

# HONG KONG BREAST CANCER REGISTRY REPORT NO. 12

## EXECUTIVE SUMMARY

### Overview

The patients recruited in HKBCR, according to their year of cancer diagnosis, were divided into three cohorts (2006-2010, 2011-2015 and 2016-current). This report focused on analysing the data of patients diagnosed since 2016, with supplementary comparisons between the cohorts to highlight the changes over the past decade in breast cancer status, diagnosis and management. For more detailed findings in the previous two cohorts, please refer to Report 11.

- ▶ The median age of patients in the 2016-current cohort was 55.0 years, which was two years older than that in the 2011-2015 cohort (median age: 52.8); and five years older than the 2006-2010 cohort (median age: 50.2).
- ▶ In line with the increase in medians, the proportion of patients aged between 30 and 39 decreased, while those aged 60 or above increased in the 2016-current cohort.

### Risk factors

- ▶ The 10 most common risk factors of breast cancer are listed below, with the respective proportions of patients in the 2016-current cohort.

	Number	%
Lack of exercise (<3hrs / week)	3,693	76.6
No breastfeeding	3,150	65.4
Being overweight / obese	1,902	39.5
High level of stress (>50% of time)	1,703	35.3
No childbirth / First live birth after age 35	1,471	30.5
Family history of breast cancer	818	17.0
Early menarche (<12 years old)	693	14.4
Diet rich in meat / dairy products	654	13.6
Habit of drinking alcohol	336	7.0
Use of hormone replacement therapy	173	3.6

### Screening habits

- ▶ Regular mammography screening was undertaken by about 20% of patients in the 2016-current cohort, with less uptake in the older age groups.
- ▶ Similar to the patterns observed in the previous two cohorts, more uptakes of breast screening were found in patients living on Hong Kong Island, with higher education level and higher household income. However, there was a slight decrease in the uptake rate among patients living on Hong Kong Island and an increase among those living in Kowloon or the New Territories.

### Clinical presentation

- ▶ Symptomatic patients prevail in the 2016-current cohort (80.0%), with a slight decrease, compared to those in previous two cohorts (82.5%-84.2%).
- ▶ A slight increase in mammography-detected cases was observed throughout the three cohorts (from 9.6% to 13.0%).
- ▶ In each cohort, the most common cancer stage at diagnosis was stage II (34.9%-38.5%) followed by stage I (31.0%-31.2%) and stages III-IV (14.3%-17.7%). In addition, 11.6%-13.3% of the patients in the three cohorts were diagnosed with stage 0 (in situ) cancer.

### Cancer characteristics

- ▶ The mean tumour size of invasive breast cancer in the 2016-current cohort was 2.2 cm. The number of patients with no positive lymph nodes slightly increased throughout the three cohorts (from 56.3% to 61.3%).
- ▶ The mean tumour size of in situ breast cancer in the 2016-current cohort was 1.6 cm. Of the in situ cases where mammography was performed, 59.1% showed microcalcification.
- ▶ The following table shows the histological and biological characteristics of invasive and in situ cancer in the 2016-current cohort:

	Invasive tumours %	In situ tumours %
<b>Histological type</b>		
Ductal	87.5	94.6
Others	12.5	5.4
<b>Biological characteristics</b>		
ER+	82.8	83.3
PR+	69.4	77.1
HER2+	18.1	16.9
Ki-67 index $\geq 14\%$	68.5	43.9
ER-PR-HER-	9.0	—
Lymphovascular invasion	21.6	—

ER+/-: estrogen receptor positive/negative

PR+/-: progesterone receptor positive/negative

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

## Treatment

- ▶ Of the 3,998 patients in the 2016-current cohort, 15.6% received care at private medical service, 50.9% received care at public medical service and 33.5% received care at both private and public medical services.

- ▶ The following table shows the treatment utilization in the 2016-current cohort:

	Total %	Treatment in private sector %	Treatment in public sector %	Stage					
				0 %	I %	IIA %	IIB %	III %	IV %
<b>Surgery</b>	<b>97.8</b>	<b>51.6</b>	<b>48.4</b>						
Breast-conserving surgery	42.5	63.6	36.4	59.0	55.7	40.1	28.1	16.2	20.6
Mastectomy	57.5	42.7	57.3	41.0	44.3	59.9	71.9	83.8	79.4
<b>Radiotherapy</b>									
with breast-conserving surgery	93.3	20.2	79.8	92.5	93.1	94.4	93.1	94.9	84.6
with mastectomy	42.0	9.1	90.9	4.1	8.5	31.9	75.8	87.3	80.0
<b>Chemotherapy</b>	<b>59.0</b>	<b>15.5</b>	<b>84.5</b>	—	<b>29.4</b>	<b>66.3</b>	<b>81.9</b>	<b>92.7</b>	<b>77.1</b>
<b>Endocrine therapy</b>	<b>68.9</b>	<b>12.9</b>	<b>87.1</b>	<b>9.2</b>	<b>80.7</b>	<b>79.5</b>	<b>76.6</b>	<b>71.1</b>	<b>76.3</b>
<b>Anti-HER2 targeted therapy*</b>	<b>81.6</b>	<b>13.0</b>	<b>87.0</b>	—	<b>66.0</b>	<b>85.6</b>	<b>88.1</b>	<b>89.7</b>	<b>83.3</b>

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

## Physical discomfort after treatments

- ▶ Among all treatments, chemotherapy was most distressing for patients, with 40.8% reporting severe discomfort.
- ▶ The following table shows the proportion of patients reporting severe discomfort and the most common form of discomfort for different treatments:

Treatment	Severe discomfort %	Most common form of discomfort (%)
Chemotherapy	40.8	Loss of appetite (16.1)
Radiotherapy	13.2	Dry skin (12.4)
Surgery	9.9	Wound pain (21.7)
Endocrine therapy	9.6	Hot flushes (15.6)
Anti-HER2 targeted therapy	6.1	Pain (4.0)

## Psychosocial impact of diagnosis and treatment

- ▶ Compared to the previous cohorts, more patients (from 22.3% to 29.1%) felt calm, and fewer (from 32.0% to 19.5%) felt depressed accepting their disease at diagnosis.
- ▶ In the 2016-current cohort, 40.9% of the patients reported having a positive change in their outlook on life and 31.5% reported having a positive change in their self-image after cancer diagnosis and treatment.
- ▶ In each cohort, about three-quarters (73.5%-82.3%) of the patients reported having changes in their lifestyle after diagnosis with breast cancer. Among them, a change in diet was the most common lifestyle change, followed by increased exercise.
- ▶ In each cohort, the two most common ways of managing negative emotions were direct verbal expression and diverting attention from negative emotions.
- ▶ About a quarter (21.4%) of the patients in the 2016-current cohort did not worry about recurrence, while slightly more than half (57.2%) always or sometimes worried about recurrence. In each cohort, the level of worry about breast cancer recurrence decreased with increasing age. However, patients aged 70 and above in the 2016-current cohort reported a higher level of worry compared to their counterparts in the previous two cohorts.