

REPORT HIGHLIGHTS

- ▶ This report covered 13,453 breast cancer patients who were diagnosed in 2006 onwards.
- ▶ The mean and median ages of the patients at diagnosis were 52.6 and 51.3 years, respectively.
- ▶ Around two-thirds (66.6%) of our patients were aged between 40-59 years old.

Risk factors

- ▶ The 10 most common risk factors for developing breast cancer and the respective % of patients having that risk factor in our patient cohort:

	% of patients
Lack of exercise (<3 hours / week)	77.5
No breastfeeding	65.9
Being overweight / obese (BMI \geq 23.0)	38.6
High level of stress (>50% of time)	36.9
No childbirth / First live birth after age 35	26.2
Diet rich in meat / dairy products	14.8
Family history of breast cancer	14.5
Early menarche (<12 years old)	13.9
Use of hormonal replacement therapy	5.3
Drinking alcohol	4.8

Screening habits

- ▶ The overall patients' breast screening habits were poor. Less than half of the patients attended regular clinical breast examination and less than a quarter of patients performed regular breast self-examination or mammography screening.
- ▶ Breast screening habit was less with increasing age.
- ▶ Over 60% of our patients aged 40 or above have never performed mammography screening before cancer diagnosis.

Cancer characteristics, histological and biological characteristics

- ▶ The primary method of first breast cancer detection in the patient cohort was self detection by chance (83.0%). More stage 0 or I cancers (35.1% and 13.1% respectively) were detected by mammography screening than stage III or IV cancers (3.2% and 1.7% respectively).
- ▶ After the onset of symptoms, a quarter (25.2%) of the patients who self-detected their cancers by chance waited three or more months before seeking first medical consultation.
- ▶ Among our patients in the cohort, 12.0% were diagnosed with in situ cancers, 67.8% were diagnosed with early stage cancers (stages I-IIb), and 15.2% were diagnosed with stage III or IV cancers.
- ▶ The mean size of invasive breast cancers for our patient cohort was 2.2 cm (standard deviation: \pm 1.4 cm). Tumours larger than 2.0 cm in size were found in 46.6% of our patients. In our patient cohort, screen-detected cancers were significantly smaller than cancers that were self-detected by chance (mean: 1.3 vs. 2.3 cm).
- ▶ The mean size of in situ cancers for our patient cohort was 2.0 cm (standard deviation: \pm 1.6 cm). Tumours larger than 2.0 cm in size were found in 35.2% of our patients.
- ▶ The following table shows the histological and biological characteristics of invasive and in situ cancers in the patient cohort

	% of invasive tumours	% of in situ tumours
Histological type		
Ductal	86.5	93.7
Others	13.5	6.3
Biological characteristics		
ER+	78.1	81.2
PR+	66.0	72.6
HER2+	21.3	27.0
Ki-67 index \geq 14%	59.4	31.9
ER-PR-HER2-	11.5	—
Lymphovascular invasion	29.0	—

ER+/-: estrogen receptor positive/negative

PR+/-: progesterone receptor positive/negative

HER2+/-: human epidermal growth factor receptor 2 positive/negative

Treatment

- ▶ 14.7% of our patients received care solely at private medical facilities, 51.3% received care solely at public medical facilities, while one-third (34.0%) received care at both private and public medical facilities.
- ▶ Combinations of treatments are usually used for treating breast cancer effectively. In general, the number of treatments received by our patients increased with increasing cancer stage.

	Total %	Treatment in private sector %	Treatment in public sector %	Stage					
				0 %	I %	IIA %	IIB %	III %	IV %
Surgery	98.3	50.3	49.7	99.5	100.0	99.8	99.8	99.4	61.3
Breast-conserving surgery	35.3	45.5	26.7	53.1	47.1	30.8	12.9	8.3	
Mastectomy	62.7	54.5	73.3	46.9	52.9	69.2	87.2	91.7	
Chemotherapy	68.4	13.8	86.2	—	38.4	80.7	90.5	93.7	86.6
Radiotherapy	62.0	7.0	93.0						
In patients with breast-conserving surgery	94.6	9.8	90.2	94.3	95.3	93.8	95.6	96.8	86.7
In patients with mastectomy	44.5	3.7	96.3	3.0	12.7	34.2	74.3	92.8	61.8
Endocrine therapy	67.3	2.9	97.1	11.9	76.1	74.0	77.1	74.5	78.5
Targeted therapy*	53.7	4.3	95.7	—	38.2	58.7	61.6	68.1	68.4

* Among patients with human epidermal growth factor receptor 2 (HER2) positive only

Physical discomfort after treatment

- ▶ Among all types of treatments, chemotherapy was the most distressing treatment for patients where 52.0% of our patients reported having severe discomfort during or after chemotherapy.

Treatment	Severe discomfort (% of patients)	Top complaints (% of patients)
Chemotherapy	52.0	Vomiting (18.8), Loss of appetite (15.5), Hair loss (12.2)
Radiotherapy	13.0	Dry skin (10.9), Skin burns (10.5)
Surgery	9.5	Wound pain (16.1)
Endocrine Therapy	8.4	Hot flushes (12.8)
Targeted Therapy	6.8	Fatigue (4.4)

Psychosocial impact of diagnosis and treatment

- ▶ At the time of diagnosis, 44.5% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.7% of the cohort could not accept their diagnosis.
- ▶ Half (53.5%) of our breast cancer survivors reported having a positive change in their outlook on life and 43.2% reported having a positive change in their self-image.
- ▶ 81.9% of the patients reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.1%) was the most common lifestyle change, followed by increased exercise (61.5%).
- ▶ 55.1% of the patients managed their negative emotions by direct verbal expression, while 33.3% diverted their attention away from negative emotions.
- ▶ Around half (55.4%) of our patients always or sometimes worried about recurrence.