

## 9 Expenditure on breast cancer

Due to the large number of people diagnosed with breast cancer and the high burden of disease related to it, breast cancer is associated with substantial health-care costs. Such costs can be divided into four broad categories:

- direct health-care costs, which include recurrent and capital expenditure on hospital treatment, medications, visits to general practitioners, allied health and specialist care, use of screening and diagnostic services, and medical research
- direct non-health-care costs, including transport to and from medical services, child care and home care
- indirect costs, such as lost productivity and income, disability and lost years of life
- intangible costs, including the effect on quality of life.

The focus of this chapter is on direct health-care costs for breast cancer – that is, money spent by all levels of government, private health insurers, companies, households and individuals to screen for, diagnose and treat breast cancer. Very little information is available on the other types of costs (e.g. direct non-health-care costs and indirect costs) associated with breast cancer and, therefore, no data on the total economic effect of breast cancer in Australia can be presented. Furthermore, only information on *recurrent* health expenditure (i.e. expenditure on health goods and services) and not on capital health expenditure (i.e. health-related investment) is shown.

The latest data that are available in regard to expenditure on breast cancer pertain to the 2004–05 financial year, with comparable data available for 2000–01. The data presented in this chapter were sourced from the Disease Expenditure Database which is maintained by the AIHW; Appendix C provides further information about this data set.

It is not possible to allocate all expenditure on health goods and services to a specific disease such as breast cancer. For example, data on cancer research are not available for separate types of cancers. In addition, expenditure on non-admitted patient hospital services, over-the-counter drugs and services by ‘other health practitioners’ are not allocated by disease in the Disease Expenditure Database. Thus, the expenditure figures presented in this chapter provide a minimum estimate of all direct health-care costs for breast cancer.

The specific sectors of health expenditure which are covered in this chapter are as follows:

- hospital admitted patient services – expenditure on services provided to an admitted patient in a hospital, including medical services delivered to private admitted patients in hospitals
- out-of-hospital medical expenses – expenditure on medical services funded under the Medicare Benefits Schedule, such as visits to general practitioners and specialists, as well as pathology services
- prescription pharmaceuticals – expenditure on prescriptions subsidised under government schemes (such as the Pharmaceutical Benefits Scheme) and those that are paid for privately; excludes pharmaceuticals dispensed in hospitals (these are included in the ‘hospital admitted patient services’ category)
- cancer screening – expenditure by the Australian Government and state and territory governments for mammographic screening through the BreastScreen Australia Program and cervical screening through the National Cervical Screening Program.

In order to allow for meaningful comparisons, only expenditure for these four sectors is considered when comparisons are made in this chapter between expenditure on breast cancer and expenditure on all cancers and then all diseases.

In the Disease Expenditure Database (and unlike the approach taken in Chapter 8 of this report), breast cancer hospitalisations are defined as those hospitalisations for which the principal diagnosis was invasive breast cancer. Therefore, hospitalisations that involved same-day chemotherapy administration for breast cancer patients (with invasive breast cancer coded as an additional diagnosis rather than a principal diagnosis) are not included. In turn, any spending related to those hospitalisations is not included in the expenditure data for hospital admitted patient services for breast cancer. Thus, the data shown are a minimum estimate of total admitted patient services expenditure on breast cancer patients. Note that in future expenditure analysis work done by the AIHW, further work to identify the costs of chemotherapy that are due to specific types of cancer, such as breast cancer, may be undertaken.

Further information about each of the four sectors considered in this chapter, as well as the Disease Expenditure Database and how the expenditure estimates were derived, can be found in the health expenditure reports which are produced annually by the AIHW (AIHW 2008c).

## Expenditure on breast cancer for females

### Expenditure in 2004–05

Considering the four health expenditure sectors shown in Table 9.1, allocated health expenditure on breast cancer for females was estimated to be \$331 million in the 2004–05 financial year. The corresponding value for expenditure for all cancers was \$1,403 million and for all diseases, it was \$24,274 million. Hence, funding for breast cancer for females comprised almost a quarter (24%) of all cancer expenditure for females and 1.4% of expenditure for all diseases for females.

**Table 9.1: Allocated health expenditure by disease and by sector, females, 2004–05**

Sector	Breast cancer		All cancers <sup>(a)</sup>		All diseases	
	\$ (million)	Per cent	\$ (million)	Per cent	\$ (million)	Per cent
Hospital admitted patient services <sup>(b)</sup>	92	27.8	884	63.0	12,688	52.3
Out-of-hospital medical expenses	68	20.6	218	15.5	6,921	28.5
Prescription pharmaceuticals	53	16.0	80	5.7	4,443	18.3
Cancer screening	118	35.7	222	15.8	222	0.9
<b>Total allocated expenditure<sup>(c)</sup></b>	<b>331</b>	<b>100.0</b>	<b>1,403</b>	<b>100.0</b>	<b>24,274</b>	<b>100.0</b>

(a) Includes cancers coded in the International Statistical Classification of Diseases and Related Health Problems, 10th edition (ICD-10) as C00–C97. Does not include cancers coded as D45, D46, D47.1 and D47.3.

(b) Expenditure for hospital admitted patient services for breast cancer pertains to those hospitalisations for which the principal diagnosis was breast cancer (ICD-10 code of C50). It does not pertain to hospitalisations for which breast cancer was an additional diagnosis and the principal diagnosis related specifically to the type of cancer treatment or care received.

(c) Values may not sum to the total due to rounding.

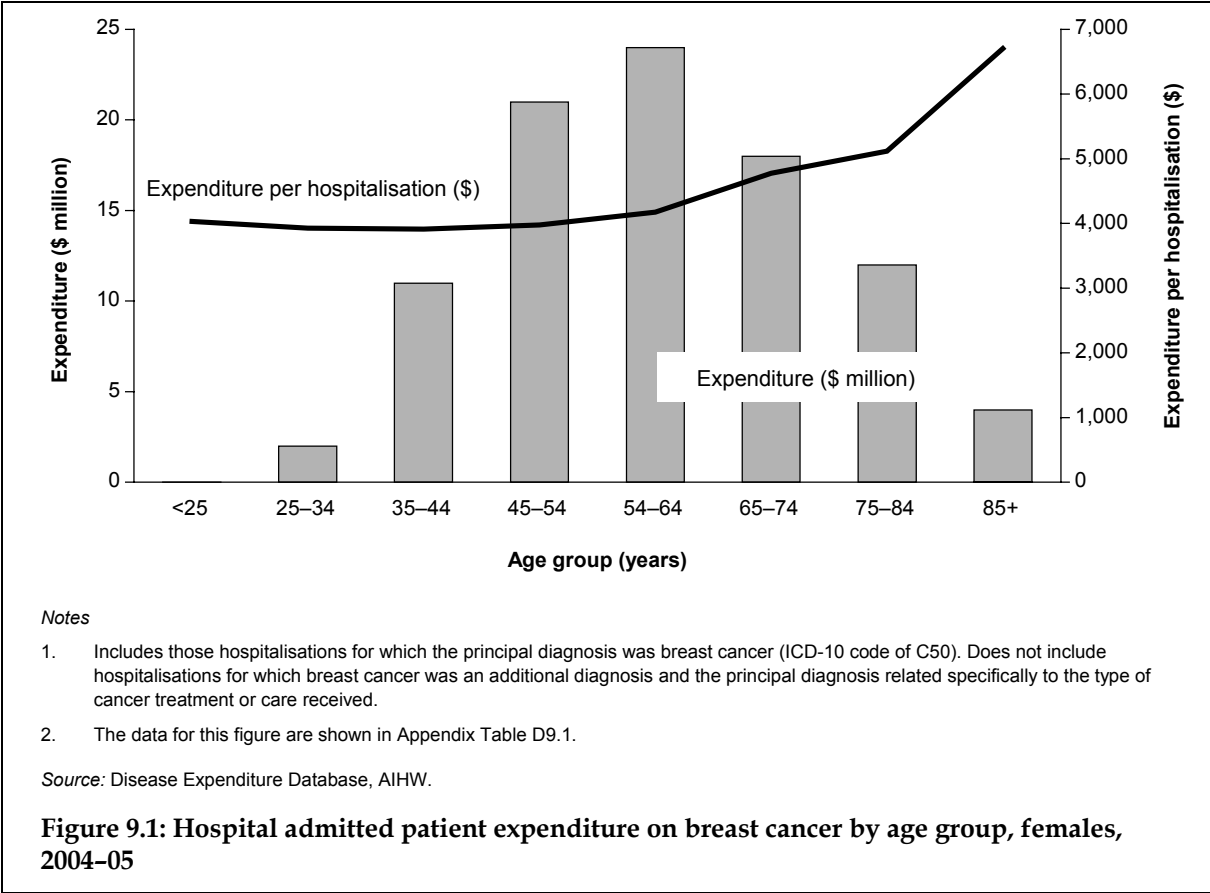
Source: Disease Expenditure Database, AIHW.

Of the total allocated expenditure on breast cancer for females, over a third (36%) was spent on screening mammography services (\$118 million), over a quarter (28%) on hospital admitted patient services (\$92 million) and 21% on out-of-hospital medical expenses (\$68 million). The amount spent on prescription pharmaceuticals for breast cancer for females was \$53 million, which made up two-thirds (66%) of expenditure on prescription pharmaceuticals for all cancers for females (\$80 million) and 1.2% for all diseases for females (\$4,443 million).

The proportion of female health expenditure that consisted of hospital admitted patient services differed markedly for breast cancer compared with all cancers and with all diseases – that is, it equalled 28% of health expenditure on breast cancer compared with 63% for all cancers and 52% for all diseases.

**Differences by age**

Information is available on differences by age in breast cancer expenditure for one of the four sectors considered – namely, admitted hospital patient services (Figure 9.1). Of the total \$92 million expended for admitted hospital patient services on women for breast cancer in 2004–05, one quarter (26%) was spent on women aged 54 to 64 years (\$24 million), with an additional \$21 million (23%) spent on women aged 45 to 54 years and \$18 million (20%) on those aged 65 to 74 years.



Average expenditure on breast cancer per hospitalisation in 2004–05 was highest for women in the older age groups. In particular, average expenditure for those aged 85 years and over was \$6,701 per hospitalisation and for those aged 75 to 84 years, it was \$5,119. In comparison, expenditure was lowest for those women aged 35 to 44 years (\$3,913 per hospitalisation), followed by those aged 25 to 34 years (\$3,926).

## Trends

Change over time in health expenditure on breast cancer for females is shown in Table 9.2. After prices were adjusted for inflation (with all prices shown in 2004–05 dollars), the data indicate that expenditure on breast cancer grew by 32% from \$252 million in 2000–01 to \$331 million in 2004–05. While growth in expenditure on hospital admitted patient services was relatively modest (10%), there was a particularly large increase in expenditure in the areas of out-of-hospital medical expenses (173%) and prescription pharmaceuticals (71%). This finding is likely related to changes in admission procedures in some states and territories in regard to the administration of chemotherapy. As discussed in Chapter 8, in three states and territories, there has been a move away from admitting patients to hospital for same-day chemotherapy services and, instead, providing such services as an outpatient basis – either as a public or private outpatient service.

Table 9.2 also shows that the overall increase in expenditure on breast cancer for females (32%) is in line with the increase for all cancers (31%) but larger than the increase observed in expenditure (in the four sectors considered) for all diseases (20%).

**Table 9.2: Allocated health expenditure<sup>(a)</sup> by disease and sector, constant prices<sup>(b)</sup>, females, 2000–01 and 2004–05**

Sector	2000–01 \$ (million) <sup>(b)</sup>	2004–05 \$ (million)	Change (%)
Breast cancer			
Hospital admitted patient services <sup>(c)</sup>	84	92	9.7
Out-of-hospital medical expenses	25	68	172.5
Prescription pharmaceuticals	31	53	70.9
Cancer screening	112	118	5.5
<b>Total allocated expenditure on breast cancer<sup>(d)</sup></b>	<b>252</b>	<b>331</b>	<b>31.5</b>
All cancers <sup>(e)</sup>	2,199	2,876	30.8
All diseases	37,176	44,486	19.7

(a) Comprised of 'hospital admitted patient services', 'out-of-hospital medical expenses', 'prescription pharmaceuticals' and 'cancer screening'.

(b) Constant price health expenditure for 2000–01 is shown in terms of 2004–05 dollars.

(c) Pertains to those hospitalisations for which the principal diagnosis was breast cancer (ICD10 code of C50). It does not pertain to hospitalisations for which breast cancer was an additional diagnosis and the principal diagnosis related specifically to the type of cancer treatment or care received.

(d) Values may not sum to the total due to rounding.

(e) Includes cancers coded in ICD-10 as C00–C97. Does not include cancers coded as D45, D46, D47.1 and D47.3.

Source: Disease Expenditure Database, AIHW.

## Expenditure on breast cancer for males

In 2004–05, health expenditure on breast cancer for males was \$8 million, with the majority of this funding being directed to prescription pharmaceuticals (\$7 million) (Table 9.3).

**Table 9.3: Allocated health expenditure on breast cancer by sector and by sex, persons, 2004–05**

Sector	Males		Females		Total	
	\$ (million)	Per cent	\$ (million)	Per cent	\$ (million)	Per cent
Hospital admitted patient services <sup>(a)</sup>	1	9.7	92	27.8	93	27.3
Out-of-hospital medical expenses	0	5.8	68	20.6	69	20.2
Prescription pharmaceuticals	7	84.5	53	16.0	60	17.7
Cancer screening	..	..	118	35.7	118	34.8
<b>Total allocated expenditure<sup>(b)</sup></b>	<b>8</b>	<b>100.0</b>	<b>331</b>	<b>100.0</b>	<b>340</b>	<b>100.0</b>

(a) Pertains to those hospitalisations for which the principal diagnosis was breast cancer (ICD10 code of C50). It does not pertain to hospitalisations for which breast cancer was an additional diagnosis and the principal diagnosis related specifically to the type of cancer treatment or care received.

(b) Values may not sum to the total due to rounding.

Source: Disease Expenditure Database, AIHW.

Considering health expenditure on breast cancer for both males and females, total expenditure for this disease, considering the four sectors noted in Table 9.3, was \$340 million in 2004–05.