



CHAPTER 1
PREVENTION AND
EARLY DETECTION
OF BREAST CANCER

CHAPTER 1 PREVENTION AND EARLY DETECTION OF BREAST CANCER

This chapter discusses the demographics, socioeconomic status, lifestyle, and health background of 14,035 Hong Kong breast cancer patients who registered in the Hong Kong Breast Cancer Registry. The information reported here

reflects the patients' situation prior to cancer diagnosis. Through these analyses, we may identify key factors that contribute to the increased incidence of breast cancer in Hong Kong.

KEY FINDINGS

- ▶ The mean age of diagnosis in our patient cohort was 51.2 years with a standard deviation of 10.5 years, while the median age of diagnosis was 49.9 years. Around two-thirds (68.0%) of our patient cohort were aged between 40 to 59 years old.
- ▶ The Hong Kong Breast Cancer Registry has analyzed patient data for many known and probably risk factors of breast cancer classified by international cancer research groups and the ten most common risk factors observed in our patient cohort were:
 - ▶ Less than a quarter of our patient cohort performed regular breast self-examination (BSE), mammography screening (MMG) or breast ultrasound screening (USG).
 - ▶ With the exception of our patients aged below 40, proportion of patients who have never performed BSE, clinical breast examination (CBE), and USG was positively correlated with age.
 - ▶ Over 60% or more of the patients of all ages have never performed MMG.

Risk factor	Number	(%)
Lack of exercise (<3hrs / week)	10,836	(77.2)
No breastfeeding	9,188	(65.5)
High level of stress (>50% of time)	5,236	(37.3)
Being overweight / obese	5,226	(37.2)
No childbirth / First live birth after age 35	3,433	(24.5)
Diet rich in meat / dairy products	2,034	(14.5)
Family history of breast cancer	2,017	(14.4)
Early menarche (<12 years old)	1,889	(13.5)
Use of hormonal replacement therapy	876	(6.2)
Drinking alcohol	649	(4.6)

1.1 Demographics

Age is an established risk factor for breast cancer. The older the woman, the higher the risk of getting breast cancer². Age distribution in each breast cancer patient cohort differs significantly³⁻⁵, and breast cancer characteristics and treatments for young and old patients also differ⁶⁻⁸. Therefore, it is important to study the age composition in each breast cancer patient cohort.

The age of our patient cohort ranged from 18.8 to 101.5 years. Around two-thirds (68.0%) of our patient cohort were aged between 40 to 59 years old (Figure 1.1). The mean age of diagnosis was 51.2 years with a standard deviation of 10.5 years, while the median age of diagnosis was 49.9 years.

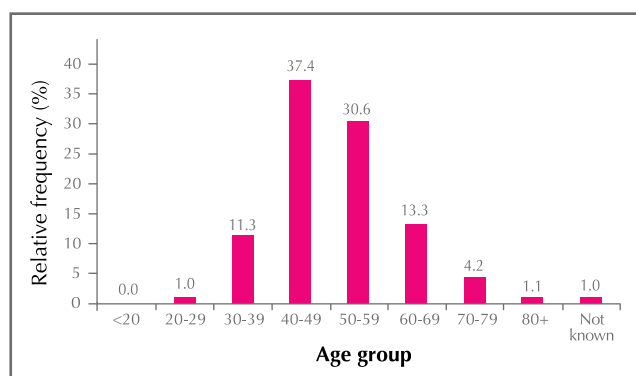


Figure 1.1 Distribution of age at diagnosis (N=14,035)

* 3 patients in our cohort belonged to the <20 age group

About one-third (31.6%) of our patient cohort were housewives while around half (57.0%) were employed or self-employed (Figure 1.2). A higher proportion of our patients had a professional/clerical occupation (30.9%) than non-clerical/labour occupation (23.7%). The average working hours among our patients who were employed or self-employed, was 46.3 hours per week with a standard deviation of 14.4 hours per week.

Previous studies found that night shift work is associated with an increased breast cancer risk, and the suggested mechanism for this is that people who perform night shift work experience circadian rhythm disruption due to exposure to artificial light at night. In 2007, International Agency for Research on Cancer (IARC)⁹ classified night shift work that involved in circadian rhythm disruption as “probably carcinogenic to humans”. Therefore, further research in this area has to be conducted to find out if there is a causal relationship between night shift work and breast cancer. Among 8,012 patients in our cohort who were working at the time of cancer diagnosis, 678 (8.5%) were required to work night shifts and worked for a median frequency of 83 nights per year.

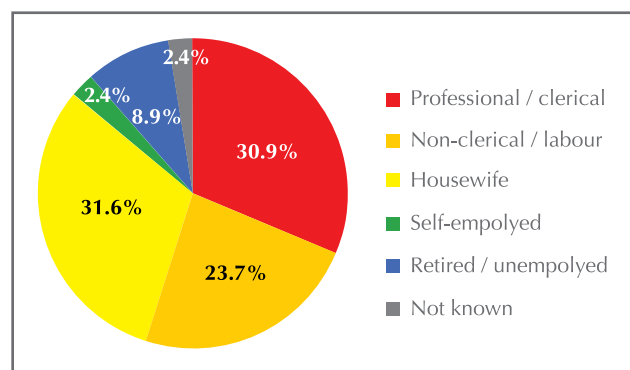


Figure 1.2 Occupation of our patient cohort (N=14,035)

Around two-thirds (69.2%) of our patient cohort were educated to secondary school level or above, while 29.8% were educated to primary school level or below (Figure 1.3). Around one-third (35.2%) of our patient cohort had a monthly household income of 30,000 HKD or higher, while 20.1% had a monthly household income less than 10,000 HKD (Figure 1.4).

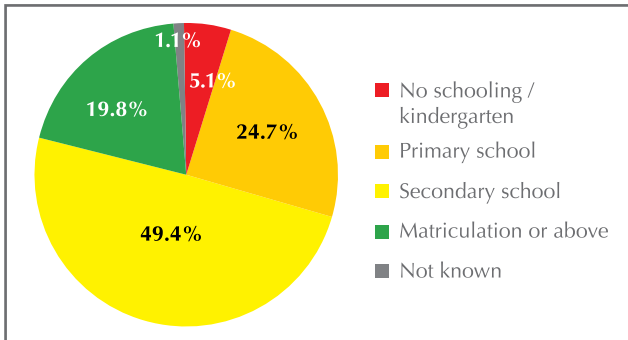


Figure 1.3 Education level of our patient cohort (N=14,035)

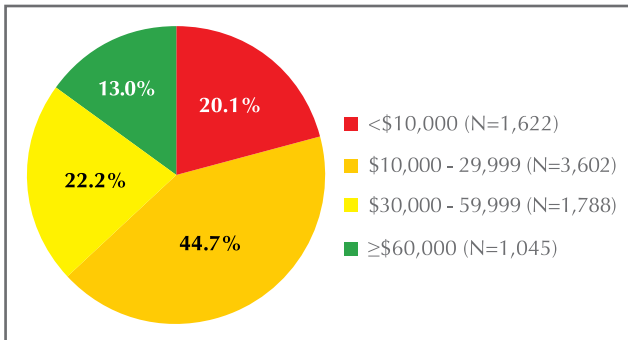


Figure 1.4 Monthly household income (HKD) of our patient cohort (N=8,057)

In our cohort, over half (57.4%) of the patients resided in the New Territories at the time of cancer diagnosis, while 22.9% resided in Kowloon, and 15.3% resided on Hong Kong Island (Figure 1.5).

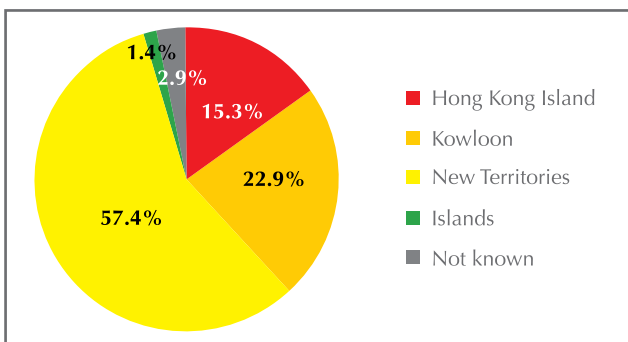


Figure 1.5 Distribution of residential districts of our patients (N=14,035)

Over half (63.0%) of our patient cohort had bra size of 36 inches or smaller (Figure 1.6) while over half (51.9%) of them had cup B or smaller breasts (Figure 1.7).

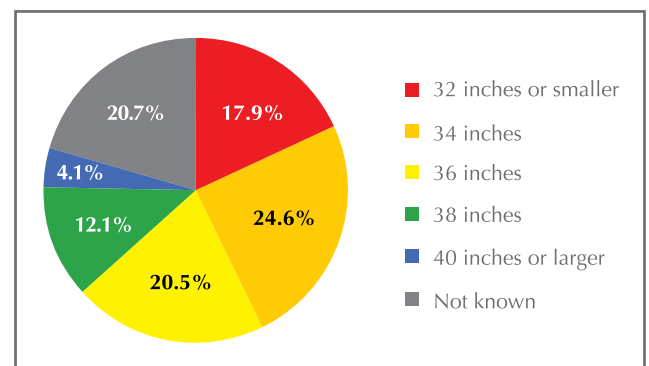


Figure 1.6 Bra size of our patient cohort (N=14,035)

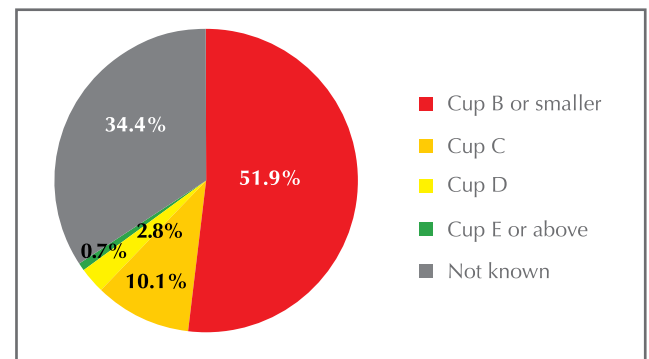


Figure 1.7 Bra cup size of our patient cohort (N=14,035)

1.2 Risk factors and health background

1.2.1 Tobacco smoking

IARC has classified tobacco smoking as a probable cause of breast cancer⁹. However, the updated 2014 Surgeon General Report concluded that the current finding is suggestive and is not sufficient to infer a causal relationship between active or passive smoking and breast cancer¹⁰.

Of our patient cohort, 631 (4.5%) were smoking for a mean duration of 18.0 years with a standard deviation of 10.9 years. Less than half (44.4%) of these patients had quit smoking for a mean duration of 7.1 years (with a standard deviation of 8.5 years) prior to the time of cancer diagnosis. Of the 8,962 patients in our cohort diagnosed from 2008 onwards, 415 (4.6%) of them smoked at a mean rate of 3.5 cigarette packs per week in the past year prior to the time of their cancer diagnosis, with a standard deviation of 3.0 packs per week.

1.2.2 Alcohol drinking

IARC and World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) have classified drinking alcoholic beverages as a cause of breast cancer for people of all ages^{9,11}. The risk of breast cancer increases with the amount of alcohol consumed. A meta-analysis of cohort studies showed a 10% increased risk of breast cancer per 10g ethanol¹¹ (one standard drink, approximately equals to a 330ml can of beer or a 100ml glass of table wine or a 30ml glass of high strength spirit).

Around five percent (4.6%) of our patients drank alcohol (excluding those who only drank alcoholic beverages rarely/occasionally), with a mean duration of 15.0 years and standard deviation of 11.0 years. Only 16.2% of them had stopped drinking at the time of diagnosis. Of the 8,962 patients in our cohort diagnosed from 2008 onwards, 465

(5.2%) had habits of drinking alcoholic beverages, with an average consumption of 4.6 glasses per week in the past year prior to the time of cancer diagnosis. Commonly consumed alcoholic beverages were red wine (31.4%) and beer (22.4%).

1.2.3 Dietary and exercise habits and stress level

There has been a lot of research into the effect of dietary factors on breast cancer risk and so far most findings have been inconclusive and inconsistent. On the other hand, WCRF/AICR has determined that physical activity can probably help to prevent postmenopausal breast cancer¹¹. Since an increase in body fat is also found to increase breast cancer risk in postmenopausal women, women are encouraged to reduce lifetime weight gain by limiting calories intakes and participate in regular physical exercise to maintain a healthy weight and level of body fat.

Around 68.5% of our patients consumed a balanced diet, while 14.5% of them ate a meat rich/dairy product rich diet. Nearly half of our patient never exercised, only around one-fifth (22.0%) of our patient cohort exercised 3 hours or more per week in the past year prior to the time of diagnosis (Table 1.1).

The current studies on stress as a risk factor for breast cancer are non-conclusive and require further investigation. However, some researchers suggest that people with prolonged stress exposure may adopt other risky habits such as smoking or drinking alcohol; which may increase their risk for cancer. 37.3% of patient in our cohort experienced high levels of stress in the past year prior to the time of cancer diagnosis, while only one-third (33.8%) experienced low levels of stress (Table 1.1).

Table 1.1 Dietary habits, exercise habits and stress level at the time of diagnosis (N=14,035)

	Number	(%)
Dietary habit		
Meat rich / dairy product rich	2,034	(14.5)
Vegetable rich / Vegetarian	1,930	(13.8)
Balanced diet	9,612	(68.5)
Not known	459	(3.3)
Exercise		
Never	6,598	(47.0)
< 3 hours per week	4,238	(30.2)
≥ 3 hours per week	3,085	(22.0)
Not known	114	(0.8)
Stress level		
High level*	5,236	(37.3)
Moderate level**	3,875	(27.6)
Low level	4,747	(33.8)
Not known	177	(1.3)

* High level: defined as more than 50% of the time

** Moderate level: defined as 25-50% of the time

1.2.4 Height, Weight and Body Mass Index

Body mass index (BMI) is a heuristic method of estimating human body fat based on an individual's height and weight. It is calculated by dividing weight in kilograms by height in metres squared (kg/m²). IARC considers obesity to be a risk factor for breast cancer⁹. A meta-analysis study has shown that being overweight or obese after menopause increases breast cancer risk¹².

The average height of our patient cohort was 157.8 cm with a standard deviation of 5.6 cm, while the average weight was 57.0 kg with a standard deviation of 9.6 kg. Of our patient cohort, 37.2% were overweight or obese at the time of cancer diagnosis (Table 1.2).

Table 1.2 Body mass index at the time of diagnosis (N=14,035)

BMI	Number	(%)
≥ 25.0 (Obese)	2,890	(20.6)
23.0-24.9 (Overweight)	2,332	(16.6)
18.5-22.9 (Normal weight)	5,952	(42.4)
< 18.5 (Underweight)	976	(7.0)
Not known	1,885	(13.4)

1.2.5 Family history of breast cancer

Breast cancer risk is found to be higher among women who have one first-degree relative with breast cancer, when compared to women with no first-degree relatives with the disease. The risk is even higher among women having larger numbers of first-degree relatives affected by breast cancer, or having relatives who are affected before the age of 50^{13,14}. Only 14.4% of our patient cohort had family histories of breast cancer while 84.3% of them had no family histories of breast cancer (Table 1.3)

Table 1.3 Family history of our patient cohort at the time of diagnosis (N=14,035)

Family history of breast cancer	Number	(%)
No	11,838	(84.3)
Yes		
First-degree relative(s)	1,427	(10.2)
Non first-degree relative(s)	556	(4.0)
Details not known	34	(0.2)
Family history not known	180	(1.3)

1.2.6 Personal history of tumours

Studies have found that breast cancer risk is higher in women with previous histories of certain types of cancer, including Hodgkin lymphoma, melanoma, lung adenocarcinoma, bowel cancer, uterus cancer, chronic lymphocytic leukaemia, or any type of cancer in childhood¹⁵⁻²⁰. On the other hand, breast cancer risk is found to be lower in cervical squamous cell carcinoma survivors^{19,20}. Of our patient cohort, only 1.9% suffered from other types of malignant tumours prior to breast cancer diagnosis (Table 1.4). Among them, the most common tumour was thyroid cancer (Table 1.5).

Table 1.4 Personal histories of tumours of our patient cohort at the time of diagnosis (N=14,035)

History of tumours	Number	(%)
No	11,313	(80.6)
Benign tumour	2,046	(14.6)
Malignant tumour	271	(1.9)
Nature of previous tumours not known	64	(0.5)
History of tumours not known	341	(2.4)

Table 1.5 Types of malignant tumours reported by our patient cohort (N=271)

Type of malignant tumours	Number	(%)
Thyroid cancer	38	(14.0)
Colorectal cancer	28	(10.3)
Uterine cancer	23	(8.5)
Cervical cancer	18	(6.6)
Ovarian cancer	10	(3.7)
Blood cancers	9	(3.3)
Lung cancer	8	(3.0)
Nasopharyngeal cancer	8	(3.0)
Intestinal cancer	6	(2.2)
Liver cancer	5	(1.8)
Urological cancer	5	(1.8)
Bone cancer	3	(1.1)
Esophagus cancer	3	(1.1)
Skin cancer	3	(1.1)
Stomach cancer	3	(1.1)
Salivary gland cancer	2	(0.7)
Sarcoma	2	(0.7)
Tongue cancer	2	(0.7)
Others*	6	(2.2)
Not known	99	(36.5)

* Others include: brain cancer, fallopian tube cancer, medullary cancer, nasal cancer, neck cancer, and parotid gland cancer.

1.2.7 History of benign breast condition and precancerous breast lesion

Several studies have found that women with some types of benign breast condition or precancerous breast lesion have an increased risk of getting breast cancer. Benign breast condition can be classified into three categories: non-proliferative lesions, proliferative lesions without atypia, and atypical hyperplasia. Non-proliferative lesions, such as fibroadenoma or other fibrocystic diseases, are generally not associated with increasing the risk of breast cancer²¹. On the other hand, proliferative lesions without atypia, such as papilloma or papillomatosis, and atypical ductal or lobular hyperplasia are linked to an increased risk of breast cancer²¹. Lobular carcinoma in situ (LCIS) is a form of precancerous breast lesion that also increases a woman's risk of getting breast cancer. Of our patient cohort, 15.1% had previous history of benign breast disease and among them, 0.2% had papillomatosis and 0.4% of them had atypical ductal hyperplasia. One patient suffered from LCIS prior to breast cancer diagnosis (Table 1.6).

Table 1.6 History of breast disease at the time of diagnosis

	Number	(%)
History of previous breast disease	2,115	(15.1)
Type of previous breast disease		
Fibroadenoma	969	(45.8)
Fibrocystic disease	120	(5.7)
Papilloma	32	(1.5)
Papillomatosis	4	(0.2)
Atypical ductal hyperplasia	8	(0.4)
Lobular carcinoma in situ	1	(0.0)
Others (Gynaecomastia, other benign tumours)	190	(9.0)
Not known	808	(38.2)

1.2.8 Early menarche, late menopause and reproductive history

Life events such as early menarche (<12 years old), late natural menopause (> 55 years old), not bearing children, and late first pregnancy (>35 years old) all increase the lifetime exposure to the hormone estrogen, and thus increase the risk of breast cancer. On the other hand, late menarche, early menopause, bearing children, and early pregnancy all reduce the risk of breast cancer¹¹.

In our patient cohort, the mean age at menarche was 13.3 years, and the mean age of menopause was 49.3 years. 13.5% of our patient cohort experienced early menarche. Around half (48.8%) of our patient cohort were post-menopausal and among them, 4.7% experienced late menopause. One-fifth (20.5%) of our patient cohort were nulliparous at the time of cancer diagnosis, and only 4.0% had their first child after the age of 35. Of our patients that experienced child birth(s), the mean age at which they had their first live child birth was 26.8 years (Table 1.7). Data on patient parity is shown in Table 1.8, 72.5% of our patients had two or more children.

Table 1.7 Early menarche, late menopause and reproductive history at the time of diagnosis

	Number	(%)
Menarche (N=14,035)		
Early menarche (<12 years old)	1,889	(13.5)
Normal menarche (\geq 12 years old)	11,163	(79.5)
Not known	983	(7.0)
Menopause (N=6,848)		
Late menopause (>55 years old)	325	(4.7)
Normal menopause (\leq 55 years old)	5,616	(82.0)
Age at menopause not known	907	(13.2)
Reproductive history (N=14,035)		
No childbirth	2,875	(20.5)
First childbirth at early stage (\leq 35 years of age)	9,846	(70.1)
First childbirth at late age (>35 years of age)	558	(4.0)
Age at first live birth not known	321	(2.3)
Reproductive history not known	435	(3.1)
Breastfeeding (N=14,035)		
Yes	4,363	(31.1)
No (Had childbirth)	6,255	(44.6)
No (No childbirth)	2,868	(20.4)
No (Reproductive history not known)	65	(0.5)
Not known	484	(3.4)

WCRF/AICR has classified breastfeeding as protective against breast cancer at all ages¹¹. In our patient cohort, 31.1% have breastfed their children and the average total duration of breastfeeding was 15.9 months with a standard deviation of 22.0 months, and range of 0.1 to 252 months.

Table 1.8 Number of live births reported by our patient cohort (N=10,725)

No. of live births	Number	(%)
1	2,876	(26.8)
2	4,820	(44.9)
3	1,859	(17.3)
4	673	(6.3)
5	246	(2.3)
6	116	(1.1)
7	40	(0.4)
8	16	(0.1)
9+	8	(0.1)
Not known	71	(0.7)

1.2.9 Use of hormonal contraceptives

Hormonal contraceptives contain synthetic sex hormones and are administered in the form of oral tablets, injections, implants and transdermal contraceptive patches. Although IARC has classified current or recent use of combined estrogen-progestogen oral contraceptives as a risk factor of breast cancer, recent studies suggested discontinuing use for 10 years or more results in the risk being reduced to that of non-user⁹. Conflicting results were also obtained when studying the correlation between breast cancer risk and injectable contraceptives or implants²²⁻²⁶. Therefore, the correlation between hormonal contraceptives and breast cancer risk is an area of controversy that requires further investigation. One-third (32.9%) of our patient cohort used hormonal contraceptives, among which 12.3% used hormonal contraceptives for more than 5 years (Table 1.9). Three-quarters (75.4%) of our patient cohort who used hormonal contraceptives have stopped using for a mean duration of 17.7 years prior to the time of cancer diagnosis.

Table 1.9 Use of hormonal contraceptives at the time of diagnosis (N=14,035)

OC use	Number	(%)
Non-user	9,006	(64.2)
OC use < 5 years	2,190	(15.6)
OC use 5-10 years	1,202	(8.6)
OC use > 10 years	515	(3.7)
Length of OC use not known	706	(5.0)
Not known if OC was used	416	(3.0)

OC: Hormonal contraceptives

1.2.10 Use of hormone replacement therapy

Hormonal replacement therapy (HRT) contains synthetic sex hormones and is used to relieve post-menopausal symptoms. The IARC has classified current use of combined estrogen-progestogen HRT for menopausal symptoms as risk factor of breast cancer⁹. Less than one-tenth (9.4%) of the postmenopausal patients in our cohort used HRT in which 3.3% of them used it for over 5 years (Table 1.10).

Table 1.10 Use of hormone replacement therapy (in our post-menopausal patients in the cohort) at the time of diagnosis (N=6,848)

HRT use	Number	(%)
Non-user	5,968	(87.1)
HRT use < 5 years	346	(5.1)
HRT use 5-10 years	187	(2.7)
HRT use > 10 years	39	(0.6)
Length of HRT use not known	70	(1.0)
Not known if HRT was used	238	(3.5)

HRT: Hormone replacement therapy

1.2.11 Ten most common risk factors associated with breast cancer

Many risk factors have been classified by international cancer research groups as convincing causes or probable risk factors of breast cancer development. Some of them are described in previous sections of this chapter. In this chapter, the Hong Kong Breast Cancer Registry has analyzed patient data for many known and probably risk factors of breast cancer and the ten most common risk factors observed in our patient cohort are listed in Table 1.11. Lack of exercise was the most common risk factor within our patient cohort, reported by 77.2% of patients, followed by not having breastfeeding experience (65.5%) and having high level of stress (37.3%) (Table 1.11). The accumulation of multiple risk factors increases the risk of getting breast cancer. 60.2% of our patient cohort had three or more risk factors shown in Table 1.11 (Figure 1.8).

Table 1.11 The ten most common risk factors in our patient cohort (N=14,035)

Risk factor	Number	(%)
Lack of exercise (<3hrs / week)	10,836	(77.2)
No breastfeeding	9,188	(65.5)
High level of stress (>50% of time)	5,236	(37.3)
Being overweight / obese	5,226	(37.2)
No childbirth / First live birth after age 35	3,433	(24.5)
Diet rich in mea/ dairy products	2,034	(14.5)
Family history of breast cancer	2,017	(14.4)
Early menarche (<12 years old)	1,889	(13.5)
Use of hormonal replacement therapy	876	(6.2)
Drinking alcohol	649	(4.6)

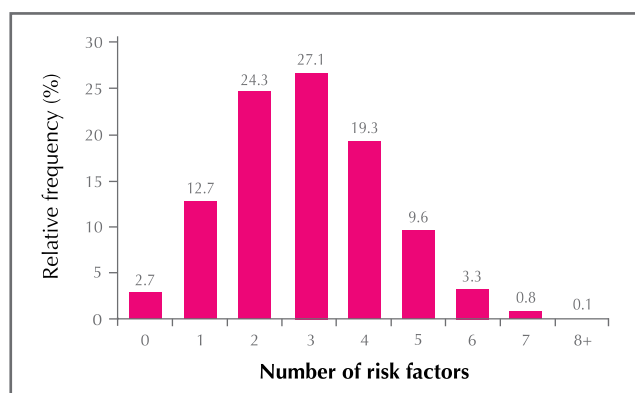


Figure 1.8 Distribution of our patient cohort with different number of risk factors for breast cancer at the time of diagnosis (N=14,035)

1.3 Breast screening habits

Breast screening is a method of checking woman's breasts when there are neither signs nor symptoms of breast cancer in an attempt to achieve earlier detection. Early detection reduces mortality from breast cancer. The three screening methods used for breast cancer screening include breast self-examination (BSE), clinical breast examination (CBE), and mammography screening (MMG). Breast self-examination is conducted by a woman herself, where she checks for lumps, changes in size or shape of the breast, or any other changes in the breasts or underarm. Clinical breast examination is conducted by a medical professional, such as a doctor or nurse, who uses his or her hands to feel for lumps or other changes. Mammography screening is the current standard test for breast cancer screening where a low-energy X-ray is used to examine a woman's breasts.

The Hong Kong Breast Cancer Foundation recommends women aged 40 or above to conduct monthly breast self-examination as a measure of raising breast self awareness, also to regularly conduct clinical breast examination and mammography screening. In addition to MMG, breast ultrasound screening (USG) is used along with mammograms for women with dense breasts. In Hong Kong, there is no population-based breast screening programme for women of all ages. The breast screening habits reported here are patients' self-initiated breast screening habits.

The breast screening habits in our patient cohort were studied by age group in Table 1.12. Less than a quarter of our patient cohort of all ages performed regular BSE, MMG and USG. Regular CBE were performed by around 40% of our patients aged below 60, however, the proportions dropped to 27.5% and 11.8% for our patients aged 60-69 and aged 70 or above, respectively (Table 1.12). With the exception of our patients aged below 40, proportion of patients who have never performed BSE, CBE, and USG was positively correlated with age. Over 60% of the patients of all ages have never performed MMG (Table 1.12).

Table 1.12 Breast screening habits of our patient cohort by age group

Breast examination	Age group (years), Number (%)				
	<40	40-49	50-59	60-69	70+
BSE					
Never	657 (38.2)	1,952 (37.2)	1,737 (40.4)	878 (47.0)	454 (61.1)
Occasional	665 (38.7)	1,961 (37.3)	1,463 (34.0)	562 (30.1)	193 (26.0)
Monthly	369 (21.5)	1,251 (23.8)	1,005 (23.4)	395 (21.1)	77 (10.4)
Not known	28 (1.6)	90 (1.7)	94 (2.2)	34 (1.8)	19 (2.6)
CBE					
Never	817 (47.5)	2,218 (42.2)	1,929 (44.9)	1,099 (58.8)	567 (76.3)
Occasional	219 (12.7)	645 (12.3)	559 (13.0)	209 (11.2)	64 (8.6)
Regular*	660 (38.4)	2,306 (43.9)	1,727 (40.2)	514 (27.5)	88 (11.8)
Not known	23 (1.3)	85 (1.6)	84 (2.0)	47 (2.5)	24 (3.2)
MMG#					
Never		3,632 (69.1)	2,715 (63.2)	1,284 (68.7)	621 (83.6)
Occasional		472 (9.0)	488 (11.4)	194 (10.4)	45 (6.1)
Regular*		1,052 (20.0)	1,010 (23.5)	347 (18.6)	51 (6.9)
Not known		98 (1.9)	86 (2.0)	44 (2.4)	26 (3.5)
USG#					
Never		3,600 (68.5)	2,972 (69.1)	1,425 (76.2)	630 (84.8)
Occasional		459 (8.7)	409 (9.5)	149 (8.0)	37 (5.0)
Regular*		987 (18.8)	760 (17.7)	219 (11.7)	41 (5.5)
Not known		208 (4.0)	158 (3.7)	76 (4.1)	35 (4.7)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only

Breast screening habits were further stratified by patients' residential district and the result is shown in Table 1.13. More patients in our cohort living in Kowloon or the New Territories have never performed any breast screening (including BSE, CBE, MMG, and USG) compared to Hong Kong Island. More

patients in our cohort living on Hong Kong Island have performed regular healthcare service-assisted breast screening tests (i.e., CBE, MMG, and USG) than those living in Kowloon and the New Territories (Table 1.13).

Table 1.13 Breast screening habits of our patient cohort by patients' residential district

Breast examination	Residential district, Number (%)					
	Hong Kong Island		Kowloon		New Territories	
BSE						
Never	668	(31.1)	1,398	(43.4)	3,450	(42.8)
Occasional	945	(44.0)	1,110	(34.5)	2,616	(32.5)
Monthly	456	(21.2)	647	(20.1)	1,904	(23.6)
Not known	81	(3.8)	66	(2.0)	91	(1.1)
CBE						
Never	661	(30.7)	1,700	(52.8)	4,081	(50.6)
Occasional	311	(14.5)	390	(12.1)	944	(11.7)
Regular*	1,087	(50.6)	1,066	(33.1)	2,948	(36.6)
Not known	91	(4.2)	65	(2.0)	88	(1.1)
MMG#						
Never	905	(48.9)	1,959	(69.9)	5,106	(72.8)
Occasional	266	(14.4)	266	(9.5)	624	(8.9)
Regular*	604	(32.6)	525	(18.7)	1,183	(16.9)
Not known	77	(4.2)	53	(1.9)	97	(1.4)
USG#						
Never	982	(53.0)	2,066	(73.7)	5,295	(75.5)
Occasional	235	(12.7)	233	(8.3)	540	(7.7)
Regular*	461	(24.9)	407	(14.5)	1,025	(14.6)
Not known	174	(9.4)	97	(3.5)	150	(2.1)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only

