

Title	Mammography and Breast Cancer Screening among Hong Kong Women
Author(s)	Ben Y.F. Fong, Elaine Y.T. Kwok, Daisy K.Y. Ng, Kenneth K.W. Leung
Issue Date	2015
Issue Number	2
Paper Number	5
Citation	Fong, B., Kwok, E., Ng, D., & Leung, K. (2015). <i>Mammography and breast cancer screening among Hong Kong women</i> (Working Paper Series No. 2, Issue 5, 2015). Hong Kong: The Hong Kong Polytechnic University, College of Professional and Continuing Education, School of Professional Education and Executive Development. Retrieved July 23, 2015 from http://weblib.cpce-polyu.edu.hk/apps/wps/assets/pdf/w20150205.pdf
Rights	Copyright for this paper is owned by the author(s).

Mammography and Breast Cancer Screening among Hong Kong Women

Ben Y.F. Fong

School of Professional Education & Executive Development
College of Professional & Continuing Education
The Hong Kong Polytechnic University
Kowloon, Hong Kong
yffong@speed-polyu.edu.hk

Elaine Y.T. Kwok

School of Professional Education & Executive Development
College of Professional & Continuing Education
The Hong Kong Polytechnic University
Kowloon, Hong Kong
14026641S@student.speed-polyu.edu.hk

Daisy K.Y. Ng

School of Professional Education & Executive Development
College of Professional & Continuing Education
The Hong Kong Polytechnic University
Kowloon, Hong Kong
14023012S@student.speed-polyu.edu.hk

Kenneth K.W. Leung

School of Professional Education & Executive Development
College of Professional & Continuing Education
The Hong Kong Polytechnic University
Kowloon, Hong Kong
14025748S@student.speed-polyu.edu.hk

ABSTRACT

Breast cancer is the most common cancer and one of the top five major causes of cancer deaths among Hong Kong women. Screening is regarded as the critical component in early detection as well as the initial step in making a definitive diagnosis. Researches have indicated that mammography is the most commonly employed examination to detect breast cancer in the early stage, resulting in the reduction of mortality from breast cancer.

Currently, there are some non-territory wide breast screening programmes in Hong Kong and their effectiveness is considered to be low. With reference to screening programmes in the Asian-pacific perspectives, the purpose of this paper is to focus on the effectiveness of mammography in order to make some recommendations to the Breast Cancer screening programme in Hong Kong. To maximize its effectiveness, both public education and collaboration between the government and healthcare organizations are needed to develop a comprehensive community-based breast screening programme.

KEYWORDS: Mammography, Breast Cancer Screening, Hong Kong Women, Early Detection, Cost-effectiveness

1 INTRODUCTION

Breast cancer has become the most common malignancy in the world, which had caused 521,000 deaths in 2012 (WHO 2015). It is a disease in which cancer cells form in the tissue of the breast. It occurs in both women and men but it is relatively uncommon in men. Breast cancer is on a gradual rising trend among women in Hong Kong since 1993. In 2012, there were 3,508 newly registered cases of breast cancer in women, and 62% of the women were diagnosed in the age of 50 or above in 2011. On average, about 9 women are diagnosed with breast cancer every day (Hong Kong Breast Cancer Foundation, 2012). Breast cancer in Hong Kong has become the third leading cause of cancer deaths after lung and colorectal cancers, with 552 women dying from this cancer in 2011 (Centre for Health Protection, 2015).

Age, genetics and lifestyle habits, are the factors that may increase the risk of developing breast cancer. Almost 77% of women with breast cancer are over 50 years old at diagnosis, and it increases with age (Stoppler, 2015). If a woman has never been pregnant, or has the first pregnancy after 30 years of age, or no breastfeeding, the risk would increase moderately. In addition, over 60% of women carrying certain genes of BRCA1 and BRCA2 will develop breast cancer. Families with gene mutation or a history of breast cancer, especially of a first-degree relatives, such as sister, mother, daughter, their risks of breast cancer would be doubled (Centre for Health Protection, 2015). Other risk factors include early menarche, late menopause, hormonal replacement therapy (HRT) for menopause, and lifestyle factors, such as alcohol consumption and obesity (Centre for Health Protection, 2015; Stoppler, 2015).

To discover breast cancer, screening is one of the critical components in early detection, and often the first step in making a definitive diagnosis. This paper aims to review the practice of breast cancer screening in the world, particularly in the case of Australia; and to formulate recommendations for a Hong Kong Breast Screening Programme, focused on the effectiveness of mammography.

2 BREAST CANCER SCREENING

There are three common methods used to screen for breast cancer, including breast self-examination (BSE), clinical breast examination, and mammography. Breast self-examination is a way for people to check their breasts by themselves for any changes. When any change is noted, a clinical breast examination by a doctor or other health professionals is performed. The healthcare providers would carefully feel the breasts for lumps or anything that appears unusual (National Cancer Institute, 2014). However, both BSE and clinical breast examination only detect about 60% cases of breast cancer and are uncertain in decreasing the mortality of breast cancer (Weiss, 2003).

Other than breast self-examination and clinical examination, mammography is the most common screening method in detecting breast cancer. It is a tool, which helps to detect small tumours that cannot be felt by palpation (Herndon, 2012). The purpose is to find out breast cancers before there are any symptoms so as to start early treatment (Centre for Health Protection, 2015). Several studies have shown that regular mammography has helped to reduce the mortality of breast cancer. A research conducted in Swedish countries has found that the death rate from breast cancer was 29% lower in women who had mammograms compared with those who did not (American Cancer Society, 2010). Treatment is better when the cancer is diagnosed in early stages, and advances in treating cancer can help to improve the cure rates (National Cancer Institute, 2014). Therefore, the earlier the breast cancer is detected, the higher chance will be of the cure.

There are two applications of mammography. Screening mammogram is used when there are no symptoms, and diagnostic mammogram is ordered for women presented with signs or symptoms of breast diseases in order to evaluate the abnormalities (Herndon, 2012; National Cancer Institute, 2014). In the procedure of mammography, the breast will be placed on the flat X-ray plate and be pushed down for flattening the tissue, in order to provide a clearer image of the breast. Mammographic screening is recommended for women who are 40 of age and older every one to two years (Sachdev, 2012). If persons who have factors that considerably increase the risks of developing breast cancer, physicians usually recommend these people to start screening earlier, and suggest using additional diagnostic tools as supplementary examinations (Herndon, 2012; Sachdev, 2012).

2.1 Breast Cancer Screening: an Asian-pacific perspective and the case of Australia

2.1.1 Asian-pacific perspective

Based on the 2011 report of the Centres for Disease Control and Prevention (2014), although breast cancer occurs less among women in Asia, such as Taiwan and Malaysia, the breast cancer incidence and death rate among Asian women have recently increased. However, a number of researchers have pointed that there is still a large number of women in Asia, who do not get mammography or do not know the importance of breast cancer screening.

Al-Naggar and Bobryshev conducted a cross-sectional study involving 200 women in Malaysia, to determine the practice and barriers of mammography, and associated factors among them. Even though a majority of the Malaysian women knew about mammography, only 15% had had a mammography screening once in their life, and 2 % had screening every 2 to 3 years. Age, family history of cancer, especially of breast cancer, regular supplement intake and check-up, and knowledge about mammogram were found to affect mammogram practice in the general population; while the lack of time, lack of knowledge, not knowing where to go for the test, and a fear of the test results were the most important barriers (Al-Naggar & Bobryshev, 2012).

Although there is a currently screening policy to encourage breast self-examination in all women and clinical breast examination for all women aged 20 to 39 years, free mammogram screening is not commonly provided. However, in Malaysia, there are RM50 subsidies for every mammogram done in private clinics and hospitals registered with Lembaga Penduduk dan Pembangunan Keluarga Negara Malaysia (LPPKN) (Dahlui, Ramli, & Bulgiba, 2011). In addition, there are Asian societies providing not only pap smears for cervical cancer screening, but also a community-wide, free and biennial mammogram screening programme for the population, as in Taiwan, where the programme was implemented since 2004 (Wang, Chen, & Ng, 2014). As the incidence rate of breast cancer among Asian women is increasing, Asian governments and other healthcare centres should become much more aware of the risks of breast cancer, and the importance of screening.

2.1.2 Australia

A report published by the Australian Institute of Health and Welfare (AIHW) aims to study the latest statistics on breast cancer in females and to investigate the local trends over time. It provides information to researchers, health service providers and policy makers in addressing the policies to reduce the impact of breast cancer in Australia (AIHW, 2012). In this comprehensive publication, the differences between remoteness area, country of birth, Aboriginal and Torres Strait Islander status, socioeconomic status, international comparison as well as the data of breast cancer in males are discussed. The relationship between these features and the breast cancer incidence rate and mortality rate is also identified.

According to the AIHW report, excluding basal and squamous cell carcinoma of the skin, breast cancer is the most common cancer in females in Australia. In 2008, there were 13,567 new cases of breast cancer, which meant that around 37 females were diagnosed with breast cancer each day. Even though the incidence is still high, the mortality rate of breast cancer in female has fallen from 19% in 1982 to 16% in 2007. This is partly because of the introduction of BreastScreen Australia in 1991 in order to detect cases of unsuspected breast cancer women, thereby, to reduce sickness and mortality rate of breast cancer (AIHW, 2012). The programme is available to women aged 40 years or above but mainly targets at women aged 50 to 69 years. Moreover, the Medicare Benefits Scheme provides subsidies for mammograms to women, whose one or both breasts are suspected to be malignant with reasons, such as past existence of breast malignancy in the patient or her family members; or findings of medical practitioner about the symptoms or evidences of a malignancy on a patient through the examination. Their data have shown that the mortality rate has decreased by 22% between 1994 and 2007 for females aged 70 years and over. For those aged 50 to 69 years, the mortality rate was also decreased by around 32% from 1993 to 2007.

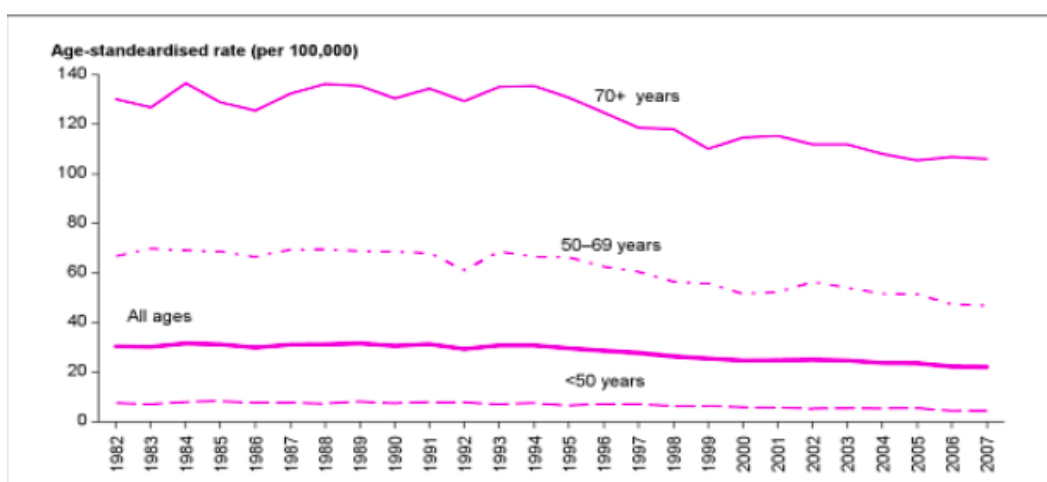


Figure 1: Mortality from breast cancer, by age at death, females, Australia, 1982 to 2007 (Source: AIHW 2012)

3 THE HONG KONG SCREENING PROGRAMME

It appears that the non-territory wide screening programmes in Hong Kong are less effective than that in Australia. According to the Hong Kong Cancer Registry (2012), breast cancer has become the most common cancer among women in Hong Kong since 1993. The number of new cases from 1993 to 2012 has tripled from 1,152 to 3,508. Moreover, the mortality rate of breast cancer is increasing during 2000 to 2010. Therefore, in order to raise the concerns on women's health, typically in breast cancer, the Tung Wah Group of Hospitals (TWGH) was the first of its kind in providing breast and cervical screening services for women in Hong Kong in 1990 (TWGH, 2015). The Kwong Wah Hospital Well Women Clinic and Tung Wah Eastern Hospital Well Women Clinic are the two centres operated by TWGH. However, up till now, there are no territory-wide breast-screening programmes in Hong Kong, apart from the screening services offered by the Hong Kong Breast Cancer Foundation (HKBCF), the Women Health Centres operated by the Family Health Service of the Department of Health, Tung Wah Group of Hospitals, some private hospitals and medical groups in a non-orchestral manner.

The HKBCF provides breast screening and diagnostic services like mammogram and ultrasound. "Free Mammogram Screening Service Programme" was launched in September 2008 to provide "timely and high quality screening and diagnostic services to women who have financial barriers or limitations". In addition, the HKBCF's "Breast Cancer

Working Paper Series No.5, Issue 2, 2015

Prevention – Early Detection Programme” aims to provide “quality medical service and knowledge related to breast cancer and breast care, and to promote the importance of mammography, so that women will maintain the habit of regular breast check-up (HKBCF, 2008).”

On the other hand, there are only three Women Health Centres within the Family Health Service of the Government’s Department of Health, located in Chai Wan, Lam Tin and Tuen Mun, to provide breast-screening service. These centres make the screening mammography available to women aged 64 years or below and to those at high risk in developing breast cancer. They charge HK\$225 for each episode. Furthermore, there are facilities offering free or discounted sessions of screening mammography at Tung Wah Group of Hospitals, Hong Kong Sanatorium & Hospital, Dr Elle Li Foundation, and Hong Kong Cancer Fund, for women aged over 40 years, and those with family history (HKBCF, 2008; Hong Kong Cancer Fund, 2009; TWGH, 2015).

Although there are organizations sponsoring and providing free or discounted mammograms to women in the public, breast cancer is still in an increasing trend in Hong Kong, where 9 new cases are diagnosed each day (Cheung, 2014). Therefore, there should be a serious consideration on an integrated breast cancer screening programme for the general population.

4 TO SCREEN OR NOT TO SCREEN?

In most countries, including Hong Kong, it is a controversial issue to discuss whether it is effective to implement breast cancer screening programme and whether it is beneficial to women, particularly in the high risk group, with the aim to reduce the morbidity and mortality rate due to breast cancer. Based on the *Prevention and Screening for Breast Cancer* published by the Centres for Disease Control and Prevention (2010), it has revealed that Breast Cancer Screening programme does bring benefits to women in the high risk group.

Nonetheless, the Hong Kong government has reflected that there is insufficient evidence to show the effectiveness of introducing population-based mammography screening in Hong Kong and no evidence is available at this stage to ascertain that such a screening programme is beneficial to women with no symptoms (Wong, et al., 2007).

4.1 Effectiveness of the early detection of breast cancer by mammography

Based on the presentation on breast cancer prevention by the Secretary for Food and Health, Dr Ko, in the Legislative Council, the Government has considered several factors, including the effectiveness of screening. There is insufficient scientific evidence showing the effectiveness of mammography screening. Therefore the Government has no plan to implement a population-based mammography screening programme or to work with private health organizations in such a scheme. In order to further utilize the healthcare services, the government prefers to spend more resources to women in the high risk group. For those who are not in the high risk group, the Government would choose to focus more on health promotion by providing health information through different community resources (Government of HKSAR, 2014).

Studies have shown that it is less effective to detect breast cancer in Asian women by mammography because of the differences of the breast tissue between Asian and Western ladies (Wong, et al., 2007). Moreover, there is a chance of having false positive and false negative results, which are the limitations of screening (Gotzsche, et al., 2009; Leung, et al., 2008). According to a regular mammogram check-up scheme involving two thousand British women, one of them has benefited from avoiding death due to breast cancer, while at the

same time, ten of them would be misdiagnosed to be suffering from breast cancer, leading to unnecessary treatment like mastectomy. Moreover, most of the latter group would also have received radiotherapy and even chemotherapy. Furthermore, around two hundred healthy women would get the wrong messages, which bring heavy psychological burden (Marmot, et al., 2013).

As a matter of fact, no screening is perfect. It is important for women to understand the limitations and to know how to better utilise the screening programme. When a woman considers mammographic screening, the attending healthcare professionals should discuss the potential benefits and harms of mammographic screening with her so as to help the woman to make an informed decision. Since breast cancer screening for women currently implemented in Mainland China and Taiwan, some Asian countries and many Western countries does appear to bring benefits and help to reduce the mortality rates of breast cancer, a population-based screening programme in Hong Kong may have similar effectiveness with the aim for early detection of breast cancer.

4.2 Relatively low mortality and morbidity of breast cancer in Asia

Based on the statistics of the morbidity and mortality rates of breast cancer in the world (Jemal, et al., 2011), there is evidence that there are relatively low number of Asian women suffering from breast cancer, compared to those in the western countries. However, factors other than genetic and ethnicity, diet and environment also promote the chance of developing breast cancer. Therefore it does not mean that Asian women can ignore this problem and choose not to understand breast cancer, which is essential to women's health.

In fact, there is now evidence to show that an increasing number of breast cancers is being diagnosed in Asia, especially in the younger age groups. According to the report from the Hong Kong Cancer Registry (2012), some of the women suffering from breast cancer do not belong to the high risk group, and they have no family history of breast cancer either. This phenomenon is basically due to the increasing trend of westernized lifestyle among Hong Kong women (Youlden, et al., 2012). So a population-based breast cancer screening in Hong Kong can potentially provide a channel for women to recognize the importance of early detection of breast cancer and to avoid it before the cancer becomes serious. Thereby, the effectiveness of cancer treatment can be maximized.

4.3 Knowledge and Perception towards mammography

A local study has found that 58% of Hong Kong women have never heard about mammographic screening (Chua, et al., 2005). Even among those who have, and who believe that mammography could detect early breast cancers and reduce mortality, only 58% of them would participate in yearly screening. Furthermore, nearly half of the women (47%) have the misconception that mastectomy is the only treatment of breast cancer, and three quarters (75%) of women have considered breast reconstruction after mastectomy as desirable and acceptable. On the other hand, in a survey on the perception of breast cancer and mammography among Hong Kong women, of the more than 500 respondents who were successfully interviewed by telephone, 51% did not have the habit of regular breast check-up either by themselves or being arranged by the doctors. Less than twenty per cent (17.9%) of them thought that they should have mammography after 40 years of age, and one-fourth of the respondents even failed to answer this question. Moreover, nearly half of the respondents (47%) had the perception that it was unnecessary to seek doctors to perform mammography as they thought they would not have breast cancer (Public Opinion Programme, The University of Hong Kong, 2013).

The low mammography rate in Hong Kong reflects that many of Hong Kong women are lacking of the awareness about the importance of regular mammographic screening (Yan,

2009). Most of those in the high risk group recognize the need of having early detection of breast cancer and the necessity of doing regular mammography, but they have failed to take action. In such a situation, women's attitude and beliefs about breast cancer is important in influencing their actions to seek information related to mammography or to utilise screening mammography.

5 RECOMMENDATION AND CONCLUDING REMARKS

Obviously, mammography is essential to Hong Kong women in order to detect early changes in the breasts and to be protected from suffering arising from the morbidity of breast diseases and cancer. Mammography is an effective way to screen out the high-risk individuals from the population. Early detection of the tumours may have the benefits of a lower breast cancer mortality in the population. Hence, it is time for the Government to consider and implement policies to deal with the creeping trend of breast cancer among the local female population.

To begin with, community health education is of an utmost importance, particularly in raising the awareness about breast cancer and diseases. Insufficient knowledge, negative perceptions, and Asian cultural impacts, together with other socio-demographic factors, have contributed to the low rate of breast cancer screening (Andersen, et al., 2002). Appropriate health perception will help the women feel more receptive to the mammographic breast screening. However, they should also receive the right information about the potential risks of such a screening. The objective is for the public to have acquired sufficient knowledge to decide whether there is a need for regular breast check-up. Consequently, improved knowledge can allow women to choose the screening modality wisely. Ultimately, the willingness and readiness of Hong Kong women to accept mammography can be enhanced.

When mammography becomes more and more generally acceptable, a mass-oriented screening programme can be developed and promoted. The implementation of such mass-oriented breast cancer screening does not mean that all Hong Kong women must have breast check-up by mammography in a compulsory manner. It is basically a way to provide a more organized scheme for suitable candidates to undergo early detection of breast abnormalities. At the beginning stage, free or subsidised screening mammography can be provided to the high-risk group. By the later stage, breast cancer screening can become an annual practice for the population, particularly those at risk and those at the advanced age. In order to accomplish this vision and mission, the Government may consider a collaborative scheme with non-government organisations (NGO), like the Hong Kong Breast Cancer Foundation, Hong Kong Cancer Fund and the Tung Wah Group of Hospitals, to develop a comprehensive and effective community-based breast screening programme.

It is known that the effectiveness and efficacy of regular breast screening programme varies with different ethnic groups. Such differences can be resolved by counteracting the limitations. In essence, mammography screening programmes should be tailored-specific (Legler, et al., 2002; Lu, et al., 2012). The Cancer Expert Working Group on Cancer Prevention and Screening (CEWGCPs), established by the Hong Kong government in 2002, is commissioned to review scientific evidence and to provide local recommendations, as well as to provide health advice on cancer prevention and screening for healthcare professionals and the public. It does not recommend BSE or clinical breast examination because of the lack of evidence. However the Working Group has found insufficient evidence to recommend or against a population-base mammography screening programme in Hong Kong (CEWGCPs 2012).

In the community, primary prevention is recommended and this entails "breast aware", healthy lifestyle, avoiding alcohol intake, breastfeeding and health body weight, etc. Nonetheless, more research and evaluation of screening programmes with local data would

help to better understand the barriers and effectiveness of mammography in breast screening in Hong Kong, particularly among the younger generation women, who tend to have late pregnancy and not breastfeeding. After all, breast health is a very important and an integral part of women health.

6 ACKNOWLEDGEMENTS

The authors wish to thank fellow students, Osais HUI and Rain LEUNG, for their contribution to the literature search and initial draft of this paper.

REFERENCES

- American Cancer Society. (2010) *Mammograms Reduce Breast Cancer Deaths, Studies Show*. <http://www.cancer.org/cancer/news/mammograms-reduce-breast-cancer-deaths-studies-show> (Accessed 19 April 2015).
- Andersen, M. et al (2002) Analysis of the Cost-Effectiveness of Mammography Promotion by Volunteers in Rural Communities. *Health Education & Behavior*, 29(6), pp.755-770.
- Australian Institute of Health and Welfare. (2012) *Breast cancer in Australia: an overview. Cancer series no. 71. Cat. no. CAN 67. Canberra: AIHW*. <http://www.aihw.gov.au/workarea/downloadasset.aspx?id=10737423006> (Accessed 21 Apr. 2015).
- Al-Naggar, R. A., and Bobryshev, Y. V. (2012) Practice and barriers of mammography among Malaysian women in the general population. *Asian Pacific Journal of Cancer Prevention*. 12 (6). p. 3595-600.
- Cancer Expert Working Group On Cancer Prevention and Screening. (2012) *Recommendations on Breast Cancer Screening*. http://www.chp.gov.hk/files/pdf/recommendations_on_breast_cancer_screening_2010.pdf (Accessed 18 May 2015).
- Centres for Disease Control and Prevention. (2014) *Breast Cancer Rates by Race and Ethnicity*. <http://www.cdc.gov/cancer/breast/statistics/race.htm> (Accessed: 02 June 2015)
- Centre for Health Protection. (2015) *Breast Cancer*. [online] <http://www.chp.gov.hk/en/content/9/25/53.html> (Accessed 19 May 2015).
- Cheung, P. (2014) HK Breast Cancer Registry: Evidence for Improving Cancer Control and Treatment. *Hong Kong Breast Cancer Foundation*. http://www.hkbcf.org/document/DrCheung_eng.pdf (Accessed: 2 June 2015).
- Chua, M. et al (2005) Knowledge, Perceptions, and Attitudes of Hong Kong Chinese Women on Screening Mammography and Early Breast Cancer Management. *Breast Journal*, 11(1), pp.52-56.

- Dahlui, M., Ramli, S. & Bulgiba, A. M. (2011) Breast Cancer Prevention and Control Programs in Malaysia. *Asian Pacific Journal of Cancer Prevention*. 12 (6). p. 1631-1634.
- Gotzsche, P. et al (2009) Breast screening: the facts--or maybe not. *BMJ*, 338(2), pp.b86-b86.
- Government of the Hong Kong SAR. (2014) *Press Releases - LCQ8: Prevention of breast cancer*. <http://www.info.gov.hk/gia/general/201410/15/P201410150632.htm> (Accessed 17 May 2015)].
- Herndon, J. (2012) *Mammography*. <http://www.healthline.com/health/mammography#Overview1> (Accessed: 24 May 2015).
- Hong Kong Breast Cancer Foundation. (2012) *Breast Cancer Statistic Information: Local Statistic*. <https://www.hkbcf.org/article.php?aid=138&cid=6&lang=eng> (Accessed 25 May 2015).
- Hong Kong Cancer Fund. (2009) *Cancer Fund Sponsors 1000 Free Mammograms for Women with a Family History of Breast cancer*. http://www.cancer-fund.org/en/press_centre_press_releases_4.html (Accessed: 30 May 2015).
- Hong Kong Cancer Registry. (2012) *Female Breast Cancer in 2012*. http://www3.ha.org.hk/cancereg/breast_2012.pdf (Accessed: 21 April 2015).
- Jemal, A. et al (2011). Global cancer statistics. *CA: A Cancer Journal for Clinicians*, 61(2), pp.69-90.
- Legler J. et al (2002) The Effectiveness of Interventions To Promote Mammography among Women with Historically Lower Rates of Screening. *Cancer Epidemiol Biomarkers Prev*, 11(1), pp.59-71.
- Leung, G. et al (2008) Who receives, benefits from and is harmed by cervical and breast cancer screening among Hong Kong Chinese?. *Journal of Public Health*, 30(3), pp.282-292.
- Lu, M. et al (2012). A systematic review of interventions to increase breast and cervical cancer screening uptake among Asian women. *BMC Public Health*, 12(1), p.413.
- Marmot, M. et al (2013) The benefits and harms of breast cancer screening: an independent review. *British Journal of Cancer*, 108(11), pp.2205-2240.
- National Cancer Institute. (2014) *Mammograms*. <http://www.cancer.gov/types/breast/mammograms-fact-sheet#q3> (Accessed: 24 May 2015).
- Public Opinion Programme, The University of Hong Kong. (2013) *Survey on Hong Kong Women's Understanding of Breast Check-up and Breast Cancer*. <http://hkupop.hku.hk/english/report/breastCancer/content/resources/powerpoint.pdf> (Accessed 18 April 2015).

- Sachdev, P. (2012) *Purpose of Mammography*. <http://www.onlymyhealth.com/purpose-mammography-12977617854> (Accessed: 24 May 2015).
- Stoppler, M.C. (2015) Mammogram: What Do the Results Mean? http://www.emedicinehealth.com/mammogram/article_em.htm (Accessed 19 May 2015).
- Tung Wah Group of Hospitals. (2015) *Well Women Clinic*. <http://www.tungwah.org.hk/en/medical/mh-introduction/screening/well-women-clinic/> (Accessed: 30 May 2015).
- Wang, P. H., Chen, Y. J. & Ng, H. T. (2014) Mammography and breast cancer screening. *Journal of the Chinese Medical Association*. 78 (1). p. 80-81.
- Weiss, N. S. (2003) Breast cancer Mortality in relation to clinical breast examination and breast self-examination. *The Breast Journal*. 9 (s2). p. S86-S89.
- WHO. (2015) *Cancer*. <http://www.who.int/mediacentre/factsheets/fs297/en/> (Accessed 25 May 2015).
- Wong, I. et al (2007) Cost effectiveness of mammography screening for Chinese women. *Cancer*, 110(4), pp.885-895.
- Yan, Y. (2009) Breast Cancer: Knowledge and Perceptions of Chinese Women in Hong Kong. *Global Journal of Health Science*, 1(2).
- Youlten, D. et al (2012). The descriptive epidemiology of female breast cancer: An international comparison of screening, incidence, survival and mortality. *Cancer Epidemiology*, 36(3), pp.237-248.