BUILDING THE PINK ROAD OF HOPE

NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

National Cancer Society Malaysia

Giving Hope Celebrating Life

eTiQa

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BUILDING THE PINK ROAD OF HOPE

NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

Duli Yang Maha Mulia
Paduka Seri Sultan Perak Darul Ridzuan
Sultan Nazrin Muizzuddin Shah
Ibni Almarhum Sultan Azlan Muhibbuddin Shah Al-Maghfur-Lah

graced the launch of the

BUILDING THE PINK ROAD OF HOPE
NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

coffee table book

on

9 December 2021

Duli Yang Maha Mulia
Raja Permaisuri Perak Darul Ridzuan
Tuanku Zara Salim

graced the launch of the

BUILDING THE PINK ROAD OF HOPE
NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

coffee table book

on

9 December 2021

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- Pantai Hospital Ayer Keroh, Melaka
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- SALAM Specialist Hospital Kuala Terengganu, Terengganu
- KPJ Perdana Specialist Hospital, Kelantan
- Pertubuhan Hawa Pertiwi Daerah Petaling, Selangor
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- Pusat Wanita Berdaya (PWB)
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- Sikh Women's Awareness Network (SWAN)
- Malaysia Hindu Sangam Wilayah Persekutuan Kuala Lumpur (MHSWPKL)
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- Lions Club of Ipoh Mandarin
- Komuniti Let's Go Young Club Banting
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- Everyone who supported or contributed to ensure the success of this coffee table book

Foreword by

YBhg. Tan Sri Dato' Seri Rafidah Aziz

Principal Patron of NCSM

National Cancer Society Malaysia's outreach in the management of, and the efforts to reduce the incidence of cancer, has been made possible through effective collaboration with multiple parties and entities who are equally committed towards addressing cancer control as well as other issues related to cancer.

These entities are not only those who are working in the medical and health sector, but also many who are in the corporate sector such as Etiqa. These partnerships help to strengthen NCSM's efforts in reaching out to society through multiple programmes and make them optimally effective.

One of the key areas of NCSM's work is in the dissemination of relevant information on cancer and addressing issues pertaining to cancer. In particular, this applies to ongoing educative processes, that can increase community awareness levels and through this enable the early detection and treatment of cancer, in its many forms, in particular, breast cancer.

A better understanding of cancer is the key to pave the way for better cancer screening, treatment, and post treatment support programmes. Greater understanding from society also plays a large role in boosting the confidence and emotional strength of cancer survivors; and assists them to seamlessly integrate into their families, and back into society.

In addition to its efforts in increasing understanding through education and awareness efforts, NCSM remains dedicated to cancer treatment as well. This is made possible through collaborations with hospitals such as Hospital Kuala Lumpur (HKL) and other public institutions which provide the conduit for patients, including children, to have access to the relevant care and treatment they need.

Certainly, there are various costs indeed attached to the running of these programmes, especially in bringing patients from low-income groups, and outlying areas to NCSM or other hospitals and providing the necessary care and treatment. This is where corporate entities such as Etiqa can assist through their corporate social responsibility arms by funding of specific programmes and projects. It is noteworthy that all donations to NCSM are tax exempt, and do go a long way to add value to the efforts being undertaken in cancer control and management.

Indeed, Etiqa stands out as one of NCSM's noteworthy partners as seen via its long-term commitment to cancer control, and it is hoped that both NCSM and Etiqa continue to have a long and fruitful partnership together.

About this Book

This book was born out of the discussions of the project team in which it was felt that there was a need to document for posterity the myriad insights and learnings that have been learnt from the conception, planning and implementation of this unique programme.

The problem of equitable access for health has never been more felt in this era of Covid-19 where throughout the world, health systems are struggling under the double burden of managing both the pandemic of communicable disease as well as the silent pandemic of non-communicable disease.

Amidst these economic and social constraints, nations, governments and the communities contained within them need to continue providing healthcare services which we have now realised is the 'lifeblood' of every society. New and unique solutions which are cost-effective, cost-efficient and utilise multisectoral partnerships to deliver health to all look to be the way forward to ensure continuity of healthcare services.

This book documents in a step-by-step manner such a solution for breast cancer screening and detection, beginning from inception, planning, implementation and finally impact in Malaysia. What makes this solution even more interesting is that this programme has been running for more than three years and is within its fourth year at the time of writing of this book - which is an extrapolation into its long-term sustainability as well.

This book is envisioned to be helpful as a do-it-yourself guide for organisations and even health systems planning to conceptualise and implement similar multi-sectoral long-term interventions within their own settings in any country. The in-depth material provided shares learnings that have been gathered along the implementation process over a number of years, as well as the challenges that have arisen and overcome along the way.

It is hoped that this book will contribute to the global knowledge repository for health professionals working in the landscape of non-communicable diseases as well as to serve as a testament to the success of multisectoral partnerships in a country such as Malaysia contributing to better health outcomes for all.

About the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem programme is a multifaceted, multidimensional, multisectoral programme which is aimed at providing breast cancer screening and detection for underprivileged Malaysian women.

Though the Ecosystem consists of many partners working together; the two core partners underpinning it are National Cancer Society of Malaysia (NCSM) and Etiqa.

At its core, the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem consists of enabling underprivileged women and communities in Peninsular Malaysia to obtain mammography screening, and if necessary, ultrasound scans and biopsies needed to confirm or exclude breast cancer.

However, the Ecosystem is multidimensional in that the provision of mammography itself is merely one of the objectives of the programme. In order to ensure that underprivileged women and communities are truly the beneficiaries of the programme, local community organisations and institutions are engaged to accurately identify underprivileged women.

Health education and awareness activities in terms of breast cancer prevention and positive preventive practices are also carried out within targeted communities to promote long-term behaviour change of participants. In addition, barriers which may hinder prospective participants from going for the mammography screening procedures are identified, and then these barriers are resolved for the participants.

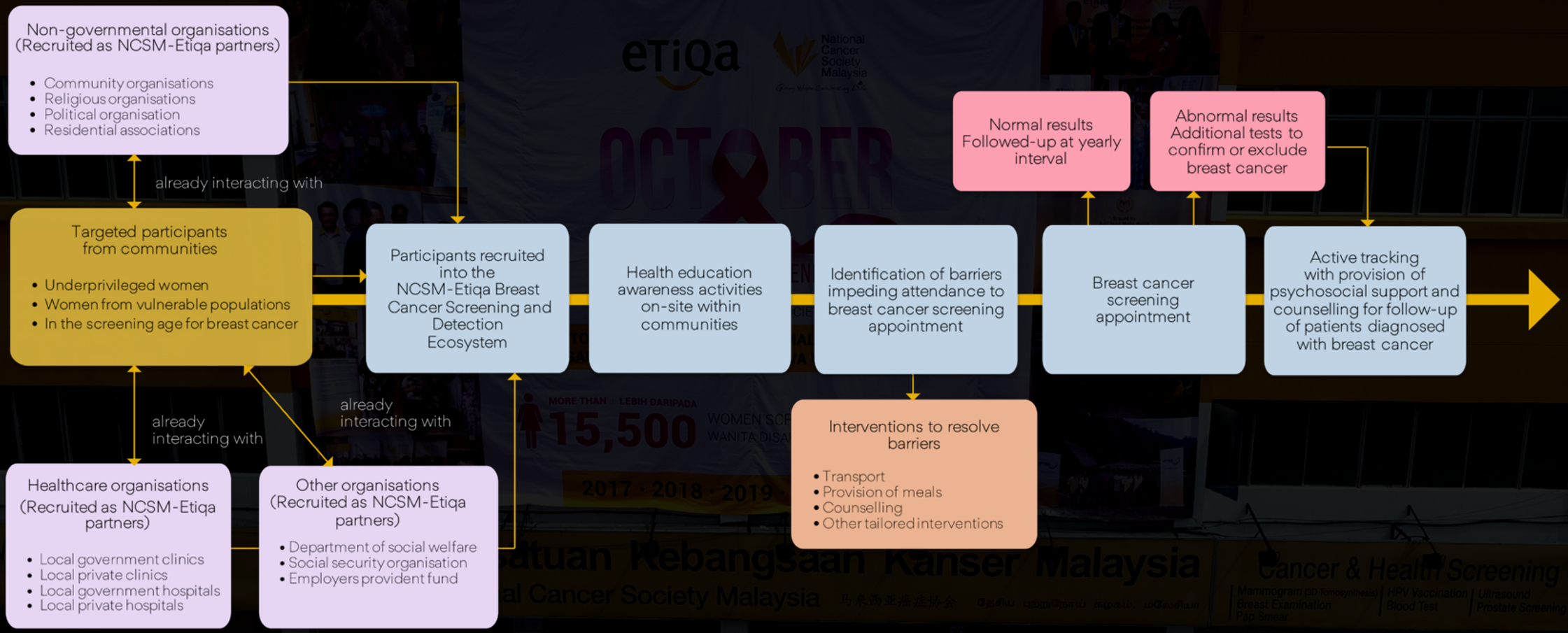
Solutions for overcoming barriers include providing screening sessions on weekends and after-hours (including Sundays) so that these underprivileged participants can attend outside their regular working schedules; providing transport for participants from their communities to mammography screening centres; providing meals for participants during screening appointments; and individual counselling to allay concerns, fears and misconceptions about breast cancer screening and the disease itself.

If an abnormality is found in the participant's mammogram, further investigational modalities are also provided for free for participants in order to confirm or exclude their disease diagnosis. In addition, trained cancer information specialists will actively track the patient to ensure that she is within the disease treatment pathway and any further hurdles, if any, are resolved. Participants who have been diagnosed with breast cancer are followed-up via the active tracking system until they have completed treatment.

One of the unique features of the Ecosystem is that while the core partners are both national-level entities, multiple partners have been enrolled on-the-ground or within nearby communities to provide comprehensive, timely support when needed by participants. To enable ease of access, for example, partner private hospitals with mammography services have been enrolled across the country in various states. Partner organisations stretching across cultural, religious and political lines who have a strong relationship and history of working with underprivileged communities have been also recruited to enable penetration and uptake from the targeted participant groups.

In total, the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem has completed three phases from July 2017 till October 2020 across 11 states and has benefitted a total of 17, 738 women. The Ecosystem is continuing in its fourth phase across 2021-2022 and continues to be firmly engaged and deployed even amidst the Covid-19 pandemic.

The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem



About National Cancer Society Malaysia

National Cancer Society Malaysia is the country's oldest cancer control organisation. It was formed in 1996 by the country's first oncologist, Datuk Dr S.K Dharmalingam under the patronage of then Prime Minister, YAB Tun Abdul Razak. The Society today continues to be headquartered in the heart of Kuala Lumpur at 66 Jalan Raja Muda Abdul Aziz, Kuala Lumpur with branches in various states all over Malaysia. National Cancer Society Malaysia's work today is centred on three main pillars which are educate, care and support.

The educate pillar is helmed largely via the Health Education, Literacy, Promotion and Policy (HELPP) Department, which works at multiple levels in different geographical localities all over the country. The HELPP team carries out health education and health promotion work in secondary schools, universities and colleges as well as within communities, providing them with materials and conducting awareness programmes on cancer and other non-communicable diseases (NCDs). The HELPP team also works in selected communities to increase their health literacy and improve their health behaviours as well as being actively engaged in oncology-related health systems research. NCSM also actively publishes health education materials such as brochures, books, reports and digital media content which are free to use and disseminated to the public in multiple languages.

NCSM runs its care activities largely through its Cancer Health Screening Clinic (CHSC) and Nuclear Medicine Centre (NMC). Both clinics are physically based in the headquarters in Kuala Lumpur and provide subsidised or free health screening and diagnostic investigation tests to patients from all over Malaysia. In addition, CHSC is also actively involved in organising and running community health screening programmes where it provides point-of-care testing within communities for various cancer screening and cancer preventive screening modalities.

NCSM's Support arm is materialised through its Resource Wellness Centre (RWC), Cancer Information Service (CIS), the Children's Home of Hope (CHH) and the Adults' Home of Hope (AHH). The RWC is a centre offering psychosocial support and wellness activities for cancer survivors while the CIS is a toll-free national helpline for cancer information staffed by full-time health professionals.

CHH is a half-way house for paediatric cancer patients from all over Malaysia receiving treatment in Malaysia's largest paediatric oncology centre, Hospital Tunku Azizah - the KL Women and Children's Hospital. AHH, located at Yayasan Jantung Malaysia provides free accommodation to adult cancer patients and their caregivers from outstation who are undergoing treatment at Hospital Kuala Lumpur.


COLUMBIA ASIA
SHAH ALAM
NCSM

About Etiqa and Etiqa Cares

Etiqa's history began in 2005 when Maybank Ageas (formerly known as Mayban Ageas), Maybank's insurance and takaful arm consisting of Mayban General Assurance, Mayban Life Assurance and Mayban Takaful merged with Malaysia National Insurance Berhad, Malaysia's largest national insurer and its subsidiary, Takaful Nasional Sdn Bhd, Malaysia's premier Takaful provider. Two years following the merger, in 2007, the name Etiqa was born.

In 2018, in support of Bank Negara Malaysia's Financial Services Act 2013 Islamic Financial Services Act 2013, and to better serve its stakeholders, Etiqa has become four organisations:

- Etiqa General Insurance Berhad (EGIB)
- Etiqa Life Insurance Berhad (ELIB)
- Etiqa General Takaful Berhad (EGTB)
- Etiqa Family Takaful Berhad (EFTB)

Etiqa offers life and general insurance as well as family and general takaful products through its 10,000 agents, 46 branches, 17 offices and over 490 bancassurance network (via branches, cooperatives, brokers and online platforms) across Malaysia, Singapore, Indonesia, Philippines and Cambodia.

Etiqa Cares is Etiqa's Corporate Social Responsibility programme. Since 2007, it has been an integral part of the company that allows it to continuously give back to society and help those in need. Etiqa Cares' projects and initiatives are aimed at uplifting the lives of underprivileged individuals, families, and communities across Malaysia.

The focus of Etiqa Cares' projects and initiatives have been in five main areas which are:

i. Basic infrastructure: through the provision of basic infrastructure for underprivileged communities across Malaysia
ii. Education: the development of holistic initiatives and programmes to nurture the minds of more than 10,000 young Malaysians
iii. People empowerment: initiated numerous developmental programmes targeted at Malaysians from different backgrounds
iv. Healthcare: collaborating with different healthcare organisations to provide free health screenings to various communities
v. Covid-19 assistance: assisting communities affected by the Covid-19 pandemic

Chapter 1

Introduction:

Understanding the Breast Cancer Landscape in Malaysia

“If one is master of one thing and understands one thing well, one has at the same time, insight into and understanding of many things.”

Vincent Van Gogh

About this Chapter

For a person to provide a solution, they must first understand the problem. Similarly, to understand the solution that is the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem, it is essential for the reader to first understand the underlying problems that require such a solution. This is what this first chapter aims to do.

First, this chapter provides an overview of the situation of cancer care in Malaysia: the facts and figures, and insights on issues that complicate cancer care.

Following this, the chapter zooms into insights, specifically into breast cancer care in Malaysia, providing the reader with updated statistics as well as the challenges surrounding breast screening, detection, and treatment of the disease.

By the end of this chapter, the reader will have a complete and comprehensive understanding of the breast cancer care landscape in Malaysia. The stage is then set for the reader to embark on the development and implementation journey of the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem.

Overview of Cancer in Malaysia

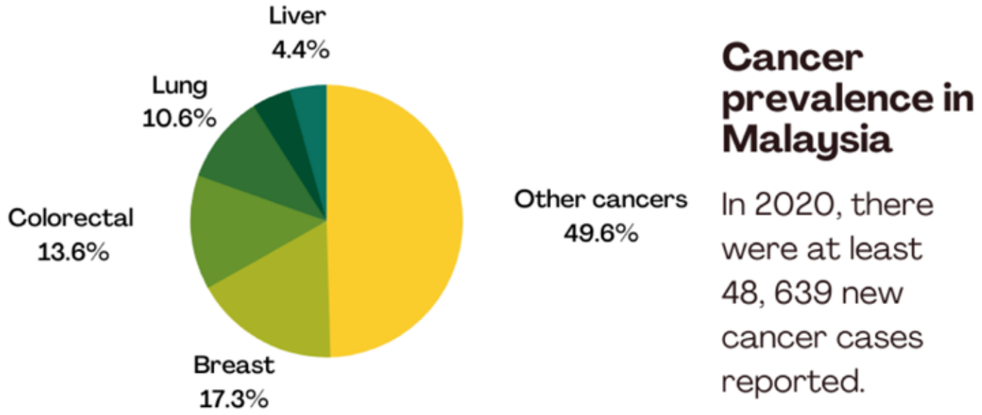


Figure 1: Cancer prevalence in Malaysia, by cancer diagnosis
Source: The Global Cancer Observatory 2020, World Health Organization

Cancer is a prominent disease and a leading cause of death worldwide. Cancer afflicts 37,000 Malaysians each year. From the year 2012 to year 2016, 115,000 Malaysians were diagnosed with this disease—it was also the fourth leading cause of death in the country.

Cancer burdens every country's health system. In Malaysia, it contributes to 12.6% of all deaths in public hospitals, and 26.7% deaths in all private hospitals (1). The estimated cost for cancer treatment alone in highly subsidised government hospitals, between years 2012 and 2016, was approximately RM2.57 billion (2). This does not include the non-treatment-related costs or the financial impact on individuals, households, and the nation. To date, this disease remains a leading non-communicable disease (NCD) burdening the country.

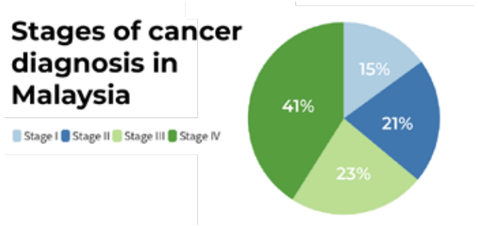


Figure 2: Stages of cancer diagnosis in Malaysia
Source: Malaysian National Cancer Registry (MNCR) Report 2012-2016

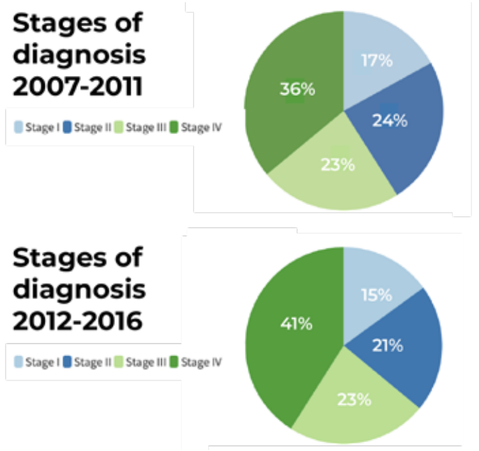


Figure 3: Comparison on the stages of cancer diagnosis in Malaysia
Source: Malaysian National Cancer Registry (MNCR) Report 2007-2011 and 2012 2016

One contributor of the high cancer mortality rate in Malaysia is late diagnosis - when the disease is diagnosed in the later stages.

According to the latest Malaysian National Cancer Registry (MNCR) Report (2012-2016), more than half of the cancer cases were diagnosed at advanced stages (Stage III: 22.8%; Stage IV: 40.9%), as compared to 15.5% at stage I and 20.8% at stage II. When compared with the earlier MNCR report (2007-2011), the late diagnosis situation had worsened from 58.8% to 63.7% (3).

Late diagnoses, in turn, lead to more complicated treatment, and a lower survival rate. (3,4) Figure 2 shows the proportion of diagnosis stages in a pie chart format, where 63.7% of all detected cancers are diagnosed at late stages (2). Figure 3 illustrates the worsening of the late diagnosis situation, from 58.8% to 63.7%, between years 2007-2011 and years 2012-2016 (3).

In addition to the disease burden, mortality, and physiological complications caused by cancer, its diagnosis is also associated with a significant psychological burden.

In Malaysia, 11.4% of all suicides in 2009 were among those who had a history of cancer diagnosis (5). A 2015 study found that many cancer patients attempt or commit suicide while in hospitals, due to the inability to cope with their diagnosis (6). The same study showed that between year 2008 to year 2013, out of the 50 attempted suicides in public hospitals, 31 of them led to death.

It is crucial to decrease the burden of cancer, whether physically or mentally.

Barriers to Access to Cancer Screening and Uptake

Despite the importance of cancer screening, the uptake of cancer screening programmes among the general population is low in Malaysia. The challenges and reasons for this are multifactorial. Among the major reasons are:

- lack of health literacy and awareness;
- attitudes and perceptions towards cancer; and
- cultural and societal barriers

Lack of health literacy and awareness

A systematic review found that from year 2006 to year 2015, the uptake of mammograms in Malaysia was between 3.6%-30.9% (7). A similar situation was found in Pap smear screening tests: while these tests have been subsidised and offered in governmental health clinics since 1995, only 40% of women had undergone this screening as of year 2019 (8).

The lack of public use of cancer screening could be due to low awareness of the available screenings or low awareness of cancer itself. One local study found that patients diagnosed with different types of cancer reported being unaware of the available cancer screening tests prior to their diagnosis (9).

Another Malaysian study on the perceptions and knowledge of colorectal cancer – the second most prevalent cancer in the country – revealed that the participants, most of whom were middle-class urban residents, showed limited knowledge and understanding of this cancer (2, 10).

Figure 4: Health literacy levels among Malaysians
Source: National Health and Morbidity Survey (NHMS) 2019

A possible reason for the lack of awareness is low health literacy: an individual's ability to access, understand, and use health-related information as well as services to inform their decisions on health. Low health literacy was found among 30% of Malaysians, according to the National Health and Morbidity Survey (NHMS) 2019 (8). This number could be higher among the B40 population group, who are part of households in the lowest 40% income bracket in Malaysia. In one study with 345 B40 cancer patients, 60% of them were reported as having low cancer health literacy (11). In a nationwide survey consisting of 1,895 participants, it was also found that Malaysians could only recognise 5.8 out of 11 cancer symptoms (7).

Healthcare providers also play an important role in sharing health information to patients so that patients will be more aware of their well-being. However, according to the study, only 14 out of 991 research participants received recommendations to go for colorectal cancer screening by their doctors (9). Among all the study participants, 40% of them were over 50 years old - the recommended age group for colorectal cancer screening. This could be due to the fact that recommending cancer screening to patients is not part of the routine for primary care physicians. In these cases, it did not create a supportive environment for patients to access information on cancer screening information.

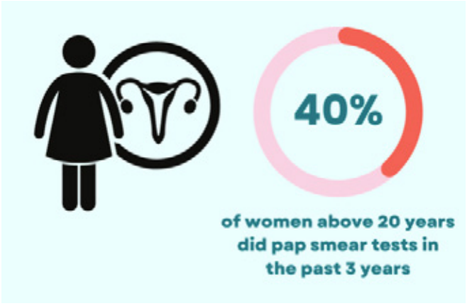


Figure 5: Rate of Pap smear tests in Malaysians
Source: National Health and Morbidity Survey (NHMS) 2019

Attitudes and perceptions of cancer

Unfortunately, people with knowledge of cancer screening tests may continue to avoid going for these tests due to certain negative beliefs about cancer, including fear of diagnosis (7). Other reasons that contribute to barriers in screening uptake include the belief that cancer screening tests are untrustworthy or unnecessary, and a fear of experiencing pain while undergoing the test, (7).

This avoidance behaviour is partially attributed to a lack of belief in personal susceptibility: the individual's perception of how predisposed they are to getting cancer. Prior to their diagnosis, most cancer patients with a strong family history of cancer said they never thought they could also be at risk (9).

Cultural and societal barriers

Another challenge in promoting the uptake of cancer screening in Malaysia is cultural beliefs which may limit patient's health-seeking behaviours. For instance, Chinese are heavily influenced by beliefs of fate and fatalism which view cancer as an unpreventable and fatal disease (12). This may be part of the reason for the Chinese population to use the healthcare system the least among Malaysia's major ethnic groups (13).

Even in developed countries such as Canada, where health literacy levels are higher and healthcare facilities such as screening programs are more readily available, culture has been found to influence health behaviours. In a 2016 study, South Asian patients in Ontario, Canada had the lowest rates of cancer screening for breast, cervical, and colorectal cancers, when compared with other ethnic minorities (14).

This low uptake was despite the fact that when compared to most other immigrant communities in the area, South Asians had better access to primary care. When Lofters and colleagues addressed this difference in a follow-up study, by using a lay health educator programme tailored for South Asians within primary care practices to decrease patient hesitancy (15), they found cancer screening uptake

Figure 6: Factors influencing under-utilisation of healthcare services in Malaysia (11)

to significantly improve. Providing health information to patients in their own language and by someone who understands their culture, in this case, helped improve willingness to be screened for cancer. This supports the existence of culture-specific barriers to the uptake of health promoting behaviours.

Language proficiency is a crucial social determinant of health as it ensures that patients can communicate with their healthcare providers effectively and understand the health information provided to them. As such, language barriers, especially when significant, can hinder a patient's access to cancer screening services. In a study on the access to information on cancer, some patients mentioned that they had difficulties in understanding the education materials provided by the healthcare facilities (9).

In addition, despite the availability of many subsidised cancer screening programmes in Malaysia, most services are located in an urban or suburban area. This poses a unique set of challenges especially for patients who are living in rural areas: not only do they have to struggle with longer travel distances, they have to contend with higher travel costs. As many of these individuals are associated with a low socioeconomic status, most may choose to forego such activities.

Another cultural barrier to utilisation of cancer screening programs and subsequent cancer treatment, is the reliance on alternative or traditional medicine (16). Many people in developing countries such as Malaysia, remain sceptical of modern medicine. An estimated 80% of the world's population still seek traditional healers (17), sometimes while also concurrently seeking modern medical care. Traditional healers are often preferred by people due to their accessibility and affordability.

In Malaysia, traditional healers exist amongst all three of the largest ethnic groups, through Traditional Chinese Medicine (TCM) or Complementary Alternative Medicine (CAM) among the Chinese, Ayurvedic medicine among the Indians, and Islamic healers or 'bomoh' among the Malay communities (16).

Given the social and cultural barriers faced, community-based campaigns are crucial in driving society's awareness of cancer. Unfortunately, they are limited by factors including insufficient funding and manpower shortages. The Tenth Malaysia Plan report (20) has pointed out that organisers of health promotion action have been suffering from an insufficient number of health promotion workers. Fewer than half of the hospitals (43 out of 136 hospitals) and district health offices (29 out of 109 health offices) were found to have a Health Education unit to implement health education and promotion programmes.

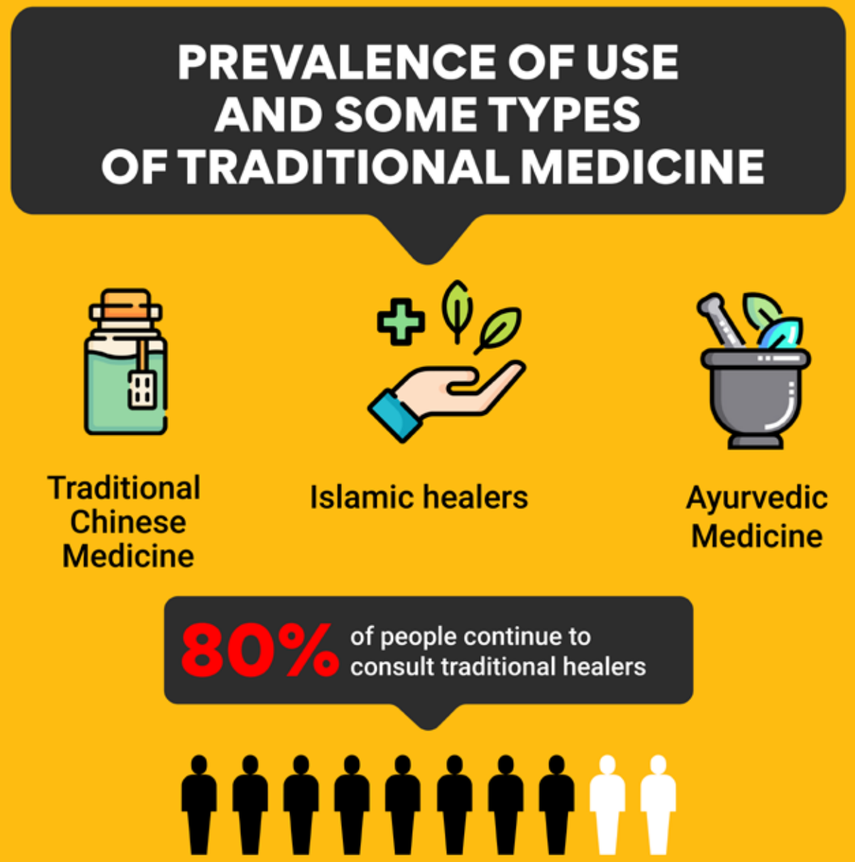


Figure 7: Prevalence of use and some types of traditional medicine in Malaysia (14-15)

Overview of Breast Cancer in Malaysia

Breast cancer is the most common cancer among women in Malaysia. The Malaysian National Cancer Registry (MNCR) 2012-2016 reported 21,925 cases of breast cancer, which equates to 19.0% of all cancer cases (2). This was an increase from 18,206 cases (17.7%) reported between the years 2007-2011. The age-standardised rate (ASR) was reported as 34.1 per 100,000 women, and 0.5 per 100,000 men.

Among the women, the incidence of breast cancer was highest in Chinese (40.7 per 100,000), followed by Indians (38.1 per 100,000) and Malays (31.5 per 100,000). Breast cancer incidence was found to rise after 25 years of age, reaching a peak between 60-64 years, followed by a decline after the age of 65 (2).

More recently, the International Agency for Research in Cancer (GLOBOCAN) reported 8,418 new breast cancer cases in Malaysia, accounting for 17.3% of all new cancer cases in the year 2020 alone (21).

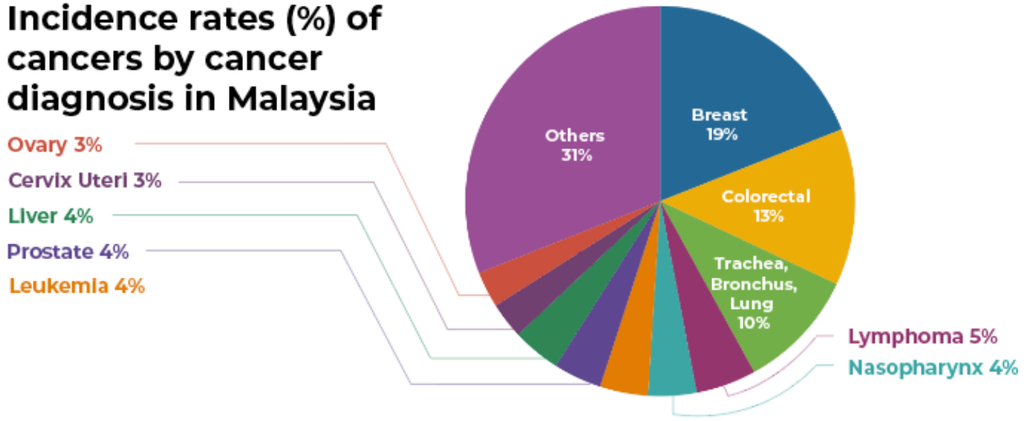


Figure 8: Incidence rates (%) of cancers by cancer diagnosis in Malaysia

Based on the Malaysian Study on Cancer Survival (MySCan) report (2018), the overall 5-year survival rate for breast cancer was 66.8% (1). The rates are much better with early diagnosis of breast cancer, as the 5-year survival rate is doubled in women who are diagnosed at an earlier stage than women who are diagnosed at later stages (22). Early diagnosis rates can be improved by improving uptake of breast cancer screening, especially in high-risk populations.

Late diagnosis in certain cancers among women, such as cancers of the breast and cervix, are especially tragic since these can be detected through screening methods which are less costly and easy to carry out (23). The recent 2012-2016 MNCR report shows that more female breast cancers were detected late as compared to the previous report (2007-2011). There was also no significant improvement in the measure of early detection in cervical cancer incidences.

This is partly due to most patients in Malaysia only exhibiting their first symptoms at a late stage of the disease (24-26). Figure 11 show a comparison of the stages of diagnosis for breast cancer between the years 2007-2011 and the years 2012-2016 (2,3). These numbers further reinforce the need to address the importance of pushing these cancer screening and early detection policies in Malaysia.

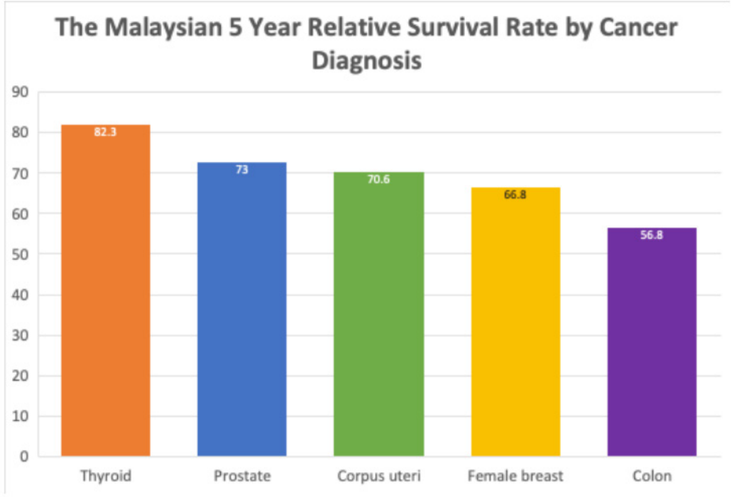


Figure 9: The Malaysian 5-years relative survival rates by cancer diagnosis
Source: Malaysian Study on Cancer Survival (MySCan) report (2018)

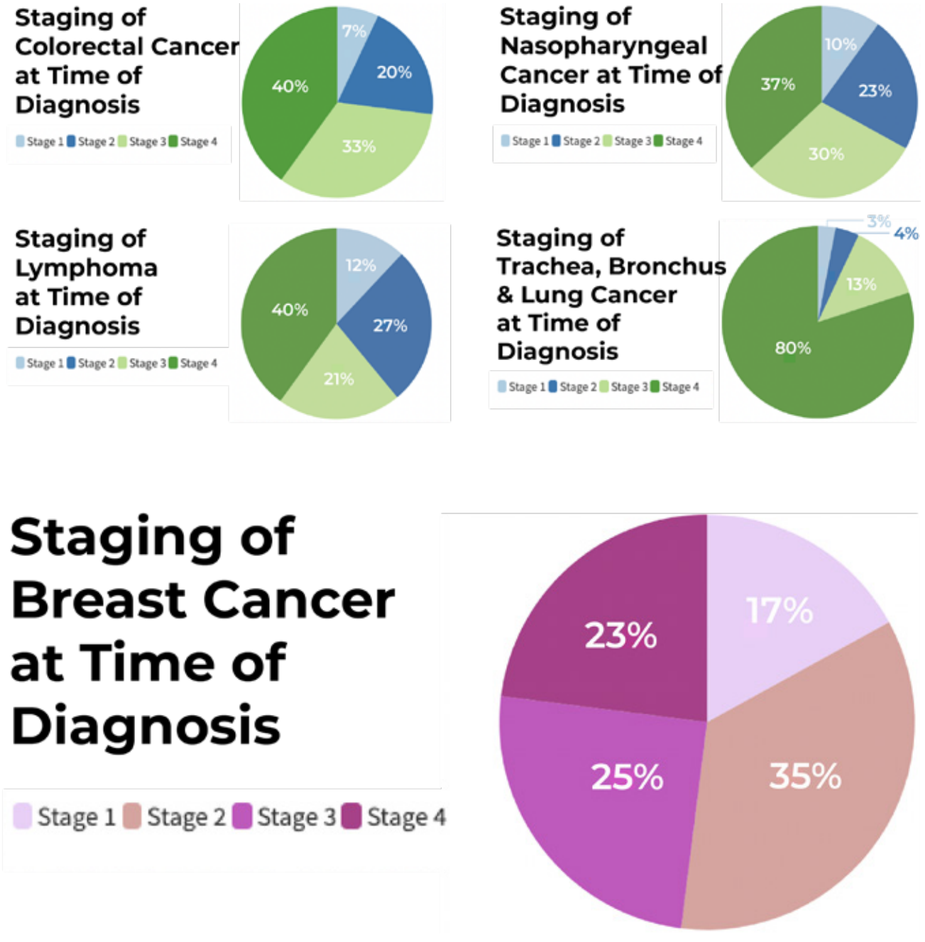


Figure 10: The average prevalence of cancer diagnosis by stages of diagnosis in Malaysia
Source: Malaysian National Cancer Registry (MNCR) Report 2012-2016

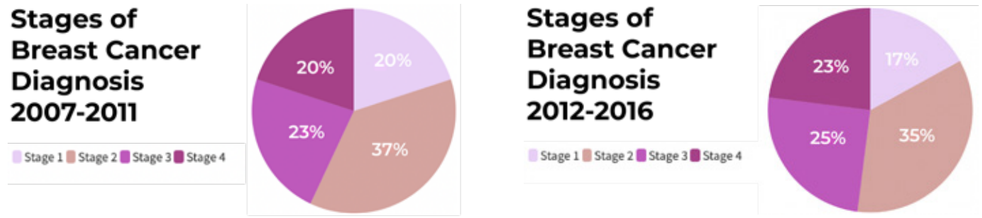


Figure 11: Comparison on the stages of breast cancer diagnosis in Malaysia
Source: Malaysian National Cancer Registry (MNCR) Report 2007-2011 and 2012-2016

Cancers affecting women, in particular, have a severe impact in Asian societies, as the woman is the core of the household unit, and any debilitating condition such as disease disrupts both the social and economic functioning ability of the family and its members.

Cervical cancers and breast cancers remain among the top five cancers for women in Malaysia today (2). These are both cancers that can be screened for and detected early; an effort that can greatly increase the survival rate, and reduce the number of patients having more complications throughout their lives. The MySCan report (2018) revealed that late diagnosis was a significant determinant for poor cancer survival (1). Figure 12 demonstrates the deterioration of breast cancer survival rate in Malaysia due to late diagnosis (1).

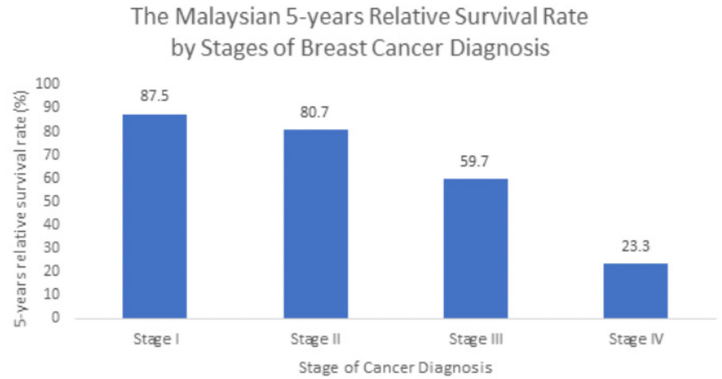


Figure 12: The 5-years relative survival rate by stages of breast cancer diagnosis in Malaysia
Source: Malaysian Study on Cancer Survival (MySCan) report (2018)

Breast Cancer and Mental Health

The incidence of anxiety and depression among cancer patients are also generally higher compared to the general population (27). This is due to direct and indirect cancer burdens such as the symptom burden, high cost of treatment, loss of income, as well as the shame and guilt associated with having a chronic condition (28).

Late diagnosis and a poor prognosis invariably increase the psychological burden of a cancer diagnosis, decreasing quality of life and survival rates. One of the most effective ways to address the issue of late-stage diagnosis is through the utilisation of screening programs, to detect the cancers at earlier stages.

Early-stage cancers are generally more responsive to treatment since the cancer has lower chance of having metastasised or spread to other parts of the body (29). Thus, survival rates are much higher in people whose cancers are detected and treated early.

The ill effects on mental health are especially pronounced in cases of breast cancer, with one systematic review reporting prevalence of depression to be between 13% to 56% of patient (30). A 2014 cross-sectional study carried out in a local tertiary hospital concluded that the psychological needs of breast cancer patients were the most unaddressed (31). Patients were most concerned about their uncertain future, concerns on whether the cancer was spreading, feelings of depression and anxiety, as well as the fear of passing on and death. The significance of this is stated in an earlier study by Park et al in 2012 which explored the relationship between these unmet needs in patients with breast cancer and the duration of their survival.

The study noted that patients with poorer survival had significantly higher psychosocial concerns which were unaddressed (32). While more study into this matter is needed in our local population, it is safe to say that the current psychosocial services and support network available here in Malaysia to these patients are still lacking (31).

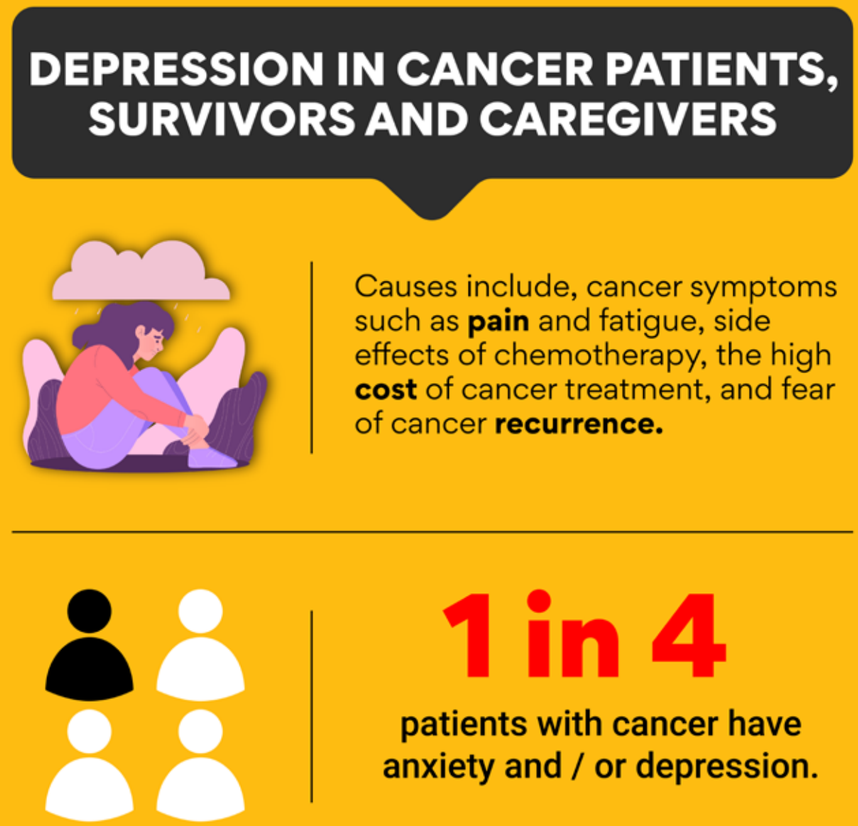


Figure 13: Prevalence of depression in cancer patients and caregivers
Source: Malaysian Study on Cancer Survival (MySCan) report (2018)

Barriers to Breast Cancer Screening and Treatment

Awareness, availability and access

One barrier of breast cancer screening is poor specific awareness and understanding. Despite the existence of basic understanding of cancer among Malaysians, this lack of specific awareness leads to the formation of poor attitudes and thus, even poorer levels of practice. This is evidenced by the proven arc of knowledge, attitude-practice (KAP) underpinning most individual behaviour (33).

Even when people are aware of cancer and have some basic knowledge on the subject, studies in Malaysia and elsewhere have found that this knowledge did not correspond to practice (9, 34). As with any other form of behaviour, the formation of good practices needs to be inculcated from a young age; and reinforced over time (35).

Focused steps such as the need to undergo screening tests for cancers, including breast and cervical cancer, are poorly understood and rarely practiced, despite the wide availability of these screening tests in both public and private health healthcare facilities (36).

However, high availability does not always translate to good access. The five aspects of access are affordability, accommodation, acceptability, availability, as well as accessibility (37-39). Several studies have found that women do not adhere to cancer screening recommendations because limited cancer screening infrastructure are available to them, and those available are clustered in specific regions of the country, often areas that serve urban populations (40-42). Women that have worse access to screening facilities tend to have a higher rate of late cancer diagnosis (43). For example, a 2009 study in the US showed a clear correlation between travel distances to screening facilities and stage of cancer diagnoses (44).

This shows that lack of access has very real consequences on women's health outcomes. Accessibility to services is important to be able to attain universal health coverage (UHC).

Figure 14: The five aspects of access

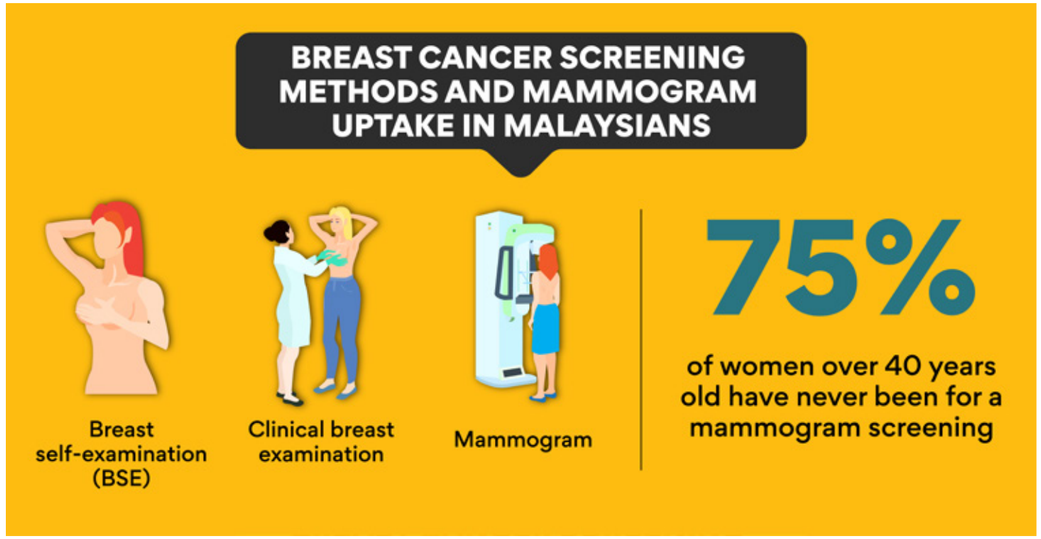


Figure 15: Breast cancer screening methods and mammogram uptake in Malaysians
Source: National Health and Morbidity Survey (NHMS) 2019

Cultural and societal barriers

Cultural and social barriers are further challenges faced in addressing breast cancer in Asian countries and marginalised communities (45). It has been reported that women in Malaysia have a negative perception of the screening procedure (46).

Asian women are less inclined to speak about their breasts or seek medical help in matters concerning what is considered to be 'private' parts of their body. Some report feeling embarrassed of doing the screening in front of male healthcare professionals such as technicians and radiographers (46).

The three reliable methods of early detection are breast self-examination (BSE), clinical breast examination (CBE), and mammography (47-48). A recent systematic review of mammogram uptake found that only 3.6% to 30.9% of the Malaysian women in the general population had gone for mammogram screenings (49).

Generally, most of the studies reviewed found that mammogram uptake was higher in women who had undergone a CBE, had good social support, had good knowledge of breast cancer, had higher education, and were employed. Conversely, mammogram uptake was low when knowledge of screening resources was poor, or when the women were embarrassed or afraid (49).

Other perceptions acting as barriers to breast cancer screening include doubting the capabilities of the radiologists in detecting abnormalities as well as not being able to cope with the pain and any abnormalities detected (46). It is important to note that this study was carried out in a tertiary hospital in Kuala Lumpur amongst personnel who had full access to screening options. This shows that apart

from providing access to screening programmes, it is also crucial to address other concerns that prevent women from going for screening.

Another socio-cultural barrier could be language barriers as most health campaigns are delivered in the Malay language. This might explain why breast cancer knowledge was found to be poorer among Chinese and Indian women compared to the Malay women in a rural population (50).

Different beliefs may also present a cultural barrier to breast cancer screening. For example, a reliance on complementary and alternative medicine (CAM), which occurs in some cultures, as well as negative attitudes towards treatment, can delay breast cancer diagnosis and treatment among Malaysian women (9, 51). Some patients even believed that the treatment would be worse than cancer itself, while others believed that cancer is incurable (52).

Therefore, it is crucial for promotional and awareness programmes to address concerns and negative and/or false perceptions about breast cancer, as well as cancer in general.

To inculcate good cancer preventive behaviour amongst Malaysian women, efforts need to be made to reach younger Malaysian women; especially those in their early twenties. This group is most likely to be affected by factors inspiring change; since they are often newly financially independent and are empowered to make their own decisions.

In this group, effective programmes of behavioural change need to be specifically targeted at education, changing attitudes, and subsequently improving practices on cancer-specific preventive strategies, including regular self-examinations and testing.

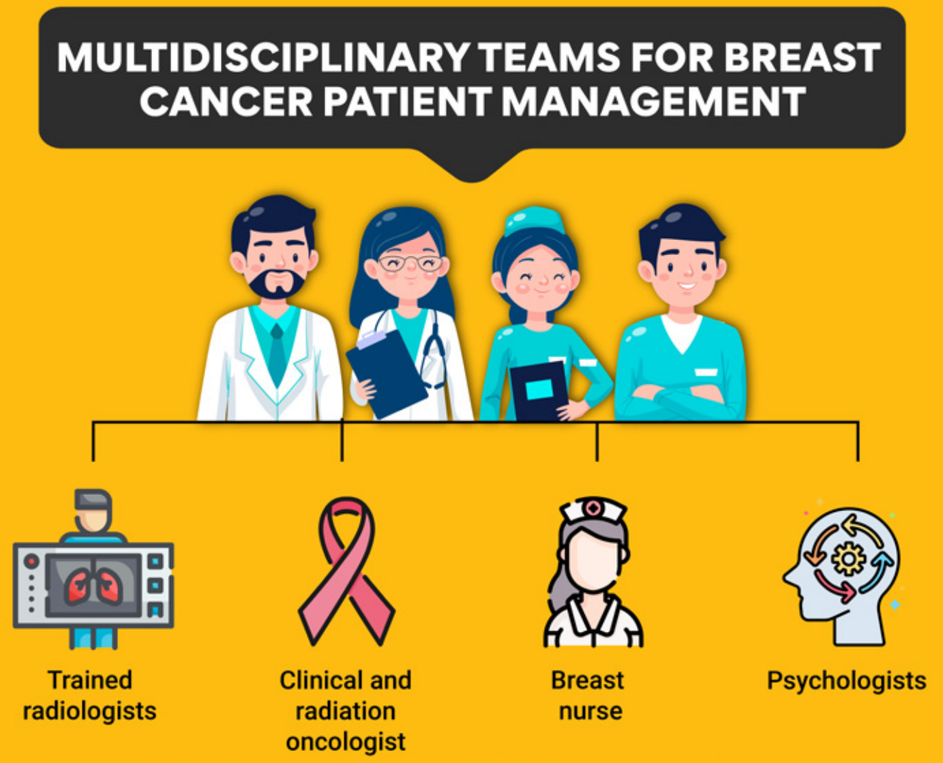


Figure 16: Multidisciplinary teams for breast cancer patient management

Problems in the healthcare system

In addition to these issues, the breast cancer landscape is further challenged by systemic issues leading to delays in diagnosis, such as false-negative diagnostic tests and misinterpretation of the results by health care professionals (51).

A significant problem with breast cancer in Malaysia is that most patients are not diagnosed till the late stages of the disease, as shown in Figure 10. The absence of a population-based mammogram screening programme and reliance on opportunistic screening is one factor contributing to the issue of late diagnosis in Malaysia, as evidenced by screening uptakes in other countries (53). The uptake rate for breast cancer screening is generally higher in countries with population-based programmes, such as in Singapore (BreastScreen Singapore, BSS) (54). In comparison, in Thailand and Malaysia, which have opportunistic programs, screening uptake is much lower.

Another systemic issue that could lead to the lack of awareness, diagnosis, and treatment of cancer is the lack of specialised medical personnel (55). Lack of medical personnel, lack of monetary resources allocated towards public healthcare, and lack of integration between public and private healthcare systems could also contribute to delays in diagnosis.

For example, to accurately diagnose breast cancer, it is not sufficient to have screening equipment and facilities. Trained radiologists specialising in breast imaging, clinical and radiation oncologists, breast nurses, and psychologists specialising in the care of cancer patients and their families are required (56).

Malaysia's healthcare system will require more time to improve so that a nationwide population-based screening programme can be made available. In the meantime, mass screening events can be deployed to improve access to screenings while increasing the visibility of programs that are already in place. This is exactly the strategy taken up by multiple countries without formal national screening programs such as was previously done in Singapore (57) and Japan (58).

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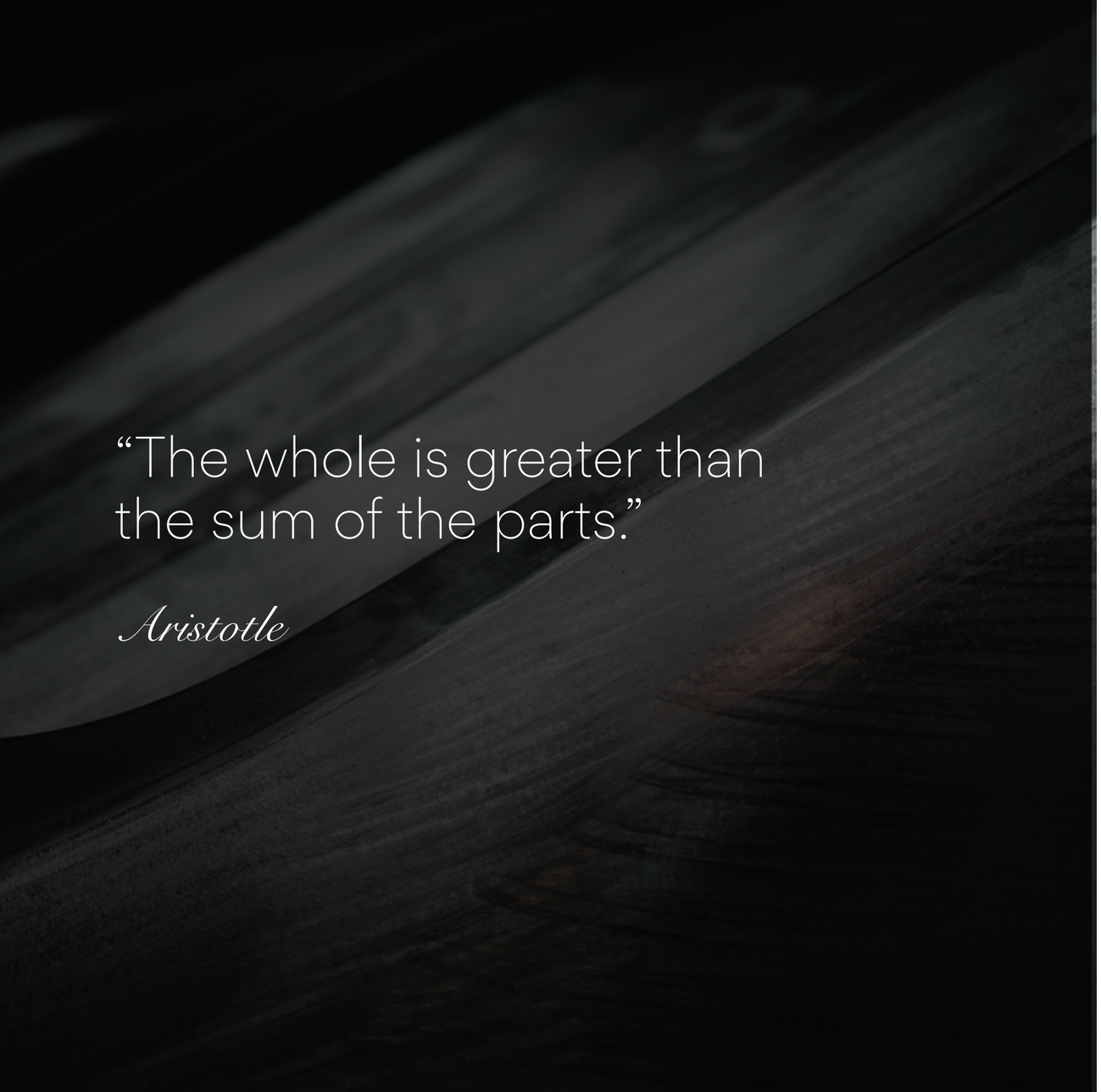
Chapter 2

From Conception to Implementation:

The NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem Initiative



About this Chapter

The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem could be one of the most unique solutions in-place for addressing all the different aspects and challenges in cancer management.

This is because the implemented solution utilises a whole-of-society approach, addressing multiple challenges and barriers via a multi-faceted partnership, and bringing together almost every stakeholder in the entire landscape to ensure that the patients’ needs are fulfilled.

For a large programme such as the NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem to succeed, a detailed comprehensive planning and implementation process had to be put in place. This included a stable foundation of theoretical insights built on evidence of other successful programmes in Malaysia and elsewhere in the world.

This chapter explains the different parts of the ‘puzzle’ that when fit together, resulted in a complex healthcare solution that produced a lasting impact on the patients.

Social Determinants of Health

The previous chapter has illustrated the problems, including those within the Malaysian landscape, that lead to the high number of late diagnoses.

As mentioned, challenges faced by Malaysians, especially from those within the lower socio-economic groups, include psychosocial barriers, financial barriers and sociocultural barriers – all these deny them regular, timely access to healthcare, namely breast cancer screening in this instance. Many of these barriers are present at the same time for one person, creating an interlocking multi-faceted set of problems that may be impossible for one organisation or one solution.

In addition, many of these barriers are not related to health, but they play a great part in affecting an individual's or a community's health. For example, if a person does not have a stable monthly income, or earns very little money; there is a much lower chance that they will be able to pay for medicine or go to the hospital if they are sick. In this way, their income directly affects their health. These many different barriers are called social determinants of health.

The Centres for Disease Control and Prevention of the United States categorise social determinants of health under five key domains, as illustrated below:

Social Determinants of Health. What are They?

Social Determinants of Health is the term used to refer generally to any non-medical factor which influences health (1,2,3). This includes the knowledge levels, attitudes or beliefs, and behaviours of individuals or communities in terms of their health (1,2,3). These factors or determinants are called 'downstream' determinants. At the same time, there
are more pressing or 'upstream' determinants that play a greater role in shaping the knowledge levels, attitudes or beliefs of individuals or communities in the first place (1,2,3,4).

These 'upstream' determinants are usually social and economic conditions which include daily living and working conditions that affect an individual or a community's health directly and indirectly (2,3,4).

Factors such as type of work, social support and security, food security, transportation, healthy physical living and work environments, distribution of power, money and resources as well as gender equity and political empowerment are all different determinants that play a part in affecting health (1,2,3).

Researchers across many different countries have spent decades researching and examining the associations between different social determinants and health outcomes throughout life (1,2,3,4).

Overwhelmingly, the results are clear:

Greater social disadvantage is strongly associated with poorer health.

This means that underprivileged individuals and communities who are disadvantaged in any way have a higher chance of getting sick, and subsequently face many barriers and challenges in being treated adequately for their illnesses. This results in poorer health outcomes, including dying much earlier than those who are not underprivileged.

This is through no fault of their own as they are often unable to change the determinants that lead to the negative outcomes (2,3,4).

Figure 17: Social determinants of health

Five Domains of Social Determinants of Health

Domain	Description
Health and health care	Access to healthcare services Health insurance coverage Health literacy
Social and community context	Community cohesion and civic participation Discrimination Conditions in the workplace
Education	Level of education and literacy Level of early education and development Level of education of women
Economic stability	Poverty Employment Food and nutrition security Housing stability
Neighbourhood and built environment	Levels of crime and violence Quality of housing Access to transportation Availability of healthy food Air and water quality

Table 1: Five domains of social determinants of health (5,6,7)

Each of these social determinants affect the health of an individual or a community in a certain way. More often, the challenges faced in maintaining good health include not just one, but many different social determinants.

These different social determinants can occur simultaneously, leading to barriers that are almost impossible to resolve, and negatively affecting the health of the individuals or communities.

Contextualising Social Determinants of Health and the Breast Cancer Screening and Detection Landscape in Malaysia

Domain 1: Health and health care

i) Access to healthcare services

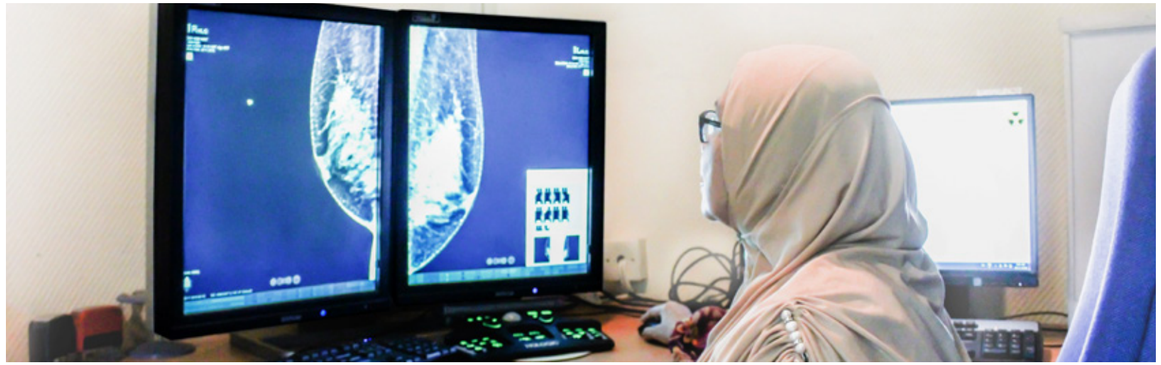
Of the many different social determinants affecting breast cancer screening and detection, access to healthcare services remains one of the most crucial. As there is no population-level screening programme in Malaysia for breast cancer, many individuals do not have the necessary means or the capacity to ensure that they undergo screening regularly - meaning a lack of access.

Existing national programmes such as the National Population and Family Planning Board's subsidised mammogram programme greatly assist in overcoming these access issues.

However, these programmes may not be comprehensive enough, and often have limited funding. The Ministry of Health, Malaysia is focused on risk-proportionate screening, in which at-risk individuals are screened, and early detection where those individuals with signs or symptoms are diagnosed early. The recent introduction of the Peka B40 programme which focuses on early screening is a good initiative by the Ministry of Health Malaysia - but it is targeted towards the B40 underprivileged community and also only offers a clinical breast examination as the only mechanism of screening for breast cancer.

It is also a challenge in Malaysia for rural areas which are further away from cities to have adequate facilities for proper breast cancer screening or detection. Many smaller public and private hospitals do not have mammography machines; or even at times, personnel skilled in performing these tests adequately.

Often, this necessitates people living within rural communities to have to spend time and money to perform breast cancer screening tests such as mammography in an urban health facility; causing them to face additional burdens such as loss of income (from having to take a day off from work); transport and even food costs from having to travel to a further place (even when the test itself may be free).



ii) Health insurance coverage

Breast cancer screening and detection is always available via the multitude of private healthcare facilities in Malaysia - and this is where the next social determinant comes into play: health insurance coverage. Health insurance coverage remains limited in Malaysia, with less than half the population having health insurance coverage, which enables them to access breast cancer screening tests regularly. In addition, even for those with health insurance coverage, most policies do not entitle them to get any kind of cancer screening – requiring them to pay for themselves to get tests such as breast ultrasound or mammography done. This then limits the ability to screen for breast cancer to those who are able to pay for it.

iii) Health literacy

The third social determinant within the health and healthcare domain is that of health literacy. Health literacy, simply put, is the ability of an individual to obtain, read, understand, and use health information correctly to manage their own health. In the context of breast cancer screening and detection, this means that a woman with appropriate health literacy levels would know when she should undergo screening tests, perform her own breast self-examinations regularly and also to attend screenings such as mammograms at the correct intervals. However, the levels of health literacy are low in Malaysia, and even more so in the context of breast cancer screening and detection; with less than 50% of Malaysian women ever getting a mammogram or breast ultrasound in their lives according to the National Health and Morbidity Survey 2019.

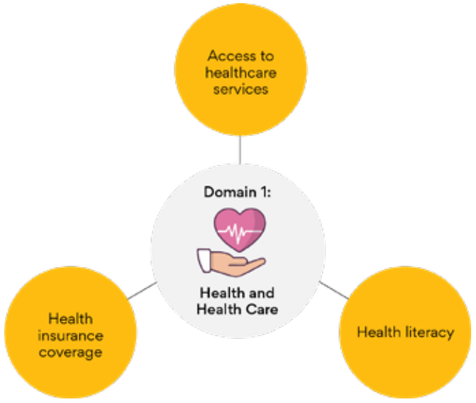


Figure 18: Domain 1 - Health and health care

Domain 2: Social and community context

i) Community cohesion and civic participation

The social and community context domain encompasses the different influences that the community in which an individual lives in has on their health. Community cohesion refers to the ability of a community to be inclusive and supportive towards all of its members, i.e., how closely a community is bonded together, and how well these individuals get along. Meanwhile, civic participation refers to the way in which individuals are involved within a community. In a community that is cohesive, many community activities are often carried out together, such as health awareness and health promotion activities. A cohesive community, for example, would be able to organise regular breast cancer screening or awareness programmes and encourage participation of its members especially women. In a cohesive community, civic participation of the community members will be high, as they are 'bought in' into the importance of such activities and the need to support them. Thus, if these communities organise breast cancer screening activities, these activities would be supported via good turn-outs from members living within the community.

The community also can act to support individuals with poor health in a manner to improve their health. For example, the community can come together to organise transportation for women within the community who need to go to a mammogram centre in the city, who otherwise may be unable to drive or have no transport. Civic participation in a community, in this context, would involve people who own large vehicles to 'step up' and provide the required transport.

Unfortunately, Malaysia is challenged by large gaps and differences in community cohesion across different regions. While community cohesion is much poorer in urban and semi-urban areas, it is still prominent across different rural regions.

It is often fragmented due to social, cultural, ethnic and now, even political divisions across communities. Low community cohesion has a definite negative impact on breast cancer screening and detection in communities across the country.

ii) Discrimination

Among the various social determinants of health, discrimination is one of the greatest. It can occur due to an individual's ethnicity, religion, or socio-economic status. Discrimination is also worse among sub-groups that are especially vulnerable, such as sex-workers or single mothers.

As breast cancer screening and detection involves mainly women, discrimination happens when a woman is deemed unimportant, and expenditures related to her health are seen as 'wasteful'. The woman could also face challenges in obtaining time away from work or household responsibilities to undergo these screenings. Such discrimination has been documented in various conditions among women in Malaysia, and plays a major part in affecting their health, including getting screened for breast cancer.

iii) Conditions in the workplace

The workplace also affects health - an individual's physical and mental health can be affected by the physical environment as well as working conditions. On breast cancer, some studies suggest a correlation between prolonged night shift work and a higher incidence of the disease, indicating a manifestation and impact of poor working conditions on health. However, in workplaces in Malaysia, female employees are challenged by their employer's lack of understanding and support on obtaining screening for breast cancer. Women working in daily-wage conditions are also especially affected, as going for breast screening during regular working hours or working days will lead to a loss of wages, affecting their daily household earning. As a result, many women will choose to not go for screening, even when the test itself may be free, as they cannot afford to miss a day of work.

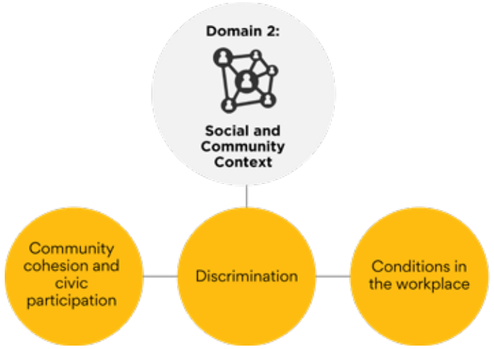


Figure 19: Domain 2 - Social and community context

Domain 3: Education

i) Level of education and literacy

In almost every setting globally, levels of education and literacy are an important determinant of health. Individuals or communities with higher levels of education and literacy are often associated with better levels of health, because they have a better understanding of what will keep them healthy and also what they need to do to prevent the onset of certain diseases. Within the breast cancer screening and detection context, individuals or communities with a higher level of education and literacy are often thought to be more recognisant of their own risks and will ensure they do self-examinations regularly, and attend screening at scheduled yearly or two-yearly intervals.

In the world of social media and pseudoscience today, however, this may no longer necessarily be true. Highly educated individuals are more prone to access non-verified materials and often subscribe to pseudoscientific beliefs which they access and get from the internet and other social media spaces. Within the breast cancer screening landscape for example, a big misconception among many highly educated individuals is the false idea that exposure to radiation from doing mammograms may cause you to get breast cancer. This stops these highly educated individuals from doing their regular cancer screening and can cause them to be detected in later stages of the disease, if they do get breast cancer.

iii) Level of early education and development

Levels of early education and development have an impact on the future health of individuals. Poor education and development during childhood often predispose individuals to building poor health habits, which are carried on until later life with poor consequences. Poor education which may predispose a child to poor eating habits may lead a child to be obese both as a child as well as an adult – which is an important risk factor for breast cancer. Similarly a lack of education and early development may cause the lack of understanding for reproductive health in a girl, which may be a driving factor a higher exposure to diseases or risk-factors later in life, and increase her risk of breast cancer.

With many risk factors such as physical activity, nutritional status and obesity dependent on individual behaviours shaped from an early age, early education and development are an important factor in determining health. Within the breast cancer screening and detection ecosystem, this may even be relevant when speaking of inculcation of trust and understanding in the science of healthcare and in healthcare professionals so that in adult life, the advice and recommendations of these professionals are taken to heart and adhered to.

iv) Level of education of women

The level of education of women is also an important and separate determinant of health for individuals and communities. In many communities, women still are less educated than men due to the social structure and pre-existing stigmas, and this affects the woman in terms of their future occupation, earning capacity and directly, health as well. It is also important to note that research has shown consistently that the entire community's health is also within the hands of women - and when women are highly educated, this has a positive impact onto the health of a community as a whole. A highly educated woman is more likely to take care of not only her health but also the health of her family members and even the larger community, as they are more actively engaged in activities that benefit the community's health as a whole.

Within the breast cancer screening and detection landscape, it is clear that communities with highly educated women are more likely to be engaged in such educational awareness and health-screening activities. In addition, many highly educated women become 'champions' of women's health for their counterparts in less-privileged communities and help ensure that their health (such as cancer screening and detection) is being cared for.

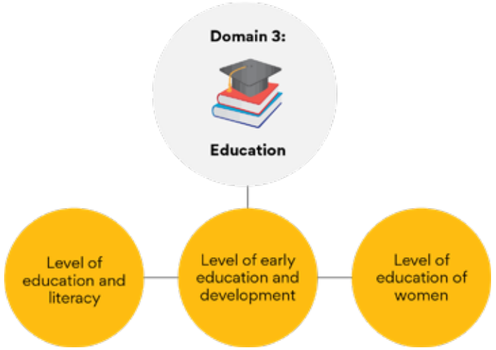


Figure 20: Domain 3 - Education

Domain 4: Economic stability

i) Poverty

Poverty is one of the key stumbling blocks to health. This is inherent within any society and any nation. Individuals who are poverty-stricken or communities living in poverty are unable to be concerned with anything beyond daily subsistence. Their perspective of health is day-to-day, which means that they will be most concerned with acute illnesses such as fever or dengue; or acute catastrophic illnesses such as heart attacks.

Looking beyond their daily needs into components that qualify as 'future investments', such as engaging in healthy behaviour including cancer screening, is something they cannot afford. Sadly, this economic disability will subsequently predispose them to worsened conditions compared to others who may be economically more well-off. For example, individuals from poorer households are more likely to be diagnosed with later stages of breast cancer because they were not able to go for screening and thus get the cancer detected earlier.

This results in a more difficult and costly treatment, and sometimes resulting in poor outcomes, such as death. This causes them to spiral deeper into poverty - an outcome that now affects even their families.

ii) Employment

Stable employment will enable the daily needs of an individual as well as their families to be taken care of. Individuals who are in stable employment also usually have a social security net (such as SOCSO or EPF) and some form of employer-based health insurance coverage at the very least. On the other hand, individuals who are in 'unstable' or non-permanent employment face challenges in ensuring that their basic needs such as food can be met on a steady basis for themselves as well as their families. Worst of all, of course, are those who are unable to be gainfully employed. This group of individuals are then at most-risk for ill-health since their basic needs itself would be unmet - predisposing them to many forms of illnesses.

Individuals in steady and stable employment will have at least their basic health protections in place, and this will enable them to pursue higher health needs such as engaging in health protective measures and preventive habits including to be aware of and be engaged in activities such as breast cancer screening and early detection. Without stable employment, it will almost be impossible for individuals to have any form of health security.

iii) Food and nutrition security

Food and nutrition are important aspects of health, especially for growth and development at a young age; as well as to prevent chronic illness as adults. Good food and nutrition ensure that individuals are well-developed and able to sustain their immune system against acute illnesses and infections. However, they increasingly also play a part in preventing chronic illnesses including cancer. Security in ensuring good, uninterrupted and consistent supply of nutritious, healthy food plays an important role in ensuring that individuals and their communities are healthy and disease-free.

Within the breast cancer screening and detection landscape, prevention and reduction of risk-factors remains as one of the most important components. One of the risk-reduction strategy for breast cancer is the reduction of intake of red meat, the avoidance of processed meat products and the regular consumption of fish, vegetables and fruits in the right amounts. Ensuring that this supply is provided for individuals and their families ensures that they too will be at lower-risk for breast cancer.

iv) Housing stability

Having a permanent home may seem unconnected to an individual's health. However, a permanent dwelling provides shelter and physical security, as well as psychological peace of mind and a stable mental health framework. All of these factors are connected to the psychosomatic makeup of an individual, directly and indirectly affecting their health.

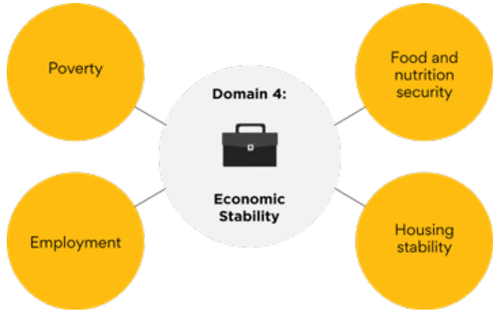


Figure 21: Domain 4 - Economic stability

Within the breast cancer screening and detection framework for example, having a safe and secure place from which they can perform their own monthly breast self-examinations is an important aspect of ensuring that these examinations are performed, and done so. Bound within the framework of housing stability also is the provision of the individual to plan health routines, inculcate and practice healthy behaviour; as well as components of food and nutrition security. Although not directly measureable, housing stability also remains an important determinant of health, and it is only in its absence that its impact is directly and forcefully felt.

Domain 5: Neighbourhood and built environment

i) Levels of crime and violence

High levels of crime and violence in the neighbourhoods directly affect the health of individuals and communities. The physical danger that crime and violence pose are also compounded by the fear and the looming threats which also impact the mental health of residents within such high-risk neighbourhoods. As residents are highly conscious of the physical dangers posed by the threat of crime and violence within their neighbourhoods, their concentration and care will be on preventing such physical harms to their health. As such, individuals and communities facing the risk of crime and violence will be less concerned with long-term health issues such as the threat of chronic diseases including cancer. They will allocate few, if any, resources towards this and issues such as cancer will remain unaddressed within these communities and the individuals living within them.

For example, for individuals living in high-crime neighbourhoods, the greatest concern is owning some form of preventive weapon to protect themselves; or ensuring that they own a personal vehicle to avoid risks linked to using public transport, such as possible violence from neighbourhood criminal gangs. This leaves them little chance to save up for mammograms or other types of health screening. As such, communities with endemic levels of crime and violence will end up with poorer health outcomes, apart from the inherent safety-related health risks they face every day.

ii) Quality of housing

In the previous domain encompassing the economic group of social determinants, housing stability was highlighted as one of the important factors affecting health.

Apart from the encompassing neighbourhood as well as the environment, the quality of housing is also crucial. Once housing stability is achieved, the individual's health is now affected by the type of house. For example, individuals living in stable housing areas, but in 'squatter' type of dwellings, are considered to have a lower quality of housing compared with individuals living in high-rise low-cost flats. In turn, residents of high-rise low-cost flats have lower quality of housing than residents of semi-detached homes.

The quality of housing affects health in two ways: via physical factors such as local cleanliness, air quality, and the absence of rodents, and via the ability of residents to engage in preventive health activities. Residents of high-rise low-cost flats, for example, would have limited opportunities to engage in physical activity compared with residents in a housing estate next to parks and wide-open spaces.

Placed in the context of breast cancer, quality of housing is linked to the ability of individuals and communities to engage in risk-reduction practices against this cancer, including physical activity.

iii) Access to transportation

Transportation is another determinant of health. Access to transportation is determined by whether an individual or community have their own transport, and their ease of access to public transportation. In health, transportation plays a key role, especially during time sensitive acute illnesses. For example, a patient's outcome of a heart attack relies on their ability to reach a health facility in time.

This also applies to chronic illnesses: patients without access to transportation are unable to attend their appointments. Within the breast cancer screening and detection landscape, access to transportation has a tangible effect on whether or not patients can attend their screening appointments. This is especially seen in more rural areas, where health facilities with mammography capacity are not located nearby, and patients need multiple forms of transport or go through arduous, expensive journeys before reaching facilities with the equipment.

Challenges with transportation, or needing to bear the costs, deter individuals from attending their breast screening appointments. This often has a detrimental impact to their health, as this poses a risk of late diagnosis for individuals who have breast cancer.

iv) Availability of healthy food

As mentioned previously, food and nutrition security is a determinant within the economic group of social determinants. Similar to housing security, there is a spectrum within food and nutrition security, specifically on the quality and type of food. Once food and nutrition are secured, whether the food is healthy is the following determinant. High quality foods, in this case, is not determined by the cost, but whether they contain the amount of nutrients for growth and sustenance.

Healthy food is an integral component of risk-prevention in the breast cancer landscape – something that individuals and communities must be aware of. Education and other health promotion measures can increase their understanding and help inculcate healthy eating habits.

v) Air and water quality

Air and water quality are also important determinants of health. Drinking contaminated water can lead to the onset of diarrhoeal and infectious diseases. In some cases, drinking water that contains toxic chemicals can also lead to chronic diseases, such as heavy metal poisoning and even carcinogenic onset of cancer in the long-term.

Air quality is also an important determinant of health. In many cases, polluted air includes that of outdoors, such as smog, open-air burning, as well as smoke from vehicles. However, in recent times, air pollution also includes that of indoors, such as smoke from (cooking) gas stoves, as well as second-hand cigarette smoke.

Long-term exposure to polluted air, irrespective of its source, inevitably leads to lung diseases and even lung cancer. Within the context of breast cancer, air and water quality are determinants that have more of an indirect impact: contamination of these essential components, as well as long-term exposure to them, can increase the risk of developing any and all type of cancers.

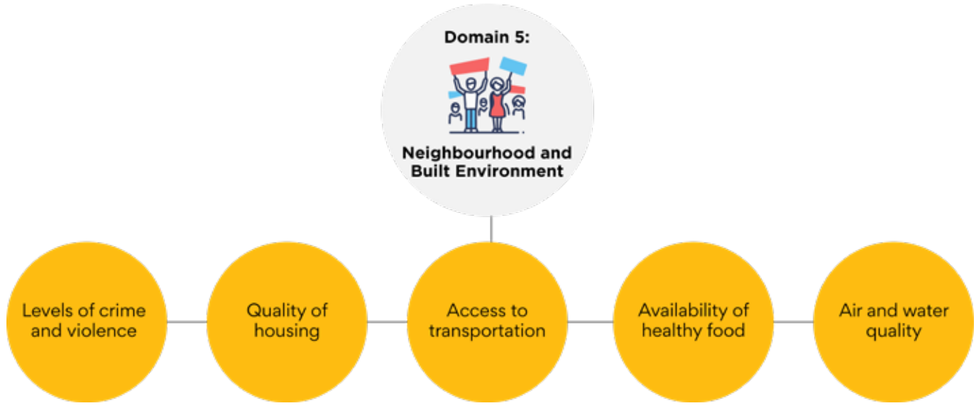


Figure 22: Domain 5 - Neighbourhood and built environment

Targeting the Determinants to be Addressed Through the Solution

Upon understanding the different social determinants that directly affect breast cancer screening and detection, the project team began to piece together an integrated solution.

The solution needed to address the diverse set of barriers – resulting from these social determinants – faced by Malaysian individuals and communities. It also had to resolve challenges of multiple determinants simultaneously, rather than that of one determinant.

This meant that the 'answer' needed to be flexible and multi-modal – this is to accommodate the different needs and challenges of individuals as they undergo breast cancer screening in Malaysia.

The direct challenges posed by the different social determinants are identified in the map below, with possible solutions listed before they were integrated into a single ecosystem. The result of this exercise was the NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem.

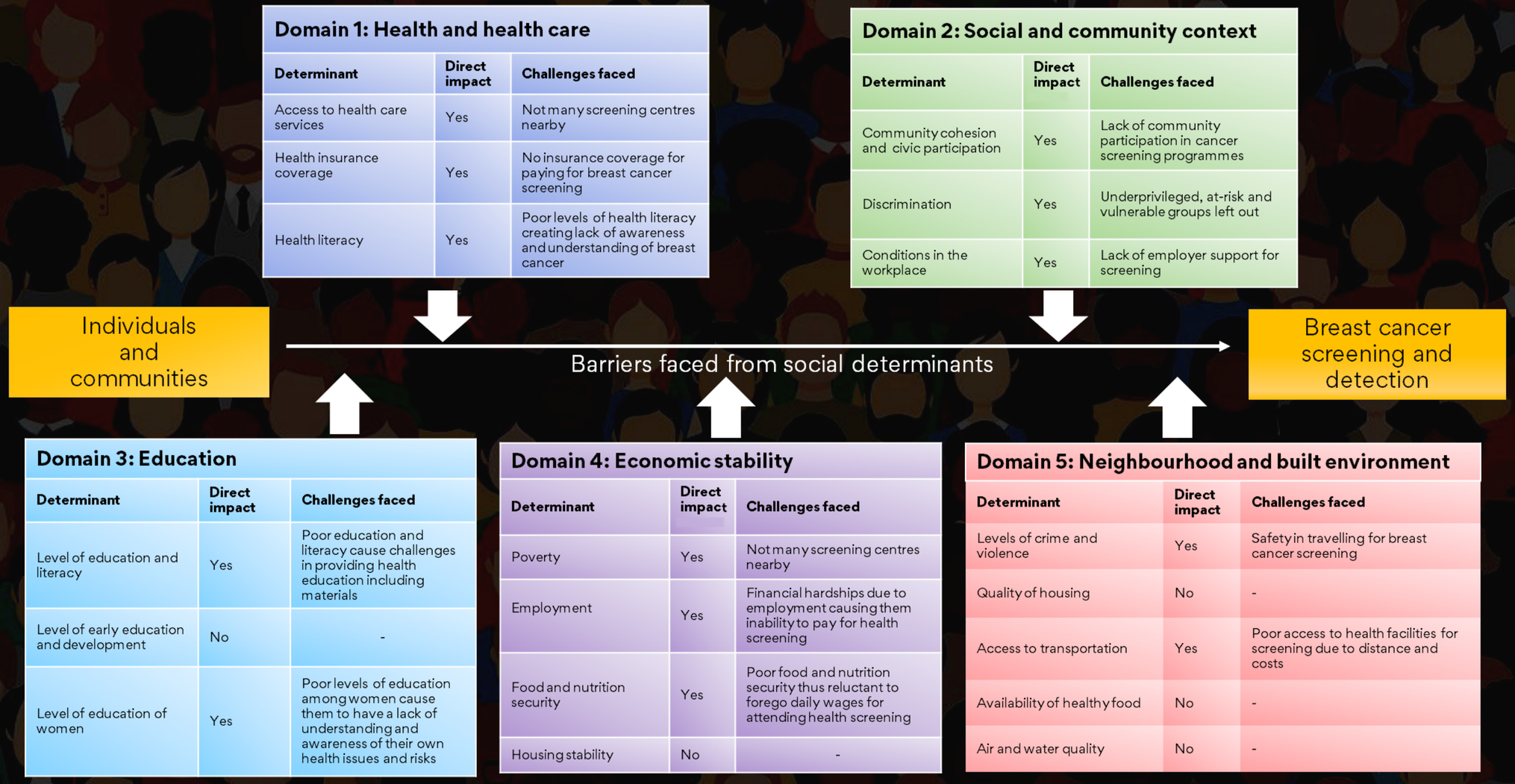


Figure 23: Barriers faced from social determinants

A Whole-of-Society Approach

The various social determinants of health and the different impact that they pose on the breast cancer screening and detection landscape in Malaysia have been explained in the previous section. To smoothen the journey for individuals and communities and improve the levels of cancer screening and detection in Malaysia, constructed strategies needed to address and overcome the barriers posed by each determinant. For this reason, prior to implementation, the team designing the solution adopted a 'whole-of society' approach as the way through which each of these barriers could be addressed.

Whole-of-Society Approach: Where Does it Come From?

One of the earliest organisations to come up with the term 'whole-of-society' approach was the World Health Organisation (WHO). This approach was used within the context of the pandemic preparedness for a possible influenza pandemic, and how the response required the inclusion and involvement of many different actors and voices beyond the health sector, including outside of the government (9).

The core principle of the whole-of-society approach is all stakeholders related to – or concerned with – the subject of interest should be roped into tackling the situation. These stakeholders could be individuals or institutions, ranging from educational institutions, businesses; local authorities; governments; and even non-governmental organisations (10,11,12). Each stakeholder is required to bring their own capabilities to the discussion table and actively identify their role in the solution; acting to formulate their identified roles; as well as to ensure that their 'piece' of the solution is implemented (10,11,12).

In short, the whole-of society approach means that everyone in society has a role to play in resolving a problem or situation, and should be involved in action across all the different settings, institutions as well as actors to ensure effective positive changes take place and the problem resolved (10,11,12).

The whole-of-society approach is a further expansion of the 'whole-of-government' approach, which had been practiced previously (13,14). The whole-of-government approach was a mechanism in which different ministries and agencies within the government unite to provide a common solution for certain problems or issues (13,14).

However, it was soon realised that many of these problems that were being addressed from a purely government perspective contained additional components or determinants that could not be tackled by only the government. Non-government actors such as community-level organisations and even individuals were needed to also contribute in providing holistic, lasting and sustainable solutions; hence the 'whole-of-society' approach.

Whole-of-Society: Who are They?

The fundamental part of the whole-of-society approach is the need to identify and bring onboard all stakeholders who can intervene and affect the problem concerned (13,14). Traditionally within the health scope, this was limited to individuals or organisations working within the health sphere, i.e. hospitals, clinics, and healthcare professionals. But as the social determinants model clearly points out, there are many different areas influencing health on which healthcare stakeholders have no control over. To bring genuine change and a positive impact on a health problem, all relevant stakeholders, irrespective of whether they are operating within the health space or not need to be identified and convinced to contribute as much as possible.

Some of the stakeholders in a whole-of-society approach which may play a role in a health context within the Malaysian landscape include (15,16):

Level	Type of stakeholder	Type of organisation	Organisation
Federal / state / district	Government	Health organisation	Ministry of Health
Federal / state / district	Government	Non-health organisation	i. Ministry of Education ii. Ministry of Higher Education iii. Ministry of Youth and Sports iv. Ministry of Women, Family and Community Development v. Ministry of Housing and Local Government vi. Ministry of Agriculture vii. Ministry of Transport viii. Ministry of Agriculture and Agro-based Industry ix. Ministry of Transport x. Ministry of Information
Federal / state / district	Public agency	Non-health organisation	i. National Population and Family Planning Board
		Health organisation	ii. Protect Health Corporation Sdn Bhd iii. Department of Social Welfare iv. Social Security Organisation v. Employees Provident Fund
Federal / state / district	Non-governmental	Health organisation	i. Malaysian Red Crescent chapter ii. St Johns Ambulance Malaysia iii. Malaysian Medical Association iv. Malaysian Pharmacists Association v. Malaysian Nurses Association vi. IMARET (IMAM Response and Relief Team)
Federal / state / district	Non-governmental	Non-health organisation	i. Political organisations e.g. youth, women and service wings of MCA / PKR /MIC / UMNO ii. Community service organisations e.g. Rotary and Lions iii. Religious organisations e.g. Tzu Chi and Sathya Sai International Organisation Malaysia
District	Government	Health organisation	i. Klinik Kesihatan ii. Klinik Kesihatan Ibu dan Anak iii. District hospitals
District	Government	Non-health organisation	i. District local council ii. District police iii. District fire and rescue services iv. Education department and schools
District	Private	Health organisation	i. Private clinics ii. Private secondary / tertiary hospitals
District	Private	Non-health organisation	i. Local businesses and business owners
District	Non-governmental	Health organisation	i. District family planning organisations ii. District patient disease advocacy organisations iii. Patient support groups
District	Non-governmental	Non-health organisation	i. Residential organisations e.g. Persatuan Penduduk ii. Religious organisations e.g. local 'surau', local temples or churches iii. Women's organisations iv. School parent-teacher associations (PIBG) or alumni associations e.g. ANSARA (Alumni MRSM Malaysia)

Table 2: Stakeholders in whole-of-society approach

Identifying and Engaging Relevant Stakeholders in the Breast Screening and Detection Landscape

The process for identification and engagement of stakeholders within the breast screening and detection landscape was a keystone of the comprehensive solution making up the Breast Screening and Detection Ecosystem.

The process required the following steps, carried out by the project team:

i) Stakeholder mapping of the landscape: identifying all relevant determinants that affect health (as has been highlighted in the earlier section); possible solution(s); as well as stakeholders who could affect these solution(s).

ii) Stakeholder engagement and 'buy-in': meeting and briefing each of the identified stakeholders on the problem; the determinants affecting the problem; and their role in effecting positive change. Stakeholders who 'bought-in' to the solution were then enrolled to be a part of the solutions development process.

The stakeholder mapping and engagement process is a dynamic and ongoing process: throughout the development of the solution, there is a continuous engagement of more stakeholders to strengthen the programme, including expanding the areas covered, approaching and enrolling more communities, and improving the outcomes for the recipients of the programme.

The stakeholders identified, as well as the possible roles they could play within the Malaysian breast cancer landscape, are outlined in the table below:

Stakeholder (s)	Possible role(s) to be played	Rationale for role
Government clinics	Recruitment centre for women who need to get mammography / ultrasound scans	• Women visit these clinics for medical care for other conditions • While at the clinic, they can be invited to undergo mammogram scans • Government clinics are not usually able to offer mammography screening due to cost limitations • Private clinics can send women to get their mammography scans at private hospitals, but these scans are not free of charge
Private clinics		
Private hospitals	Centres at which mammograms / ultrasounds can be conducted	• Private hospitals have invested in the technology i.e. have bought mammography machines • Private hospitals have the expertise i.e. radiologists on-site • Private hospitals have the availability to conduct these tests since they are not filled to capacity
Ministry of Women, Family and Community Development	• Recruitment centre for women who need to get mammography / ultrasound scans • Partners in community education and outreach efforts • Provide small supportive funds for assisting with screening	These are agencies who are already providing some form of financial or non-financial support for underprivileged Malaysians. Thus they can 'value-add' to their services by also offering a health component i.e. breast cancer screening and detection
National Population and Family Planning Board		
Department of Social Welfare		
Social Security Organisation		
Employees Provident Fund		
Local chapters of medical-based organisations e.g Malaysian Red Crescent Society, or Malaysian Medical Association	Assist with or co-organise medical / health screening on-site community programmes	These societies also have to carry out health promotion, education and awareness activities. By co-organisation, their own activities are enhanced and receive better uptake/support

Stakeholder (s)	Possible role(s) to be played	Rationale for role
Patient advocacy groups and patient support groups	• Assist in promoting programmes • Assist in education and awareness programmes • Advocate for community support of programmes	These groups also have to carry out health promotion, education and awareness activities. By co-organisation, their own activities are enhanced and receive better uptake / support
Political organisations Community service organisations Religious organisations Residential organisations Women's organisations School-based organisations e.g. PIBG	• Recruitment centre for women who need to get mammography / ultrasound scans • Assist in promoting programmes • Co-organise medical / health screening on-site community programmes	• All these organisations are constantly organising community engagement activities and can act as a valuable co-organising partner to conduct health programmes. • Many of these organisations are already providing some form of financial or non-financial support for underprivileged Malaysians. Thus they can 'value-add' to their services by also offering a health component i.e.in terms of breast cancer screening and detection
Local businesses	Provide some small incentives i.e. gifts to incentivise programmes	• Gain business traction via advertising • Gain revenue from supporting the programme e.g. food and beverage contracts during community health screening programmes.
Influential individuals e.g. local leaders, celebrities	Assist in promoting programmes	Gain publicity and social capital for supporting a worthy cause

Table 3: Possible roles and rationales for roles of different stakeholders

Building the NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem

Once the determinants affecting the breast cancer screening and detection landscape had been determined; and the stakeholders who may play a role in modifying the impact of these determinants identified, the subsequent process was developing a plan that unites all elements to form one complete solution.

From the outset, the primary objective of the programme was to increase access to breast cancer screening among underprivileged Malaysian women. This was seen as a step that would – in the long run – lead to earlier detection of breast cancers among this cohort.

To first identify the communities of potential recipients, partnerships were fostered with organisations who were in close contact with the targeted group of women. These organisations consisted of:

i. organisations which were frequented by potential participants, such as at welfare departments where they received monthly aid,
ii. community organisations from which potential participants received financial or other forms of aid, such as sundry goods,
iii. religious / political or social organisations that often organised activities assisting underprivileged communities, and
iv. government public or private clinics which potential participants visited when they were ill.

All of these partners were furnished with materials about the breast cancer screening and detection ecosystem, and were encouraged to display the materials on their premises as well as forwarded to potential participants. In addition, training sessions to better describe the programme were also carried out for their staff. All engaged organisational partners were also encouraged to co-organise with NCSM a breast cancer health education and awareness session (at least once a year), which could also function to recruit potential participants.

Potential participants who expressed an interest in getting their cancer screening could register via any of the partner organisations; and would subsequently be contacted by a member of the project team to undergo a quick interview. This interview captured the challenges that participants faced in obtaining their cancer screening. Often, these were the same barriers that caused a low uptake of even free-of-charge mammography screening offered by governmental and NGO programmes in Malaysia. The project team would then try to resolve the challenges.

We note here that in the beginning, the project team had no 'template solutions'; and often had to resolve the participants' barriers in creative and innovative ways. Over time, this institutional learning from the team began to be structured into more formal processes and procedures, which then became the mainstay of the project team's responses and solutions. Today, after more than three phases and having close to 20, 000 participants, NCSM has documented practical steps to resolve almost every problem.

One primary barrier for many participants, for example, was the difficulty in getting transportation to mammography centres, as well as the attendant costs related to transportation, even when it was available. The project team resolved this by working with local community organisations to charter buses, and negotiating with local businesses for fair rates for utilising their transportation to and from the screening centres.

As mentioned previously, to empower the ecosystem at the ground level, private hospitals with mammography services in and around the communities were engaged and recruited as partners to provide mammography screening via strategic purchasing strategies. In this manner, we ensured that almost every state participating in the NCSM-Etiqa free mammogram programme had at least one private hospital partner. This resulted in shorter travelling times and reduced the cost of transportation; as well as helping to support local business institutions. These institutions 'returned the favour' by organising their own cancer health and screening campaigns, which further strengthened the messaging about the Breast Cancer Screening and Detection Ecosystem.

Another common barrier faced by potential participants was the timing of the cancer screenings, as most were carried out within working hours on weekdays. Again, working with private hospital partners, the team organised special screening days on Sundays and after hours on certain days a week, all of which catered exclusively to screening participants from this programme. Interestingly, as a result of this solution, many private hospitals also subsequently extended their own operating schedule to provide flexible screening times. This could indirectly increase the overall access to Malaysians as a whole to breast cancer screening.

Throughout the programme, many participants revealed misconceptions and false beliefs about cancer screening. To overcome this barrier, NCSM's counsellors resolved questions either on the phone via NCSM's toll-free cancer helpline, or were at the venues during educational and awareness activities conducted on-site.

Working with underprivileged groups also meant that potential participants may have financial difficulties. As a result, meals were provided for participants of the screening programme as well as their family members who accompanied them. This increased the 'pull factor' for participants since this helped reduce the barrier of needing to cook

their daily meals on the day of the screening, and helped reduce the high expenditure of purchasing food on-site.

Another concern for the participants was needing to return to the health facility on another day to collect their results. Often, some women had to delay the collection up to several months, or and some never collected theirs. To reduce the delay, all of our partner hospitals were asked to carry out 'same-day reporting', in which the patients obtained their results before they went home - any necessary follow up was carried out within this time frame as well.

Participants who received a 'normal' result, i.e. a negative mammogram, were scheduled for routine follow-ups as per existing guidelines. However, participants who received a positive mammogram result underwent further tests to confirm or exclude the incidence of breast cancer. The tests of confirmation or exclusion, which could result in delays, unnecessary tests and / or additional expenses, have been raised in peer-reviewed literature as a barrier in cancer screening. To resolve this, the Ecosystem ensured that women with positive mammogram results received breast ultrasounds – and even biopsies when required – on the same day of the mammogram tests. Apart from reducing waiting times, anxiety, and stress for these participants, this step helped them obtain quick resolutions upon the confirmation or exclusion.

The Breast Cancer Screening and Detection Ecosystem did not end at diagnosis of breast cancer, if it did come to that. Participants who were unfortunately found to have breast cancer were followed up via a process called 'active tracking', carried out by cancer information specialists operating NCSM's Cancer Information Helpline. These patients were re-assessed to determine barriers they faced in obtaining cancer treatment, which were subsequently resolved via other active interventions. Often, the community organisations who were project partners were also roped in to provide assistance as and when required to the newly diagnosed patient. Patients continued to be followed-up within the Ecosystem until the end of their active treatment phase.

This concludes the building and development of the NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem. It has since functioned in this manner for the past years, and are improved upon every day by the project team. As described in detail, the Ecosystem is not merely the provision of a free mammogram for underprivileged patients. It supports an underprivileged Malaysian woman in her journey of managing her health, specifically on breast cancer. This includes seeking her own care by undergoing a breast cancer screening procedure; and receiving the necessary support in her cancer treatment journey if needed.

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Chapter 3

From Vision to Reality:

The Visionaries Who Dared to Dream

“Do not follow where the path may lead. Go instead where there is no path and leave a trail.”

Ralph Waldo Emerson

About this Chapter

Today, the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem has been running successfully for a few years. But few may realise that it is an ‘explosive’ innovation: it was one of the first long-term projects in Malaysia that united an industry giant with a ‘heart’ and a non-governmental organisation (NGO) within the health landscape.

This vision was made possible by a few individuals who dreamt to improve the health of all Malaysians, specifically against cancer. To realise their dream, these individuals galvanised their organisations to build a sustainable and effective solution together. They were the driving force behind the project, ensuring that it became not just an idea discussed over coffee, but was equipped with the required manpower and resources. They also put the ‘pedal to the metal’ to ensure that the project took off on time and continued to run smoothly for years.

This chapter introduces the reader to these individuals; the minds behind the inception of the project. Through their own words, we get a glimpse of their thoughts and motivations into how and why this project came into being; and more importantly how they see it moving forward into the future.

YBhg. Datuk R. Karunakaran

Chairman of Maybank Ageas Holdings Berhad (MAHB)

As the Chairman of Maybank Ageas Holdings Berhad (MAHB), Datuk R. Karunakaran ensures that Etiqa achieves its mission of making the world a better place. The way forward, he insists, is great, sustainable collaboration between the public and private sectors.

Despite having retired for 13 years, Datuk 'Karu' shows no signs of slowing down. He had served at the Malaysian Investment Development Authority for 36 years, culminating in the position of Director-General before his retirement in 2008.

In the subsequent years, his role of Chairman of MAHB also involves overseeing Etiqa insurance companies in Malaysia as well as Singapore. He is also an Independent Non-Executive Director of Malayan Banking Berhad, Bursa Malaysia Berhad, IOI Corporation Berhad, Integrated Logistics Berhad, and KR Advisory Sdn Berhad.

His vast experience reaffirms his belief that the corporate sector has a major role in supporting public initiatives. One of these efforts is health, of which healthy living is a pillar of Etiqa Cares – Etiqa's corporate responsibility commitment. "The world is facing a crisis of non-communicable diseases (NCDs), including cancer, which affects all of society," says Datuk Karu. "In Malaysia alone, NCDs account for 70% of deaths."

"While the government is entrusted with the responsibility of providing healthcare to its citizens, there will always be limitations, and a challenge of this magnitude requires an all-of-society approach."

One example of the all-of-society approach is the collaboration between corporates and non-governmental or not-for-profit organisations. Datuk Karu explains that by filling in the gaps faced by the public sector, such as providing the required resources, corporates have enormous potential in reaching large goals together.

"This is a win-win approach – in the long run, a prosperous, thriving society will lead to the prosperity of the private sector; we can no longer afford to work in silos." And with the rising prevalence of cancer in Malaysia, as well as the deaths arising from it, Etiqa made it its obligation to tackle the disease. "Insurance and health are inseparable – we chose to focus on breast cancer because it has the highest rate of incidence and mortality among women in Malaysia," Datuk Karu says.

“The world is facing a crisis of non-communicable diseases (NCDs), including cancer, which affects all of society. In Malaysia alone, NCDs account for 70 per cent of deaths.”

Y. Bhg. Datuk R. Karunakaran

“The mammogram programme is just the start, and we aspire for it to reach more women, including those in East Malaysia. We can then tell ourselves that no community is left behind, in health as well as national development.”

“In the 70s, we had a family member who had cancer, and it was a difficult journey for everyone. Cancer treatment facilities were not well developed in Malaysia then, and there were no programmes for testing or screening.”

“It is a tragedy that the technology and equipment to screen for breast cancer exists today, and yet it remains inaccessible and unaffordable to so many in this country.”

Believing that there is a lot more the corporate and public sector can do together as a community and society in this battle, Datuk Karu championed for Etiqa to collaborate with NCSM for the NCSM-Etiqa Free Mammogram Programme: “While Etiqa can provide the financial resources, we still rely on organisations that have a strong presence at the ground and community level, such as NCSM, to ensure the success of the programme across the country.”

“As NCSM is already an established organisation – being the first not-for-profit cancer organisation in Malaysia – the partnership only seems natural.”

So strong was Datuk Karu’s commitment to the cause, that he pushed for its continuance in the midst of the Covid-19 pandemic, when most healthcare resources were allocated to mitigating the effects of the virus.

“The economical losses were felt globally – no sector was safe from the damage that followed,” he says. “However, Etiqa was in a position to continue its partnership with NCSM, and we were adamant that the programme continued.”

“The Government was expected to focus all of its efforts on battling Covid-19, and understandably, many corporates had to concentrate on surviving the losses. This left a gap in non-communicable diseases, and nobody else could fill it. Instead of backing down, we stepped up and increased our funding.”

The long-term goal, Datuk Karu says, is to support Malaysia in meeting Goal 3 of the UN Sustainable Development Goals: reducing premature deaths caused by NCDs by a third.

“The mammogram programme is just the start, and we aspire for it to reach more women, including those in East Malaysia. We can then tell ourselves that no community is left behind, in health as well as national development.”

Norlia Mat Yusof

Chief Investment Officer of Maybank Ageas Holdings Berhad (MAHB)

The Chief Investment Officer of Maybank Ageas Holdings Berhad (MAHB), Puan Norlia Mat Yusof is also one of the longest serving woman executive member at MAHB. A champion of women in leadership roles in financial services, Puan Norlia places just as much importance in empowering women at the community level.

“The NCSM-Etiqa Free Mammogram Programme started with an idea to empower women in the Maybank group, which then quickly expanded to all women in Malaysia,” says Puan Norlia. “It made complete sense – as the leading local insurance and takaful operator, we witness the challenges women face in prioritising their health.”

For example, the barriers in undergoing screenings for breast cancer – the most common cancer among women in Malaysia – are seldom limited to one.

“Lack of awareness could be one factor, but in our second year of the programme, we realised that it extends beyond awareness or knowledge,” Puan Norlia says. “There are issues with affordability, the lack of time, and geographical barriers, as screening facilities are often located in central areas. The women at MAHB wanted to change this, because we see the increase of women in leadership roles in so many sectors, including healthcare, and many are caregivers at home. And yet, their need for healthcare often goes unrecognised, by their own families or even themselves.”

“The results of this are more prominent in low to middle-income countries than in high-income countries, as more women die of cancer due to delays in diagnosis.”

Having been in the investment and insurance industry for more than 20 years, starting from Bank Negara to MAHB, Puan Norlia is a firm believer of early detection as well as prevention when it comes to cancer.

“Despite the prevalence of cancer being high, there’s still a stigma around it,” she says. “I think it is because society finds it an uncomfortable topic to talk about, because of how personal and private it is and its far-reaching impact.”

“Apart from bringing physical and emotional hardship to the person living with it and their family members, there is also the potential loss of livelihoods and financial burden during treatment.”

“Support from society and the community is vital to ensure people obtain an early diagnosis, and receive treatment as soon as possible. I am proud of what we have achieved through this programme – this collaboration with National Cancer Society Malaysia has been excellent, and is just the beginning.”

Norlia Mat Yusof

“Etiqa, being a socially caring and socially responsible organisation, felt that it should make early detection possible for the B40 community,” she adds. “The disease is a global problem, and the fight should not be left for the individual to bear alone.”

Detecting the disease early, and enabling the person to obtain treatment early, not only increases the survival rate, but also reduces the financial burden of treatment and high cost of care.

“Etiqa, being a socially-caring and socially responsible organisation, felt that it should make early detection possible for the B40 community,” she adds. “The disease is a global problem, and the fight should not be left for the individual to bear alone.”

To maximise the reach of the programme, particularly to women who need it the most, NCSM and Etiqa sought to overcome the many barriers that the women faced.

“Women who weren’t previously aware of mammograms may be a bit hesitant in undergoing one, so we arranged for them to come in groups to allay their fears,” says Puan Norlia.

“To overcome the geographical challenges, we also provided the required transport, and made sure everyone could get a meal while they were here. Their results were also returned to them on the same day, so it wasn’t just about providing a free screening – we wanted to show the women that the process was fast and easy.”

‘Fast & Easy’ happens to be Etiqa’s organisational culture, whether it is to purchase, submit claims, or receive payouts, and Etiqa wanted to extend the same philosophy to the community when it comes to cancer screening.

For the next phases of the NCSM-Etiqa Free Mammogram Programme, Puan Norlia aims to adopt a more aggressive approach in reaching out to women living in rural and remote areas.

“Support from society and the community is vital to ensure people obtain an early diagnosis, and receive treatment as soon as possible,” she adds. “I am proud of what we have achieved through this programme – this collaboration with National Cancer Society Malaysia has been excellent, and is just the beginning.”

Siti Hafizah Mohd Zahrom

Head of Corporate Social Responsibility at Etiqa

From advocating saving the earth to advocating saving lives, Hafizah charges ahead with one purpose: giving back to society.

“Since my undergraduate studies, it has been my dream career to work with civil societies,” says Siti Hafizah Mohd Zahrom, Head of Corporate Social Responsibility at Etiqa. “I began this dream right after I graduated, starting in an environmental non-governmental organisation.

For the next seven years, Hafizah ‘lived’ every aspect of life in civil society – fundraising from corporate entities, advocating for stronger policies on conservation, and promoting the importance of saving the environment to the public.

Bringing a wealth of experience, she then joined Etiqa in late 2016, and was tasked with strategising and aligning its corporate social responsibility goals with its business objectives, as well as its aspiration to give back to society.

“It wasn’t a difficult task because our board of directors and senior management are so passionate about giving back to the community,” Hafizah says. “The mandate was that our CSR programmes had to be based on healthy living, which is a pillar in Maybank’s corporate social responsibility. This includes screening and the early detection of cancer.”

Personally, she had a devastating experience with the disease. Hafizah had rarely heard about cancer in her childhood, but this changed as she started to lose family members and friends to it over time.

“But the one person who really affected me was my lecturer, whom I regard as my sister,” she says. “She was at stage three when she was diagnosed with breast cancer, and had survived for three years before she relapsed. I was devastated by her loss.”

“Seeing her fight the disease made me realise the importance of a strong support system for people living with cancer; one that includes the physical, emotional, and financial aspects.”

She adds that she then became passionate about increasing the awareness of early detection, its importance, as well as empowering people to be more responsible for their own health.

“The collaboration has provided free breast cancer screening to more than 18,000 people, and I saw an increased awareness on the importance of mammograms among the women,” she says.

Siti Hafizah Mohd Zahrom

“Before we embarked on this journey with NCSM, Etiqa’s strategy was to have a programme that brings a significant impact to the recipients, and to work with an NGO that is credible and can deliver the results,” she says.

And having worked with NCSM since the conception of the NCSM-Etiqa Free Mammogram Programme in 2017, Hafizah was able to witness the impact of her efforts. “The collaboration has provided free breast cancer screening to more than 18,000 people, and I saw an increased awareness on the importance of mammograms among the women,” she says.

“From the feedback provided, they were aware that cancer screenings are crucial in helping ensure that they are healthy, and that they need to stay healthy for their family and loved ones.”

The growth of the NCSM-Free Mammogram Programme also led to the emergence of community leaders. “We saw a significant growth in the involvement of local representatives. What we found interesting was how diverse their backgrounds were, due to the width of the areas covered by the programme, and yet, they shared the same challenges in health.”

Although the programme has become a major health screening programme in Malaysia, Hafizah continues to look for more ways to provide the service, especially for women who live in rural areas or are differently-abled.

“Before we embarked on this journey with NCSM, Etiqa’s strategy was to have a programme that brings a significant impact to the recipients, and to work with an NGO that is credible and can deliver the results,” she says.

“NCSM has been a great partner, because throughout the four years of collaboration, we have never failed to work together to resolve challenges that come up.

“This, along with Etiqa’s belief that women play a crucial role in family as well as social stability, affirms our commitment to continue this programme.”

And as for Hafizah, she thinks her lecturer would have been proud of her achievements. “I still think about how she fought cancer with positivity and an open mind. Apart from increasing my understanding of the disease, my career with Etiqa has also opened up my mind and heart, and made me a more empathetic person when it comes to cancer.”

YBhg. Dato' Dr Saunthari Somasundaram

President, National Cancer Society Malaysia (NCSM)

In 1985, National Cancer Society Malaysia (NCSM) acquired its first mammography machine. Along with providing ultrasound scans, NCSM's Breast Clinic and Mammography Centre was the first non-governmental organisation in Asia to provide breast screening services.

"My father had considered this one of the Society's greatest achievements," says Dato' Dr Saunthari Somasundaram of the late Datuk Dr SK Dharmalingam, the founder of NCSM.

Also known as the Women's Cancer Detection Clinic, the breast clinic was where 'Dr Saun' formally began her service in NCSM. As the Society developed and grew its various education, care, and support services for people affected by cancer, so did the current president of NCSM. For decades, Dr Saun has been actively involved in cancer and Non-Communicable Diseases (NCDs) control; her expertise spanning across policy, prevention, screening, early detection, and support.

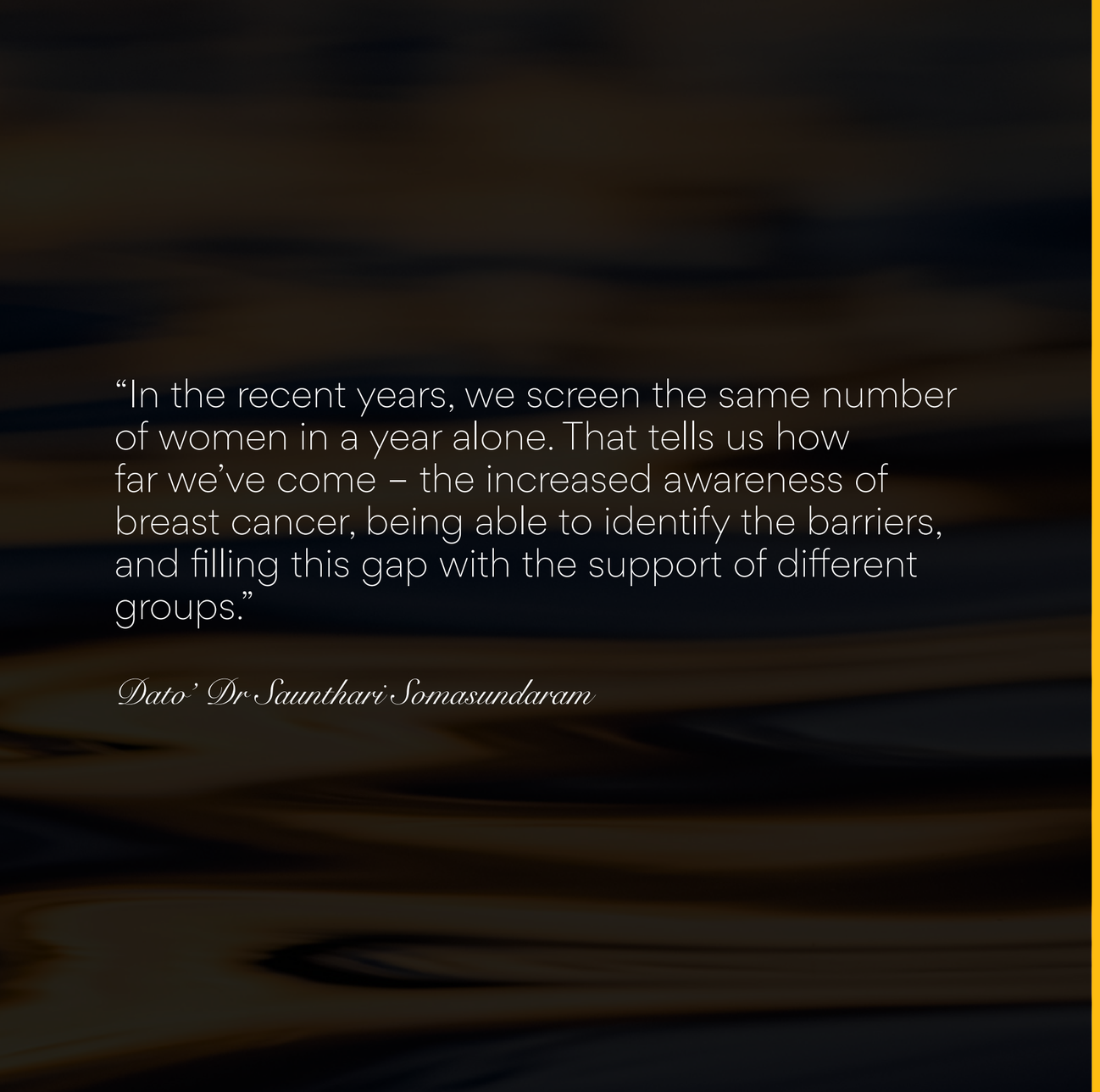
She has also represented Malaysia as well as the ASEAN region in international cancer control groups, including serving as a director in the board of the Union for International Cancer Control, and (presently) of the global NCD Alliance.

"We often hear people talking about the differences in cancer screening, diagnosis, and treatment between low-income countries and high income countries," Dr Saun says. "These disparities are often focused on the available technology, the level of awareness, as well as the affordability of medication."

At times, these gaps are perceived to be significant, and would require substantial amounts of time and resources to bridge them, Dr Saun explains. "However, some of these gaps that still have a devastating impact, such as the loss of lives, are actually much smaller - and closer - than we think."

"In fact, these gaps are right at our doorstep."

Using breast cancer screening as an example, Dr Saun says studies have shown that physical distances - or travel distances - between a house and a health facility play a major role in the outcome of a person living with cancer.



“In the recent years, we screen the same number of women in a year alone. That tells us how far we’ve come – the increased awareness of breast cancer, being able to identify the barriers, and filling this gap with the support of different groups.”

Dato’ Dr Saunthari Somasundaram

“This shows that providing screenings for free is not enough to overcome the barriers women face – but the good news is these barriers are not insurmountable and can be bridged.”

“Women with an advanced diagnosis often had longer travel distances than women with an early diagnosis,” she says. “When the following factors are equal among study participants, including ethnicity, insurance, and education, the odds are vastly greater for women who live over a mere 25 kilometres away from a health facility, compared with those who live fewer than 10 kilometres away.”

She adds that even when the mammograms are subsidised, there was a big difference in the rate of uptake – between 10% to 32% in urban and suburban areas in Klang Valley, and between 6.8% to 8.3% in rural areas in other states.

This phenomenon is not limited to Malaysia, or countries with a similar income, Dr Saun says: “In Australia, for every additional kilometre between their house and a screening facility, a woman is 3% less likely to undergo one. And in America, some women will not go for screening if it’s more than 30 kilometres, even if the service is free.”

“This shows that providing screenings for free is not enough to overcome the barriers women face – but the good news is these barriers are not insurmountable and can be bridged.”

The NCSM-Etiqa Free Mammogram Programme, by uniting the corporate sector, civil societies, and healthcare is one such example of how it can be done, Dr Saun says. “The free mammograms are just the start – we enlisted the help of community leaders in encouraging women to get screened, provided the transport, and sourced for similar services in health facilities close to them.”

She explains that when the Breast Clinic and Mammography Centre was first set up, NCSM had screened 5,840 patients within four years.

“In the recent years, we screen the same number of women in a year alone. That tells us how far we’ve come – the increased awareness of breast cancer, being able to identify the barriers, and filling this gap with the support of different groups.”

“This is a great example of a whole-of-society approach. When my father established this organisation, it was always meant to serve the community - together. And through my work in cancer control, it’s becoming more and more prominent that a challenge of this scale requires strong alliances consisting of dedicated, committed partners.”

“Our partnership with Etiqa is one of the Society’s biggest collaborations, and we are extremely proud of it. As they say – this is just the beginning.”

Chapter 4

The Melting Pot of Minds:

Introducing the Stakeholders

About this Chapter

The earlier chapters detailed how the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem unites various stakeholders. Each of them have been, and continue to be involved in all the different parts that make-up this ecosystem. All of these stakeholders have their own unique and individual role in ensuring the effectiveness and continuity of the programme, as it has done for so many years.

Our stakeholders range from private hospital partners who have played a role in providing the screening services; to our community NGO partners who have played a key role in bridging these services to the communities they serve; and our most important stakeholder – our recipients who have been a part of the programme. While they work independently to ensure their respective tasks are carried out, it is the interdependency of them that enables the programme to function seamlessly across the different geographic areas and localities; as well as over these many years.

This chapter provides a viewpoint into the different stakeholders involved in the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem. A comprehensive introduction of all our partner stakeholders is available in this chapter as well as insights into why they have participated in the project, and how they continue to support its implementation over the years.

Putra Medical Centre

Kedah

Putra Medical Centre (PMC) is a private medical centre in Alor Setar, Kedah. The facility is fully equipped and boasts some of the region's best healthcare services, the latest medical equipment – 64 Slice CT Scan, MRI, Bone Scan (Bone Densitometry) as well as intelligent yet practical facilities designed to provide revolutionary patient treatment and care.

The centre has facilities providing modern diagnostic equipment within their clinical areas, emergency rooms, operating rooms and intensive care units, amongst other areas. The medical centre has qualified medical, nursing, and support staff.

Lee Geik Peng
General Manager

Why did you partake in this programme?

Women make up 50% of the workforce nationwide and contribute to the productivity of our country. They also take care of their respective families. We hope that through this programme, we are able to empower women to adopt a healthy lifestyle and raise their awareness on the importance of medical and self-care.

Dr Mohd Rizal Abu Bakar
Head of Department and Consultant Radiologist

Why is early detection the best protection?

If breast cancer is found early, there are more treatment options and a better chance of survival. There will also be an increased survival rate in the first five years. Recent studies have found that mammogram screenings significantly reduce breast cancer mortality in women with advanced and fatal breast cancer.

Your Message
to NCSM and Etiqa

“This is a noble and devoted programme for our society which all corporations should be doing. Etiqa is outstanding among the other insurance providers for Malaysians.”

Bagan Specialist Centre

Penang

Bagan Specialist Centre was established in 1988 as a 149-bedded hospital. For the last two decades, the hospital has progressively grown and fulfilled its vision and mission as a trusted neighbourhood hospital in Butterworth as well as its surrounding region.

Bagan Specialist Centre is a hospital of choice which understands the healthcare needs of the local people. It is a healthcare provider that everyone can afford to turn to for quality and safe treatment in a comfortable, homely environment and a place where lives are celebrated with hopes and aspirations.

Why did you partake in this programme?

Bagan Specialist Centre envisions to be a family-orientated hospital of choice, and we strive to be a reliable hospital which plays an active role to contribute to our local community. As a primary healthcare service provider, we have a role and responsibility across the cancer continuum - from creating awareness, encouraging screening, to care and treatment. In this spirit, we said yes to NCSM and Etiqa to conduct and manage the free mammogram screening programme for underprivileged women.

Additionally, we are also aware that breast cancer is the most common form of cancer affecting women in Malaysia. Approximately 2.91 million households in the country belong to the B40 group, which has a median income of less than RM5000. Therefore, with this free mammogram screening programme, we aim to increase accessibility towards breast cancer screening and diagnostic facilities while creating awareness among the community. We are pleased to share that we have conducted this programme for four successful years and we will continue to provide our endless support.

Cheow Jen Hurn
Chief Executive Officer

Why is early detection the best protection?

Breast cancer is the commonest cancer in all ethnic groups among women in Malaysia. Screening for breast cancer is performed on individuals without any signs or symptoms of the disease for early detection and best chance of survival. Mammogram is a type of breast imaging that uses low-dose radiation X-rays to detect breast abnormalities, in particular early signs of cancer. It is an ideal imaging modality. When combined with breast ultrasonography and breast self-examination, it provides more than 90% of diagnostic accuracy.

At the initial stage of cancer, the cancer cells may not have spread to the vascular or lymphatic systems, which may eventually lead to multi-organ failure. Prompt treatment at the early stage of cancer ensures good clinical outcomes. Furthermore, costly and prolonged treatment for terminal disease with multiple complications can be avoided by treating cancer at the early stage. Over the years, research has proven that mammogram is a highly recommended imaging method to detect early breast cancer and therefore prevents patients from invasive, costly treatment such as total mastectomy, chemotherapy and radiotherapy. It is certainly a cost effective and simple screening tool to ensure early cancer detection, especially among the high risk group.

Dr Teo Yin Eie
Clinical Radiologist

Your Message
to NCSM and Etiqa

“Bagan Specialist Centre applauds NCSM and Etiqa for empowering underprivileged women and saving lives through this free mammogram programme. This is indeed a life-saving venture that improves the health of our local community. We are honoured to partner with NCSM and Etiqa to create a positive and effective impact on the health of underprivileged women.

Our hope is that together, we can continue to create awareness on the importance of early detection and break the stigma of fear among local women who tend to be more conservative and shy to reach out for breast cancer screening and treatment.”

Pusat Diagnostik Anda

Penang

Pusat Diagnostik Anda is an imaging clinic situated in Bertam Perdana, which is a new part of the commercial area in Kepala Batas, Pulau Pinang. It is located approximately 800 meters from the Bertam tol.

Founded on 20 October 2008, as a specialist clinic for diagnostic imaging, Pusat Diagnostik Anda is also a clinic for treating and managing outpatients for medical ailments. It is a referral centre for diagnostic examinations in Kepala Batas as well as other districts in Penang, Kedah, Perak, and other states for examinations required in diagnosing the illness of patients.

Services provided include consultations and treatments of walk-in patients from our own clinic, general radiography, ultrasound of various body parts, mammography as well as resting and stress electrocardiography.

The clinic is headed by Radiologist, Dr Hajah Haniza Binti Hj Abu Hassan with assistance and support from a team of radiographers and trained nurses.

Pusat Diagnostik Anda became a panel clinic for the mammogram subsidy programme under Lembaga Penduduk dan Perancang Keluarga (LPPKN) in 2009 and the mammogram subsidy programme under the Penang government in 2018. The clinic has been working together with NCSM and Etiqa since 2020.

Pusat Diagnostik Anda has the necessary technology and staff equipped with knowledge, skill, courtesy, compassion, competence and professionalism to gain the trust and confidence of patients.

We hope to continue providing excellent service with a good reputation and high standards of healthcare including prevention, detection and management of diseases.

Dr Hajah Haniza Binti Hj Abu Hassan
Chief Executive Officer

Why did you partake in this programme?

For more than 10 years, Pusat Diagnostik Anda has been actively on the move, working hand-in-hand with many NGOs and LPPKN to promote healthy living programmes, including free mammogram screenings for detection of breast cancer for the ladies in our community.

Through this partnership with NCSM and Etiqa, we hope to be able to offer this programme for more women who are susceptible to the risks of cancer. The support of these two entities have been instrumental in our efforts to combat breast cancer.

Why is early detection the best protection?

If breast cancer is detected early, the management of this cancer will be more simple and time-saving. It will decrease the cost of treatment and successfully increase the rate of survival. Women who are mothers and wives with successful careers can live a healthy, fulfilling life, even after undergoing cancer.

Your Message
to NCSM and Etiqa

“Two thumbs up for NCSM and Etiqa who have stepped forward to support underprivileged ladies through this free mammogram screening programme. This programme is imperative in detecting breast cancer early, which in turn, saves lives and keeps families happy. This is a very good programme and we hope to see it continuing, to serve more women in the society.

We are really happy to be given the opportunity to be a part of this programme, which demonstrates the dedication and commitment of NCSM and Etiqa to help our nation.”

Pantai Hospital Ipoh

Perak

Pantai Hospital Ipoh is located five minutes away from the North-South PLUS Highway interchange and Ipoh city centre. Serving the local communities of Ipoh, it has grown to become one of the premier healthcare providers in Perak and the northern region of Malaysia.

The 225-bed hospital houses over 90 consultant specialists who provide quality care and treatment aided by qualified nurses and allied healthcare professionals. The hospital provides an extensive list of medical services and specialties including anaesthesiology, cardiology, dermatology, oncology, neurosurgery, psychiatry, plastic and reconstructive surgery, respiratory medicine, rheumatology and more.

Pantai Hospital Ipoh utilises technology and skill to remain as trusted professionals in healthcare delivery; from prevention and detection to treatment and care, where it matters most.

Why did you partake in this programme?

We at Pantai Hospital Ipoh (PHI) are acting now to stop women dying from breast cancer and making a difference in the lives of as many women possible.

PHI has always been proactive in working with the community. We believe that women are a vital part in our society and a strong part of the family unit. Going by our Pantai Group motto, we sincerely believe in 'Caring from the Heart'.

In this regard, PHI is glad to have the resources and facilities to be able to help with the notable cause of creating breast cancer awareness by conducting screenings with its digital mammogram machines. Breast cancer is also the second leading cause of death in women. As such, early screening is important especially for women with family history of breast cancer. It is important to note that 1 in 19 women has breast cancer and we are seeing more aggressive cancers in younger age groups. This being the case, screenings and early diagnosis will help detect this type of cancer and prevent it from progressing to more advanced and harder to treat stages.

Chong Siet Fong
Chief Executive Officer

Why is early detection the best protection?

Digital mammograms provide high resolution pictures. At PHI, the entire process is overseen by a team of five female radiographers and four resident radiologists. This helps in the early detection of microcalcifications and precancerous lesions.

Furthermore, special procedures such as hook wire localisation and stereotactic biopsy are available at our radiology units. The procedure for digital mammograms requires lesser compression, and as such, they are more comfortable compared to analogue mammographies. In short, PHI provides holistic care that includes an in-house cancer support group.

Kanakambikai Letchumanan
Radiographer

Your Message
to NCSM and Etiqa

"We as a hospital are proud to be associated with this free mammogram screening programme, where we are able to provide support, guidance and treatment when one is diagnosed with breast cancer. We are grateful to NCSM and Etiqa for their unwavering support and commitment towards breast cancer prevention. We are delighted to be given the opportunity to work together to educate, support and empower underprivileged women in Malaysia and save lives through early detection for breast cancer."

Anson Bay Medical Centre

Perak

Anson Bay Medical Centre is the first private hospital in the Teluk Intan district with a vision to become one of the premier hospitals in the region. The hospital has qualified and experienced specialists, doctors and healthcare staff, and is equipped with modern facilities which simplifies the work of service providers and improves the patient experience.

Since its establishment in 2010, the hospital has been fast-growing in terms of service delivery and customer care.

Why did you partake in this programme?

As a healthcare facility, we are committed to provide effective and efficient service to our community. Breast cancer has been recorded as one of the top cancers in Malaysia and mammogram screening is considered as the international gold standard to detect breast cancer. As part of our commitment to help the society we are in, we have decided to embark as a partner in this programme for the benefit of our community in support of breast cancer awareness.

Why is early detection the best protection?

In women, the risk of breast tumours increases with age, especially after 40. The risk also increases in women with a family history of breast cancer and women who are on contraceptive pills.

Apart from breast self-examination, mammogram is important because it can detect lesions not palpable by breast self-examination. Early detection by mammogram enables detection of lesions when they are still small and has not spread to other tissues. Mammogram followed by ultrasound breast can give a high accuracy report of the nature of breast lesions, that could not be palpated and without any symptoms, such as pain.

Most importantly, studies by leading breast cancer institutions revealed that early detection by mammogram screening reduces death from breast cancer by 25% in 10 years and about 50% in 20 years.

Dr Mohandass @ Matthew Luruthasamy
Chief Executive Officer

Dr Magendiran Shummugam
Radiologist

Your Message
to NCSM and Etiqa

“We would like to take this opportunity to express our sincere appreciation to NCSM and Etiqa for conducting this breast cancer awareness programme. With the support from our partners, we are now able to provide more screening to underprivileged women. This is a win for all, as early detection of breast cancer increases the chances of survival.”

Aurelius Hospital Nilai

Negeri Sembilan

Aurelius Hospital Nilai (formerly known as Nilai Medical Centre) was first established in 1999 as a stand-alone cancer treatment centre with clinical research. In 2005, the facility was renamed NCI Cancer Hospital, the pioneer private specialist in Malaysia focusing on two core activities: cancer treatment and cancer research.

Since joining the Aurelius Healthcare family in 2021, Nilai Medical Centre has been rebranded to Aurelius Hospital Nilai. Incorporated in 2019, Aurelius Healthcare specialises in primary, tertiary and quaternary healthcare management and services.

The team at Aurelius Hospital Nilai is committed to delivering exceptional, patient-centric care in alignment with the standard that can be expected from the Aurelius Healthcare name. Our collective aim is to create a warm, personal and caring environment to ensure the best possible care for patients and their loved ones.

Dr Darshini Kumar
Chief Executive Officer

Why did you partake in this programme?

Understanding the importance of social conscience and active engagement in today's world is an integral part of ensuring the successful implementation of cancer plan priorities.

Throughout the years, we find that war metaphors are often used to describe people with a cancer diagnosis. But the weight of "a cancer battle" is beyond just a phrase. The journey is ghastly even in trying times and heightens during this pandemic.

Realising this, Aurelius Hospital Nilai, NCSM and Etiqa work hand-in-hand to continuously and significantly bring forward the vision for the day when breast cancers are cured. One of our collaborative priorities is aimed at reducing the burden of breast cancer patients not only for a portion of the community but for the entire population in Malaysia.

It is the responsibility of healthcare providers to proactively address gaps in services that promote healthy behaviours for every individual who is touched by a cancer diagnosis, whether it's the patient or the caregiver(s). Aurelius Hospital Nilai continues to grow its facilities and capabilities to deliver vital services and support for the community.

It is a conscious effort that we take to keep aligning our organisation to continue engaging and collaborating to conquer breast cancer. With renewed attention on improving health every single day, we believe this partnership with NCSM and Etiqa can and will accelerate access to comprehensive breast cancer control plans for all.

Siritheran Rajeswaran
Radiographer

Why is early detection the best protection?

According to Cancer Research Malaysia, two million women were diagnosed with breast cancer in 2018. In the next 30 years, the number of women diagnosed with breast cancer will nearly double that of everyone else.

The two components of early detection include early diagnosis (or downstaging) and screening. While early diagnosis focuses on detecting symptomatic patients as early as possible, screening consists of testing healthy individuals to identify those having cancers before any symptoms appear. The message here is crystal clear - the earlier we detect cancer, the better the outcomes are expected through medical attention given at the earliest possible stage. Ideally, this would be the predominant public health strategy in all settings.

Cancer screening programmes can help diagnose breast cancer in the early stage when treatment is more likely to be successful. Not only has it been proven to significantly improve patients' survival rates and quality of life, but early detection may also significantly reduce the cost and complexity of cancer treatment.

A mammogram is a screening tool and it is highly regulated and monitored through the Mammography Quality Standards Act (MQSA) regulations such as the Quality Assurance Programme by Bahagian Kawal Selia Radiasi Perubatan (BKRP), under the Ministry of Health (MOH) Malaysia. Screenings for breast cancer such as mammograms allow us to discover tumours at the stage where it has relatively less malignant potential. Hence, patients can be more responsive to treatment and subsequently decrease the intensity during the course of treatment.

Technology has become more efficient in recent years. We ought to leverage its capabilities to improve patients' lives. Several views are alluding to mammograms causing cancer by exposing people to an unsafe level of radiation. However, this assumption is incorrect. While a mammogram does expose the breast to radiation, it is actually in a small amount within the medical guidelines. The risk of harm is extremely low and the benefits of detecting and treating something life-threatening far outweighs the extremely small potential of harm from radiation exposure.

Studies in high-income countries show that treatment costs for early-diagnosed patients are two to four times less expensive than treating those diagnosed with advanced-stage cancer. Therefore, it is vital that you know when it comes to your body, remember you are in charge.

Your Message
to NCSM and Etiqa

"All over the world, we can distinguish variations in terms of health behaviours, life expectancy and the risk of mortality and morbidity in the use of healthcare services. However, in recent years, we are witnessing more recognition for women in the healthcare system.

What begins with small changes, in turn, is significantly used to create more awareness, disseminate knowledge and build commitment, which can then promote further change.

This certainly means a great deal. Thanks to socially responsible organisations such as NCSM and Etiqa for advocating the fundamentals of health rights for women, Aurelius Hospital Nilai too could reaffirm its commitment to support breast cancer research and access to care through this strategic partnership.

The philanthropic initiatives championed and excelled through the free mammogram programme are benefiting women across every sphere; enabling them to receive the health support they need."

Mahkota Medical Centre

Melaka

Mahkota Medical Centre, one of the largest private hospitals in southern Peninsular Malaysia, is a multi-disciplinary private hospital located in the heart of Melaka, a UNESCO world heritage site.

Founded on 30 September 1994, it offers advanced diagnostic, therapeutic and intensive care facilities and quality medical services. Mahkota is the flagship hospital of Health Management International Pte Ltd (HMI Group). The hospital is currently licensed with 305 beds in eight wards and houses over 120 practising consultants across a wide range of medical and surgical disciplines. It is supported by a dedicated team of management and allied healthcare staff with varying qualifications.

Mahkota Medical Centre is a top medical tourism destination in Malaysia, serving around 95,000 foreign patients annually. It is one of the most comprehensive hospitals focusing on medical subspecialties with high surgical workloads.

Teo Chin Yee
General Manager of Clinical Services

Why did you partake in this programme?

We believe that as a hospital and a responsible healthcare provider, we must do our part to encourage, empower and enable women, young or old, to be screened for early detection. Early detection saves lives.

We strive to support this programme in line with our community pledge, 'Together Building a Healthier Society' as NCSM and Etiqa continue to reach out to as many women as possible despite shortcomings as well as the current challenges faced due to the pandemic.

Nur Sharidatul Azrima Binti Mohd Yusof
Radiographer

Why is early detection the best protection?

Mahkota Medical Centre champions early detection, as detecting cancer at an earlier stage enables healthcare practitioners to prescribe a more effective treatment plan. When treatment is delayed, there is a lower chance of survival, as well as greater problems associated with treatment.

Your Message
to NCSM and Etiqa

"Mahkota Medical Centre fully supports NCSM and Etiqa's free mammogram programme. Such initiatives create a positive impact, spreading the awareness and importance of early detection through breast cancer screening, especially among the underprivileged community."

Putra Specialist Hospital Melaka

Melaka

Since 1995, Putra Specialist Hospital Melaka has excelled in the delivery of quality patient care. Putra Specialist Hospital Melaka is a 241-bed acute care facility. Housed in a 12-storey building located in the heart of historical Melaka, it is easily accessible through the main roads leading to the city centre. As a growing regional healthcare provider, we aim for continuous growth and keep our commitment to excellent care and advancing for the benefit of our community.

Putra Specialist Hospital Melaka is committed to:

- Ensure that our products, services, system, structure and work mechanisms are able to maintain high quality standards that meet the needs and expectations of our customers.
- Ensure that our working environment is of a high standard of safety and comforts.
- Ensure that our employees will have the right-thinking qualities and actions, to meet developed world standards.
- Emphasise a high level of professionalism and efficiency.

Datuk Wira Hjh Radhuana Bt Salleh
Chief Executive Officer

Why did you partake in this programme?

Our goal is to ensure that every woman has access to education, screening, treatment and support. We hope to show every woman that their life is important.

Special heartfelt thanks to NCSM and Etiqa for their commitment in addressing the health of Malaysian women by providing free breast cancer screening for underprivileged women aged 40 and above.

Putra Specialist Hospital Melaka is honoured to collaborate with Etiqa and NCSM for this community programme. Our collaboration took place since year 2017 and we wish for this partnership to continue for many years to come. Together, we continue to support the efforts of our government in reaching out to as many women possible to join the free mammogram screening programme.

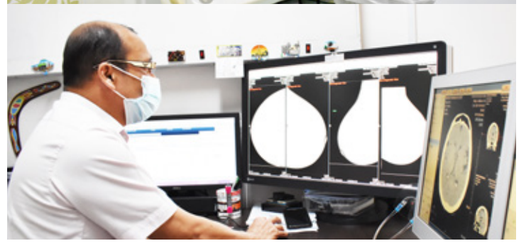
We believe that strong communities and thriving societies are the underpinning factors to successful, responsible businesses. For Putra Specialist Hospital Melaka, the bond between community and business is symbiotic and mutually advantageous; one cannot exist effectively without the other. We are driven to strengthen that

relationship through our responsible management approach for the benefit of all of our stakeholders.

Despite the challenges faced during the Covid-19 pandemic, NCSM and Etiqa have launched Phase 4 of the free mammogram programme in partnership with Putra Specialist Hospital Melaka as a provider. We hope and desire to continue to have this great opportunity to partner with NCSM and Etiqa in this community programme.

On behalf of the board of directors of Putra Specialist Hospital Melaka, I would like to take this opportunity to express my sincere appreciation to NCSM and Etiqa for their dedication in ensuring that this programme is successful.

Early detection saves lives. You definitely have the power to save your own life.



Dr Imran Yahya
Consultant Radiologist

Why is early detection the best protection?

Breast cancer is the most common cancer among Malaysian women. At any stage of presentation of the disease, mammogram has been the mainstay imaging modality, from mass screening to early diagnostic examination of lumps. The triple test of mammography, breast self-examination and tissue biopsy with good clinical history helps in clinching the final diagnosis. Newer modalities are constantly evolving, such as ultrasound elastography, digital tomosynthesis and contrast enhanced mammography.

Since the installation of the latest low dose digital mammography unit in 2012, we have seen an average incidence of between 3% and 4% in BIRADS category four and five in our centre, more during the diagnostic workup of symptomatic lumps. Cases are referred to their preferred government or private hospitals for surgery.

Subsequent chemotherapy, radiotherapy and immunotherapy will be tailored according to its staging and histochemistry.

Despite hugely subsidised packages and involvement of NGOs, walk-in voluntary submissions have not been very encouraging. Nevertheless, this free mammogram screening programme in collaboration with NCSM and Etiqa has largely helped to bridge these gaps and we hope that this programme is carried out annually to help lower the breast cancer statistics in Malaysia.

Your Message to NCSM and Etiqa

"The Etiqa Cares tagline has made us understand the importance of care for the underprivileged individuals, families and communities in Malaysia and also to inspire, motivate and educate people on their journey towards healthy living and better lives.

On behalf of Putra Specialist Hospital Melaka, we wish to express our greatest gratitude to both NCSM and Etiqa for their contribution in extending the free mammogram programme for underprivileged women in Malaysia.

The main goal of this programme is to create awareness that early detection and treatment of breast cancer can save lives. With the support from Etiqa and the excellent team work from NCSM, this has inspired and empowered the underprivileged women to step forward to have the mammogram screening.

This effort helps in meeting the basic needs, improve stress management and allows breast cancer patients in active treatment to focus on healing.

Putra Specialist Hospital Melaka is proud to partner with NCSM and Etiqa in promoting this breast cancer awareness programme. We look forward to exercise Etiqa's tagline in supporting the mental, emotional, physical and environmental healing needs of women diagnosed with breast cancer, no matter what age or stage of their journey.

Through this collaboration, we have worked together to educate and inspire underprivileged women and breast cancer survivors to thrive. We are sure that the successful completion of Phase 1, Phase 2 and Phase 3 of NCSM and Etiqa's free mammogram programme will continue its success in Phase 4, despite the Covid-19 pandemic. We hope that all breast cancer survivors will stay positive and strong in fighting this disease, as there is life after breast cancer.

Therefore, we hope NCSM and Etiqa will continue to support the government's aspiration to reach out to as many women as possible to sign up for the free mammogram screening programme by extending this initiative as an ongoing effort."

Pantai Hospital Ayer Keroh

Melaka

Established in 1986, Pantai Hospital Ayer Keroh (PHAK) is a Malaysian Society for Quality in Health (MSQH) accredited hospital located in the historical city of Melaka. The hospital is just five kilometres away from the Ayer Keroh toll interchange.

The hospital is on a firm footing with more than 200 beds under its wings. Supported by more than 100 medical specialists, the hospital covers a wide range of medical disciplines.

Pantai Hospital Ayer Keroh's unwavering commitment towards patient comfort and holistic healing has made it the preferred choice for patients in Malaysia's southern region as well as for medical tourists.

Pantai Hospital Ayer Keroh has an extensive list of medical, diagnostics, imaging and screening services and is the home to several state-of-the-art medical technologies.

Tan Yew Aik
Chief Executive Officer

Why did you partake in this programme?

Breast cancer is the most prevalent cancer in Malaysia and a causal killer of women. The main reason for our hospital to partake in this community programme is to help eradicate the occurrence and lower the statistics of breast cancer among Malaysian women. Detecting this disease at an early stage, preferably before the symptoms of the disease begins to spread, allows effective treatment to be done.

Dr Choo Sad Leng
Head Clinical Radiologist

Why is early detection the best protection?

Mammogram is a proven gold standard for diagnosing breast cancer. Detecting breast cancer at an early stage improves disease prognosis, reducing the cost of overall treatment.

Your Message
to NCSM and Etiqa

“NCSM and Etiqa’s free mammogram programme recognises that every woman’s life is important, regardless of their socioeconomic status. This programme ensures that every woman has access to early breast cancer detection; saving one life at a time.”

KPJ Puteri Specialist Hospital

Johor

KPJ Puteri Specialist Hospital is strategically located at Larkin, Johor Bahru. The hospital offers a wide and comprehensive range of services which includes accident and emergency services, intensive care services for adults, children and neonates, diagnostic imaging services, laboratory services, physiotherapy services, audiologist services, rehabilitation services as well as a well-stocked pharmacy.

Currently, KPJ Puteri is operating on a 151-bed capacity with more than 50 consultants specialised in the field of internal medicine, general surgery, orthopaedic and trauma surgery, obstetrics and gynaecology, paediatric and paediatric surgery, neonatolgy, thoracic surgery, cardiology, nephrology, urology, otorhinolaryngology and neurology.

KPJ Puteri embraces Malaysia's aspiration of becoming a nation of healthy individuals, families and communities. KPJ Puteri offers general, men and women health screening packages to screen the number of common diseases.

Over the course of the last 25 years, KPJ Puteri has received numerous awards and accolades in recognition of excellence in various fields ranging from human capital to services.

With the motto 'Care for Life', KPJ Puteri remains as a caring organisation, touching the hearts and lives of many people throughout its tenure. Our specialist consultants, doctors, nurses, support staff and managers have moved from being just caregivers to being 'caring givers'. KPJ Puteri is committed to providing patients and customers an excellent service experience.

Haliza Khalid
Chief Executive Officer

Why did you partake in this programme?

We are truly appreciative and grateful to be a part of this free mammogram programme in partnership with NCSM and Etiqa. This programme has benefited the lives of thousands of underprivileged women.

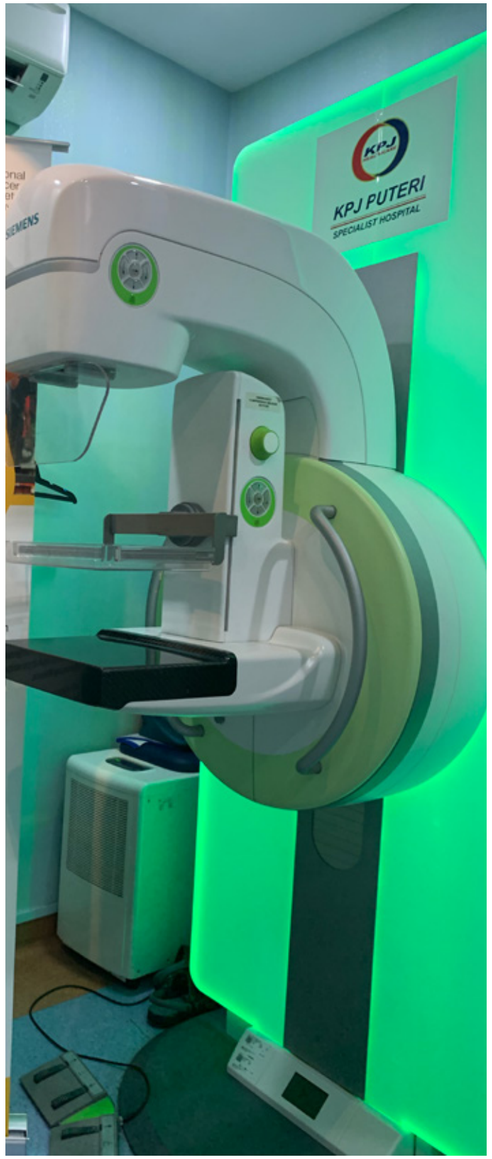
When we were introduced to this programme, we were intrigued and driven by the programme's aim to improve the health and wellbeing of women, which is in line with our core objectives.

We would like to express our immense gratitude for the support and collaboration and thank you for coordinating this programme with us.

Dr Shairi Bin Abdullah
Consultant Radiologist

Why is early detection the best protection?

Early detection is important because it will reduce the financial impact of cancer. Treatment costs are not only lower in the early stages of cancer, but people can also continue to work and support their families if they can access effective treatment on time.



Your Message
to NCSM and Etiqa

"Thank you to NCSM and Etiqa for conducting this free mammogram screening programme for underprivileged women. The existence of this programme has been able to provide new hope for better, healthier and happier lives for women, their families and their loved ones."

Darul Makmur Medical Centre

Pahang

Established in 2008, DMMC Medical Centre, also known as Darul Makmur Medical Centre, is a 120-bed private healthcare facility located at Kempadang Makmur, offering innovative technology and excellent customer service.

DMMC is a specialist hospital in Kuantan, with a distance of nine kilometers - which is an eight minute drive - from Kuantan City. The hospital building is like a resort, with a relaxing environment far from the hustle and bustle of the city, beautiful landscape and ample parking space to cater for the needs of our patients and visitors.

Our motto 'Caring from the Heart' tells it all. Our commitment to you is to be dedicated caregivers. We seek to understand and anticipate patients' and customers' needs and anxieties, while constantly trying to make their experience better with our medical expertise and facilities. Our commitment is to continuously improve ourselves, to achieve the highest standard of services and to satisfy the needs and expectations of our customers.

Sarena Hasan
Chief Executive Officer

Why did you partake in this programme?

It is an honour to be invited and to participate in this community programme organised by NCSM and Etiqa.

We at DMMC are proud to be a part of this programme, because we believe that with the facilities we have here at DMMC, this community programme will benefit all underprivileged women in the state of Pahang and across Malaysia, will raise awareness and highlight the importance of breast screening and early detection.

Furthermore, our advanced reporting system enables us to provide reports to patients to view their screening results online anytime, anywhere.

In view of the fact that early detection could enable expedient treatment, this programme would make a huge difference to thousands of women and their families who are burdened by cancer.

In conclusion, we would like to say that this free mammogram screening programme by NCSM and Etiqa is a wonderful initiative for the community and has a very positive impact on the future of our nation.

Dato' Dr Humairah Binti Abdul Samad
Consultant Radiologist

Why is early detection the best protection?

Darul Makmur Medical Centre (DMMC) is privileged to have been involved in the NCSM and Etiqa free mammogram programme over the last few years. Women in Kuantan and the surrounding regions of Pahang state came forward enthusiastically to participate in it. For many, it was their first experience in having their breasts mammographically screened for cancer.

The senior nursing staff organised educational sessions to share and highlight the reasons why mammography and early breast cancer diagnosis are so important. The women were informed that breast cancer is the commonest cancer amongst Malaysian women, affecting about 1 in 18 of our women, although racial differences in incidence are seen amongst Malaysian women. As early disease may not have any symptoms, mammography with supplementary ultrasound is a means of early diagnosis, with diagnostic confirmation offered by image-guided biopsy.

Early diagnosis is associated with best prognosis and treatment results. Not only can mastectomy and losing a breast be avoided, cure may also be possible. A small tumour can be completely removed by lumpectomy, followed by a tailored treatment regimen. This will have best cosmetic results. A return to normalcy, a healthy family life and career can be expected if appropriate treatment is given early. The alternative of late diagnosis when the tumour mass has grown to a large size is pain, suffering, misery and possibly even loss of life as treatment will not be as effective. The worst case scenario is when a stage four cancer has spread to the lungs, bones and brain. The possibility of cure is dismal.

One of the effects of the Covid-19 pandemic on the population in 2021 was a reluctance to visit hospitals and clinics, as the Covid-19 SOP encourages a stay-at-home and work-from-home paradigm. Furthermore, as many jobs were lost, the free mammogram offered did not hinder them from coming forward. As a result, 502 women came forward this year to participate in the free screening programme, compared to 376 women in 2020. Out of this number, seven were diagnosed with breast cancer, representing 1.4% of the screened group.

NCSM and Etiqa have been instrumental in making this free screening possible, and it has been shown that our women were receptive and willing to come forward, enabling more cancers to be detected at an earlier stage. The myth that mammography is painful is being dispelled and the women will surely spread this message to their friends and relatives. It is hoped that they will adopt a bi-annual mammographic screening routine as a means towards early breast cancer diagnosis. This may ensure their survival, should they be diagnosed with cancer. The staff at DMMC are grateful to have been included in this programme. We hope that this programme will be continued into the next few years. This will enable the positive messages regarding early detection by mammographic screening to be fully accepted by Malaysian women, especially those at risk of breast cancer.

Your Message
to NCSM and Etiqa

"Excellent effort by Etiqa to collaborate with NCSM in providing financial support for this outreach programme and community screening so that underprivileged women in Malaysia can undergo free screening.

We at DMMC wish many successes to NCSM and Etiqa's team and with your great dedication, commitment and courage, we hope that you will do more programmes for the community and save more lives."

SALAM Specialist Hospital Kuala Terengganu

Terengganu

SALAM Specialist Hospital Kuala Terengganu is a member of SALAM Group of Hospitals, a private medical specialist center providing comprehensive healthcare services. The hospital, a state-of-the-art 250-bedded set-up is the Group's latest addition to its chains of specialist centers. This hospital is SALAM's first set-up to service the east coast of Peninsular Malaysia.

Established on 1 March 2016, SALAM Specialist Hospital Kuala Terengganu is a living-working demonstration of the Group's mantra of making private and specialised healthcare accessible, affordable, and acceptable to all in this region. While offering a wide range of healthcare services which includes a 24-hour emergency unit, the hospital is equipped with the latest in medical, surgical and laboratory technology.

The anchor of the hospital is and will always be its workforce. A panel of highly trained specialists, with a diligent, and dedicated nursing faculty and a professional lineup of administrative and auxiliary staff, will ensure that whether you are visiting or hospitalised, your stay with us at SALAM Specialist Hospital Kuala Terengganu will be an exceptionally pleasant experience.

Why did you partake in this programme?

Our main reason to partner in this community programme is to create awareness to the local public about the importance of early detection of breast cancer, as well as to emphasise our services and provide a good, sustainable healthcare standard in our services to the community.

Dato' Ir Wan Ngah Bin Wan Ali
Chief Executive Officer

Why is early detection the best protection?

Breast cancer can happen at any age, but the risk goes up as you get older. If you are a woman 40 years of age or older, talk with a doctor about the breast cancer screening plan that's best for you. Screening for breast cancer can help find it early. Finding breast cancer early when it's small and has not spread, gives you more treatment choices and can help save your life.

Here's my take to address the occurrence of breast cancer among women.

- All women should talk to a doctor about the known pros, cons and possible harms linked to breast cancer screening.
- All women should also know how their breasts normally look and feel so they can notice changes quickly. Any breast change should be reported to a doctor right away.
- Women aged 40 to 44 should have the choice to start annual breast cancer screening if they wish to do so.
- Women aged 45 to 54 should get mammograms every year.
- Women 55 and older can keep getting screened every year or can switch to mammograms every two years.
- Screening should be done as long as a woman is in good health and is expected to live at least 10 more years.

Some women who are at high risk for breast cancer because of their family history, genetic tendency, or other factors may need to get regular mammograms done. Talk to your doctor about your risk for breast cancer and the best screening plan for you. If your doctor hasn't told you about a mammogram, it doesn't mean you don't need one. Ask about it. Insist on getting the care you deserve.

Norazman Bin Ajis
Diagnostic Imaging Manager

Your Message
to NCSM and Etiqa

"We are grateful to NCSM and Etiqa for initiating this valuable programme and do hope that this programme will remain for the sake of the underprivileged group of women in Malaysia."

KPJ Perdana Specialist Hospital

Kelantan

KPJ Perdana Specialist Hospital (KPJ Perdana), located at the heart of Kota Bharu Bandar Raya Islam is the 11th hospital under KPJ Healthcare Berhad, the largest healthcare provider in Malaysia.

The hospital has a maximum capacity of 124 beds, and aims to bring quality healthcare closer and accessible to patients.

In addition to outpatient and inpatient care, the multi-disciplinary care provided by KPJ Perdana includes a host of up-to-date support facilities. KPJ Perdana opened for outpatient treatment on 28 December 2001 and inpatient treatment on 2 April 2002.

We are committed to meet your needs and serve you in an ethical, efficient, professional and caring manner.

En Zawari Abdullah
Chief Executive Officer

Why did you partake in this programme?

As a socially responsible corporate citizen, KPJ Perdana is fulfilling its responsibility in an area close to its heart by providing medical services to those in need. KPJ Perdana has been in collaboration with NCSM and Etiqa for four consecutive years. This collaboration is one way to extend our services to the special groups within our society. KPJ Perdana is committed to extend its CSR initiatives to help the underprivileged, the physically challenged, the elderly and those who are on the margins of society. This collaboration programme is part of our way to spread awareness on the importance of early detection of breast cancer.

Dr Nik Munirah Nik Mahdi
Radiologist

Why is early detection the best protection?

Breast cancer can be detected early and treated effectively. Therefore, awareness and understanding about breast cancer risks, early signs and symptoms are very important. Mammogram is the gold standard screening tool to detect breast cancers worldwide. Mammogram is able to detect non-palpable lesion one year before it becomes palpable by the patient. Early detection can save lives.

Your Message
to NCSM and Etiqa

“It has been an honour to be part of this journey for four consecutive years in empowering underprivileged women and saving lives through this free mammogram screening programme. KPJ Perdana is committed to continue this collaboration with Etiqa and NCSM for the coming years. We will continue to meet your needs and serve in an ethical, efficient, professional and caring manner.”

PERTUBUHAN HAWA PERTIWI

Pertubuhan Hawa Pertiwi is a non-governmental organisation based in Petaling Jaya which actively carries out charitable initiatives and empowers women through its activities.

Radziah Hj Ahmad
President

How has the free mammogram programme benefited your organisation?

Through this free mammogram programme, we were able to educate ladies on the importance of early detection and encourage them to get screened. The response we received was good, as many agreed to go for the screening. Some of the ladies detected lumps in their breasts and took the next step to get treated. All this, was made possible through this programme.

Your thoughts about this programme.

This is a very good programme and we hope to see it continue in the years to come, as many ladies who are underprivileged can benefit from it.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

From the bottom of our hearts, we thank you. This programme is very much needed as it has helped save the lives of many women, who play such an instrumental role in their families and the society.

SATHYA SAI BABA CENTRE OF CHERAS (SSBCC)

Sathya Sai Baba Centre of Cheras (SSBCC) is part of the Central Region Sai community under the Sathya Sai Baba International Organisation of Malaysia or SSIOM. SSBCC is a non-profit NGO that is committed towards nation building through education in human values and selfless service to the needy.

Vijaya Letchumi
Chairperson

How has the free mammogram programme benefited your organisation?

We incorporated this programme as part of our activity and engaged our Ladies Wing to share it among the public.

Your thoughts about this programme.

It was an eye opener to a many. There were a few positive cases identified through this programme and the ladies are undergoing treatment and surgery. This programme should further continue to create awareness among Malaysians.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

We are very thankful to NCSM and Etiqa for giving us an opportunity to partake in a community programme which saves the lives of people. As many lack knowledge and awareness, and some are reluctant to get screened, creating awareness is utmost important with such programmes.

CRISIS RELIEF SQUAD OF MCA (CRSM)

The Crisis Relief Squad of MCA (CRSM) was established in April 2005 under the Malaysian Chinese Association (MCA) with an objective to provide humanitarian services to survivors of natural disasters. CRSM comprises of six units which includes training, action relief, counselling, medical support, legal support and community-based disaster reduction.

Dato' Natalie Lim Chong Ly
Chairperson

How has the free mammogram programme benefited your organisation?

The free mammogram programme has helped more than 800 women get screened, through our organisation. Some of the ladies were first timers and they had a better understanding about breast cancer, its risks and the importance of getting screened from this programme.

Your thoughts about this programme.

This programme is good and we hope to see more hospitals from different states taking part, so that more women can benefit from it.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

We thank NCSM and Etiqa for their kindness and hope that this programme can continue to help more ladies, especially those from marginalised communities to take better care of their health.

PERSATUAN GERAK WANITA ISLAM MALAYSIA (GERAKWANIS)

Persatuan Gerak Wanita Islam Malaysia (GerakWanis) is a non-governmental organisation established to support Muslim women in Malaysia, especially those from the underprivileged communities with an aim to raise their standard of living. GerakWanis supports women in the community through educational programmes, creating awareness on healthcare and providing them with relevant skills and training needed to secure occupations.

Hajah Bibi Sunita Hj Sakandar Khan
Founder and President

How has the NCSM and Etiqa free mammogram programme benefited your organisation?

This programme has helped many ladies from our community get screened for free and it has also raised the awareness on breast cancer among them.

Your thoughts about this programme.

We find this programme very beneficial to society and will fully support this initiative to ensure that people are aware of the importance of early screening.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

We at GerakWanis would like to see this programme continue and hope that it can be extended to all states in Malaysia.

PUSAT WANITA BERDAYA (PWB)

Pusat Wanita Berdaya (PWB) serves as a development centre and hub for women's activities in the community. PWB organises various activities to hone the skills and knowledge of women, which they can master to provide them with a source of income.

Norashimah Binti Saad
Supervisor

How has the free mammogram programme benefited your organisation?

This programme has been very helpful to the communities we are in touch with, which largely comprises of women from the B40 and M40 categories. The free mammogram screening programme has given many ladies the opportunity to get examined for the very first time. Many of these women would have never had a mammogram screening because they cannot afford it. We'd like to thank NCSM and Etiqa for prioritising the health of underprivileged women in Malaysia.

Your thoughts about this programme.

This programme is just what we need as it provides a solution to eradicate breast cancer in Malaysia by detecting it at an early stage, and to protect women from the perils of breast cancer.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

On behalf of PWB Selangor, we would like to extend our heartfelt gratitude to NCSM and Etiqa for running this free mammogram programme. We hope to see the continuance of this programme as it deeply impacts the occurrence of breast cancer in Malaysia.

PERTUBUHAN PEMBANGUNAN WANITA TAMARAI PULAU PINANG

Pertubuhan Pembangunan Wanita Tamarai Pulau Pinang was established in 2013. The organisation provides education and training skills for the lower income community and former prisoners in Pulau Pinang, Kedah and Perak with an aim to help them build a better future for themselves.

Pakyalakshmi Subramanian
President

How has the free mammogram programme benefited your organisation?

This is a very good programme to educate women that they need medical attention and yearly check-ups for their wellbeing. It was very rewarding to see some of the ladies stepping out of their comfort zone and coming for the screening, which had both negative and positive outcomes. There were ladies who were diagnosed with breast cancer at late stages and some caught it at the early stage. We have witnessed how a mother was saved from cancer through this programme, with the support of her family.

Your thoughts about this programme.

We highly recommend this programme for all women in Malaysia, regardless of their background and age. To NCSM and Etiqa, please continue your efforts and we wish to be a part of this noble initiative in the coming years.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

Thank you for letting us do our part to help save women from cancer. It has been a very fruitful journey for us and we are very proud to be a part of this programme.

SIKH WOMEN'S AWARENESS NETWORK (SWAN)

Sikh Women's Awareness Network (SWAN) is the only registered national Sikh women's organisation in Malaysia, dedicated to help improve the quality of life of Malaysian Sikh women and their families. The organisation aims to empower women to build happy and dynamic families and be equipped with skills taught through its harmonious and holistic developmental programmes.

Rajinder Kaur
Vice President

How has the free mammogram programme benefited your organisation?

Every year, at least 100 or more women participate in the free mammogram programme in Kuala Lumpur and other states across Malaysia. They get diagnosed early and seek treatment. Otherwise they wouldn't go for screenings as they have to pay. This free screening programme is a great noble act of kindness initiated by NCSM and Etiqa.

Your thoughts about this programme.

This programme is very well organised by NCSM and other partner hospitals. It has a highly systematic and efficient process with great, friendly staff. Everyone goes back happy as the screening is conducted with much ease.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

I would like to congratulate NCSM and Etiqa on this noble effort that is really helping so many women across Malaysia. Early detection saves lives, hence many lives are saved by NCSM and Etiqa with this generous initiative. I hope SWAN will be able to benefit from this programme for many years. As many families are facing financial hardships during these past two years due to the pandemic, this programme has enabled women to carry out their annual mammogram screening, without burdening them financially. When we publicise this programme, we welcome all races to participate. We encourage our Sikh women to bring their family members, friends and neighbours. Sharing is caring! Thank you NCSM and Etiqa for this wonderful initiative.

MALAYSIA HINDU SANGAM WILAYAH PERSEKUTUAN KUALA LUMPUR (MHSWPKL)

Established in 1965, The Malaysia Hindu Sangam (MHS) is the representative body of Hindus in Malaysia, and the only organisation that the government of Malaysia consults on matters affecting the Hindu community in the country. MHS' main objectives are to coordinate Hindu religious activities, undertake religious education and represent the Hindu community at the national and international level. Its mission is to bring together and develop the interests of Hindu temples and organisations for the creation of outstanding Malaysian Hindus.

Dr Chandrakala Varatharajoo
Women Leader

How has the free mammogram programme benefited your organisation?

The free mammogram screening programme has immensely and successfully benefitted more than 400 underprivileged Malaysian women aged above 40 from our organisation.

Your thoughts about this programme.

This programme has not only provided screenings for earlier breast cancer detection, but also gave awareness to equip and empower women with the knowledge and skills needed on cancer and prevention.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

MHSWPKL expresses its highest gratitude towards this beneficial programme which NCSM and Etiqa have been steadfastly providing to the community. This is a timely programme, as in our country, nearly 40% of new cancer cases identified each year were already in the very advanced stages of the disease. NCSM and Etiqa definitely represents a milestone in the fight against breast cancer in Malaysia.

ROTARY INTERNATIONAL DISTRICT 3300 MALAYSIA

Rotary is a global network of 1.2 million neighbours, friends, leaders, and problem-solvers who see a world where people unite and take action to create lasting change – across the globe, in our communities, and in ourselves. Solving real problems takes real commitment and vision. For more than 110 years, Rotary's people of action have used their passion, energy, and intelligence to take action on sustainable projects. From literacy and peace to water and health, we are always working to better our world, and we stay committed to the end.

Rotary District 3300 | District Action Group on Cancer Awareness and Prevention

Sudhaharan R. Bhaskaran Nair
Chairman, District Action Group on Cancer Awareness and Prevention

How has the free mammogram programme benefited your organisation?

One of the seven areas of focus of Rotary is Disease Prevention and Treatment. Rotary believes that good healthcare is everyone's right. Women are the pillars of the family. If women are empowered and healthy, so are their families. Given the fact that breast cancer is the number one cancer in Malaysia, NCSM and Etiqa's free mammogram programme has enabled Rotary clubs in Rotary District 3300 Malaysia to mobilise 650 women from the B40 group to get screened for breast cancer.

Your thoughts about this programme.

Since 2018, Rotary District 3300's District Action Group on Cancer Awareness and Prevention has been collaborating with NCSM to mobilise women from B40 families in communities where our Rotary clubs are located to undergo breast screening under this free mammogram programme. The response has been encouraging. We hope that more screening centres especially in major towns can be enlisted into the programme so that more women from the low income groups and rural areas can avail this wonderful programme.

Your message to NCSM and Etiqa for enabling your organisation to carry out this community programme.

Rotary is grateful for the support given by NCSM and Etiqa in helping women from underprivileged families get screened for breast cancer and for giving the opportunity to our Rotary clubs to embark on a community project that meets one of the seven areas of focus of Rotary-Disease Prevention and Treatment. We hope NCSM and Etiqa will continue with this excellent community service programme so that more women from underprivileged families can benefit from it.

Voices of Participants

Messages from participants whose breast cancers were detected through the Ecosystem

Hamsiah Binti Abdullah Hashim, 61, Pahang

Saya seorang suri rumah dan ibu kepada lima anak-anak. Ini kali pertama saya membuat mamogram. Selepas saya mengetahui keputusan mamogram, saya berasa sedih, tersingguh dan susah hati.

Selepas kanser dikenalpasti, doktor terus bagi saya surat untuk membuat pembedahan. Doktor belum bagitahu jika saya perlukan rawatan seterusnya atau tidak.

Pesanan saya kepada wanita di luar sana yang masih ragu-ragu untuk menjalani saringan adalah, kalau ada simptom apa-apa tolong jangan malu-malu untuk pergi ke hospital dan jumpa doktor. Lebih baik dapat kesan pada peringkat awal daripada menyesal kemudian hari.

Lee Poh Wan, 55, Kuala Lumpur

I am a housewife and a mother of one. This is my first time to perform a mammogram and was shocked when I found out about the results as I never thought this could happen to me.

I am currently under treatment and am going through my second cycle of chemotherapy.

My message to women who have not done or are reluctant to do a mammography is, cancer can be treated with the right medication. So please go and get yourself screened. Your family and loved ones need to you to be present in their lives, as you mean a lot to them. Do this for the people who are dear to you.

Normaria Binti Lajis, 49, Melaka

Saya adalah ibu kepada empat orang anak dan seorang suri rumah. Ini merupakan kali pertama saya membuat mamogram. Sebenarnya, saya memang dah agak sebab ahli keluarga saya pernah ada kanser payudara. Sedih memang sedih, tapi nak buat macam mana, dah takdir. Jadi, kita kena juga hadapi semua cabaran ini dalam kehidupan kita.

Saya baru menjalankan pembedahan dan sekarang tengah sambung buat kemoterapi. Saya berasa cepat penat kerana juga kena jaga anak.

Pesanan saya kepada wanita di luar sana yang masih ragu-ragu untuk menjalani saringan adalah, kalau ada tanda-tanda, pergilah buat pemeriksaan. Jangan tunggu lama-lama. Cepat buat rawatan nanti cepat sembuh. Lain semua biar tuhan yang aturkan.

Vimala Devi A. P. Samy, 50, Melaka

I am a housewife and a mother of three children. I did a mammogram for the first time through this programme and was shocked when I found out that I had breast cancer. At first, I could not accept the results and was sad as I never imagined that I would get cancer.

Presently, I am undergoing treatment. I just did my operation and I am now in my second round of chemotherapy out of six cycles.

My message to women who have not done or are reluctant to do a mammography is, I hope no one experiences this pain. Do your screening regularly and everything will be good in the long run, if the cancer is detected early.

Roslinda Binti Mohd Nazari, 53, Selangor

Saya ikut suami saya untuk pemeriksaan di hospital. Kebetulan sementara menunggu, ada orang datang cakap mengenai program ini dan saya bersetuju untuk membuat saringan. Tapi saya tiada sebarang simptom atau tanda-tanda kanser payudara. Sebelum buat saringan, saya tiada rasa apa-apa. Cuma ketika proses tu, saya ada berasa sedikit sakit dan ketidakselesaan ketika di tekan pada beberapa bahagian payudara. Tapi rasa tak selesa tu tak lama, sekejap sahaja dan hanya pada beberapa bahagian sahaja. Jika berkesempatan, saya nak ulangi saringan mamogram sebab kita perempuan memang sangat berisiko. Jika saya ada jumpa sesiapa wanita yang saya kenal, memang saya akan cerita mengenai program ini, tambah lagi jika ada promosi. Seminggu selepas membuat saringan, saya berjumpa dengan kawan saya dari zaman sekolah. Saya memberitahu dia mengenai program ini dan suruh dia pergi ke hospital yang sama untuk jalani saringan mamogram.

Lim Bee Hong, 59, Kuala Lumpur

I followed my sister to do a mammogram even though I did not have any signs and symptoms of breast cancer. My results were fine but for my sister, it turned out that she had breast cancer - something that she only found out because she got screened through this programme. Before the mammogram, I didn't feel nervous or anxious. I was just a little scared to know of the results. Fortunately, my screening and results went well. I will definitely do the mammogram screening again, as recommended by the doctor, which is once in every two years. While doing the mammogram, I did not feel any discomfort. During the movement restriction due to the pandemic, I did not go out much and was mostly at home. Now that we are in the new normal, I will definitely recommend my family members and friends to partake in this programme when I meet them, to increase awareness on breast cancer and early detection.

Nooryn Arni Binti Rosly, 45, Melaka

Saya dirujuk oleh pihak hospital untuk membuat mamogram kerana mempunyai tanda-tanda kanser payudara. Sebelum jalani mamogram memang tiada rasa apa-apa cuma memang rasa nak tahu sahaja hasil ujian ini. Saya memang akan mengulangi lagi mamogram, ini kerana disaran oleh doktor untuk buat setahun sekali. Lagi-lagi pula saya sudah berusia lebih 40 tahun, berisiko untuk dapat kanser payudara. Ketika buat mamogram ini, saya tidak rasa tak selesa, cuma ada sakit sedikit terutamanya ketika payudara ditekan. Tapi rasa sakit ini tak lama, sekejap sahaja. Saya ingin nasihat pada wanita di luar sana, jangan takut untuk jalani mamogram. Kita boleh tahu tentang status kesihatan kita. Ianya untuk kepentingan diri sendiri juga. Mamogram ini juga penting untuk pengesanan awal. Kalau dapat dikesan awal Insyallah 'survival rate' lebih tinggi.

Voices of Participants

Messages from first-time participants

Shanti Narayanasamy, 50, Johor

I was keen to do this mammogram screening to check my health condition, as I have never done breast screening prior to this. I was rather calm and did not feel anxious before the mammogram procedure. During the procedure, I didn't feel much discomfort. This is a good step to detect breast cancer and I will do this screening again in future. I will recommend this screening to the women I know, so that I can increase awareness about breast cancer among them.

Voices of Participants

Messages from participants repeating their mammogram screenings through the Ecosystem

Siew Sow Shan, 67, Kuala Lumpur

I will recommend others to do the free screening as the service I received from National Cancer Society Malaysia is good, and the equipment used for the screening is very advanced. I decided to repeat my mammogram screening because the doctor suggested for me to do it once a year as the results show that my breasts are dense. There was no difference from my latest experience to the previous one. Based on my experience, I want to tell ladies out there to not be scared to do a mammogram. Come forward and overcome your fear, this for your health after all, and not for others. Early detection is so important, as it saves lives.

Siti Sarah Binti Abu Bakar, 44, Melaka

Saya akan cadangkan kepada kenalan saya dan keluarga saya mengenai program ini supaya mereka ada kesedaran tentang kanser payudara dan supaya sel kanser dapat dikesan awal, jika ada. Saya mengulangi saringan mamogram untuk lebih yakin dengan status kesihatan diri. Pengalaman saya jalani mamogram yang terbaru ini tiada beza dengan pengalaman-pengalaman yang sebelum ni. Prosedur dijalankan dengan sangat lancar dan baik.

Sheela Nair, 63, Melaka

Yes, of course I will recommend the mammogram screening to others. First of all, because it is free! I've joined this mammogram screening programme repeatedly because the doctor recommended for me to do so. This is because they found abnormalities in my breasts, and regular screening is required to rule out those abnormalities. There has been no difference between my first and my latest experience – all has been well. I did feel slight discomfort while doing the screening, which is conducted very fast. However, we need to undergo the few minutes of discomfort, as it is necessary for early detection. After my experience with mammogram screening, I would like to invite all ladies out there to do the screening as well. It is good for the sake of your health.

Shamsiah Binti Abdul Rani, 51, Kuala Lumpur

Saya memang mengesyorkan kepada rakan-rakan saya untuk jalani saringan mamogram. Saya melakukan saringan untuk kali pertama sebab ia percuma. Tambah lagi, layanan dan servis yang saya terima sangat baik. Saya pergi berulang kali sebab saya ingin sentiasa pantau status kesihatan diri saya. Saya pergi sebab inisiatif sendiri memandangkan saya wanita dan berusia lebih 40 tahun. Pengalaman saya dengan saringan mamogram yang terbaru dengan sebelum ni tiada beza, cuma staf yang jalankan prosedur sahajalah berbeza. Lain-lain semua sama. Setelah beberapa kali jalani mamogram ini, saya ingin ajak wanita luar sana untuk jalani mamogram juga. Tidak perlu takut. Ianya untuk kesihatan diri kita memandangkan wanita berisiko untuk dapat kanser payudara.

Chapter 5

Clinical Impact:

Achievements of the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

“The value of achievement lies in the achieving.”

Albert Einstein

About this Chapter

The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem programme is currently part ways through its fourth year of implementation. Phase 1 of the programme ran from July 2017 to July 2018, while Phase 2 ran between July 2018 and July 2019. The third phase of the programme was conducted between October 2019 to October 2020. The data for the first three phases of the programme is presented in this chapter, providing an in-depth view of its achievements.

Information in the following chapter is broken down by phase to ensure a more in-depth understanding of the participants. It includes the demographics of the participants, and a complete run-through of their mammography results. Also detailed are the outcomes of patients who had to undergo an additional biopsy following their mammography and/or ultrasound screening. The combined data of all three phases is then presented to provide an overall perspective of the achievements of the programme.

Phase 1
Project Analysis Report

NCSM collaborated with Etiqa for Phase 1 of the free mammogram screening programme. This partnership was conducted from July 2017 – July 2018 across a total of 10 states and 16 hospitals. During this phase, a total of 5,231 women underwent mammogram screening.

State	Hospital
Perak	Anson Bay Medical Centre
	Pantai Hospital Ipoh
	Columbia Asia Taiping
	Pantai Hospital Manjung
Johor	Columbia Asia Hospital Iskandar Puteri
	Hospital Kluang Utama
Kuala Lumpur	Pusat Hemodialisis Mawar
	CHSC-Kuala Lumpur
Melaka	Mahkota Medical Centre
	Oriental Melaka Straits Medical Centre
	Pantai Hospital Ayer Keroh
Pahang	IIUM Kuantan
Kelantan	KPJ Perdana Specialist
Terengganu	Kuala Terengganu Specialist Hospital
Pulau Pinang	Pantai Hospital Penang
Kedah	Pantai Hospital Sungai Petani

Table 4: List of partner hospitals involved in the free mammogram screening programme


Qa Cares
National Cancer Society Malaysia
's Free Mammogram Programme
National Society of Malaysia
2017
Kamaludin Ahmad


DOUBLETREE

Participant Demographics

Number of Participants in Each State

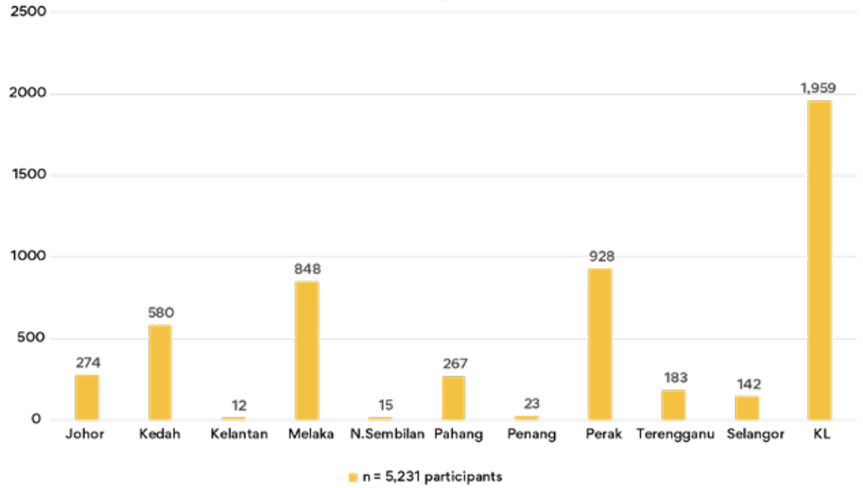


Figure 24: Number of participants in different states in Peninsular Malaysia of Phase 1 (of the nationwide free mammogram screening programme)

The free mammogram screening programme was provided in 11 states in Peninsular Malaysia. These included the states of Kedah, Penang, Perak, Kelantan, Pahang, Terengganu, Melaka, Kuala Lumpur, Selangor, Negeri Sembilan and Johor. Figure 24 illustrates the number of individuals in each state that participated in the screening programme. Kuala Lumpur had the highest number of participants with 1,959 (37.4%) involved in the programme*. This was followed by Perak with 928 (17.7%), Melaka with 848 (16.2%) participants, Kedah with 580 (11.1%) participants, Pahang with 267 (5.1%) participants, Terengganu with 183 (3.5%) participants, Selangor with 142 (2.7%) participants, Johor with 274 (5.2%) participants, Penang with 23 (0.4%) participants, and Negeri Sembilan with 15 participants (0.3%). The lowest number of participants was in Kelantan with 12 (0.2%) individuals.

*Some participants from other states registered under CHSC-Kuala Lumpur for the mammogram screening programme.

Ethnicity of Participants

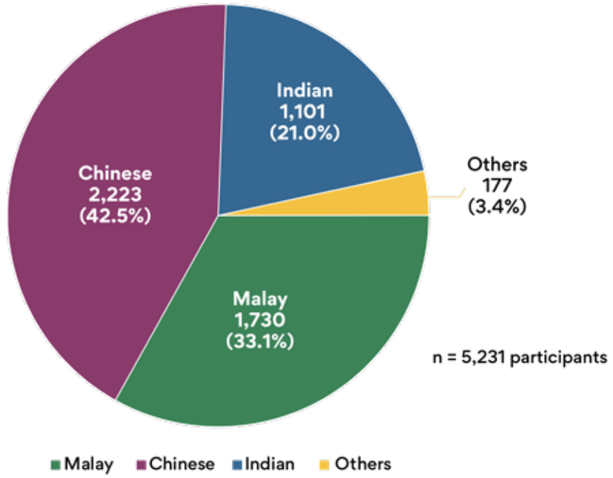


Figure 25: Ethnicity of participants of Phase 1 (of the nationwide free mammogram screening programme)

Figure 25 illustrates the different ethnicities of participants of the nationwide free mammogram screening programme. Chinese participants made up the majority with 2,223 (42.5%) of the participants, followed by Malays with 1,730 (33.1%) and Indians at 1,101 (21.0%) participants. The remaining 177 (3.4%) of participants were of other ethnicities.


Cancer & Health Screening Clin

Age Groups of Participants

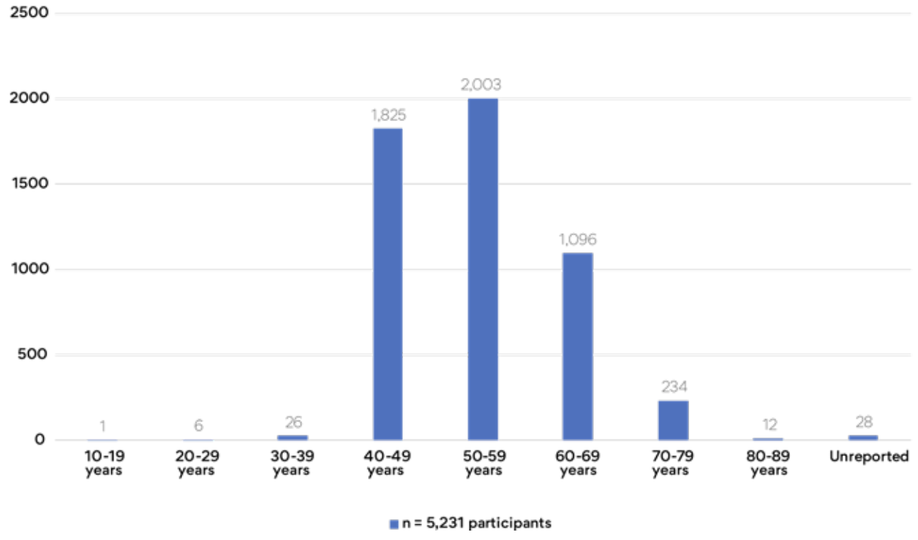


Figure 26: Age group of participants of Phase 1
(of the nationwide free mammogram screening programme)

Figure 26 illustrates the different age groups of participants of the nationwide free mammogram screening programme. Of the 5,231 participants, 2,003 (38.3%) were between 50-59 years old, which made up the age group with the most participants. This was followed by 1,825 (34.9%) participants between 40-49 years old, 1,096 (21%) participants between 60-69 years, 234 (4.5%) participants between 70-79 years old, 26 (0.5%) participants between 30-39 years old, 12 (0.23%) participants between 80-89 years old, 6 (0.1%) participants between 20-29 years old, and 1 (0.02%) participant between 10-19 years old*. Finally, there were 28 (0.5%) of participants who did not report their ages.

*Participants from the 10-19 year old and 20-29 year old age groups were referred by medical professionals.

Marital Status of Participants

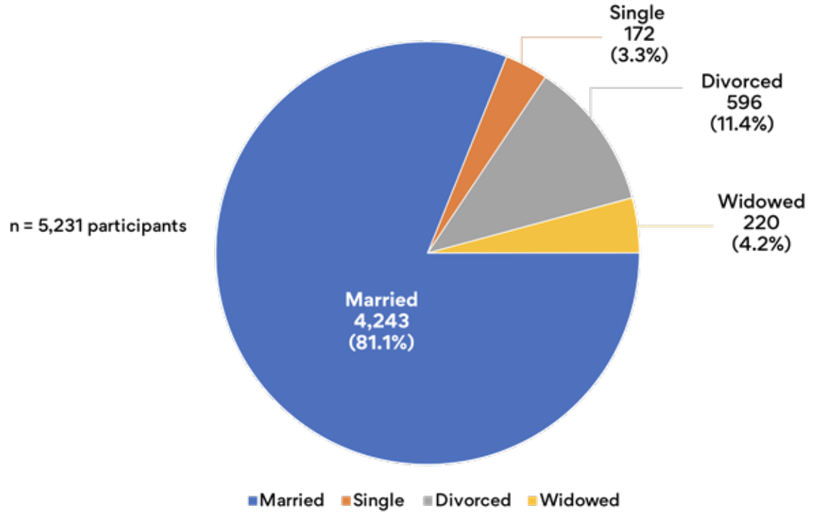


Figure 27: Marital status of participants of Phase 1
(of the nationwide free mammogram screening programme)

Figure 27 illustrates the marital status of the participants of the nationwide free mammogram screening programme. Out of the 5,231 participants, 4,243 (81.1%) were married, 172 (3.3%) were single, 596 (11.4%) were divorced, and 220 (4.2%) were widowed.

Occupational Status of Participants

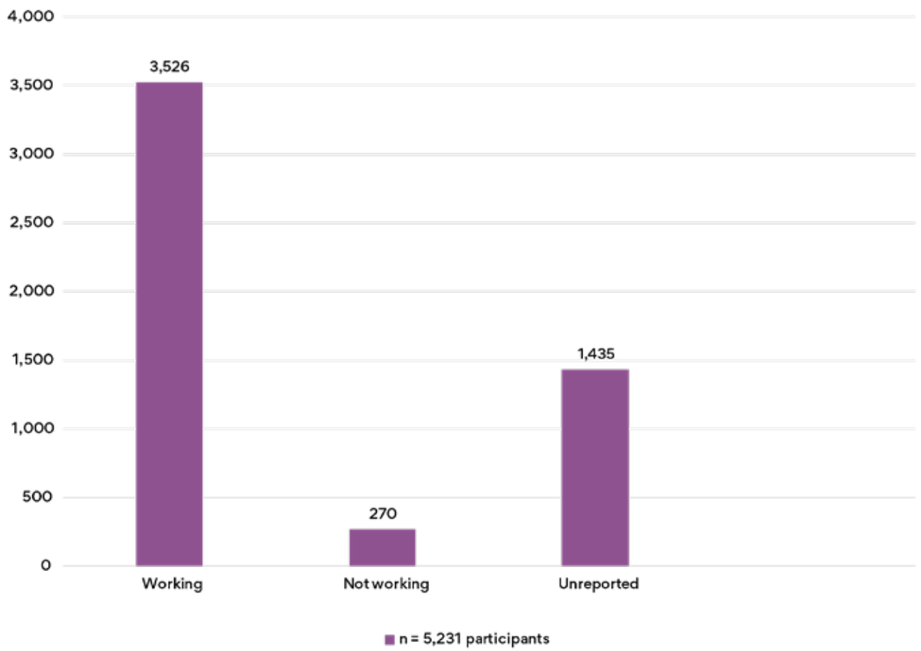


Figure 28: Occupational status of the participants of Phase 1 (of the nationwide free mammogram screening programme)

Figure 28 illustrates the occupational status of the participants of the nationwide free mammogram screening programme. Of the 5,231 participants, 3,526 (67.4%) reported that they were working, 270 (5.2%) reported that they were not working, while 1,435 (27.4%) did not report their occupational status.

Phase 1
Clinical Results

The data gathered from Phase 1 of the nationwide free mammogram screening programme was analysed and involved the information of participants who underwent the mammogram screenings, through this free screening programme, at the NCSM Cancer and Health Screening clinic or other appointed hospitals. This section also reports the outcomes of the mammogram results as well as the biopsy results.

Screening Results

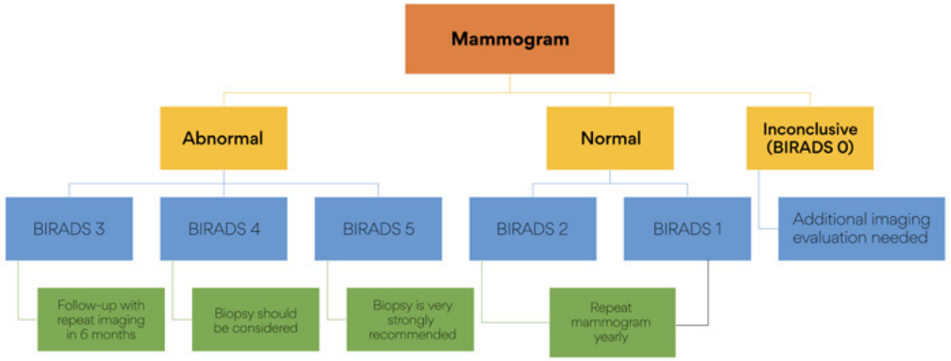


Figure 29: Flow chart of the screening process for participants of Phase 1 (of the nationwide free mammogram screening programme)

As shown in Figure 29, women with 'normal' results were advised to undergo mammogram screenings once a year. If any abnormalities are suspected, they would then be advised to proceed with ultrasound screening to further investigate the abnormalities.
Below is the example of the reading from mammogram/ultrasound results(1):

BIRADS 0: Needs additional imaging evaluation
BIRADS 1: Normal mammogram/ultrasound
BIRADS 2: Benign finding. Routine mammogram follow-up in 1-2 years
BIRADS 3: Probably benign. Requiring short term follow-up in 6 months
BIRADS 4: Suspicious abnormality. Biopsy should be considered
BIRADS 5: Highly suspicious malignancy. Biopsy is indicated
BIRADS 6: Known malignancy. Assure that treatment is completed

If the results from both the mammogram and ultrasound indicate a reading of BIRADS 4 or greater, a biopsy will need to be done. A biopsy is a procedure in which cells or tissues are removed for examination under a microscope by a pathologist(2). The purpose here is to detect the presence, cause, or extent of a cancerous mass/tumour.

Mammogram Results

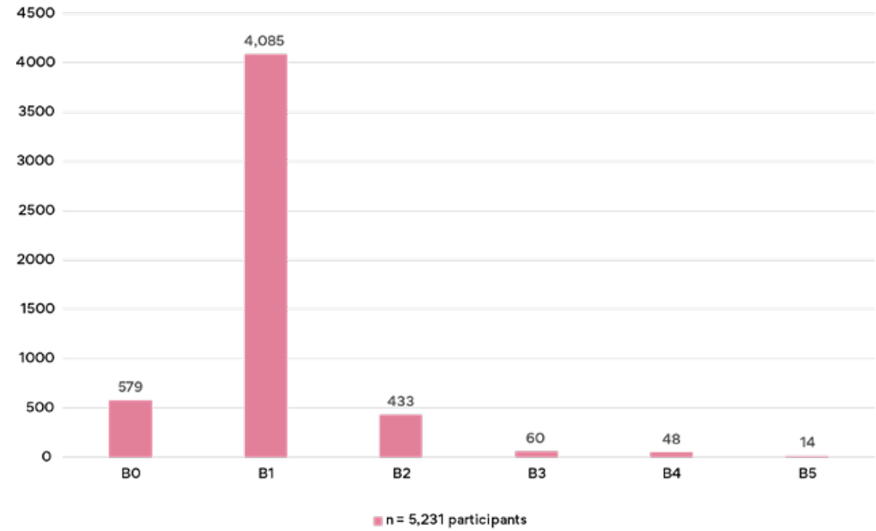


Figure 30: Mammogram results of participants of Phase 1 (of the nationwide free mammogram screening programme)

Figure 30 illustrates the mammogram screening results of the participants of the free mammogram screening programme. Out of the 5,231 participants, the majority, 4,085 (78.1%) participants had normal (BIRADS 1) results. These participants were advised to undergo their mammograms annually. This was followed by 579 (11.1%) participants with BIRADS 0 results. These participants were advised to go for additional imaging as their mammogram results were inconclusive. A portion of the 5,231 participants, 433 (8.3%) participants had benign findings (BIRADS 2) and were advised to go for follow-up screenings in 1-2 years.

Out of 5,231 participants, 60 (1.2%) participants had suspected benign findings (BIRADS 3) and were advised to go for follow-up ultrasound screening in 6 months to ensure the tumour is non-cancerous. From the 5,231 participants, 48 (0.9%) participants had suspected abnormalities (BIRADS 4) and were advised to consider getting a biopsy done. These suspected abnormalities included dense breasts, predominantly fat breasts, coarse calcification on their left breast, left breast mass hypo echoic nodule, dense mammary parenchyma, or other suspicious results that require further investigation by a healthcare professional via ultrasound. Finally, 14 (0.3%) had highly suspicious malignancy (BIRADS 5) and were asked to undergo a biopsy.

Of the 12 remaining individuals, 9 (0.2%) had mixed findings and 3 (0.1%) did not report their mammogram results. Based on the BIRADS results, 62 individuals were recommended to go for biopsies. A breast biopsy is an examination of tissue removed from a living body to determine the presence, cause or extent of a cancerous mass/tumour. The progress of the biopsy was followed up on, and the results are recorded in Figure 31 below.

Breast Biopsy Results

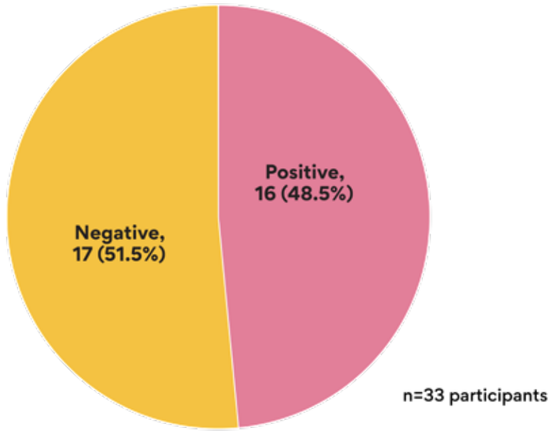


Figure 31: Biopsy outcomes of 33 participants of Phase 1
(of the nationwide free mammogram screening programme)

Of the 62 individuals who were advised to undergo a biopsy, only 33 could be followed up for further information. As shown in Figure 31, out of the 33 participants who did biopsy, it was found that 17 (51.5%) participants had a negative result for cancer whereas 16 (48.5%) had a positive biopsy result.

Phase 2
Project Analysis Report

After the success and effectiveness of Phase 1 of the free mammogram screening programme, Etiqa and NCSM continued to Phase 2 of the screening programme. Phase 2 included free mammograms as well as free Pap smear screenings. A total of 6,364 individuals participated in this phase of the programme. Table 5 depicts the partner hospitals that were involved.

State	Hospital
Perak	Anson Bay Medical Centre
	Pantai Hospital Ipoh
	Pantai Hospital Manjung
Johor	KPJ Kluang
	KPJ Johor Bahru
Kuala Lumpur	CHSC-Kuala Lumpur
Melaka	Mahkota Medical Centre
	Oriental Melaka Straits Medical Centre
	Pantai Hospital Ayer Keroh
	Putra Specialist Hospital
Pahang	Darul Makmur Medical Centre
Kelantan	KPJ Perdana Specialist
Terengganu	Kuala Terengganu Specialist Hospital
Pulau Pinang	BP Healthcare
Kedah	Pantai Hospital Sungai Petani
Negeri Sembilan	Salam Senawang Medical Centre

Table 5: List of partner hospitals in Phase 2 involved in the free screening programme


Graced by
Duli Yang Maha Mulia
Raja Permaisuri Perak Darul Ridzuan
Tuanku Zara Salim
Etiqa's Free Mammogram & Pap Smear Programme - Phase 2
with the National Cancer Society Malaysia

Participant Demographics

Number of Participants in Each State

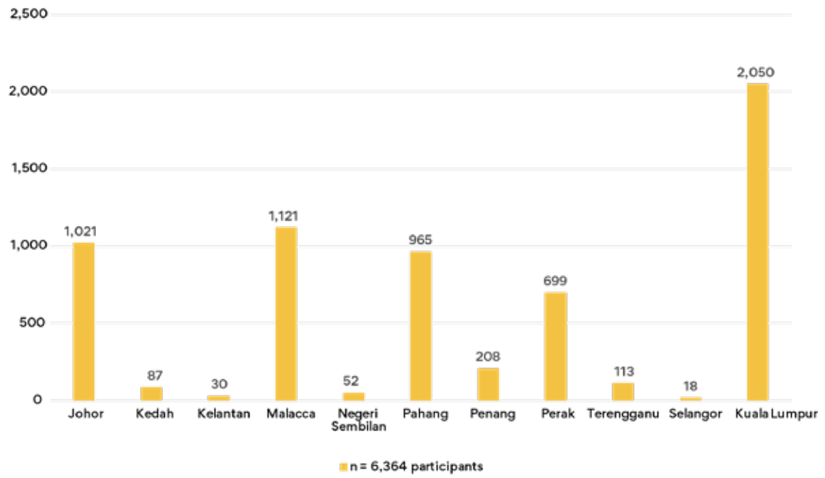


Figure 32: Number of participants in different states in Peninsular Malaysia of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Similar to Phase 1 of the programme, the free mammogram and Pap smear screenings were provided in 11 states in Peninsular Malaysia. These included the states of Kedah, Penang, Perak, Kelantan, Pahang, Terengganu, Melaka, Kuala Lumpur, Selangor, Negeri Sembilan, and Johor. Figure 32 above shows Kuala Lumpur to have the highest number of participants at 2,050 (32%) participants*. This was followed by Melaka with 1,121 (17.6%) participants, Johor with 1,021 (16%) participants, Pahang at 965 (15%) participants, Perak at 699 (11%) participants, Penang at 208 (3%) participants, Terengganu at 113 (2%) participants, Kedah at 87 (1.4%) participants, Negeri Sembilan at 52 (1%) participants, Kelantan 30 (0.4%) participants, and Selangor with only 18 (0.5%) participants.

*Some participants from other states registered under CHSC-Kuala Lumpur for the mammogram screening programme.

Ethnicity of Participants

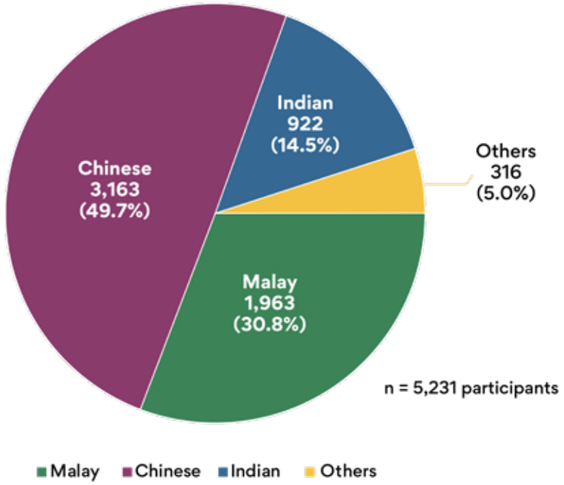


Figure 33: Ethnicity of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Figure 33 illustrates the different ethnicities of participants of Phase 2 of the free screening programme. Chinese participants made up the majority with 3,163 (49.7%) of the participants, followed by Malays with 1,963 (30.8%) and Indians at 922 (14.5%) participants. The remaining 316 (5%) of participants were of other ethnicities.

Age Groups of Participants

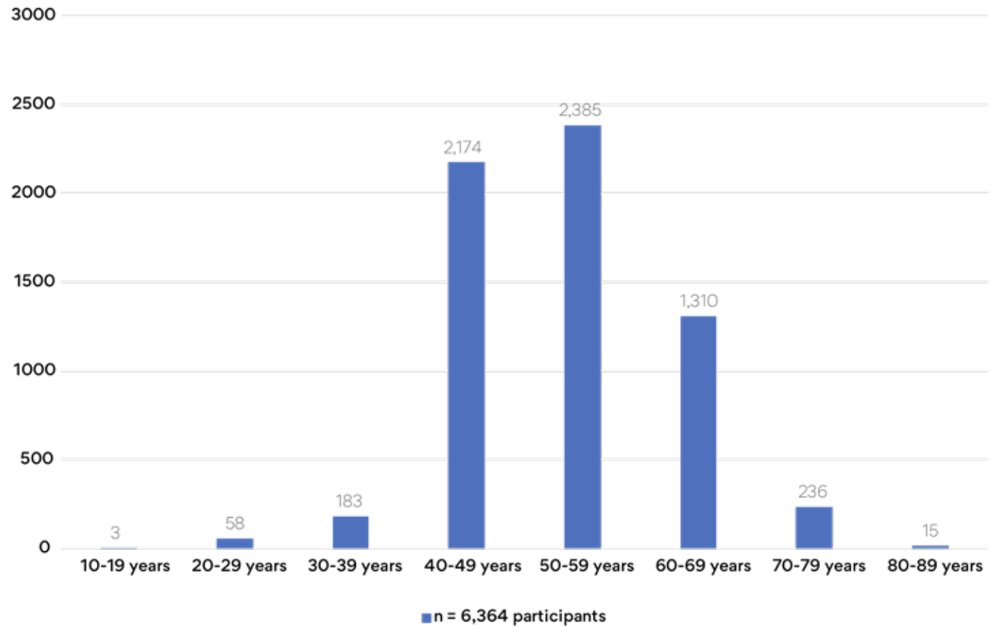


Figure 34: Age group of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Figure 34 illustrates the different age groups of the nationwide free mammogram and Pap smear screening programme. Of the 6,364 participants in this phase of the programme, 2,385 (37.5%) were between 50-59 years old, which made up the largest age group. This was followed by 2,174 (34.2%) participants between 40-49 years old, 1,310 (20.6 %) participants between 60-69 years, 236 (3.7%) participants between 70-79 years old, 183 (2.9%) participants between 30-39 years old, 58 (0.9%) participants between 20-29 years old, 15 (0.2 %) participants between 80-89 years old, and 3 (0.1 %) participants between 10-19 years old.

Marital Status of Participants

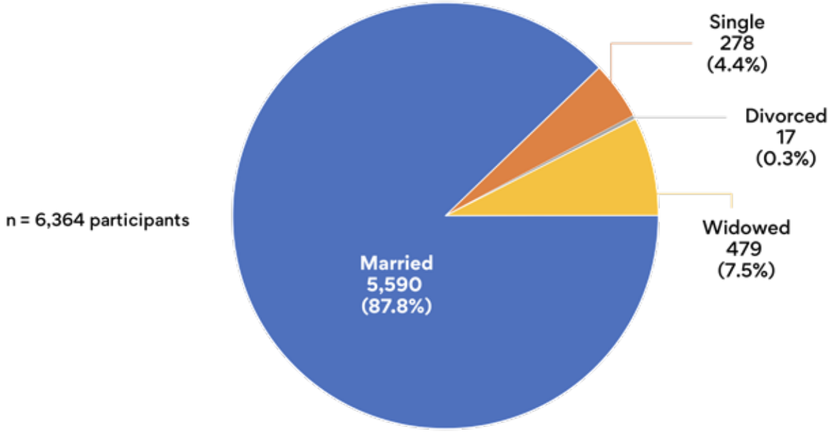


Figure 35: Marital status of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Figure 35 illustrates the marital status of the participants of the nationwide free mammogram and Pap smear screening programme. Out of the 6,364 participants, 5,590 (87.8%) were married, 278 (4.4%) were single, 17 (0.3%) were divorced, and 479 (7.5%) were widowed.

Occupational Status of Participants

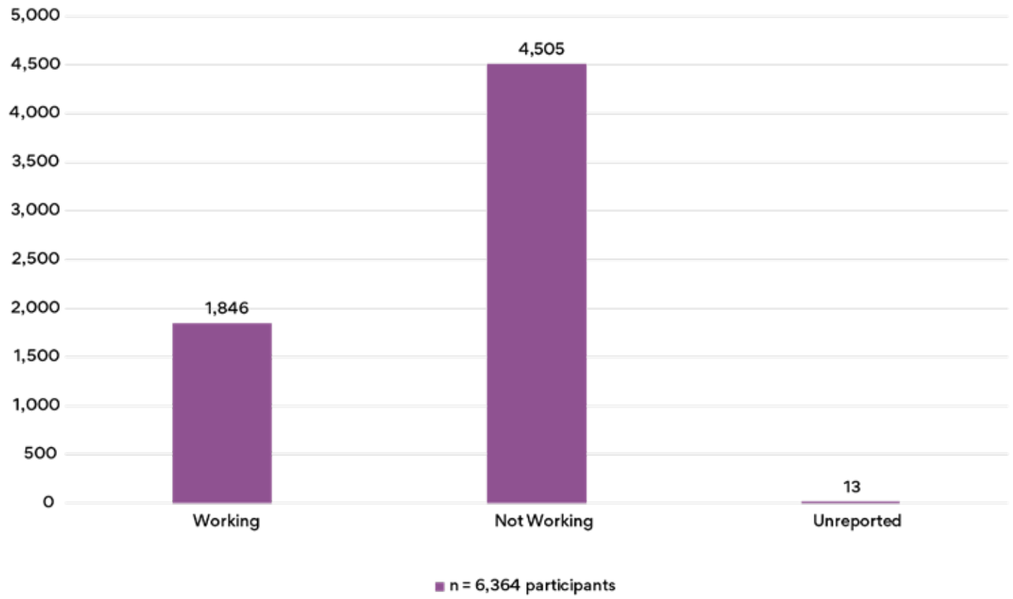


Figure 36: Occupational status of the participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Figure 36 illustrates the occupational status of the participants of the nationwide mammogram and Pap smear screening programme. Of the 6,364 participants, 4,505 (70.8%) were not working and 1,846 (29%) were working. The remaining 13 (0.2%) individuals did not report their occupational status.


eTiQa Cares
National Cancer Society Malaysia
National Cancer Society Malaysia
Giving Hope Celebrating Life

Phase 2
Clinical Results

The data gathered from Phase 2 of the nationwide free mammogram and Pap smear screening programme was analysed and involved the information of participants who underwent the mammogram and/or Pap smear screenings, through this free screening programme, at the NCSM Cancer and Health Screening clinic or other appointed hospitals. This section also reports the outcomes of the mammogram and Pap smear results as well as the biopsy results.

Screening Uptake of Participants

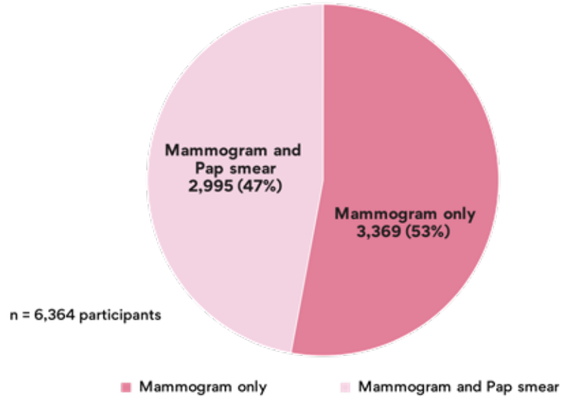


Figure 37: Breakdown of screening uptake of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Figure 37 illustrates the number of participants in Phase 2 of the nationwide free mammogram and Pap smear screening programme. Of the 6,364 participants, 3,369 (53%) underwent only mammogram screenings and 2,995 (47%) underwent both mammogram and Pap smear screenings. No data was available to confirm the number of participants that underwent only Pap smear screenings.

Mammogram Results

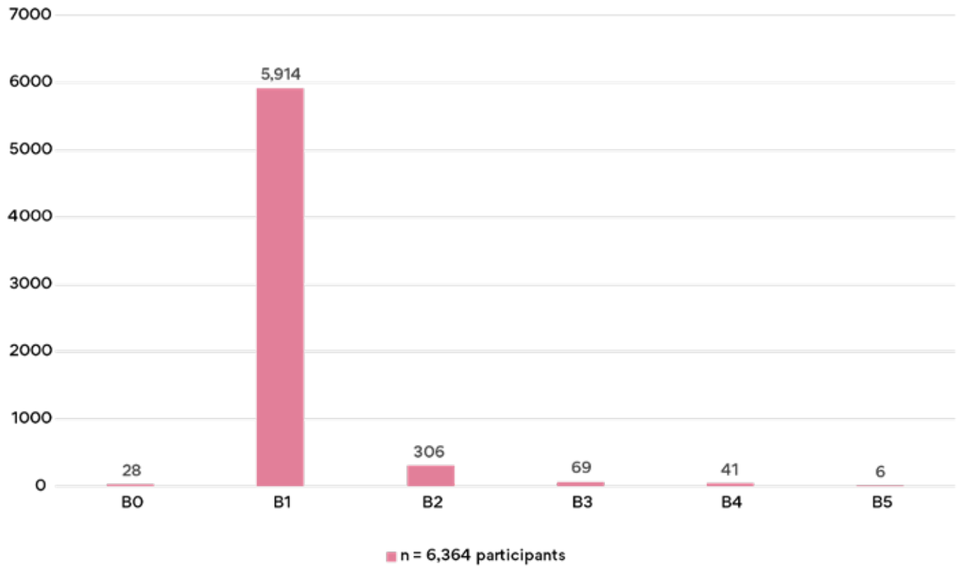


Figure 38: Mammogram results of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Similar to Phase 1, if any abnormalities were suspected during the mammogram, the individual would be advised by the doctor to proceed with an ultrasound screening to further investigate the abnormality. If the results from both mammograms and ultrasounds indicate a reading of BIRADS 4 or higher, the participants will be advised to undergo a biopsy.

Figure 38 illustrates the mammogram screening results of the participants of the nationwide free mammogram and Pap smear screening programme. Out of the 6,364 participants, the majority, 5,914 (92.7%) participants had normal (BIRADS 1) results. These participants were advised to undergo their mammograms annually. This was followed by 306 (4.8%) participants with benign findings (BIRADS 2) who were advised to go for follow-up screenings in 1-2 years.

Out of the 6,364 participants, 69 (1.1%) participants had suspected benign findings (BIRADS 3) and were advised to go for follow-up ultrasound screening in 6 months to ensure the tumour is non-cancerous, whereas 41 (0.6%) participants who had suspected abnormalities (BIRADS 4) were advised to consider getting a biopsy done. The suspected abnormalities included dense breasts, predominantly fat breasts, coarse calcification on their left breast, left breast mass hypo echoic nodule, dense mammary parenchyma, or other suspicious results that require further investigation by a healthcare professional via ultrasound.

There were 28 (0.4%) participants out of the 6,364 participants who had BIRADS 0 results and they were advised to undergo additional imaging as their mammogram results were inconclusive. Finally, 6 (0.1%) had highly suspicious malignancy (BIRADS 5) and were asked to undergo a biopsy.

Based on the BIRADS results, 47 individuals were recommended to undergo biopsies. The progress of the biopsy was then followed up on, and the results are recorded in Figure 39.

Breast Biopsy Results

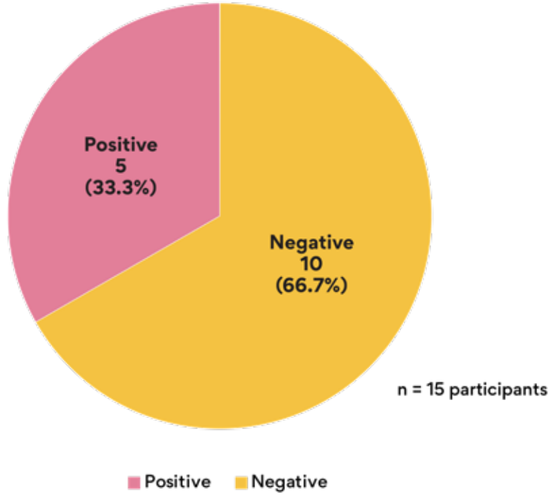


Figure 39: Biopsy outcomes of 15 participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Of the 47 individuals who were advised to undergo a biopsy, only 15 could be followed up for further information. As shown in Figure 39, out of the 15 participants who did biopsy, it was found that 10 (66.7%) participants had a negative result for cancer whereas 5 (33.3%) had a positive biopsy result.

Pap Smear Results

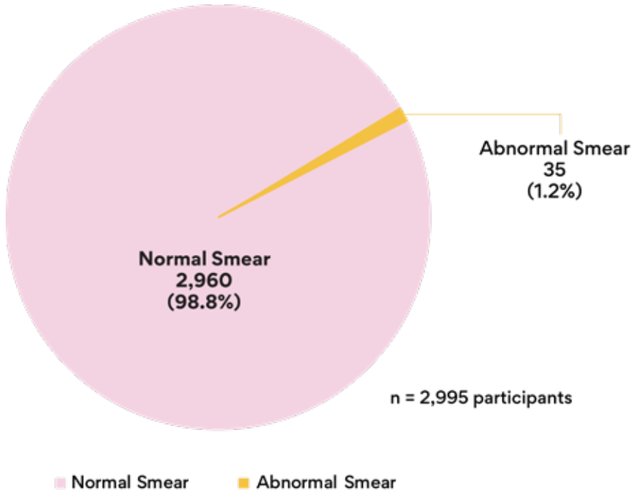


Figure 40: Pap smear results of participants of Phase 2
(of the nationwide free mammogram and Pap smear screening programme)

Of the 2,995 individuals that underwent a Pap smear during Phase 2 of the screening programme, 2,960 (98.8%) participants had normal smears and 35 (1.2%) were found to have abnormal smears and given recommendations to go for further check-ups. It was noted that among those who had abnormal smears, 3 individuals tested positive for Human Papillomavirus (HPV). HPV is a risk factor of cervical cancer but upon follow up, no cases of cervical cancer was reported(3).

Phase 3 Project Analysis Report

After the success and effectiveness of Phase 1 and Phase 2 of the free screening programme, Etiqa and NCSM committed to continue the programme for the next phase. Starting from October 2019 until October 2020, the screening programme stepped into its third phase where 6,000 mammograms were provided for underprivileged participants nationwide.

This section of the report analysed the data from the Phase 3 participants of the screening programme at the NCSM clinic as well as other appointed hospitals. This phase consisted of only mammogram screenings. Table 6 depicts the partner hospitals that were involved.

State	Hospital
Perak	Anson Bay Medical Centre
	Pantai Hospital Ipoh
Johor	KPJ Puteri
Kuala Lumpur	CHSC-Kuala Lumpur
Melaka	Mahkota Medical Centre
	Pantai Hospital Ayer Keroh
	Putra Specialist Hospital
Pahang	Darul Makmur Medical Centre
Kelantan	KPJ Perdana Specialist
Terengganu	SALAM Specialist Hospital
Pulau Pinang	Pusat Diagnostik Anda
	Bagan Specialist Hospital
Kedah	Putra Medical Centre
Negeri Sembilan	Nilai Medical Centre

Table 6: List of partner hospitals in Phase 3 involved in the free mammogram screening programme


eTiQa
Launch of
Etiqa's Free Mammogram
Programme
Phase 3
Officiated by
YB Datuk Seri Dr. Dzulkefly Ahmad
23rd November 2019


eTiQa

Participant Demographics

Number of Participants in Each State

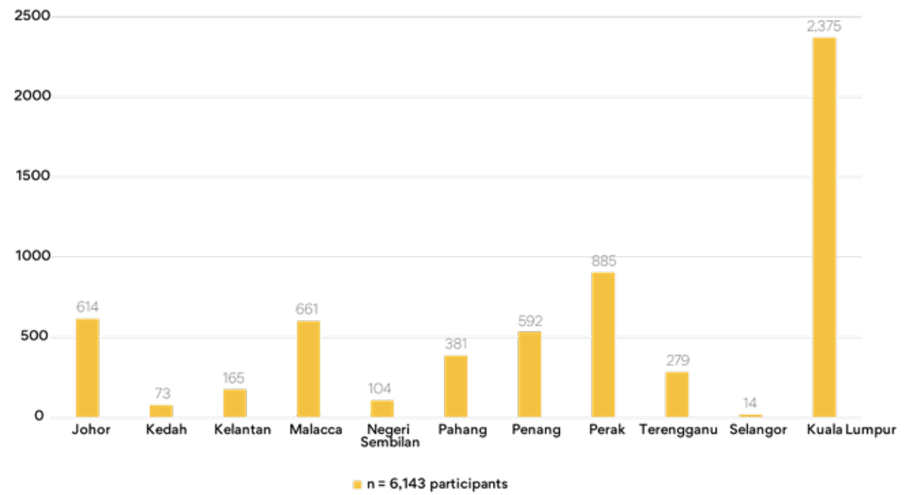


Figure 41: Number of participants in different states in Peninsular Malaysia of Phase 3 (of the nationwide free mammogram screening programme)

The free mammogram screening programme was provided in 11 states in Peninsular Malaysia. These included the states of Kedah, Penang, Perak, Kelantan, Pahang, Terengganu, Melaka, Kuala Lumpur, Selangor, Negeri Sembilan, and Johor. Figure 41 illustrates the number of individuals in each state that participated in the screening programme. Kuala Lumpur had the highest number of participants with 2,375 (38.7%) involved in the programme*. This was followed by Perak with 885 (14.4%) participants, Melaka with 661 (10.8%) participants , Johor with 614 (10.0%) participants, Penang with 592 (9.6%) participants, Pahang with 381 (6.2%) participants, Terengganu with 279 (4.5%) participants, Kelantan with 165 (2.7%) participants, Negeri Sembilan with 104 (1.7%) participants, Kedah with 73 (1.2%) participants, and Selangor with 14 (0.2%) participants.

*Some participants from other states registered under CHSC-Kuala Lumpur for the mammogram screening programme.

Ethnicity of Participants

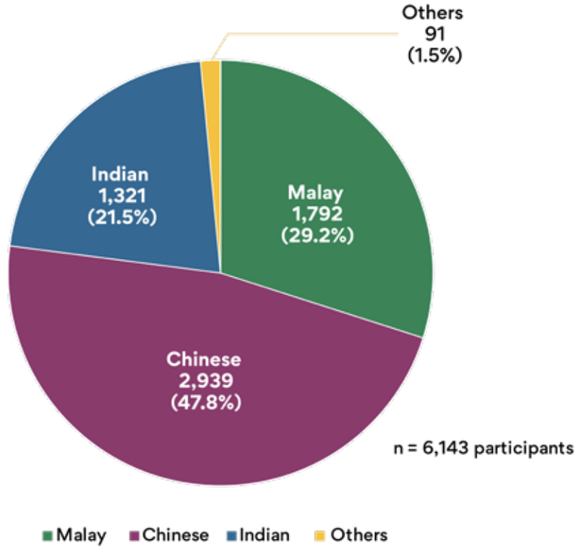


Figure 42: Ethnicity of participants of Phase 3 (of the nationwide free mammogram screening programme)

Figure 42 illustrates the different ethnicities of participants in Phase 3 of the nationwide free mammogram screening programme. Chinese participants made up the majority with 2,939 (47.8%) of the participants, followed by Malays with 1,792 (29.2%) and Indians at 1,321 (21.5%) participants. The remaining 91 (1.5%) of participants were of other ethnicities.


eTiQa Cares
Giving back to the Community
National Cancer Society Malaysia
Giving Hope, Conquering Cancer
FREE MAMMOGRAM & PAP SMEAR SCREENINGS
More than 7,500 women across Malaysia have been blessed with free screenings & peace of mind given there's been no confirmed cases of breast cancer.
We are pleased to offer free screenings to many more underprivileged women who meet the following criteria:
1. Household income of RM5,000 and below
2. Mammogram - Age 40 and above
Pap Smear - Age 21 and above
3. Malaysian
Call Angela or Dina for an appointment at 03-2698 7300.
Early detection saves lives!
eTiQa
National Cancer Society Malaysia
Thank you for bringing hope to those who need it.
Living in a world without ca
"I can and I will fight cancer."

Age Groups of Participants

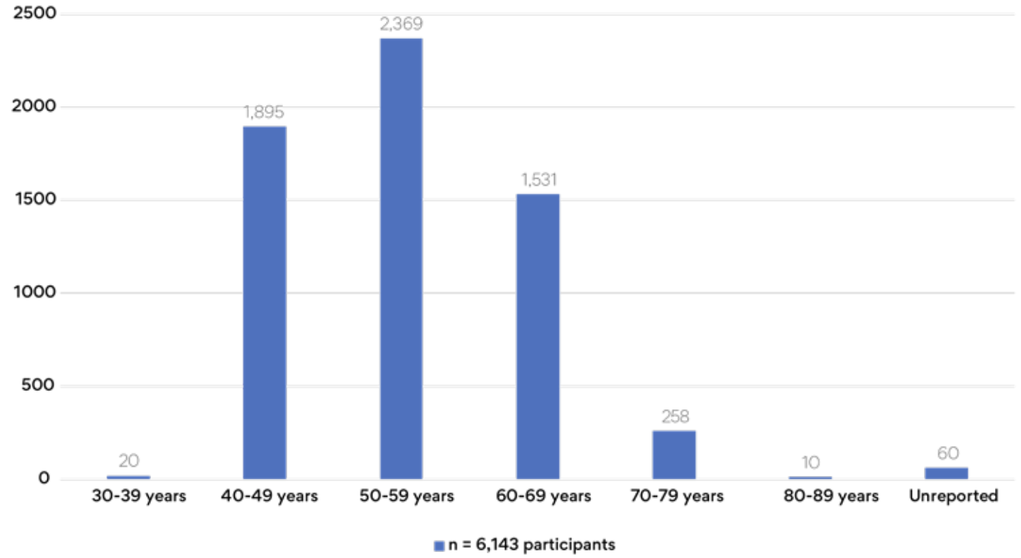


Figure 43: Age group of participants of Phase 3
(of the nationwide free mammogram screening programme)

Figure 43 illustrates the different age groups of participants in Phase 3 of the nationwide free mammogram screening programme. Of the 6,143 participants, 2,369 (38.6%) were between 50-59 years old, which made up the age group with the most participants. This was followed by 1,895 (30.8%) participants between 40-49 years old, 1,531 (24.9%) participants between 60-69 years old, 258 (4.2%) participants between 70-79 years old, 20 (0.3%) participants between 30-39 years old, and 10 (0.2%) participants between 80-89 years old. Finally, there were 60 (1.0%) participants who did not report their ages.

Marital Status of Participants

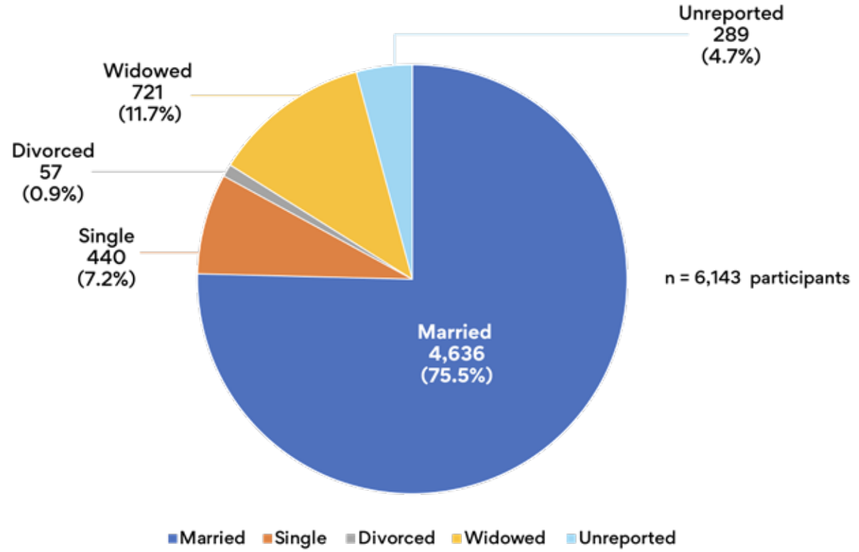


Figure 44: Marital status of participants of Phase 3
(of the nationwide free mammogram screening programme)

Figure 44 illustrates the marital status of the Phase 3 participants of the nationwide free mammogram screening programme. Of the 6,143 participants, 4,636 (75.5%) were married, 440 (7.2%) were single, 57 (0.9%) were divorced, and 721 (11.7%) were widowed. The remaining 289 (4.7%) individuals did not report their marital status.

Occupational Status of Participants

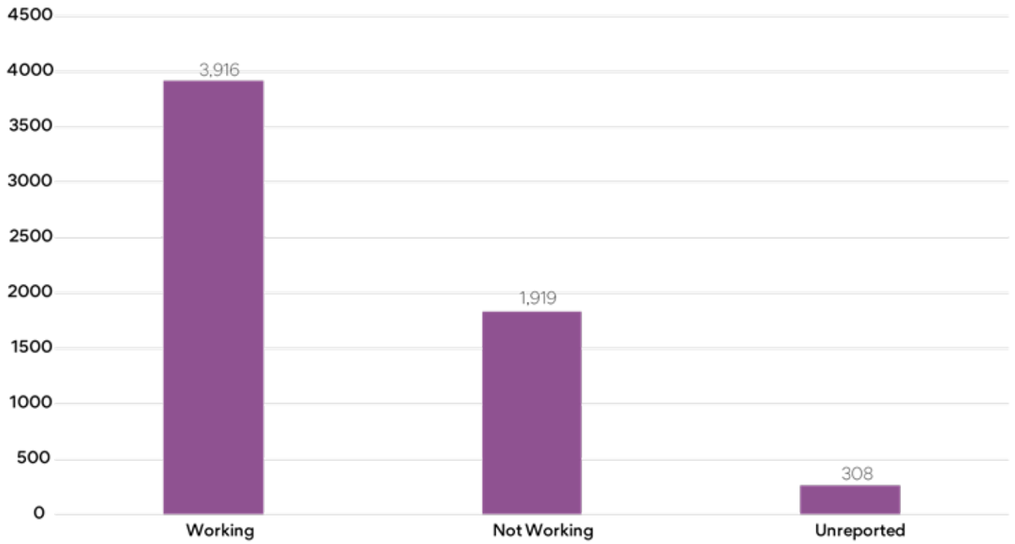


Figure 45: Occupational status of the participants of Phase 3 (of the nationwide free mammogram screening programme)

Figure 45 illustrates the occupational status of the participants who participated in Phase 3 of the screening programme. Of the 6,143 participants, 3,916 (63.8%) reported that they were not working while 1,919 (31.2%) reported that they were working. The remaining 308 (5.0%) individuals did not report their occupational status.

Phase 3
Clinical Results

The data gathered from Phase 3 of the nationwide free mammogram screening programme was analysed and involved the information of participants who underwent the mammogram screenings, through this free screening programme, at the NCSM Cancer and Health Screening clinic or other appointed hospitals. This section also reports the outcomes of the mammogram results as well as the biopsy results.

Mammogram Results

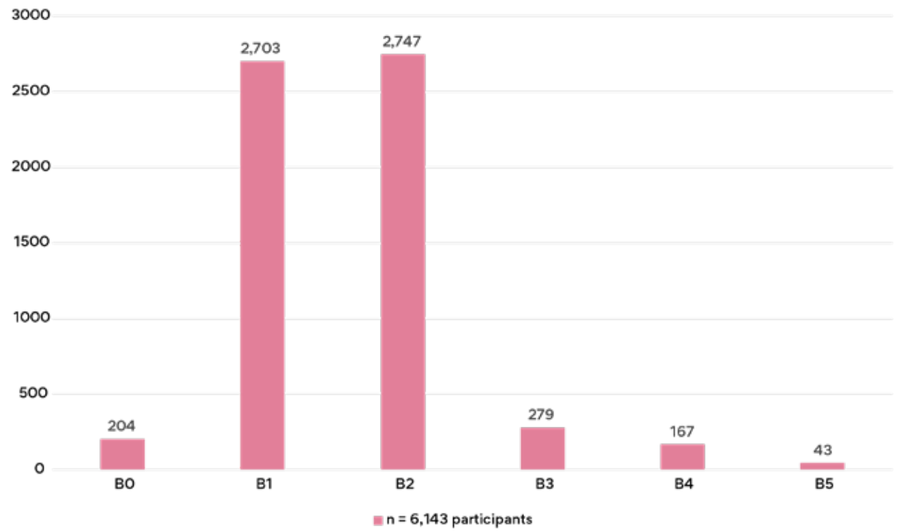


Figure 46: Mammogram results of participants of Phase 3 (of the nationwide free mammogram screening programme)

Similar to Phase 1, if any abnormalities were suspected during the mammogram, the individual would be advised by the doctor to proceed with an ultrasound screening to further investigate the abnormality. If the results from both mammograms and ultrasounds indicate a reading of BIRADS 4-BIRADS 5, the participants will be advised to undergo a biopsy.

Figure 46 illustrates the mammogram screening results of the participants in Phase 3 of the nationwide free mammogram screening programme. Out of the 6,143 participants, the majority, 2,747 (44.7%) participants had benign (BIRADS 2) results. These participants were advised to go for follow-up screenings in 1-2 years. This was closely followed by 2,703 (44.0%) participants with normal findings (BIRADS 1) were advised to undergo their mammograms annually.

Out of the 6,143 participants, 279 (4.6%) participants had results BIRADS 3 and were advised to repeat mammogram screening within a duration of at least 6 months. Breast lesions found by mammogram and classified as probably benign (BIRADS 3) were advised to undergo a follow-up at or before 6 months after the lesion is found to ensure that it is non-cancerous. On the other hand, 204 (3.3%) participants had BIRADS 0 results. These participants were advised to undergo additional imaging as their mammogram results were inconclusive.

There were 167 (2.7%) participants out of the 6,143 participants who had suspected abnormalities (BIRADS 4) and were advised to consider getting a biopsy done. Finally, 43 (0.7%) had highly suspicious of malignancy (BIRADS 5) and were asked to get a biopsy done.

The results obtained showed that 210 participants required biopsies. The progress of the biopsy was followed up, and the results are recorded in Figure 47.


KANSER PANGKAL RAHIM
CANCER OF THE CERVIX
eTiqa
National Cancer Society Malaysia
Pengesanan awal menyelamatkan nyawa!
Percuma SARINGAN MAMOGRAM
DILARANG DUDUK
DO NOT SIT

Breast Biopsy Results

Figure 47: Biopsy outcomes of 77 participants of Phase 3 (of the nationwide free mammogram screening programme)

Of the 210 individuals who were advised to undergo a biopsy, only 77 could be followed up for further information. As shown in Figure 47, it was found that 37 (48.1%) participants had a negative result for cancer whereas 40 (51.9%) had a positive biopsy result.

Overall Results (Phase 1 to Phase 3)

NCSM collaborated with Etiqa from Phase 1 till Phase 3 to run this screening programme. This partnership started from July 2017 till October 2020 for **three years** across a total of **11 states**. Throughout this period, a total of **17,738 women** underwent health screenings.

Participant Demographics

Number of Participants in Each State

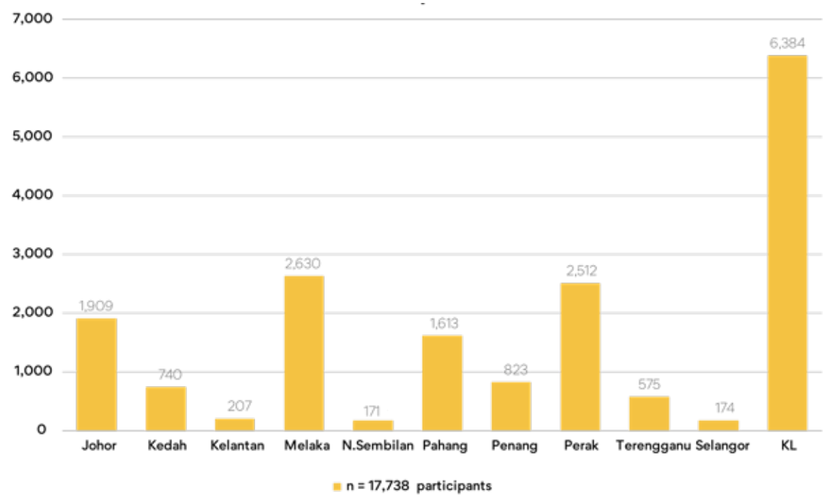


Figure 48: Number of participants across all three phases (of the Etiqa screening programme)

The Etiqa screening programme was provided in 11 states in Peninsular Malaysia. These included the states of Kedah, Penang, Perak, Kelantan, Pahang, Terengganu, Melaka, Kuala Lumpur, Selangor, Negeri Sembilan and Johor. Figure 48 illustrates the number of individuals in each state that participated in the screening programme. Kuala Lumpur had the highest number of participants with 6,384 (36%) involved in the programme This was followed by Melaka with 2,630 (14.8%) participants, Perak with 2,512 (14.2%) participants, Johor with 1,909 (10.8%) participants, Pahang with 1,613 (9.1%) participants, Penang with 823 (4.5%) participants, Kedah with 740 (4.2%) participants, Terengganu with 575 (3.2%) participants, Kelantan with 207 (1.2%) participants, and Selangor with 174 participants (1.0%). The lowest number of participants were in Negeri Sembilan with 171(1.0%) participants.

Ethnicity of Participants

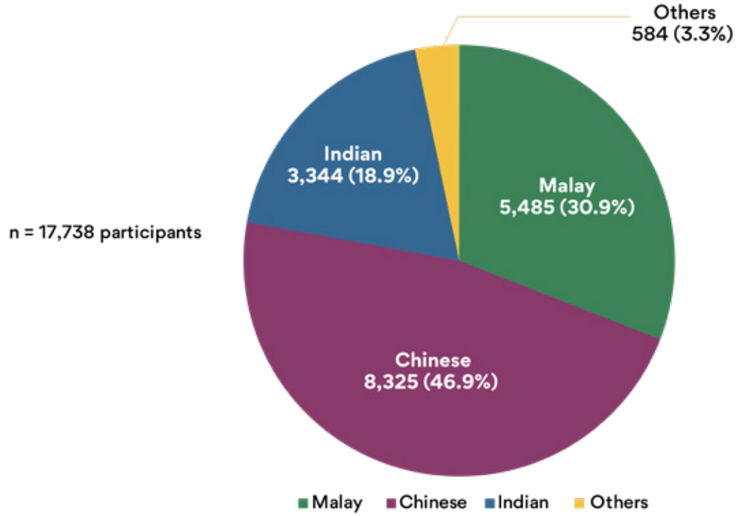


Figure 49: Ethnicity of participants across all three phases (of the Etiqa screening programme)

Figure 49 illustrates the different ethnicities of participants across all three phases of the Etiqa screening programme. Chinese participants made up the majority with 8,325 (46.9%) participants, followed by Malays with 5,485 (30.9%) participants and Indians at 3,344 (18.9%) participants. The remaining 584 (3.3%) of participants were of other ethnicities.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Giving Hope Celebrating Life

Age Groups of Participants

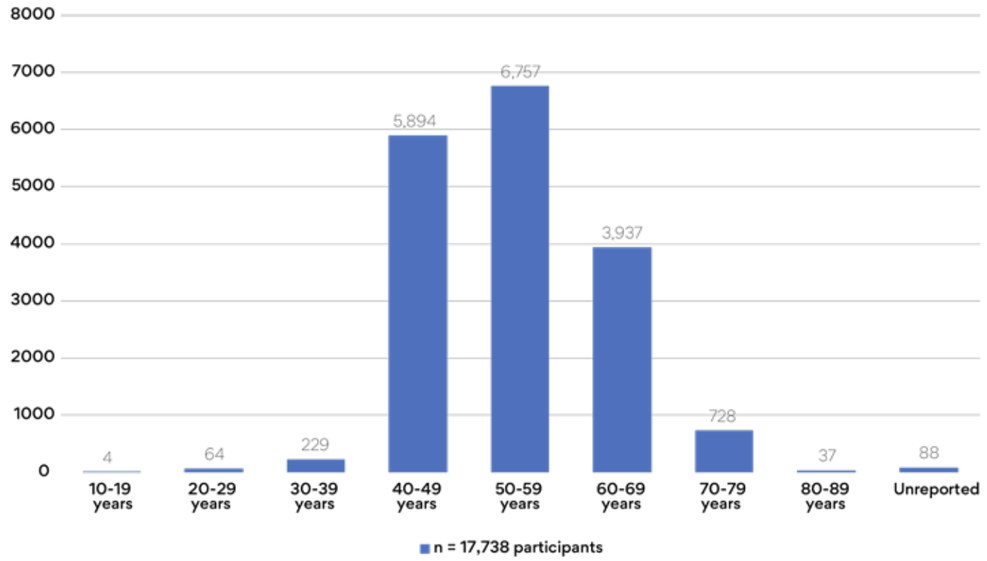


Figure 50: Age group of participants across all three phases (of the Etiqa screening programme)

Figure 50 illustrates the different age groups of participants across all three phases of the Etiqa screening programme. Of the 17,738 participants, 6,757 (38.1%) were between 50-59 years old, which made up the age group with the most participants. This was followed by 5,894 (33.2%) participants between 40-49 years old, 3,937 (22.4%) participants between 60-69 years, 728 (4.1%) participants between 70-79 years old, 229 (1.3%) participants between 30-39 years old, 64 (0.36%) participants between 20-29 years old, 37 (0.21%) participants between 80-89 years old, and 4 (0.02%) participants between 10-19 years old. Finally, there were 88 (0.5%) participants who did not report their ages.

Marital Status of Participants

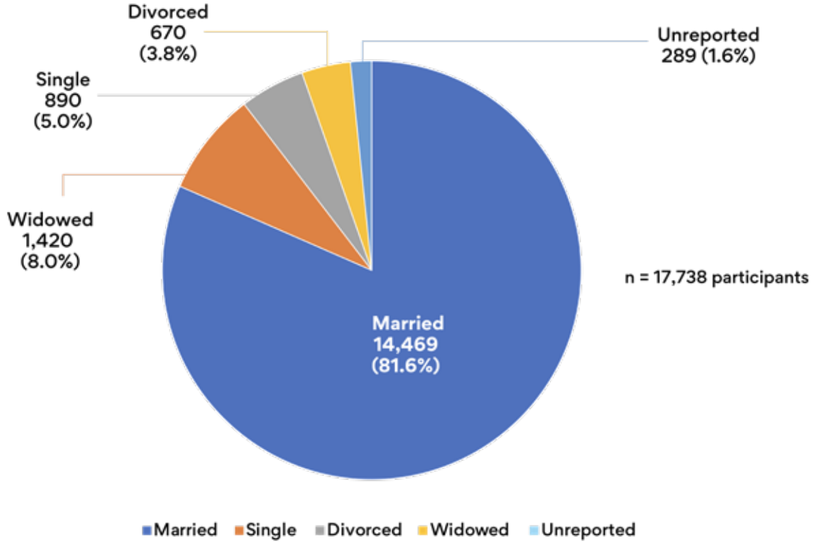


Figure 51: Marital status of participants across all three phases (of the Etiqa screening programme)

Figure 51 illustrates the marital status of the participants across all three phases of the Etiqa screening programme. Out of the 17,738 participants, 14,469 (81.6%) were married, 1,420 (8.0%) were widowed, and 890 (5.0%) were single. The remaining 289 (1.6%) participants did not report their marital status.

Occupational Status of Participants

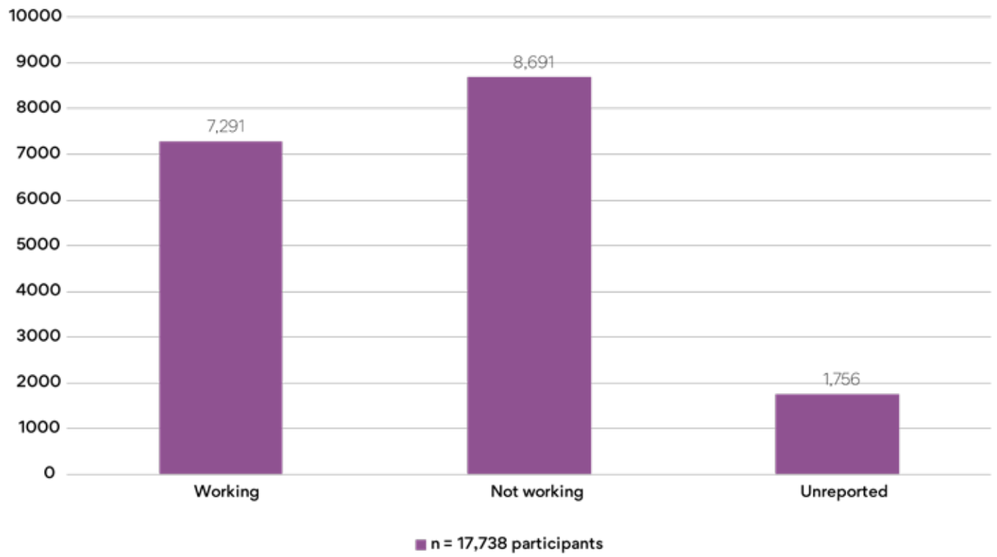


Figure 52: Occupational status of participants across all three phases (of the Etiqa screening programme)

Figure 52 illustrates the occupational status of the participants that joined the Etiqa screening programme. Of the 17,738 participants, 7,291 (41.1%) reported that they were working, 8,691 (49.0%) reported that they were not working, while 1,756 (9.9%) did not report their occupational status.

Phase 1 to Phase 3
Clinical Results

The data gathered across all theree phases of the Etiqa screening programme was analysed and involved the information of participants who underwent the mammogram screenings, through this free screening programme, at the NCSM Cancer and Health Screening Clinic or other appointed hospitals. This section also reports the outcomes of the mammogram results as well as the biopsy results.

Mammogram Results

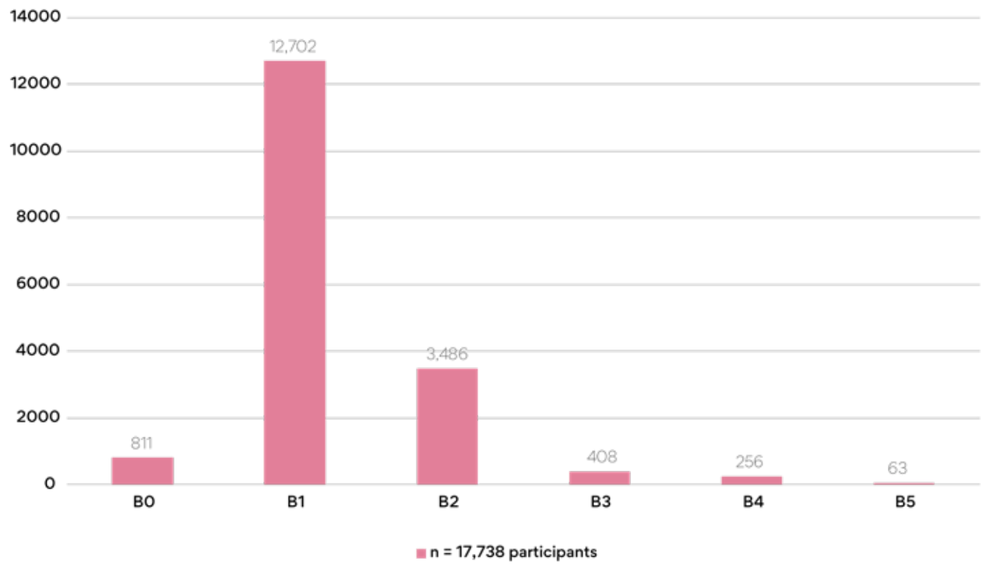


Figure 53: Breakdown of mammogram results of participants across all three phases (of the Etiqa screening programme)

If abnormalities were suspected during the mammogram, the individual would be advised by the doctor to proceed with an ultrasound screening to further investigate the abnormality. If the results from both mammograms and ultrasounds indicate a reading of BIRADS 4-BIRADS 5, the participants will be advised to undergo a biopsy.

Figure 53 illustrates the mammogram screening results of the women who had participated across all three phases of the Etiqa screening programme. Out of the 17,738 participants, the majority, 12,702 (71.6%) participants had normal findings (BIRADS 1) were advised to do their mammograms annually. This was closely followed by 3,486 (19.7%) participants with benign (BIRADS 2) results. These participants were advised to go for follow-up screenings in 1-2 years.

Out of the 17,738 participants, 811 (4.6%) participants had BIRADS 0 results. These participants were advised to go for additional imaging as their mammogram results were inconclusive. On the other hand, 408 (2.3%) participants had results BIRADS 3 advised to repeat mammogram screening within a duration of at least 6 months. Breast lesions found by mammogram and classified as probably benign (BIRADS 3) were advised to have a follow-up at or before 6 months after the lesion is found to ensure that it is non-cancerous.

There were 256 (1.44%) participants out of the 17,738 participants who had suspected abnormalities (BIRADS 4) were advised to consider undergoing a biopsy. Finally, 63 (0.36%) had highly suspicious malignancy (BIRADS 5) and were asked to undergo a biopsy.

Across all three phases, 319 participants required biopsies. The progress of the biopsy was followed up, and the results are recorded in Figure 54.

Breast Biopsy Results

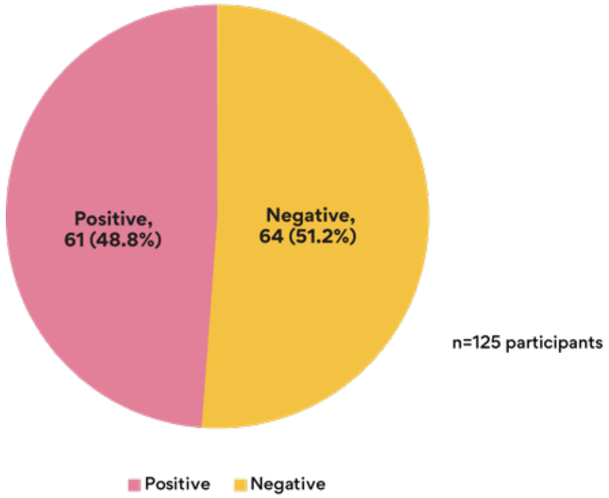


Figure 54: Biopsy outcomes of participants across all three phases (of the Etiqa screening programme)

Of the 319 individuals who were advised to undergo a biopsy, only 125 could be followed up for further information. As shown in Figure 54, it was found that 64 (51.2%) participants had a negative result for cancer whereas 61 (48.8%) had a positive biopsy result.

References:

1. Understanding Your Mammogram Report [Internet]. American Cancer Society. [cited 2021Nov23]. Available from: https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/mammograms/understanding-your-mammogram-report.html
2. National Cancer Institute. "Definition of biopsy" [Internet]. [cited 25 June 2021]. Available from: https://www.cancer.gov/publications/dictionaries/cancer-terms/def/biopsy
3. Risk Factors for Cervical Cancer [Internet]. American Cancer Society. [cited 2021Nov23]. Available from: https://www.cancer.org/cancer/cervical-cancer/causes-risks-prevention/risk-factors.html

Chapter 6

Social Impact:

Achievements of the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem

About this Chapter

The previous chapter provided a thorough and complete breakdown of the achievements of the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem, including the clinical outcomes.

However, as mentioned throughout the book, the impact of the solution was not limited to the clinical aspect. The Ecosystem, apart from resulting in a significant social outcome for individuals as well as the community, also had a large ‘ripple’ effect on society; as news about it generated an increase in the awareness and understanding of breast cancer. This was achieved by a continuous media engagement strategy.

This chapter provides the insights to the non-clinical impact for Phase 3 of the programme, which was recently completed. They help to paint a more holistic perspective of the Ecosystem’s role in improving the lives of not only individual participants, but all Malaysians.

Understanding Social Impact

In the previous chapter, we provided an in-depth analysis of participants of the Ecosystem, including their demographic data and the results of their breast cancer screening tests. Apart from affecting clinical outcomes of breast cancer through increasing screening uptake and early detection, the Ecosystem also assisted participants in overcoming multiple barriers that were impeding them from getting their screening. This is considered a form of social impact.

SOCIAL IMPACT: WHAT IS IT?

Social impact is the effect on individuals and communities that happens as a result of an action, activity, project, programme or policy (1). This impact can be measured in terms of specific outcomes which reflects the actual changes that happened to the individuals and communities on which the interventions were carried out on (1).

Big Society Capital, New Philanthropy Capital and Good Finance unveiled an Outcomes Matrix in 2011 used to assess social impact and its relevant outcomes (2).

The Matrix focuses on 9 outcome areas which are (2) :

- Arts, Heritage, Sports and Faith
- Citizenship and Community
- Conservation of the natural environment
- Employment, Education and Training
- Family, Friends and Relationships
- Housing and Local Facilities
- Income and Financial Inclusion
- Mental Health and Well-Being
- Physical Health

In terms of physical health, social impact is defined as interventions that:

i) can improve the quality of life of participants or communities; and/or
ii) improve their abilities to stay active and well; and/or
iii) improve their access to good quality healthcare services (2).

Additionally, the Outcome Matrix also recommends a deeper look at the outcomes in terms of how they correspond to:

- People at high risk of harm, disadvantage and discrimination
- Those with protected characteristics i.e. children or individuals with disabilities
- Socioeconomic groups specifically those from lower socioeconomic groups
- Geographical areas

The Phase 3 Survey: Insights into the Social Impact of the Ecosystem

To better understand the social impact of the programme, the project team formulated a simple survey for the participants of the programme in Phase 3. The participants were asked to completed this survey within two weeks of their mammography screening. In addition to basic demographic details, questions in the survey consisted of 3 groups as described below.

Do you have a family history of a blood relative having a history of cancer?	
YES	**NO**
Have you ever had a mammogram before this visit?	
If YES When was the last time you had a mammogram?	**If NO** Why have you not gotten a mammogram prior to this visit?
After getting your mammography done during this visit, would you return to do a mammogram next year (or when required) if provided a similar opportunity as was done through this programme?	
YES	**NO**

Respondents' Answers

From the 6000 participants in Phase 3, 5203 participants answered the survey. This reflected a response rate of 86.7%.

About 23.1% of the participants had a history of close family members (mother, father, sibling, grandfather and others) with cancer.

Do you have a history of close family members (mother, father, sibling, grandfather and others) who have cancer?	Number of Participants	%
Yes	1204	23.1
No	3999	76.9
TOTAL	5203	100

Table 7: Breakdown of participants with a history of close family members with cancer

Of the total participants, 41.6% had never undergone a mammogram prior to their participation in the Ecosystem in Phase 3.

Have you ever done a mammogram before this?	Number of Participants	%
Yes	3039	58.4
No	2164	41.6
TOTAL	5203	100

Table 8: Breakdown of participants who have undergone mammograms prior to the one provided by the Ecosystem

Of the 3,039 participants who had a mammogram prior to the one provided by the Ecosystem, 53.6% had had their last mammogram more than 3 years ago, while 11.6% had their last mammogram three years ago.

Even allowing for delays of 1 to 2 years between how often a woman should go for a mammogram, nearly two-thirds of all participants of the Ecosystem had missed their mammograms within the recommended timeframe.

When was the last time you had a mammogram?	Number of Participants	%
Last year	339	11.2
2 years ago	718	23.6
3 years ago	354	11.6
More than 3 years ago	1628	53.6
TOTAL	3039	100

Table 9: Breakdown of participants' duration from last mammogram performed

The 2,164 participants who had never had a mammogram prior to this visit were asked to provide a reason. Of the participants, 45.2% answered they did not know about mammograms while 25.1% of them answered that they had financial problems. About 16.6% of the participants answered they did not have time to undergo a mammogram.

If no, why did you not do a mammogram before this?	Number of Participants	%
Did not know	1063	45.4
Financial problems	495	21.3
No transport	68	2.9
No time to do a mammogram	390	16.3
Did not answer	223	9.6
Scared	30	1.4
Underaged	31	1.4
Breastfeeding	23	1.1
Did not notice any symptoms	28	1.4
TOTAL	2351	100

Table 10: Breakdown of reasons participants did not perform mammogram prior to this programme

About 96.7% of the participants answered that they would participate in the programme in the future if given the opportunity.

After this mammogram, will you do it again in the future if you have the opportunity?	Number of Participants	%
Yes	5033	96.7
No	170	3.3
TOTAL	5203	100

Table 11: Breakdown of participant's response regarding future mammograms participation

Using the social impact framework for physical health as mentioned above, the results of the survey point out that the Ecosystem did significantly achieve social impact.

No.	Outcome Indicator	Achieved	Rationale
1	Improvement in the quality of life of participants or communities	Yes	By providing them increased health awareness and teaching them preventive activities through the Ecosystem, their quality of life is improved
2	Improvement in their abilities to stay active and well	Yes	By providing them with risk-reduction practices and preventive activities through the Ecosystem, their ability to stay active and well is improved
3	Improvement in their access to good quality healthcare services	Yes	By providing them with access to quality, private sector breast cancer screening services, their access to good quality healthcare services is improved

Table 12: Assessment of survey results through outcomes indicators

From the Health Communications Viewpoint: Insights from Phase 3

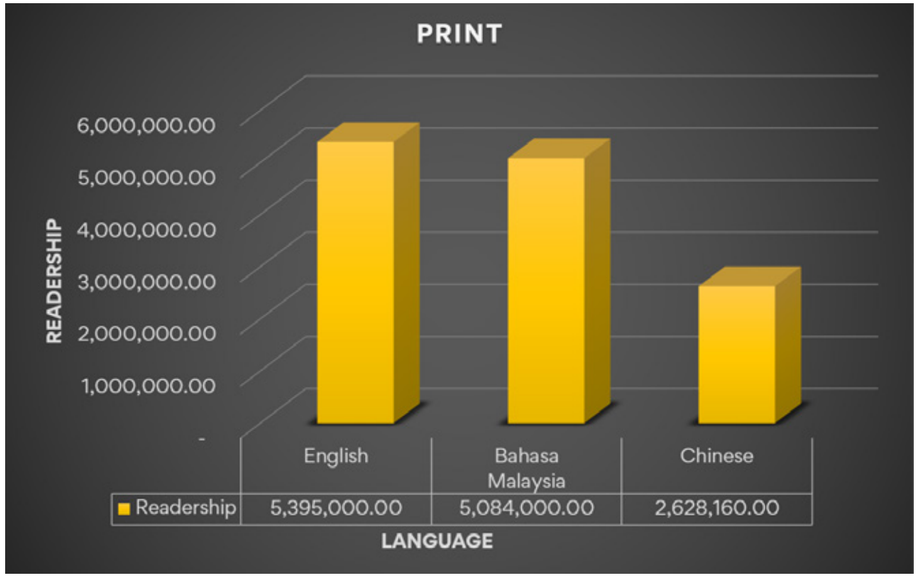
Health communications uses communication strategies to influence individuals and communities into making decisions that enhance their health.[3,4,5] Effective health communications is about improving health outcomes by encouraging behaviour modification and social change.[3,4,5] Communications need to be carried out in a receptive and favourable environment, in which information can be shared, understood, and absorbed by intended recipients.[3,4,5] In a Malaysian context, this means that health messages need to be adapted to connect with the beliefs, taboos, attitudes, lifestyles and social norms of the target audiences.[3,4,5]

As health communication is included in the NCSM-Etiqa Breast Cancer Screening and Detection Ecosystem, the Project Team was also actively involved in developing and delivering health messages via multiple avenues. This was to ensure that while the project was focused on specific communities, there was also a wider reach in its messaging to a greater nationwide audience on: breast cancer, who was at risk, who should be screened for it; and where to be screened for it. These messages were being delivered at various intervals.

The health communications impact for the Ecosystem in Phase 3 is captured as follows.

For print media, a total of 12 articles appeared in the print media, resulting in a potential readership of more than 10 million.

(*Readership is an estimate in terms of how many readers a publication has.)

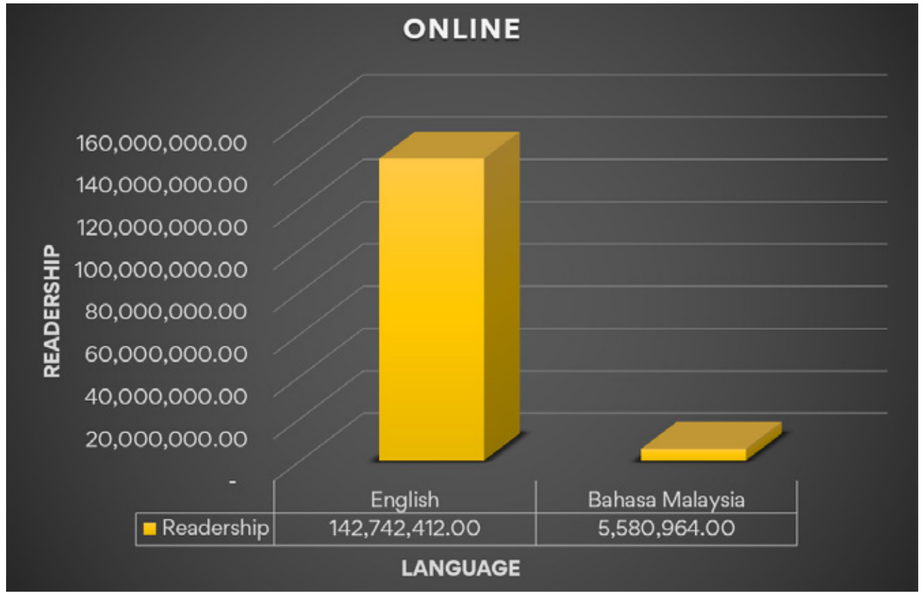


Language	Number of Articles	Readership
English	6	5,395,000,00
Bahasa Malaysia	3	5,084,000,00
Chinese	3	2,628,160,00

Table 13: Breakdown of print media readership according to language used

For online media, 56 articles were published during Phase 3 of the Ecosystem, generating a readership of close to 150 million.

(*Readership is an estimate in terms of how many readers a publication has.)

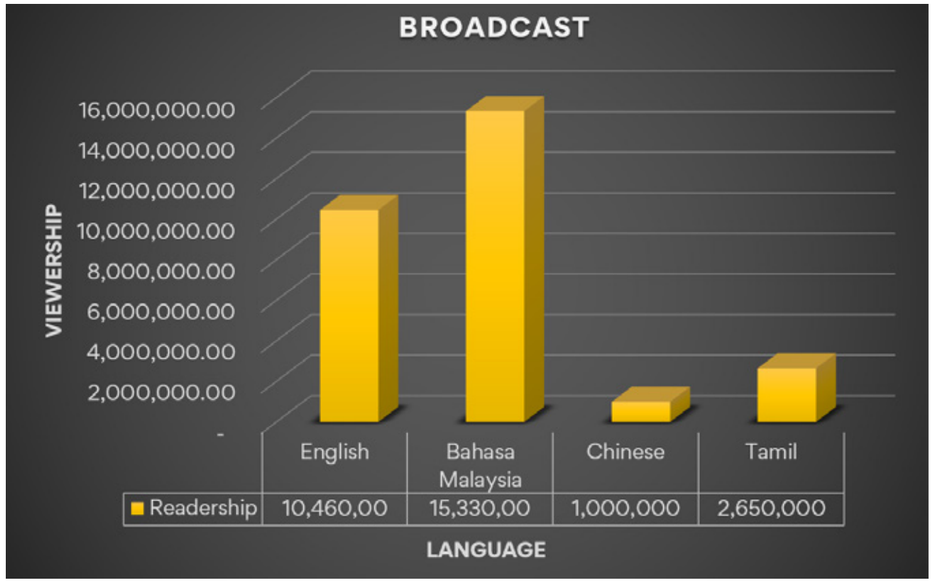


Language	Number of Articles	Readership
English	31	142,742,412
Bahasa Malaysia	25	5,580,964

Table 14: Breakdown of online media readership according to language

For broadcast media clips or videos on Phase 3 of the Ecosystem, a total of 23 clips were aired in 4 languages, with a viewership of more than 25 million.

(*Viewership is an estimate in terms of how large the audience for a particular television programme was.)



Language	Clip	Viewership
English	9	10,460,000
Bahasa Malaysia	9	15,330,000
Chinese	2	1,000,000
Tamil	3	2,650,000

Table 15: Breakdown of broadcast media readership according to language

Total People Reached

190,810,536

In total, 190,810,536 individuals were reached via some form of media, and provided with the health messages on breast cancer screening via the Ecosystem. The social impact of these activities – under the Ecosystem is assessed using the social impact framework.

No.	Outcome Indicator	Achieved	Rationale
1	Improvement in the quality of life of participants or communities	Yes	By providing them increased health awareness and teaching them preventive activities through health messages in various media, their quality of life is improved
2	Improvement in their abilities to stay active and well	Yes	By providing them with risk-reduction practices and preventive activities through health messages in various media, their ability to stay active and well is improved
3	Improvement in their access to good quality healthcare services	Yes	By providing them with knowledge on how to participate in the Ecosystem, they could improve their own access to quality, private sector breast cancer screening services. Through this, their access to good quality healthcare services is improved

Table 16: Assessment of social impact of activities through outcomes indicators

References:

1. Vanclay F. International principles for social impact assessment. Impact assessment and project appraisal. 2003 Mar 1;21(1):5-12.
2. Good Finance. Social impact. What is it? How do I measure it? [Internet]. London: Good Finance (UK); 2016 [cited 2021, Nov 23]. Available from: https://www.goodfinance.org.uk/sites/default/files/The%20Outcomes%20Matrix%20-%20Guidance%20Document.docx.pdf
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5. Chou WY, Hunt YM, Beckjord EB, Moser RP, Hesse BW. Social media use in the United States: implications for health communication. Journal of medical Internet research. 2009;11(4):e48.

Broadcast Media

Date	Media type	Media title	Programme	Headline	Language	Viewership
23-Nov	Radio	Bernama Radio 24	Berita Bernama 4pm	Kes Kanser Payudara Pada Tahap Membimbangkan	BM	60000
23-Nov	TV	Astro Vinmeen HD	Seithigal - 8.30pm	Kes Rokok / Kanser Program	Tamil	1,000,000
23-Nov	TV	Bernama News Channel	News @ Bernama - 10pm	Number Of Cancer Cases Alarming - Health Minister / Laws On Vape Or E-Cigarette To Be Announced Soon	English	1,000,000
23-Nov	TV	Bernama News Channel	News @ Bernama - 6pm	Laws On Vape or Cigarette To Be Announced Soon	English	1,000,000
23-Nov	TV	Bernama News Channel	News @ Bernama - 6pm	Laws On Vape or Cigarette To Be Announced Soon	English	1,000,000
23-Nov	TV	Bernama News Channel	Mandarin News - 6.30pm	Laws On Vape or Cigarette To Be Announced Soon	Chinese	1,000,000
23-Nov	TV	Bernama News Channel	Tamil @ Bernama - 7pm	Undang-Undang Berhubung Vape Akan Diumum Pada Hujung Tahun Ini Atau Tahun Depan	Tamil	1,000,000
23-Nov	TV	Bernama News Channel	Berita @ Bernama - 8pm	Suntikan Vaksin Imunisasi, KKM Akan Umum Dalam Masa Terdekat	BM	1,000,000
23-Nov	TV	NTV7	Edisi 7 - 7.30pm	Suntikan Vaksin Imunisasi, KKM Akan Umum Dalam Masa Terdekat	BM	1,250,000
23-Nov	TV	RTM1	Nasional 12am	Golongan Wanita Disaran Jalani Ujian Saringan Mamogram	BM	1,000,000
23-Nov	TV	RTM2	News@2 -7pm	Number Of Breast Cancer Cases Reaches Alarming Alert	English	1,000,000
23-Nov	TV	RTM2	Berita Tamil 7.30pm	Kes Kanser Payudara Pada Tahap Membimbangkan	Tamil	650,000
23-Nov	TV	TV3	Buletin Utama 8pm	KKM Akan Umum Hasil Dapatan Dalam Masa Terdekat	BM	3,440,000
23-Nov	TV	TV3	Nightline 12am	Health Minister : Alarming Number Of Malaysians Suffering From Cancer / MOH : Decision On Compulsory Vaccination To Be Announced Soon	English	3,440,000
23-Nov	TV	TV9	Detik Ini - 5pm	Kes Kanser Payudara Amat Membimbangkan	BM	3,440,000
23-Nov	TV	TV9	Berita TV9 8pm	Keputusan Suntikan Vaksin Tidak Lama Lagi	BM	700,000
24-Nov	TV	RTM1	Nasional 7am	Golongan Wanita Disaran Jalani Ujian Saringan Mamogram Bagi Mencegah Kanser Payudara	BM	1,000,000
24-Nov	TV	RTM2	Mandarin Tengah Hari 12pm	Golongan Wanita Disaran Jalani Saringan Mamogram	Chinese	650,000
24-Nov	TV	RTM2	News@2 12.30pm	Number Of Breast Cancer Cases Reaches Alarming Rate	English	650,000
24-Nov	TV	TV3	Buletin Pagi 9.30am	Hasil Kajian Akan Dibentangkan Tahun Depan	BM	3,440,000
3-Feb	TV	Astro Awani	Notepad With Ibrahim Sani	Celebrating World Cancer Day	English	1,660,000
28-Jun	TV	Bernama News Channel	The Nation	The Dire Need for Cancer Screening During Covid-19	English	650,000
12-Oct	TV	RTM 2	Galeri Nasional Mandarin	Saringan Mamogram Percuma	Chinese	350,000
						TOTAL: 29,380,000.00

Print media

Date	Media type	Media title	Section	Headline	Language	Readership
24-Nov	Newspaper	Berita Harian	Nasional, pg 4	Kerajaan cadang kurangkan denda pesalah bayar awal	BM	60000
24-Nov	Newspaper	China Press	Nation, pg 10	MOH encourages X-ray contrast scan; 43% of breast cancer patients find out the end stage at the time of testing	Tamil	1,000,000
24-Nov	Newspaper	Harian Metro	Lokal, pg 17	Siasat perincian kes Evali	English	1,000,000
24-Nov	Newspaper	New Straits Times	News, pg 14	Decision on vaccination to be announced soon	English	1,000,000
24-Nov	Newspaper	Oriental Daily	Nation, pg 2	No.2 killer; Raise the awareness of breast cancer	English	1,000,000
24-Nov	Newspaper	Sin Chew Daily	Nation, pg 9	Government plans reduce smoking fine to RM150 to let smoker can paid as soon as possible	Chinese	1,000,000
24-Nov	Newspaper	Bernama News Channel	Sinar Harian	Kanser payudara pembunuh wanita kedua terbesar	Tamil	1,000,000
24-Nov	Newspaper	The Star	Nation, pg 14	Number of cancer cases alarming, says Dzulkefly	BM	1,000,000
8-Jul	Newspaper	The Star	Metro, pg 6	Cancer Screening Must Go On	BM	1,250,000
12-Oct	Newspaper	The Star	Metro, pg 6	Free Breast Screening for Underprivileged Women	BM	1,250,000
						TOTAL: 13,107,160

Online media

Date	Media type	Media title	Headline	Readership
23-Nov	Online	Berita Harian online	Denda merokok dicadang kurang jika bayar awal	667,344
23-Nov	Online	Bernama online	Denda merokok dicadang dikurangkan bagi yang bayar awal	323,502
23-Nov	Online	Malaysiakini	K'jaan cadang kurangkan denda merokok jika bayar awal	1,239,482
23-Nov	Online	Malay Mail	Government is ready to reduce fine on smoking ban for early payment, minister says	612,543
23-Nov	Online	Sinar Harian online	Kajian laporan vape dibentang tahun depan	301,711
23-Nov	Online	Malay Mail	Health minister: Number of cancer cases alarming	612,543
23-Nov	Online	Sinar Harian online	Kanser payudara pembunuh kedua terbesar	301,711
23-Nov	Online	Bernama online	Kes kanser payudara pada tahap membimbangkan	153,814
23-Nov	Online	The Sun online	Alarming number of Malaysians suffering from cancer: Health Minister	55,117
23-Nov	Online	NST online	Health Ministry: Decision on compulsory vaccination to be announced soon	339,179
23-Nov	Online	Frontdesk.com	Number Of Cancer Cases Alarming – Health Minister	2,722
23-Nov	Online	Sinar Harian online	Denda merokok dikurangkan jika bayar awal	301,711
23-Nov	Online	Sinar Harian online	Keputusan wajib suntikan imunisasi diketahui dalam masa terdekat	301,711
23-Nov	Online	Berita Harian online	Pastikan lebih ramai jalani ujian kanser - Dr Dzulkefly	667,344
23-Nov	Online	Bernama online	Smoking ban: govt plans to reduce fine for early payment	153,814
23-Nov	Online	Selangorkini	Diskaun perokok bayar denda awal	6,409
23-Nov	Online	The Sun online	Smoking ban: Govt plans to reduce fine for early payment	55,117
23-Nov	Online	Borneo post online	Number of cancer cases alarming – Health Minister	53,983

Online media (cont.)

Date	Media type	Media title	Headline	Readership
23-Nov	Online	Bernama online	Number of cancer cases alarming - Health Minister	153,814
23-Nov	Online	Selangorkini	Kes kanser payudara pada tahap membimbangkan – Dr Dzulkefly	6,409
23-Nov	Online	Malaysiagazette	Hasil dapatan kajian kesan Vape pada suku pertama tahun depan – Dzulkefly	116,149
23-Nov	Online	Malaysiagazette	Semua pihak bertanggungjawab tangani kanser payudara – Dzulkefly	116,149
23-Nov	Online	Bernama online (Health)	Smoking ban: govt plans to reduce fine for early payment	176,914
23-Nov	Online	worldtimes.news	Smoking Ban: Govt Plans To Reduce Fine For Early Payment	907
23-Nov	Online	worldtimes.news	Government Is Ready To Reduce Fine On Smoking Ban For Early Payment, Minister Says	907
23-Nov	Online	worldtimes.news	Number Of Cancer Cases Alarming – Health Minister	907
23-Nov	Online	malaysians-mustknow-thetruth	RM100 'discount' for smoking violators who pay up early	1,479
23-Nov	Online	worldtimes.news	Alarming Number Of Malaysians Suffering From Cancer: Health Minister	907
23-Nov	Online	FMT	RM100 'discount' for smoking violators who pay up early	461,441
23-Nov	Online	Bernama online	Smoking ban: govt plans to reduce fine for early payment	153,814
23-Nov	Online	Berita Harian online	Denda merokok dicadang kurang jika bayar awal	258,272
23-Nov	Online	Frontdesk.com	Denda Merokok Dicadang Dikurangkan Bagi Yang Bayar Awal	2,722
23-Nov	Online	ismaweb.net	Syor kurangkan denda merokok bagi pembayar awal	9,436
23-Nov	Online	Dialograkyat.com	Kes kanser payudara di tahap membimbangkan	1,479
23-Nov	Online	Bernama online (Health)	Number of cancer cases alarming - Health Minister	176,914
23-Nov	Online	Bernama online	Number of cancer cases alarming - Health Minister	153,814
23-Nov	Online	NST online	Dr Dzulkefly: Fight against breast cancer requires concerted effort	339,179
23-Nov	Online	Berita Harian online	Pastikan lebih ramai jalani ujian kanser - Dr Dzulkefly	258,272
23-Nov	Online	Frontdesk.com	Kes Kanser Payudara Pada Tahap Membimbangkan	2,722
23-Nov	Online	ismaweb.net	Kes kanser payudara di tahap membimbangkan	9,436
23-Nov	Online	NST online	Health Ministry: Decision on compulsory vaccination to be announced soon	339,179
23-Nov	Online	msn.com	Health Ministry: Decision on compulsory vaccination to be announced soon	132,395,140
23-Nov	Online	Bernama online	Denda merokok dicadang dikurangkan bagi yang bayar awal	153,814
23-Nov	Online	Bernama online (Health)	Kes kanser payudara pada tahap membimbangkan	176,914
23-Nov	Online	newsdogshre.com	Dr Dzulkefly: Fight against breast cancer requires concerted effort	244,031
23-Nov	Online	Bernama online (Health)	Denda merokok dicadang dikurangkan bagi yang bayar awal	176,914
24-Nov	Online	The Star Online	Number of cancer cases alarming, says Dzulkefly	1,875,245
24-Nov	Online	MJN E-news	Decision on compulsory vaccination to be announced soon	99
24-Nov	Online	Daily Express	Smoking ban: Govt plans to reduce fine	9,761
24-Nov	Online	worldtimes.news	Potongan Rm100 Bagi Kesalahan Merokok Jika Bayar Awal	915
24-Nov	Online	Utusan Borneo online	Kes kanser payudara pada tahap membimbangkan	26,622
25-Nov	Online	Daily Express	Decision on compulsory vaccination soon	9,761
25-Nov	Online	Askpakdeh.blogspot	Malaysia Number One Killer Disease Of Woman	148
7-Jul	Online	The Star Online	Ladies, stay safe from Covid-19 but don't delay your mammogram	1,875,245
8-Oct	Online	Malay Mail Online	Free mammogram screening for underprivileged women during Breast Cancer Awareness Month	612,543
12-Oct	Online	The Star Online	Free breast screening for underprivileged women	1,875,245
				TOTAL: 148,323,376

Chapter 7

Phase 4 and Beyond:

What Lies Ahead

“The most reliable way to predict the future is to create it.”

Abraham Lincoln

About this Chapter

Many changes beset the nation during the time of the Covid-19 pandemic. The effects of this once-in-a-lifetime global phenomenon were catastrophic and deeply felt in our nation, in particular the lives lost, families destroyed, and the devastating economic impact. Challenges were also rife in the healthcare landscape, and the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem was no exception.

However, in spite of these challenges, the Ecosystem continued to function. And as the nation progresses to the ‘New Norm’ of living with endemic Covid-19, the project team continues to assess and determine potential improvements as we look to the future.

This chapter captures the trials and tribulations of the ecosystem during the Covid-19 pandemic, as well as the solutions developed and implemented to overcome these challenges. It also documents reflections on possible avenues for improvements and what the future holds for the Ecosystem.

The Ecosystem in the Time of Covid-19

From March 2020, Malaysia went into a series of 'lockdowns' which were mandated to curb the spread of the Covid-19 pandemic. During these times, almost all types of preventive healthcare came to halt. Hospitals were diverted for the use of Covid-19 patients, with minimal services being provided to patients with other diseases, including cancer. Conscious of this threat, the project team overseeing the Ecosystem quickly made changes to the processes.

During the initial phases of the Movement Control Order (MCO), we halted all programmes that were required to be carried out on-site in the community. This included screenings, education and awareness activities, and all travels of participants to partner hospitals that provided mammography appointments.

But as services in hospitals continued to focus on the pandemic, increasingly, doctors and patients – locally and worldwide – raised their concerns on the overlooking of many new cancer cases due to the inability of patients to undergo their screening. It was revealed that in the long run, this had a negative impact on many individuals, especially those who had early signs and symptoms of cancer, but could not get their disease diagnosed and treated.

With this in mind, stakeholders in the Ecosystem worked with other departments in the National Cancer Society of Malaysia to strengthen its e-media outreach activities. Many talks and sessions, in multiple languages, were carried out as a form of digital outreach to prospective participants over forums such as Facebook and Zoom, as well as through mainstream media.

Upon the relaxation of the MCO and when Malaysia had moved into a subsequent phase of the Covid-19 disease with a lower number of cases, the Ecosystem immediately returned to a more active operational phase. During this phase, which came into effect in August 2020, restrictions of travel still applied – only a limited number of individuals could be seated within a vehicle, including cars and buses.

This means that group screening was not an option. To mitigate this challenge so screening could resume, the Ecosystem modified the operational processes to ensure that patients would not remain undiagnosed or untreated.

In addition to increasing the digital media outreach activities, the Society strengthened its Digital Psychosocial Support platform to provide more counselling and psychology services, also in multiple languages, online. This enabled us to reach prospective participants who had concerns about early signs and symptoms of breast cancer.

The ecosystem continued to function for essential patients – those who had signs and symptoms that could be indicative of breast cancer. These essential patients could get in touch directly with NCSM via its toll-free cancer hotline, and NCSM's cancer information specialists would support the callers by:

i. making an appointment for the patients at the nearest partner hospital; and
ii. facilitating their travel by arranging proper documentation. This is because during the MCO, individuals could not travel out of their house without a valid reason and proper documents of travel approval. A number of participants were aided in this manner.

Involving community partners as well as partner hospitals, the Ecosystem offered transport, free of charge, for potential participants within the various communities. While transport was also offered free of charge before the Covid-19 pandemic, it was limited to participants travelling in groups, rather than travelling individually. As all drivers from community organisations were reimbursed, the increase of trips resulted in higher expenses than that before Covid-19. However, it was determined that the needs of the participants were far greater, and that the expense was justifiable. In certain localities, the partner hospitals undertook this task by providing their own staff and vehicles at minimal cost for the potential participants. In this manner, the Ecosystem continued to function throughout the pandemic.

In addition, when Malaysia began its Covid-19 vaccination initiative in early 2021, the Ecosystem also turned its efforts into supporting vaccination. This was done by organising the 'Since You Are Here' or 'Alang-Alang Dah Sampai' (as the campaign was called in Malay) campaign, in which women getting vaccinated in partner hospitals were empowered to also undergo their breast cancer screening via provision of mammography.

With almost all of the adult population of Malaysia being fully vaccinated, the country is returning to a normalcy of sorts and activities are resumed. The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem is no exception, and things have been slowly but steadily getting back on track. With the resumption of community screening activities, the Ecosystem is gaining back the full operational momentum which was in place before Covid-19, serving potential participants all over Peninsular Malaysia.

'Since You Are Here' / 'Alang-alang Dah Sampai' Campaign

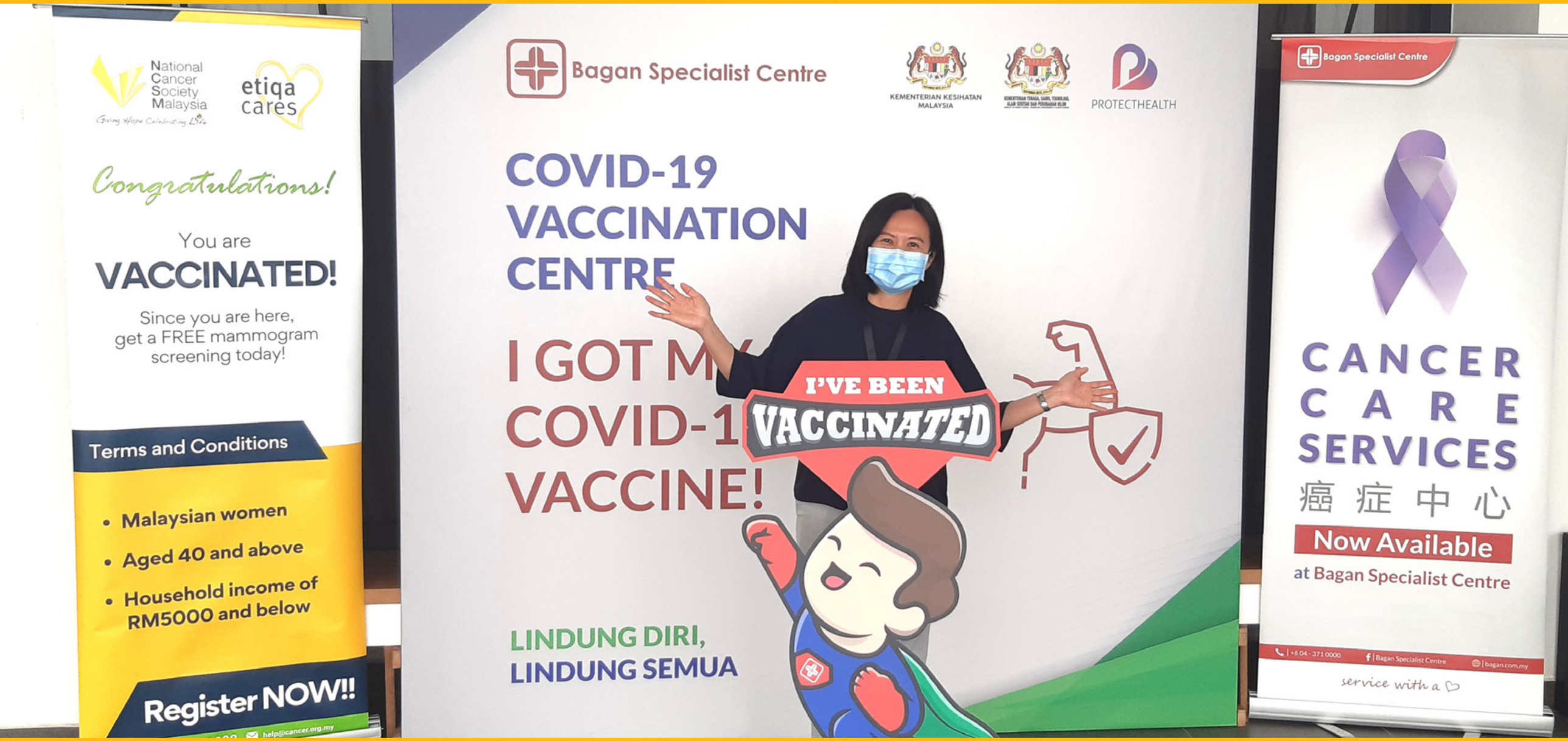
The campaign was aimed at ensuring that underprivileged Malaysian women were protected through free mammogram screening when they were vaccinated for Covid-19 at selected partner hospitals across Peninsular Malaysia.

Eligible women from underprivileged backgrounds getting their vaccines, or who had completed their vaccination, would be able to get their free mammogram screening upon showing their vaccination card or MySejahtera, either of which indicates that they had obtained their second dose of the respective Covid-19 vaccine.

Ten hospitals participated in this campaign: Putra Medical Centre in Kedah, Anson Bay Medical Centre in Perak, Mahkota Medical Centre, Putra Specialist Hospital and Hospital Pantai Ayer Keroh in Melaka, SALAM Specialist Hospital in Terengganu, KPJ Perdana Specialist Hospital in Kelantan, KPJ Puteri Specialist Hospital in Johor, Nilai Medical Centre in Negeri Sembilan, and Bagan Specialist Hospital in Penang.

Through the campaign, the Ecosystem not only aided in promoting vaccination efforts by providing an incentive, but also looked to 'kill two birds with one stone' by getting participants to undergo screening when they visited hospitals to get vaccinated. Many of these participants would have been afraid of going into hospitals for screening due to the fear of contracting Covid-19.

The campaign was well-received, and obtained positive feedback both on social media and within the mainstream media. Partner hospitals who participated in the campaign reported a positive increase in mammography from many who went in for their vaccine appointments.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What the Future Holds

As mentioned previously, at the time of the writing, the fourth phase of the programme is a work in progress. However, with any project or ongoing effort, there is always an inherent desire for its implementors to improve. As such, with the NSCM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem, one important question within the minds of the project team is: What is next? How can we do better?

One improvement that the project team members have been working towards is making the Ecosystem a truly national one. At present, the Ecosystem covers only the states of Peninsular Malaysia. This is mostly because the screening mammography centres in Sabah and Sarawak are located only within urban townships, and it is felt that the 'geographic' coverage of the Ecosystem, when expanded there in present conditions, would not be adequate.

However, it appears that this will continue to be an impediment even in the long-term; for perhaps the next decade or so. Therefore, such conditions should not be seen as an obstacle to deny the services of the Ecosystem to Malaysians living in these two states, even though coverage may not be available to everyone living in different areas of the state. The shortcomings described could be addressed by various solutions, such as transportation mechanisms; and it is with this in mind that the Ecosystem anticipates its expansion into Sabah and Sarawak. That would truly make this programme a 'national' one.

One other innovation that would further enrich the Ecosystem is creating an integrated nationwide information database. This database, storing the information of participants who have undergone screening within the Ecosystem, should be accessible to its users online. The information will include the participants':

i. family history and risk of breast cancer;
ii. breast self-examination results; and
iii. results of their breast cancer screening tests, including mammograms and ultrasounds.

The database will allow all patients them to store their own results for as many years as they need to undergo screening for breast cancer. Healthcare professionals and institutions would also have access to such a system as it would help them keep track, in a quick and timely manner, of all the patients being followed-up in their institution. Additional components which should be added to such a database will include timely reminders of their cancer screening; as well as where it should be done.

Such a cloud-based database would be extremely beneficial for the patients as well as the healthcare professionals caring for them. For patients, this database would serve as a one-stop centre for them, allowing them to access their recorded information on their breast cancer screening. They could find out immediately the date of their last appointment, their next; and their results for previous screening tests, which would also be easily accessible to their treating physician.

For healthcare professionals and institutions, this database would function as a quick and seamless tool for them to keep tabs on the patients being screened by them; including to determine the conditions of the patients, whether or not they had returned for follow-ups; and their results, even if the patient was seen in another hospital/screening centre previously. This would further improve earlier detection of breast cancer for all Malaysians.

Screening and early detection require vigilance and careful, patient, and systematic follow-up, from the individual at risk, as well as the healthcare system taking care of her and reducing her risk by screening and early detection. Often, many assume that screening is a one-off test which when performed, lets the patient 'off the hook' with no further need of tests in the future. However, this cannot be further from the truth.

While everyone is happy with a negative test result (e.g. negative mammogram), all this means is the patient does not have breast cancer at the time of the test. It does not indicate anything in the future. This is what screening and early detection systems are all about: the ability to support the patient through the journey of caring for themselves, including continuously following proper preventive health practices until they are out of the risk zone or have been detected to have the disease, albeit in an early and treatable phase.

The NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem is such a system that has been proven to be able to perform these tasks; and additionally, perform them for the specific group of underprivileged Malaysian women who face challenges in doing this themselves. Though the Ecosystem has done well to aid thousands of women over the past years, there is still much to do, and a bright future in which to do it. With the assistance of strong supportive and steadfast partners as we have had in the past and continue to have today; the NCSM-Etiqa Malaysian Breast Cancer Screening and Detection Ecosystem is poised to grow and do more for all Malaysians as we work to fight cancer together.


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