

Recommendations on prevention and screening for breast cancer in Hong Kong

Cancer Expert Working Group on Cancer Prevention and Screening

ABSTRACT

In Hong Kong, breast cancer is the most common cancer among women and poses a significant health care burden. The Cancer Expert Working Group on Cancer Prevention and Screening (CEWG) was set up in 2002 by the Cancer Coordinating Committee to review and assess local and international scientific evidence, and to formulate recommendations for cancer prevention and screening. After considering the local epidemiology, emerging scientific evidence, and local and overseas screening practices, the CEWG concluded that it was unclear whether population-based breast cancer screening did more harm than good in local asymptomatic women at average risk. The CEWG considers that there is insufficient evidence to recommend for or against population-based mammography screening for such individuals. Women who consider breast cancer screening should be adequately informed about the benefits and harms. The CEWG recommends that all women adopt primary preventive measures, be breast aware, and seek timely medical attention for suspicious

symptoms. For women at high risk of breast cancer, such as carriers of confirmed *BRCA1/2* deleterious mutations and those with a family history of breast cancer, the CEWG recommends that they seek doctor's advice for annual mammography screening and the age at which the process should commence. Additional annual screening by magnetic resonance imaging is recommended for confirmed *BRCA1/2* mutation carriers or women who have undergone radiation therapy to the chest between the age of 10 and 30 years. Women at moderate risk of breast cancer should discuss with doctors the pros and cons of breast cancer screening before making an informed decision about mammography screening every 2 to 3 years.

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Introduction

In Hong Kong, the Cancer Coordinating Committee (CCC) is a high-level committee chaired by the Secretary for Food and Health to steer the direction of work and advice on local strategies for cancer prevention and control. Under the auspices of the CCC, the Cancer Expert Working Group on Cancer Prevention and Screening (CEWG) was set up in 2002 to review local and international scientific evidence, and to assess and formulate local recommendations.

This article describes the local breast cancer burden, preventive measures, as well as the rationale that underlies screening recommendations made by the CEWG that were reaffirmed in September 2017.

Local epidemiology of female breast cancer

Since the early 1990s, breast cancer has become the most common cancer among women in Hong Kong. According to the Hong Kong Cancer Registry,¹ there were 3900 newly registered female breast cancer cases in 2015, accounting for 26.1% of all new cancer cases among women. The median age at diagnosis was 56 years. The age-standardised incidence rate (ASIR) of female breast cancer was 58.8 per 100 000

standard population. In addition, 575 new cases of carcinoma in situ of breast cancer (also known as ductal carcinoma in situ [DCIS]) were reported in 2015, and the highest age-specific incidence rate was 33.8 per 100 000 female population at age 70 to 74 years. More than half (66%) of DCIS cases were diagnosed in females aged ≥ 50 years.

There were 702 registered deaths due to breast cancer in 2016, representing 12.2% of and the third leading cause of female cancer deaths.² The age-standardised mortality rate (ASMR) of female breast cancer was 10.2 per 100 000 standard population. There has been a rising trend of new cases and deaths of female breast cancer over the past three decades. After adjusting for population ageing, the ASIR has maintained an increasing trend while the ASMR has remained relatively stable. Although the ASIR of female breast cancer has been increasing in Hong Kong, it remained lower than the West (eg, UK or Australia) and some Asian countries (eg, Singapore) in 2012 (Fig³⁻⁵).

Risk factors for female breast cancer

A range of factors account for woman's risk of breast

cancer, of which family history being a strong known one. Risk increases with degree of relatedness of affected relatives, number of affected relatives, and their age at diagnosis.⁶⁻⁸ Having one first-degree relative with breast cancer doubles a woman's risk while having an affected second-degree relative increases risk by 50%.⁶ The risk increases especially when the relative has been diagnosed before the age of 50.⁷

Women with certain deleterious gene mutations are at higher risk of breast cancer. Germline mutations in *BRCA1/2* genes are associated with 40% to 90% lifetime risk of breast cancer and are the most common cause of hereditary breast cancer. Other less common gene mutations (eg, *TP53*, *PTEN*) are also associated with an increased risk.⁸⁻¹¹ It has been estimated that *BRCA1/2* mutations contribute to 5% to 10% of breast cancer cases in western countries.^{8,10} There are limited data on the prevalence of *BRCA* mutations in the general population of Hong Kong. Latest findings (as of September 2017) from the Hong Kong Hereditary Breast Cancer Family

香港的乳癌預防及篩查建議

癌症預防及普查專家工作小組

乳癌是香港婦女中最常見的癌症，構成嚴重的醫療負擔。癌症事務統籌委員會於2002年成立「癌症預防及普查專家工作小組」（專家工作小組），負責檢視和評估本港及國際間的科學證據，並就癌症預防及普查方式制定建議。專家工作小組在檢視本地流行病學、國際及本港的最新科學證據及普查做法後，認為目前仍未能肯定全民乳房X光造影普查是否對一般風險的無症狀的本地婦女利多於弊。該小組認為目前並沒有足夠科學證據支持或反對為本港就上述群組婦女進行全民乳房X光造影普查。這些婦女若考慮接受乳癌篩查，應從醫護人員先清楚了解篩查的好處和風險，才作出知情選擇。專家工作小組建議所有婦女採取基本預防方法，關注乳房健康，並在察覺乳房出現不尋常情況時盡快求醫。專家工作小組建議高風險婦女（如確認帶有*BRCA1/2*基因突變、有家族乳癌病史等）應諮詢醫生意見是否需要每年接受一次乳房X光造影篩查和開始篩查的年齡。至於確認帶有*BRCA1/2*基因突變或在10歲至30歲期間胸部曾接受放射治療的婦女，專家工作小組建議她們額外進行每年一次的磁力共振（MRI）檢查。乳癌風險屬中等的婦女則應諮詢醫生意見，並仔細考慮篩查的利弊後才作出知情決定是否需要每兩至三年進行一次乳房X光造影篩查。

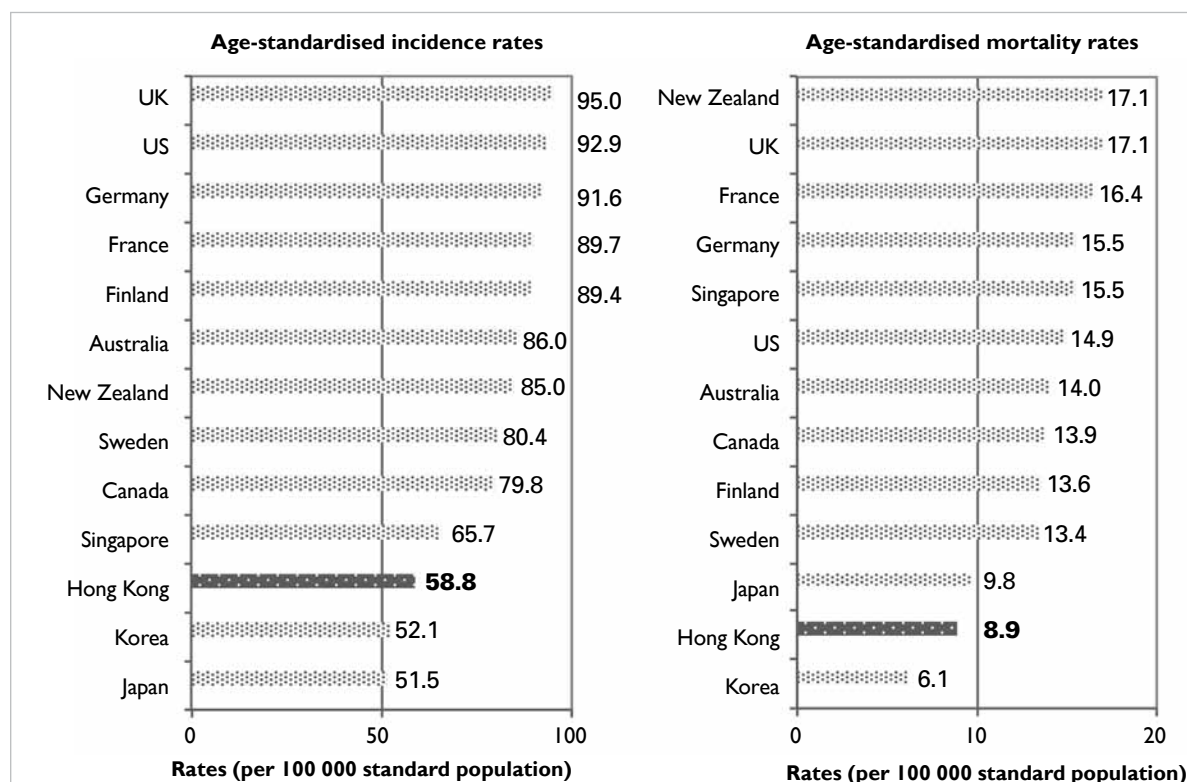


FIG. Comparison of estimated age-standardised incidence and mortality rates of female breast cancer in Hong Kong and other countries³, in 2012*

Abbreviations: UK = United Kingdom; US = United States

* For comparison purpose, age-standardised rates for Hong Kong are calculated using the same age-standardisation method adopted by GLOBOCAN 2012, in which the age-standardised rates are calculated based on the world standard population modified by Doll et al (1966)⁴ from that proposed by Segi (1960),⁵ and are calculated using 10 age-groups

Registry of 2549 clinically high-risk breast or ovarian cancer patients revealed that *BRCA* mutation was found in 9.6% of patients, among whom 45.1% were *BRCA1* and 54.9% were *BRCA2*.¹² This is noticeably different from patients in western countries where the majority of mutations are of *BRCA1*. In 2011, the Registry started to employ a four-gene panel including *TP53* and *PTEN*.^{10,13} Since then, 15 (0.6%) and two (0.08%) patients carrying *TP53* and *PTEN* mutations have been identified, respectively.¹²

Additional established risk factors for female breast cancer include a history of receiving radiation therapy at a young age, history of breast cancer, ovarian cancer or endometrial cancer, history of benign breast disease (eg, atypical hyperplasia), exposure to exogenous hormones (eg, combined oral contraceptives or hormone replacement therapy), reproductive factors (eg, early menarche or late menopause, nulliparity, late first live birth), alcohol consumption, obesity after menopause, and increasing age.^{6,8,14-26} A summary of these risk factors for breast cancer and the magnitude of risk is presented in Table 1.^{6,11,16-26}

Primary prevention and breast awareness

Certain breast cancer risk factors are related to personal lifestyle and behaviour. Women can lower their risk by adopting primary preventive measures such as undertaking moderate-intensity or equivalent aerobic physical activity for at least 150 minutes per week, avoidance of alcohol, maintaining a healthy body weight with body mass index between 18.5 and 22.9 and waist circumference less than 80 cm, bearing children at an earlier age and breastfeeding for a longer duration.^{8,14,15,17,20} Alcohol is a Group I carcinogen as classified by the International Agency for Research on Cancer (IARC), World Health Organization. There is strong evidence that alcohol can cause, inter alia, female breast cancer. With respect to cancer risk, there is no safe level of alcohol consumption. For women, drinking 10 grams of alcohol per day (eg, 250 mL of beer with 5% alcohol content, a small glass (~100 mL) of red or white wine with 12% alcohol content increases the risk of premenopausal breast cancer by 5% and postmenopausal breast cancer by 9%.²⁰ The higher the intake, the higher the risk, not only of breast cancer but at least six or seven other cancers.¹⁴

Symptoms of early breast cancer may not be easily noticed. The CEWG recommends all women to be breast aware, that is, be familiar with the normal look and feel of their breasts and visit the doctor promptly if suspicious symptoms appear, such as presence of a breast or axillary lump, change in skin texture of the breast or nipple, or nipple rash, discharge, or retraction.

Screening for the general female population at average risk

Breast self-examination, clinical breast examination, and mammography are widely used breast cancer screening modalities. The CEWG considers there is insufficient evidence to recommend regular breast self-examination as a screening tool due to its low sensitivity in detecting breast cancer, no proven benefit in reducing breast cancer mortality, and greater harm due to the increased detection of benign lesions and biopsies performed.²⁷ The CEWG is also of the view that there is insufficient evidence to recommend clinical breast examination since its effectiveness in reducing breast cancer mortality cannot be concluded from the limited studies available.²⁸⁻³⁰

Ultrasonography, used as an adjunct to mammography in women with radiologically dense breasts, has the potential to depict small breast cancers not visible on mammography.³¹ However, both the Cochrane review in 2013³² and the IARC review in 2015^{8,33} concluded that there is insufficient evidence that ultrasonography as an adjunct to mammography screening can decrease breast cancer mortality.

Evidence from some western countries suggests that organised breast screening programmes using mammography are effective in the detection of tumours at an earlier stage and reduction of breast cancer mortality in their populations. Nevertheless disadvantages such as false-positive or false-negative results, overdiagnosis (the diagnosis of breast cancer, in particular of DCIS, as a result of screening that would not have been diagnosed or never have caused harm in a patient's lifetime if screening had not taken place), overtreatment, and potential complications arising from subsequent invasive investigations or treatment may outweigh the benefits.^{1,34,35}

A Cochrane review in 2013 estimated that mammography screening resulted in a 15% reduction in breast cancer mortality and a 30% increase in overdiagnosis and overtreatment. For every 2000 women invited for mammography screening over a 10-year period, one woman would be prevented from dying of breast cancer; 10 healthy women would be treated unnecessarily; and more than 200 women would be falsely alarmed and experience significant psychological distress because of false-positive findings.³⁶

In UK, the Independent Breast Review in 2013 showed that mammography screening led to a relative risk reduction in breast cancer mortality of 20% and an estimated 11% overdiagnosis rate.³⁷

The Swiss Medical Board reported in 2013 that for every 1000 women who underwent regular mammography screening, one to two women's lives could be saved, but around 100 women would undergo

TABLE I. Summary of risk factors for breast cancer^{6,11,16-26}

Risk factor	Magnitude of risk*	Study design as reference
Non-modifiable factor		
Age, years		Anderson et al, 2006 ²¹ (data from Surveillance Epidemiology, and End Results Program)
<50	1.0 (Reference)	
50-59	6.6 (6.5-6.7)	
60-69	9.2 (9.1-9.3)	
70-79	11.1 (10.9-11.2)	
≥80	10.1 (10.0-10.3)	
Family history of breast cancer		Pharoah et al, 1997 ⁶ (meta-analysis)
First-degree relative	2.1 (2.0-2.2)	
Second-degree relative	1.5 (1.4-1.6)	
Deleterious gene mutations	Cumulative risk to age 80	Risch et al, 2006 ¹¹ (cohort)
BRCA1	90%	
BRCA2	41%	
History of receiving radiation therapy at young age (≤30 years)		Travis et al, 2003 ²³ (case-control study)
Dose of ≥4 Gy	3.1 (1.4-8.2)	
Dose of >40 Gy	8.0 (2.6-26.4)	
History of benign breast diseases (eg, atypical hyperplasia)	4.24 (3.26-5.41)	Hartmann et al, 2005 ²² (cohort)
Personal history of breast cancer (breast carcinoma in situ)	Standardised incidence ratio 1.96 (1.79-2.14)	Robinson et al, 2008 ²⁶ (retrospective cohort)
Hormonal and reproductive factor		
Exposure to exogenous hormones		
Combined oral contraceptives	Current use: 1.24 (1.15-1.33)	Collaborative Group on Hormonal Factors in Breast Cancer, 1996 ¹⁸ (meta-analysis)
Hormonal menopausal therapy	For ≥5 years: 1.35 (1.21-1.49)	Collaborative Group on Hormonal Factors in Breast Cancer, 1997 ¹⁹ (meta-analysis)
Young age at menarche	Per every year younger: 1.05 (1.044-1.057)	Collaborative Group on Hormonal Factors in Breast Cancer, 2012 ¹⁶ (meta-analysis)
Later age at menopause	Per every year older: 1.03 (1.025-1.032)	Collaborative Group on Hormonal Factors in Breast Cancer, 2012 ¹⁶ (meta-analysis)
Later age at first giving birth	Per every year older: 0.03 (standard error 0.003)	Collaborative Group on Hormonal Factors in Breast Cancer, 2002 (meta-analysis) ¹⁷
Nulliparity	2.6 (1.4-4.7)	Singleton, 2003 ²⁴ (review); Brinton et al, 1983 ²⁵ (case-control)
Lifestyle factor		
Alcohol consumption	Per 10 g/day:	WCRF/AICR, 2017 ²⁰ (meta-analysis)
Premenopausal	1.05 (1.02-1.08)	
Postmenopausal	1.09 (1.07-1.12)	
Obesity after menopause	Per 5 kg weight gain: 1.06 (1.05-1.08)	WCRF/AICR, 2017 ²⁰ (meta-analysis)

Abbreviations: AICR = American Institute for Cancer Research; CI = confidence interval; RR= relative risk; WCRF = World Cancer Research Fund

* Data are shown as RR (95% CI), unless otherwise specified

unnecessary investigations and treatment. The cost-effectiveness ratio was very unfavourable. The Board concluded that introduction of a mammography screening programme was not recommended and

a time limit should be set on existing programmes. The Board further recommended that thorough medical assessment and comprehensive information about the benefits and harms of screening should

be provided to women considering mammography screening.³⁸

The 25-year follow-up of the Canadian National Breast Screening Study in 2014 revealed that women aged 40 to 59 years who underwent annual mammography screening received no benefit in terms of breast cancer mortality but resulted in 22% overdiagnosis, prompting the need of policy-makers to reassess the rationale of screening.³⁴

In 2015, the IARC evaluated the cancer-preventive and adverse effects of different breast cancer screening methods. It was estimated that women aged 50 to 69 years invited for mammography screening had a 24% reduced risk of mortality from breast cancer. Notwithstanding this, the evaluation concluded sufficient evidence that mammography screening led to overdiagnosis at an average rate of 6.5% (range, 1-10%). The estimated cumulative risk of false-positive results was about 20% for a woman who had 10 screens from age 50 to 70 years, leading to short-term negative psychological consequences.^{8,33}

In some regions of Asia where organised mammography screening programmes (eg, Singapore, Korea, Taiwan) are implemented, there is a lack of published peer-reviewed articles in the public domain documenting systematic programme evaluation or modelling studies that estimate or report on the extent of overdiagnosis and the number of lives saved. At the same time, there is evidence of a generally low acceptance of mammography screening in Asian regions. Data kept by the International Cancer Screening Network³⁹ showed that the participation rate of a breast cancer screening programme in 2010 was 19% in Japan and 39.3% in Korea. The Singapore National Health Survey of 2010 showed that 39.6% women aged 50 to 69 years reported a history of mammography according to the recommended screening interval in Singapore, which was within the 2 years preceding the survey.⁴⁰ In Taiwan, the coverage of mammography screening among women aged 45 to 69 years was 36% in 2012/2013.⁴¹

Furthermore, some international and local evidence suggests a reduction in breast cancer mortality could be attributable to improved survival due to treatment advances and improved health service delivery rather than screening per se.^{35,42-44}

In Hong Kong, the ASIR of breast cancer is relatively low when compared with that in western countries. Therefore, the positive predictive value of mammography will be lower, generating more false-positive results and ensuing unnecessary follow-up investigations, potential complications and psychological distress.⁴⁵ Furthermore, local modelling studies have shown that population-based mammography screening is not a cost-effective public health intervention in Hong Kong

as compared with other strategies to prevent and control breast cancer.^{46,47}

In conclusion, the CEWG considers that there is so far insufficient evidence to make a definitive recommendation for or against population-based mammography screening for asymptomatic women at average risk in Hong Kong. Individuals considering breast cancer screening should be adequately informed by doctors about the associated benefits and harms.

Screening for women at increased risk

Locally, there is lack of consensus on how to identify women at increased risk of breast cancer. The CEWG has based its conclusions on international studies and overseas practices to derive a local definition of increased risk by adopting a set of qualitative risk stratification criteria, which include *BRCA1/2* deleterious mutation carrier status, characteristics of family history and personal risk factors. Women at increased risk are categorised as being at 'high risk' or 'moderate risk' (Table 2).

Enhanced surveillance for early detection of breast cancer has been suggested as a secondary preventive measure for women at increased risk. Although there has been no randomised controlled trial of mammography screening specifically in women at increased risk, previous observational studies concluded that mammography screening of high-risk population could be effective despite differences in study populations, criteria for risk stratification, screening protocols, and measures of effectiveness.⁴⁸⁻⁵¹ Having said that, mammography generally has lower sensitivity in younger women and those with a genetic predisposition to breast cancer due to increased mammographic density obscuring the radiological features of early breast cancer in premenopausal women, and a higher likelihood of benign mammographic images for *BRCA*-related breast cancer.⁵²

Magnetic resonance imaging has been recommended as an adjunct to routine mammography for surveillance of women at high risk. Magnetic resonance imaging is more sensitive than mammography for detection of breast cancer among *BRCA1/2* mutation carriers.^{53,54} The IARC review found improved sensitivity (95% vs 40%) but lower specificity (80% vs 95%) of MRI plus mammography compared with mammography alone.⁸

In this regard, several studies have reported that breast cancer screening with MRI in women at increased risk has significantly shifted the stage at diagnosis from advanced stage to earlier and pre-invasive stage, when compared with other common screening modalities such as

TABLE 2. Recommendations for breast cancer screening

For asymptomatic women at average risk	
<ol style="list-style-type: none"> 1. There is insufficient evidence for or against population-based mammography screening for asymptomatic women at average risk in Hong Kong. 2. There is insufficient evidence to recommend regular breast self-examination as a screening tool. Women are advised to be breast aware (be familiar with the normal look and feel of their breasts) and visit doctors promptly if suspicious symptoms appear. 3. There is insufficient evidence to recommend clinical breast examination. 4. Individuals considering BC screening should be adequately informed by doctors about the benefits and harms. 	
For women at moderate risk	
Local definition—with any one of the risk factors: <ol style="list-style-type: none"> 1. Family history of only one first-degree female relative with BC diagnosed at ≤ 50 years of age; or 2. Two first-degree female relatives diagnosed with BC after the age of 50 years 	Recommendations for screening <ul style="list-style-type: none"> • Should discuss with their doctors the pros and cons of BC screening before deciding whether to start screening by mammography every 2 to 3 years. • MRI is not recommended for women at moderate risk.
For women at high risk	
Local definition—with any one of the risk factors: <ol style="list-style-type: none"> 1. Carriers of <i>BRCA1/2</i> deleterious mutations confirmed by genetic testing. 2. Family history of BC/ovarian cancer, such as <ul style="list-style-type: none"> • any first-degree female is a confirmed carrier of <i>BRCA1/2</i> deleterious mutations • any first- or second-degree female relative with both BC and ovarian cancer • any first-degree female relative with bilateral BC • any male relative with a history of BC • 2 first-degree female relatives with BC 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 BC OR a combination of BC and ovarian cancer 3. Personal risk factors <ul style="list-style-type: none"> • history of radiation therapy to chest for treatment between age 10 and 30 years, eg, Hodgkin's disease • history of BC, including DCIS; lobular carcinoma • history of atypical ductal hyperplasia or atypical lobular hyperplasia 	Recommendations for screening <ul style="list-style-type: none"> • Should seek advice from doctors; and <ul style="list-style-type: none"> - Have mammography screening every year; - Begin screening at age 35 or 10 years prior to the age at diagnosis of the youngest-affected relative (for those with family history), whichever is earlier, but not earlier than age 30. - For confirmed carriers of <i>BRCA1/2</i> deleterious mutations or women who had radiation therapy to chest for treatment between age 10 and 30 years (eg, for Hodgkin's disease), consider additional annual screening by MRI. Recommendations for genetic testing <ul style="list-style-type: none"> • Women who have any first-degree female relative with confirmed <i>BRCA1/2</i> deleterious mutations should be offered genetic testing to confirm or refute their carrier status. • For women at high risk due to other types of family history who wish to clarify their genetic risk or that of their family, referral to a specialist cancer clinic for advice, counselling and management should be discussed and considered. • Genetic testing should be performed by specialised cancer centres with expertise in genetic counselling, which should be provided before genetic testing. Health care professionals should discuss with their clients in detail the uncertainty and implications of the test results. Confirmed carriers of <i>BRCA1/2</i> deleterious mutations who wish to consider prophylactic surgery/chemoprevention should also be referred to a specialist cancer clinic for advice and counselling.

Abbreviations: BC = breast cancer; DCIS = ductal carcinoma in situ; MRI = magnetic resonance imaging

clinical breast examination, mammography, and ultrasonography.⁵⁵⁻⁵⁷ A modelling study of three large *BRCA1/2* screening projects in UK, Canada, and the Netherlands demonstrated that screening with mammography and MRI (combined screening) detected relatively more DCIS and smaller invasive cancers in *BRCA2* mutation carriers than *BRCA1* mutation carriers, resulting in larger reductions in breast cancer mortality that ranged from 41.9% (for mammography alone) to 50.1% (combined screening) for *BRCA1* and from 46.8% (for mammography alone) to 61.6% (combined screening) for *BRCA2*.⁵⁸

One survival analysis among 959 UK women with high-risk genetic mutations reported that 10-year survival was significantly higher in the MRI-screened carriers of *BRCA1/2* mutations (95.3%) compared with unscreened mutation carriers (73.7%). However, the analysis did not show any significant difference in 10-year survival between the combined mammography plus MRI and mammography-only groups.⁵⁹ The IARC review also found variable all-

cause survival results among the reviewed cohort studies in women with *BRCA1/2* mutation.⁸

Notwithstanding the above, studies showed that MRI was superior to mammography in detecting hereditary breast cancer. The radiation risk and false-positive rate of different screening strategies should be considered when making individual screening decisions.⁶⁰ Regarding the effectiveness of screening Chinese women at higher breast cancer risk, there is currently a lack of local studies on the role and effectiveness of MRI and/or mammography.

Based on the emerging scientific evidence and international screening practices, the CEWG recommends 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. For confirmed carriers of *BRCA1/2* deleterious mutations or women who have had radiation therapy to the chest between age 10

and 30 years (eg, for Hodgkin's disease), the CEWG recommends that they consider additional annual screening by MRI.

Women who have any first-degree female relative with confirmed *BRCA1/2* deleterious mutations should be offered genetic testing to confirm or refute their carrier status. Apart from this, for women at high risk due to other types of family history of breast/ovarian cancer (Table 2) who wish to clarify their genetic risk or that of their family, referral to a specialist cancer clinic for advice, counselling and management should be discussed and considered. Genetic testing should be performed by specialised cancer centres with expertise in genetic counselling that should be provided before genetic testing. Health care professionals should discuss with their clients in detail the limitations, uncertainties, and implications of test results.

There exists a group of women whose risk of developing breast cancer may not be as high as those with a genetic mutation or strong family history, but who are at moderate risk due to a family history of breast cancer. The CEWG recommends that women at moderate risk discuss with their doctor the pros and cons of breast cancer screening before deciding whether to start screening by mammography every 2 to 3 years. Magnetic resonance imaging is not recommended for women at moderate risk.

Table 2 summarises the current CEWG recommendations for breast cancer screening in women at average and increased risk. A set of leaflets and a booklet on breast cancer prevention and screening are available (<http://www.chp.gov.hk/en/content/9/25/31932.html>) to the public to empower informed decision-making.

Conclusion

After taking into consideration the local epidemiology, emerging scientific evidence, and local and overseas screening practices, the CEWG concludes that it is unclear whether breast cancer screening does more harm than good for the asymptomatic woman at average risk, and has reaffirmed that there is insufficient evidence so far to recommend population-based mammography screening for these women. Individuals considering breast cancer screening should discuss the matter with their doctors and be adequately informed about the benefits and harms. Primary prevention, breast awareness, and timely medical attention for suspicious symptoms are recommended for women of any age. The CEWG recommends that women at high risk seek medical advice and counselling about breast cancer screening.

The CEWG will continue to review emerging evidence for or against breast cancer screening and prevention, including the outcome of research

commissioned by the Research Office of the Food and Health Bureau at a local institution to develop a validated risk prediction tool for the local population. The findings will facilitate formulation by the CEWG of evidence-based recommendations of criteria for breast cancer screening, especially for those at higher risk.

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Declaration

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