

9 June 2021

Mrs. Carrie Lam, GBM, GBS,
Chief Executive, Hong Kong Special Administrative Region
Office of the Chief Executive
5/F, Central Government Offices, Main Wing,
Lower Albert Road, Hong Kong

Dear Chief Executive,

Submission on Breast Cancer Screening in Hong Kong

On behalf of the Hong Kong Breast Cancer Foundation, I am writing to express our deepest gratitude for your warm concern about the well-being & health care of women here in the territory. The recent initiative of providing breast cancer screening for eligible women having regards to their breast cancer risk will no doubt attract more talents within the region, especially women talents.

Breast cancer is the No. 1 cancer affecting women in Hong Kong for the past 25 years and Hong Kong needs to seek ways to tackle it. A comprehensive breast cancer screening scheme, proven in other countries and regions, is a vital and an effective way to mitigate the threats of breast cancer in Hong Kong by early detection of the problem.

In view of this, the HKBCF and other stakeholders have prepared the attached submission for the reference and consideration of the Government.

The submission is proposing the necessary framework of a top-quality breast cancer screening scheme. Those factors include enhancing the hardware and technology, training up more mammographers and technical assistants, setting up an accreditation system for services providers, and arousing awareness and attractiveness of breast cancer screening scheme. Also, it is proposed that a pilot scheme be set up to gain experience for Hong Kong's population-based and risk-stratified breast cancer screening scheme in the future.

It would be highly appreciated if the government can consider adopting the recommendations proposed in the submission.

We look forward to hearing from you soon.

Yours sincerely,



Dr. Polly Cheung
Founder
Hong Kong Breast Cancer Foundation

c.c. Professor Sophia Chan, JP, Secretary for Food & Health
Dr. Constance Chan, JP, Director of Health

Proposal to the Chief Executive of the Hong Kong SAR Government on Breast Cancer Screening Policy Implementation Framework in Hong Kong

June 2021

Authors: Hong Kong Breast Cancer Foundation and Cancer Strategy Concern Group.

Supported by Hologic Asia-Pacific Limited



Contents

Chapter One: Executive Summary	3
Chapter Two: Breast Cancer and Women's Talent	6
Chapter Three: Adoption of Latest Technology	9
Chapter Four: Manpower Dimension	11
Chapter Five: Audit System	17
Chapter Six: Mode of Payment Options	22
Chapter Seven: Next Step: Pilot Scheme	24

Chapter One: Executive Summary

1.1 The Hong Kong Breast Cancer Foundation (HKBCF) and the Cancer Strategy Concern Group (CSCG) have been working together to advocate a popularized breast cancer screening programme in Hong Kong. The purpose of this paper is to provide a recommended implementation framework for the Hong Kong Special Administrative Region of the People's Republic of China (HKSAR) Government to consider. Our goal is to reduce the burden of breast cancer patients and their family members as well as reducing the pressure on the public health system.

1.2 Our recommendation recognizes that Hong Kong has a standing achievement as the greatest labour participation rate for women in East Asia as well as being the major homemaker in families. Advancement to women's health is strategically important to ensure a healthy female talent and homemakers' population. Among all the cancer diseases that females face, breast cancer has gained its top spot amongst all newly diagnosed cancer cases. Yet, the prevention and screening of breast cancer in Hong Kong has a huge unmet need. The authors identified four challenges and offer solutions for policymakers' considerations.

1.3 Challenge 1: Adoption of Latest Technology

The adaptation of the latest digital breast tomosynthesis (3D Mammography) in the US, Taiwan and other overseas market has shown to increase breast cancer detection rate, decrease false recall rate and contribute to a better early detection outcome (downstaging is a better outcome for decreasing the morality of breast cancer). 3D mammography technology may also be used in the biopsy process for a more precise diagnosis. We recommend an accelerated shift to adopt and install digital breast tomosynthesis devices in Hong Kong to increase screening demand. This is being detailed in Chapter 3.

1.4 Challenge 2: Manpower Dimension

With the increasing demand for breast cancer screening, we see quantitative and qualitative gaps in supplying the necessary technical manpower. Chapter 4 outlines the recommendation to train / retrain extra mammographers. The former to meet the increasing mammography screening procedure whereas the latter supports on administrative work. An Advanced Training Programme, that leverage on existing professional organizations, NGO / private practice capabilities, can speed up the training of general radiographers to meet the growing

demand for mammography screening. An accreditation system may be established based on experience of the Netherlands and Taiwan. Hong Kong has several institutions that can be partnered further to create talent education and job placement opportunities.

1.5 Challenge 3: Audit System

Learning from overseas experience, the best practice of a quality patient journey (from being invited to join a breast cancer screening scheme to being followed-up after an accurate diagnosis) is to avoid delay in the medication process. This paper highlights learnings in effective audit systems now being practised in the UK, Taiwan, and The Netherlands. This includes screening centre staffing, annual report, and inspection requirements for a sustainable, quality screening scheme.

1.6 Challenge 4: Mode of Payment Options

Making breast cancer screening affordable and at the same time providing sustainable, quality service is a big challenge in Hong Kong. Our proposed scheme would employ a Public Private Partnership with shared resources. The government may subsidize part of the cost of the mammography scan at Non-Governmental Organisations (NGO) and/or private clinics, and the rest to be paid by the patients themselves. For the underprivileged, the Community Care Fund may provide a further subsidy. District Health Centres and other community health entities may serve as a hub for public education.

1.7 Pilot Scheme

The HKSAR Government has announced its new guideline on a risk-based assessment strategy. On the initial screening programme, a pilot scheme that embraces a PPP model with NGO and private practitioners is recommended. It also includes a district-based breast cancer screening centre idea for more effective outreach and public education. Each centre may be staffed by qualified technicians to offer a one-stop mammography, biopsy, and consultation services. The PPP mode will maximize community resources from public to NGO and private sectors.

1.8 Concluding Thoughts

This paper outlines an implementation framework for the HKSAR Government's consideration. By no means it is a concluding strategy. The authors' objective is to support the government's initiatives by demonstrating resources available in the market, learning from overseas experience and a potential pilot scheme

framework. Our sincere intention is to contribute our experiences to the execution of a viable breast cancer screening programme in Hong Kong.

Chapter Two: Breast Cancer and Women's Talent

- 2.1 For the past years, human capital is well known as an indispensable factor for Hong Kong's outstanding social and economic development. Gathering various experts and professionals worldwide has made Hong Kong a prosperous international metropolis in the Asian-Pacific Region. Hong Kong's future success is highly correlated to whether it can keep serving as the hub of human capital in the region. Paragraph 160 of the Policy Address 2020 emphasizes the importance of attracting non-local talents, urging different policy bureaux to formulate respective policies to facilitate the inflow of non-local talents.

- 2.2 Among different perspectives of talent development, making Hong Kong a first-class city for women talents in the region would indisputably be essential. For the past couple of decades, women talents have played a more important role in both the private and public sectors. As mentioned by CE last September, proportion of female civil servants has reached a historical high of 38%. Out of 19 Permanent Secretaries of the policy bureaux, 13 are female. The proportion of female members of statutory bodies and advisory committees also reached 30%. Together with enormous female business leaders from different industries, these figures are concrete evidence of how influential women talents are to Hong Kong's future development.

- 2.3 However, Hong Kong's tense and stressful living space has been a great challenge for the well-being of women, especially their health. Women health problems force women talents to withdraw from the workforce and cause high social costs. According to the statistics in 2019, Hong Kong has the most fantastic labour's participation rate for women among the whole East Asian countries and regions. This means that the women workforce is so important for Hong Kong. Another important factor is that women in Hong Kong are recognized as the major homemaker. Therefore, the health problem of women in Hong Kong would cause a significant socioeconomic cost. Hence, improving women's health should be the core of establishing Hong Kong as Asia's leading city in women talent's contribution. Advancement in women's healthcare system would contribute to attracting women talents within the region, which would also be beneficial to local households.

- 2.4 Concerning women healthcare issues, cancer, especially those preventable ones, must obviously enjoy the highest concern. Statistics of 2018 reflect that almost one-third of total deaths in the territory contributed to cancer. Only breast cancer and cervix cancer have already claimed almost 1,000 female lives. A more alarming fact is that the medium age of newly diagnosed female cancer patients is 57¹, which means almost half of female cancer patients are diagnosed within their working age. Such an undesirable situation may lead to unpredictable economic loss due to the loss of human capital. Moreover, families of female cancer patients and even society must bear medical care and rehabilitation burden.
- 2.5 Among various cancer, breast cancer is undoubtedly the most challenging one, especially for those still in their working age. In 2018, breast cancer continued to rank No. 1 among all newly diagnosed cancer cases for female. More than 4,600 cases, consisting of more than 27% of female's cancer new cases that year.² It is frustrating that a significant proportion of cases are at their middle age; that is the time of the peak of their careers.
- 2.6 Compared with cervix cancer, another preventable cancer, breast cancer seems to receive less awareness, either in the focus of the government or the public. The HPV vaccine has achieved significant coverage among the local female community, but Mammography and other related screening are not equally popular. It is scientifically proved that a mammography screening scheme with wide coverage would lead to breast cancer diagnosis in an earlier stage or even before it occurs, meaning a higher chance of complete cure and less unnecessary deaths. In short, there is an urgency for Hong Kong to start a holistic breast cancer screening scheme to facilitate the well-being of women here in now and in the future.

¹ Hong Kong Hospital Authority (2018) *Female Breast Cancer in 2018*, from: https://www3.ha.org.hk/cancereg/pdf/factsheet/2018/breast_2018.pdf

² Hong Kong Special Administrative Region Government. Department of Health. (2021) *Recommendations on Prevention and Screening for Breast Cancer for Health Professionals*. Department of Health

2.7 In the following chapters, four challenges and recommendations regarding establishing a comprehensive, quality, and effective breast cancer screening scheme would be illustrated.

Chapter Three: Adoption of Latest Technology

- 3.1 To establish a world-class quality breast cancer screening scheme would certainly be important for enhancing women's well-being in the aspect of healthcare. However, whether Hong Kong is ready for a top-quality breast cancer screening scheme is questionable, no matter quantitatively or qualitatively, in the aspect of technology and equipment.
- 3.2 In our current public healthcare system, especially the primary healthcare system, digital Mammography (2D Mammography) is still the mainstream technology used for breast cancer screening. However, the latest technology for breast cancer screening, that is the Digital Breast Tomosynthesis (3D mammography) has become mature. It has started to be adopted in several countries and regions such as U. S. and Taiwan.
- 3.3 A study conducted by a first-class hospital in Taiwan, maybe the first one conducted in the Asian region, suggests that having adopted 3D Mammography in the hospital for 4 years, the cancer detection rate has significantly increased. The rate of false recall has decreased, meaning that the effectiveness and the efficiency of the whole breast cancer screening procedure are enhanced. The study also reflects that the cancer detection rate of the hospital is 2.2 times of the average cancer detection rate of the breast cancer screening services all over Taiwan.³ 3D Mammography, in the long term, would be a trend for breast cancer screening.
- 3.4 The study also shows that 3D Mammography can also detect breast cancer at an earlier stage while downstaging is the core of decreasing breast cancer mortality. In view of this, it is recommended that 3D Mammography should be offered to those high-risk groups such as those women who have a family history of breast cancer. We may consider offering them with current level of screening services like using 2D mammography scan for those groups with only moderate risk. More importantly, Hong Kong is ready to offer 3D mammography services as 90% of

³ Pan HB, Wong KF, Yao A, et al., Breast cancer screening with digital breast tomosynthesis - 4-year experience and comparison with national data. *Journal of the Chinese Medical Association*. 2018;81(1):70-80 doi: 10.1016/j.jcma.2017.05.013

mammography devices currently used in public and private medical sectors are those for 3D Mammography.

3.5 In fact, 3D mammography technology may also be used in the biopsy process, which may offer a more precise diagnosis. Also, the use of 3D mammography technology may also reduce the false recall rate, which may reduce the unnecessary suffering of women and the cost for unnecessary biopsy and diagnosis. Therefore, it would be considered for us to adopt 3D mammography technology in the long run. When there is a breast cancer screening scheme, some high-risk patients may be referred to a 3D mammography scan as a study of its performance.

3.6 To plan a feasible and quality breast cancer screening scheme, it is important to estimate the service demand. Our estimation is illustrated in the following table.

Chapter Four: Manpower Dimension

Family History based	Breast Cancer Survivor	24,000
	Female family members and relatives (2 linked person from 1 cancer survivor)	48,000
	BRCA1/2	1,500
Lifestyle based	Female who is early menarche, no pregnancy and lack of exercise in between aged 44 to 69 (15% of the total population: 1.5m)	225,000
	Total Qualify Population	298,500

4.1 If, as proposed, we offer all women with a high risk of having breast cancer a mammography scan, we have to make about 149,250 scans a year. According to the information provided by the manufacturer of the scanning device, the mammogram device currently in Hong Kong is serving, on average, about 1,700 scans a year. The busiest device is serving about 2,500 scans a year. Because of this, we need at least about 60 extra devices in order to make this breast screening scheme possible. As some of the mammography devices out of the approximately 73 currently used in Hong Kong are in local hospitals and needed to conduct a biopsy, they cannot be used to meet the needs of the proposed scheme. Therefore, extra devices, say 40 may be needed. In short, we have to increase the quantity of scanning hardware so that Hong Kong can be ready to roll out mammography service in a larger scale, particularly for those mediums to high-risk population.

- 4.2 The previous chapter mentioned the hardware for Hong Kong's breast cancer screening services should be enhanced to facilitate a comprehensive breast screening scheme here in the territory. However, our related technical manpower development is not in pace with our technological advancement. This has been a great hurdle for our vision of the well-being of women in Hong Kong in terms of the healthcare aspect.
- 4.3 The lack of manpower for breast screening services can be viewed both quantitatively and qualitatively. From the quantitative point of view, only about 2,100 diagnostic radiographers are registered in Hong Kong⁴. They have already performed most of the diagnostic radiographic duties. Generally trained radiographers are now performing bone scans or chest scans while specialized radiographers are performing more advanced scans such as CT scans, PET scans, and mammographic scans. If a comprehensive breast cancer screening scheme is launched, there would never be the extra capacity to accommodate the increased demand of mammographic scans.
- 4.4 Moreover, diagnostic radiographers are all registered under general terms. That means they can perform various medical scans apart from Mammography. This situation would unquestionably negatively affect the incentive of performing mammographic scans as other medical scans would be more profitable. In view of the current manpower structure of radiographers, it would be impossible for us to have mammographers who would like to receive further training and serve as a mammographer, meeting the extra demand under our proposed breast cancer screening scheme without extra manpower. If we would like to launch a holistic breast cancer screening scheme as mentioned in the last chapter, we need 40 mammographers who would focus on providing mammography services immediately. If we wish to further expand the scheme, surely should more mammographers meet the extra demand of services in the future. The table below illustrates the current manpower situation of mammography services.

⁴ Supplementary Medical Professors Council (2021 January) *Registration Summary*. Retrieved March 26, 2021, from <https://www.smp-council.org.hk/hkifd/summary.php?search=RD>

Professional	Education Institute	Total certified professionals	No. of graduates per year	Skill(s)
Radiographer	The HK Polytechnic University	~2000	100	-license certified for operating radiation apparatus like general x-ray imaging, mammography, fluoroscopy, cardia angiography , CT and PET CT - also operating non-radiation imaging devices like ultrasound and MRI
Mammographer	HKCRRT	~43	Varies	-industrial unofficial qualification -specialized radiographer with professional knowledge of mammography
Radiologist	HKCR	~30	Varies	-specialized medical doctor with professional knowledge of diagnostic radiology

4.5 Other than the quantitative concern, the quality of mammographers is also essential for a high-quality breast cancer screening scheme. Current technological advancement has made the top-class mammographic scan a highly skilful duty. Mammographers can only perform quality services if they are highly familiarized with the latest technology. As a result, general training for radiographers may not be adequate for the preparation of a high-quality mammogram which is critical for patients.

4.6 In short term, number of mammographers may be increased through continuous professional development of currently registered radiographers through The Hong Kong College of Radiographers and Radiation Therapists (HKCRRT). In order to achieve increased number of mammographers in a short period of time, an Advanced Training Programme can be rolled out by utilizing existing mammography centres in the NGO and private sectors. At the time of writing, the HKCRRT and HKBCF have expressed intention to assist in the training program to expedite the supply of trained mammographers.

Framework of an Advanced Training Programme

HKBCF and others to support biennial mammographer training course based on HKCRRT exam syllabus.

Instructors	HKCRRT, HKBCF and application specialists
Course Content	Mammography physics, imaging technology, image artifact evaluation, patient positioning and communication skills, quality audit guideline
Entry Requirement	<ul style="list-style-type: none">• Master degree or above in Mammography; OR• Bachelor degree in medical imaging or related fields or Professional Diploma in Diagnostic Radiography (PDDR) plus a Mammography specialist qualification recognized by the College; OR• Plus attained a grade of 75% or above in an examination set by the Mammography Faculty Committee of HKCRRT.
Size per class	25 to 30 attendees
Format	Online course + physical workshop

4.7 In fact, many countries and regions have already set up an accreditation system for mammographers, and the table below has summarized those accreditation systems.

Professional Certification	HK	US	TW	Netherlands
	HKCRRT	MQSA and ARRT	Radiological Society of the Republic of China	Dutch Expert Center for Screening
Mammographer Training Requirement		<ul style="list-style-type: none"> - 40 hours education with exist exam - 8 hour system training - 250 mammo exam prove 	<ul style="list-style-type: none"> - radiographer license - CME prove - Hospital on-job education - 200 case prove 	<ul style="list-style-type: none"> - radiographer license - 4 days theoretical course - 6 week hands-on
Total mammographer	~100	~36,000	~ 900	550
Certified mammo units	73	2D : 13,012 3D : 9,820	286	67
No. of exams	~120,000	38,670,194	868,000	1,000,000
No. of exams per unit	1,643	1,757	3,034	14,925
Estimate new cases in year 2021	5,000 ⁵	281,550 ⁶	13,000 ⁷	16,000 ⁸

4.8 Retraining of healthcare assistants is also necessary for a quality breast cancer screening scheme. Compared with other medical scans, mammography, especially 3D mammography, requires more physical effort of mammographers as there is a need to change the positioning of the patient throughout the whole screening process. In view of this, more technicians performing supportive duties are needed. That supportive manpower may be trained up through a short-term certificate course offered by professional training units. Healthcare assistants and enrolled nurses may be trained up and registered as Part III or Part IV diagnostic

⁵ Hong Kong Cancer Registry (2018) *Breast Cancer New Case in 2018 is 4,645, based on yearly incremental rate of 3%, the estimate figures for 2021 is approximately 5,075*, from https://www3.ha.org.hk/cancereg/pdf/factsheet/2018/breast_2018.pdf

⁶ US American Cancer Society, *How common is Breast Cancer?* from <https://www.cancer.org/cancer/breast-cancer/about/how-common-is-breast-cancer.html>

⁷ Taiwan Health Promotion Administration, Ministry of Health and Welfare, from <https://www.hpa.gov.tw/Pages/Detail.aspx?nodeid=614&pid=1124>

⁸ Netherlands Integraal Kankercentrum Nederland data and figures, from <https://iknl.nl/en/ncr/ncr-data-figures>

radiographers in the current registry. This would help in responding to the immediate demand for extra mammographers.

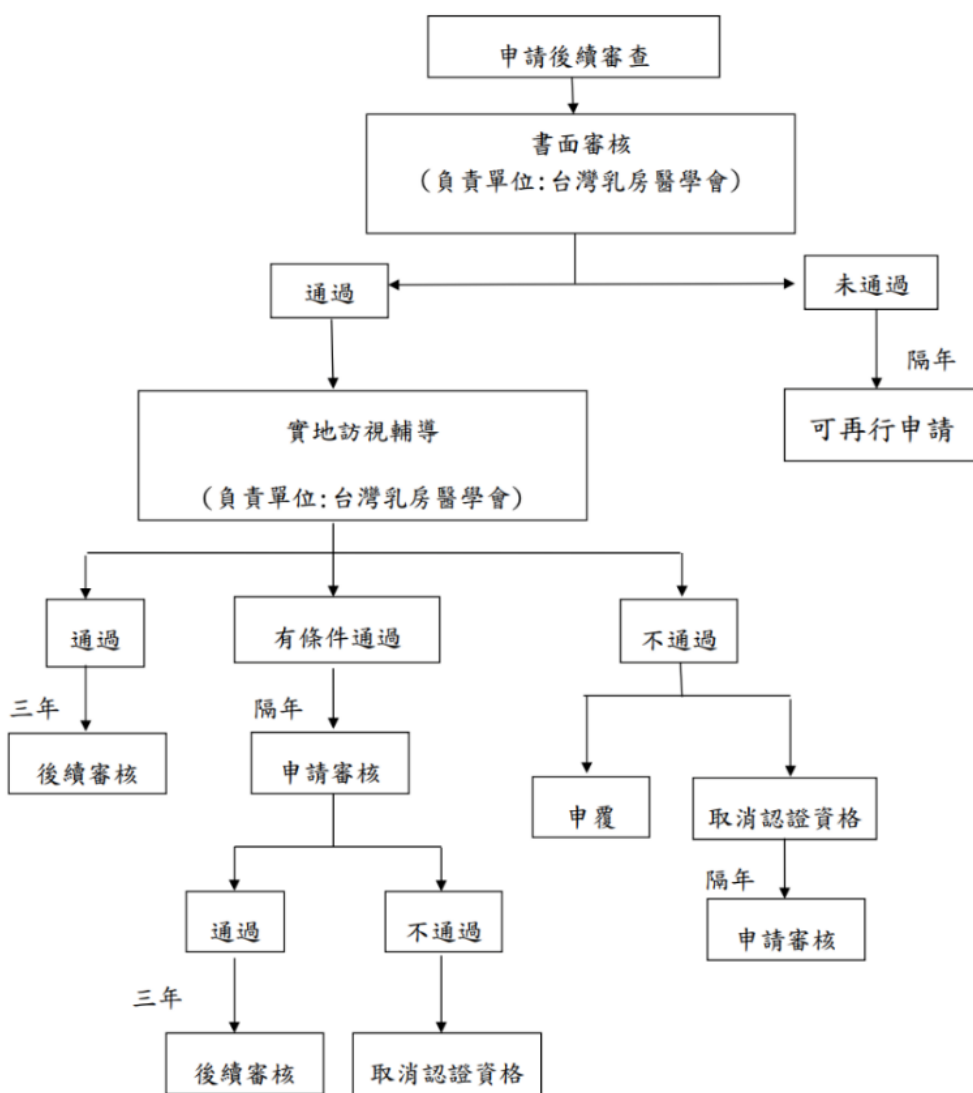
- 4.9 In longer term, tertiary institutes like Tung Wah College and The Hong Kong Polytechnic University (PolyU) which offer medical support professional training programmes may offer related post-secondary programmes to train up more radiographers, especially those mammographers. Vocational Training Council (VTC) may offer courses to train up technicians to support the work of mammographers. Without long term and stable supply of mammographers, a comprehensive breast cancer screening scheme can never be sustainable.
- 4.10 Finally, a sustainable breast cancer screening scheme relies also on quality radiographers, and hence we would propose establishing an accreditation system for mammographers. Radiographers may be registered as specialized mammographers if they receive a certain number of hours of approved continuous professional training related to Mammography annually and perform a certain number of mammographic scans each year. This accreditation system may be established on the experience of the Netherlands and Taiwan which has introduced similar accreditation system.

Chapter Five: Audit System

- 5.1 Throughout the previous chapters, it is suggested that Hong Kong is ready for a comprehensive breast cancer screening scheme, whether in the aspect of technology or related manpower planning. However, international experiences reflect that without a holistic audit mechanism, no patient may enjoy a quality patient journey, from being invited to join the scheme to being followed up after an accurate diagnosis.
- 5.2 Under current circumstances, there is no monitoring mechanism imposed on breast cancer screening services. It is always found that patients are not well followed-up after they have taken the mammography scans, which may result in delaying the medication process. In view of this, a comprehensive audit system on the whole breast cancer screening process is important for securing a quality patient journey.
- 5.3 According to research conducted by the Ministry of Health and Welfare of Taiwan, countries providing cancer screening schemes would view the participation rate and the quality of screening as equally important. Information systems are set up in order to secure a high-quality cancer screening scheme. The research suggests that Taiwan may consider improving its cancer screening schemes in this direction when planning the 4th Phase Cancer Prevention and Cure Plan. Taiwan's policy direction may be referenced by Hong Kong if we would like to establish a quality breast cancer screening scheme which means we may need a comprehensive system in order to assure the quality of our breast cancer screening services.
- 5.4 In fact, a quality assurance mechanism is not a new thing globally. Countries have established comprehensive audit system for mammography services, and the following tables are the overview of such systems in different countries and regions.

5.5 Taiwan

Inspection	
Entity	Must be a Certified screening center
Staff requirement	<ol style="list-style-type: none"> 1. Full-time Breast Screening Radiologist 2. Full-time breast screening radiographer(mammographer)
Annual report requirement	<ol style="list-style-type: none"> 1. Staff certification 2. Record of annual continue education of breast screening 3. Annual cancer detection rate 4. Facility list (mammography, ultrasound system) 5. Medical Audit and Outcome analysis (detection rate, no. of cancer detected and false positive rate)



5.6 US

Inspection	
Entity	Must be a MQSA Certified screening facility
Staff requirement	<ol style="list-style-type: none"> 1. Mammographer 2. Screening radiologist 3. Medical physicist who surveys the equipment
Annual report requirement	<ol style="list-style-type: none"> 1. Staff certification 2. Personnel CME related to breast imaging https://www.fda.gov/radiation-emitting-products/mqsa-insights/annual-mqsa-inspection-what-facilities-can-do-help 3. Equipment survey report includes in following link http://wayback.archive-it.org/7993/20180126071328/https://www.fda.gov/Radiation-EmittingProducts/MammographyQualityStandardsActandProgram/FacilityCertificationandInspection/ucm114138.htm#C 4. QA/QC report 5. Medical Audit and Outcome analysis (detection rate and false positive rate)
Inspection institute	<ol style="list-style-type: none"> 1. American College of Radiology 2. Arkansas Department of Health 3. Texas Department of State Health Services

5.7 The United Kingdom

Inspection	
Entity	Must be an NHS Certified screening facility
Staff requirement	<ol style="list-style-type: none"> 1. Mammographer 2. Screening radiologist 3. Medical physicist who surveys the equipment 4. Pathology 5. Surgery 6. Breast care nursing 7. Admin and clerical
Annual report requirement	<ol style="list-style-type: none"> 1. Staff certification 2. Operation review 3. Image and pathology report review 4. Surgeon case review 5. QA/QC report 6. Medical Audit and Outcome analysis (detection rate and false positive rate)
Inspection institute	<ol style="list-style-type: none"> 1. NHS SQAS

5.8 Netherlands

Inspection	
Entity	Must be a Certified screening center
Staff requirement	<ol style="list-style-type: none">1. Full-time Breast Screening Radiologist2. Full-time Breast Screening Radiographer (Mammographer)
Annual report requirement	<ol style="list-style-type: none">1. Survey questionnaire2. 120 mammograms for inspection3. Number of positive finding4. Detail of Positive cancer finding

5.9 We suggest to the government that such systems may be seriously referred to when establishing our one. A quality breast cancer screening scheme can only be sustainable when there is a comprehensive and effective audit system.

Chapter Six: Mode of Payment Options

- 6.1 With adequate technology, hardware, manpower with technical know-how and a quality assurance mechanism, a breast cancer screening scheme with high quality is ensured. It is confident that this would be a significant step forward for women's healthcare in Hong Kong. However, the scheme can only achieve great success if it can attract multi-stakeholders' participation.
- 6.2 Although the government and NGOs have paid enormous effort on promoting breast cancer check-ups in recent years, the relatively high cost and lack of public awareness are still challenging for a widespread public participation even a breast cancer screening scheme is launched. For example, HKBCF's breast cancer screening services charge every patient is already lower than the private market at \$2,500 for 2D Mammography. But still, it would be a burden for those women from the grassroots. Even HKBCF has tried to offer free check-up quotas for the unprivileged with the help of donors' sponsorship; it would not be able to cover all the needs that emerged from our proposed screening scheme.
- 6.3 Public awareness is also a hurdle for implementing a successful breast cancer screening scheme. Unlike cervix cancer, breast cancer has never received equal public awareness. It is still not a culture for local women to do body check-up periodically, not to say breast cancer screening. Undoubtedly, Hong Kong needs better public education in this aspect.
- 6.4 It is believed that a well-arranged funding scheme would facilitate an effective breast cancer screening scheme with high motivation. In view of the huge demand for mammography scan services and follow-up services, it is not realistic if we count totally on the equipment and manpower of our public healthcare system, which is currently under tremendous pressure. Therefore, our proposed scheme would employ a PPP arrangement, aligning medical services outside the public healthcare system.
- 6.5 According to a survey conducted by HKBCF in 2018, most of the survey say they would go for a mammography scan if it were fully subsidized, but the proportion drops significantly if they need to pay part of the cost. Therefore, the major concern of motivation would be a reduction of the check-up fee. It is suggested that the government may subsidize part of the cost of the mammography scan and

the rest to be paid by the patients themselves.

- 6.6 As mentioned, the follow-up services after the mammography scan are so important that we highly recommend that these services may also be subsidized by public funds such a dedicated health voucher. For example, patients may enjoy further check-ups like ultrasonic scans or biopsy with a relatively low fee or even free. For those underprivileged, the Community Care Fund may provide a further subsidy so that those underprivileged may enjoy free mammography scan services.
- 6.7 Concerning the enhancement of public education, District Health Centres may serve as a hub for such work. Health talks, audio-visual materials and information pamphlets may be offered there. It is also recommended that APIs be produced once the breast cancer screening scheme is launched. The whole promotion campaign may refer to the promotion of colon and rectum cancer screening schemes and the HPV vaccine. Moreover, NGOs like HKBCF and the private medical sector will also help to promote the newly launched screening scheme by emphasizing the importance of having mammography scans for women in their Middle Ages especially those bearing risk factors.
- 6.8 It is hoped that with an attractive funding mechanism and effective public education, a great level of public participation would be achieved. Such satisfactory public participation would then make our proposed breast cancer screening scheme an effective one.

Chapter Seven: Next Step: Pilot Scheme

- 6.9 In the previous four chapters, a full picture of a holistic breast cancer screening scheme has been illustrated. However, it would not be practical for Hong Kong to establish a screening scheme for all. In view of this, it is recommended that a pilot scheme may be launched after the government has announced its risk-based guidelines for breast cancer screening.
- 6.10 It is proposed that a pilot breast cancer screening scheme should be considered, targeting those women with a higher risk of breast cancer. It is hoped that with the help of such a pilot scheme, breast cancer patients may be diagnosed at earlier stages. The experiences from such a pilot scheme may also be used as the foundation of a breast cancer screening scheme for all, which is our ultimate goal of enhancing the well-being of women in Hong Kong in the aspect of healthcare. Elements of such a pilot scheme are as follows:

Government-NGO Partnership

- 6.11 As mentioned in Chapter 6, a PPP model should be considered for a risk-stratified population-wide breast cancer screening scheme, and hence this model should be employed for the pilot scheme. In fact, NGOs such as HKBCF has accumulated tremendous experience in providing breast cancer screening services.
- 6.12 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 more than 60,000 times. It is confident that the non-government sector is capable of playing an essential role in such a pilot scheme.
- 6.13 The government may cooperate with different NGOs to establish breast health centres similar to those currently operated by HKBCF, providing comprehensive breast cancer screening and follow-up services. Also, public education programmes may be held in these centres like seminars, exhibitions and sharing sessions to arouse public awareness towards breast cancer and the screening

scheme.

- 6.14 An Advanced Training Programme that leverages on existing health care professionals as instructors (as mentioned in Chapter 4) can speed up the knowledge and skill sets in performing mammography for radiographers. This will also solve the short-term manpower bottleneck issue. HKCRRT, HKBCF and CSCG, together with the technical support from the manufacturers, can assemble the programme implementation in support to the government roll-out plan.

District-based screening service centres

- 6.15 It is recommended that the DHC of the Department of Health may serve as a platform to outreach patients and conduct public education. Local women may answer a standard questionnaire in DHC, and those high-risk patients may be referred to the breast health centre mentioned above for a Mammography scan. Several breast health centres may be established in different parts of Hong Kong. Each centre may be staffed by mammographers, technicians as assistants, nurses, and radiologists in order to offer mammography, biopsy, and consultation services. That means we suggest a one-stop service model in such centres.

Setting up of an advisory committee

- 6.16 In view of the challenges illustrated before and the recommendation proposed, a holistic plan for Hong Kong's breast cancer screening scheme should be formulated. Such a plan may include guidelines for hardware, manpower, service procedures etc. Formulation of this plan must involve professional and experts so that an advisory committee may be formed. This committee may be responsible for offering views and opinions to the government regarding the implementation of the pilot scheme and the future planning of the breast cancer screening scheme.
- 6.17 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 in need.

- 6.18 Being an expert in breast cancer screening technology, Hologic would be more than happy to support this pilot scheme by offering top-class technology and professional training programmes, supporting hardware and manpower development. With cooperation among the government, the public sector and the private sector, women in Hong Kong can surely be well-off by prevention and earlier breast cancer intervention.

- The End -

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