcf.org/en/our_research/main/184/)

### **Hong Kong Breast Cancer Foundation**

The Hong Kong Breast Cancer Foundation was set up on 8 March 2005, as a non-profit charitable organisation dedicated to mitigating the threat of breast cancer to the local community through education, patient support and research & advocacy. Its mission is to promote breast health awareness, support breast cancer patients on their road to recovery, and advocate breast health education and cancer care in Hong Kong. The HKBCF is operated by Hong Kong Breast Cancer Foundation Limited  
[www.hkbcf.org](http://www.hkbcf.org)

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## Photo of Press Conference

1. Dr. Polly Cheung, Chairman of HKBCR Steering Committee (middle), Professor Emily Chan, Member of Breast Cancer Registry Steering Committee (left) and Mrs. Eliza Fok, Chairman of HKBCF (right), at the press conference on the BCR Report No. 10, unveiled the findings of Hong Kong's first-ever case-control study on risk factors of breast cancer. The study serves as a reminder for local women to reduce breast cancer risks by adjusting their lifestyle.



2. Mrs. Eliza Fok, Chairman of HKBCF revealed that HKBCF has handed a submission to the Chief Executive calling for implementation of a population-wide breast cancer screening in phases to promote early detection and reduce breast cancer mortality and rate of advanced stage cases.



Download photos: <https://goo.gl/hJ5ceQ>

## Annex 1: A Glance at Breast Cancer Screening Programmes

Region/Country	Programme Types(1)	Start	Modality of detection(2)	Coverage of age group	Participation rate (2010)	% Decrease in mortality rate(age group)
Japan	NS	1977	MM, DM, CBE	40-75+	19%	unknown
Finland	N	1987	DM	50-64	85%	22% (50-69)
Britain	N	1988	MM, DM	50-69	73%	39% (47-73)
Canada	NS	1988	MM, DM, CBE	50-69	47%	unknown
Netherland	N	1989	MM, DM	50-74	81%	Nijmegen: 65% (50-69) Southern west: 48% (50-75)
Australia	NS	1991	MM, DM	40-75+	--	41% (45-80)
Denmark	S	1991	DM	50-69	73%	63% (50-54)
United States	O	1995	MM, DM, CBE	40-75+	67%	unknown
New Zealand	N	1998	MM, DM	45-69	68%	17% (45-74)
Taiwan	N	1999	MM/DM	40-49	38%*	41% (40-49)
Korea	N	1999	MM, DM	40-75+	39%	unknown
China	NS	2009	MM, CBE, U	40-59	N/A	unknown

\* participatory rate in 2015

Notes:

(1) Programme type: N (National screening policy with national programme implementation); NS (National screening policy with state/provincial/regional screening programme implementation); S (State/Provincial/Regional screening and programme implementation); O (Other)

(2) Modality of detection: MM (screen-film mammography) ; DM (Digital mammography); U (Ultrasound); CBE(Clinical Breast Examination); BSE (Breast Health Examination)



## **Annex 2: Executive Summary of the HKBCF Submission on Population-wide Breast Screening**

### **Increasing threat of breast cancer in Hong Kong**

1. Since 1994, breast cancer has been the most common cancer among women and ranks third in mortality among all cancer types in women. Detected early, survival rate is more than 90%. However, the majority of the breast cancer cases in Hong Kong were detected by self-examination when symptomatic, and the percentage of breast cancer detected at the advanced stages of III and IV was high. This is unacceptable in a modern and wealthy society like Hong Kong.

### **Present strategy inadequate**

2. At present, the Government's recommendation that "**women at high risk of breast cancer** see a doctor and undergo mammography screening 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", is inadequate, as the majority of the breast cancer cases in Hong Kong do not fall into the high risk group. Also, **notwithstanding the recommendation of the Cancer Expert Working Group, there is no screening programme in place even for high risk women.**

### **Overseas population-wide screening produces positive results**

3. At least 34 countries/places, including Taiwan, have population-wide breast screening programmes in place. Their experiences provide ample and convincing evidence that population-wide screening results in reduced mortality and advanced stage breast cancer cases.

4. The universal biennial mammography screening in Taiwan, which is predominately Chinese, was associated with a **41% mortality reduction and a 30% reduction in stage II+ breast cancer.** The experience of the United Kingdom shows that the successful detection of every three cases of pre-invasive cancer (DCIS or ductal carcinoma in situ) can prevent a case of invasive cancer from happening.

5. Designed to minimise false negatives, screening programmes carry with them an inherent degree of false positives. The way to deal with it is to continuously refine the tests, not to dismiss screening.

### **Population-wide screening available for cervical and colorectal cancer, but not breast cancer**

6. It is scientifically proven that screening can reduce mortality of breast cancer, cervical cancer and colorectal cancer. Screening programmes have been implemented for

cervical cancer and colorectal cancer but not for breast cancer. In fact, no pilot study has ever been conducted on breast cancer screening despite convincing overseas evidence of the positive effect of population-wide breast screening on mortality and advanced stage cancer cases.

### **Need to raise awareness and provide financial assistance for screening**

7. Awareness of breast cancer among women in Hong Kong is low and the cost for mammography screening may deter women especially those with financial needs. A 2011 study found that more than 80% of breast cancer patients residing in Kwun Tong (a district with low household income) had never undertaken mammography screening before diagnosis. The study also found that the proportion of advanced stage breast cancers in low-income districts was higher, e.g. 14.4% in Kwun Tong compared to 3.8% in Wanchai (the district with the highest household income).

8. The Government should strengthen public education on breast cancer awareness and also consider subsidised screening. A co-payment arrangement between the Government and screening service users maybe a good start to encouraging women to take preventive care for themselves.

### **Need for Public Private Partnership**

9. To make good use of society's resources, the Government should seek greater involvement of the private sector and non-governmental organisations (NGOs) in providing timely and prompt cancer diagnostic services in the overall screening programme. It adds immediately to the available capacity in the community and spares the Government of most of the logistics.

### **Recommendations**

10. The Hong Kong Breast Cancer Foundation (HKBCF) strongly urges the Government to consider population-wide screening in the mid to long term. Early detection of breast cancer and reduction of advanced cancer cases will not only save lives and lower treatment costs to individuals, but also decrease the overall healthcare and social costs to society as a whole.

11. The Government should critically review its strategy in regard to breast cancer and consider implementing a district-based pilot scheme for average risk women to better assess the feasibility, resources required (funds, facilities and manpower) and the logistics and operation model (detection methods, age groups to be covered and screening intervals) for a population-wide screening programme. The district-based pilot scheme should give priority to those in need, for instance, women living in lower income districts with higher rate of advanced stage breast cancer and lower cancer screening rate.

12. The Government should put in place a screening programme for high risk women as soon as possible, as per current government strategy. As capacity may be an issue, the resources and facilities in the private sector and NGOs can be mobilised. The Government should also consider greater collaboration with the private sector and NGOs to boost capacity for mammography screening. The HKBCF has been operating two Breast Health Centres since 2011 and is known for providing professional, accessible and affordable breast cancer screening. The HKBCF is most willing to be involved in the planning and execution, as well as implementation of the meaningful pilot/initiatives recommended above. (Ends)