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# 11 Health management issues

Health management is concerned with the management of diseases, illnesses and injuries using a range of services (promotion, prevention/early detection and intervention) in a variety of settings (for example, public hospitals, community health centres and general practice). This chapter reports on the management of breast cancer and mental health, and represents some activities of the Australian, State and Territory governments in health management.

An overview of health management and the health management performance measurement framework is provided in sections 11.1 and 11.2 respectively. Sections 11.3 and 11.4 report on the performance of breast cancer and mental health management respectively. Section 11.5 outlines the future directions for the chapter, while jurisdictions' comments relating to all the health chapters are in section 11.6. Definitions are listed in section 11.7.

Improvements this year to the reporting of breast cancer detection and management include:

- presenting breast cancer incidence and mortality data averaged over five year periods to smooth volatility in year-on-year movements, particularly for smaller jurisdictions
- reporting on a comparable basis the breast cancer indicators: rate of cancers detected without the need for open biopsies; the ratio of breast conserving surgery to mastectomy; the detection rate; and the size of detected cancers
- reporting age standardised data for a number of breast cancer indicators for more jurisdictions.

## *Supporting tables*

Supporting tables for chapter 11 are provided on the CD-ROM enclosed with the Report. The files are provided in Microsoft Excel 97 format as `\Publications\Reports\2004\Attach11A.xls` and in Adobe PDF format as `\Publications\Reports\2004\Attach11A.pdf`.

Supporting tables are identified in references throughout this chapter by an 'A' suffix (for example, table 11A.3 is table 3 in the electronic files). These files can be

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found on the Review web page ([www.pc.gov.au/gsp/2004/index.html](http://www.pc.gov.au/gsp/2004/index.html)). Users without Internet access can contact the Secretariat to obtain these tables (see details on the inside front cover of the Report).

## **11.1 Overview of health management**

Policy makers are seeking alternative service delivery settings and a more coordinated approach to managing health problems. This chapter seeks to examine the performance of a number of services in influencing outcomes for women with breast cancer and for people with a mental illness. Measuring performance in the management of a health problem involves measuring the performance of service providers and the overall management of a spectrum of services, including prevention, early detection and treatment programs.

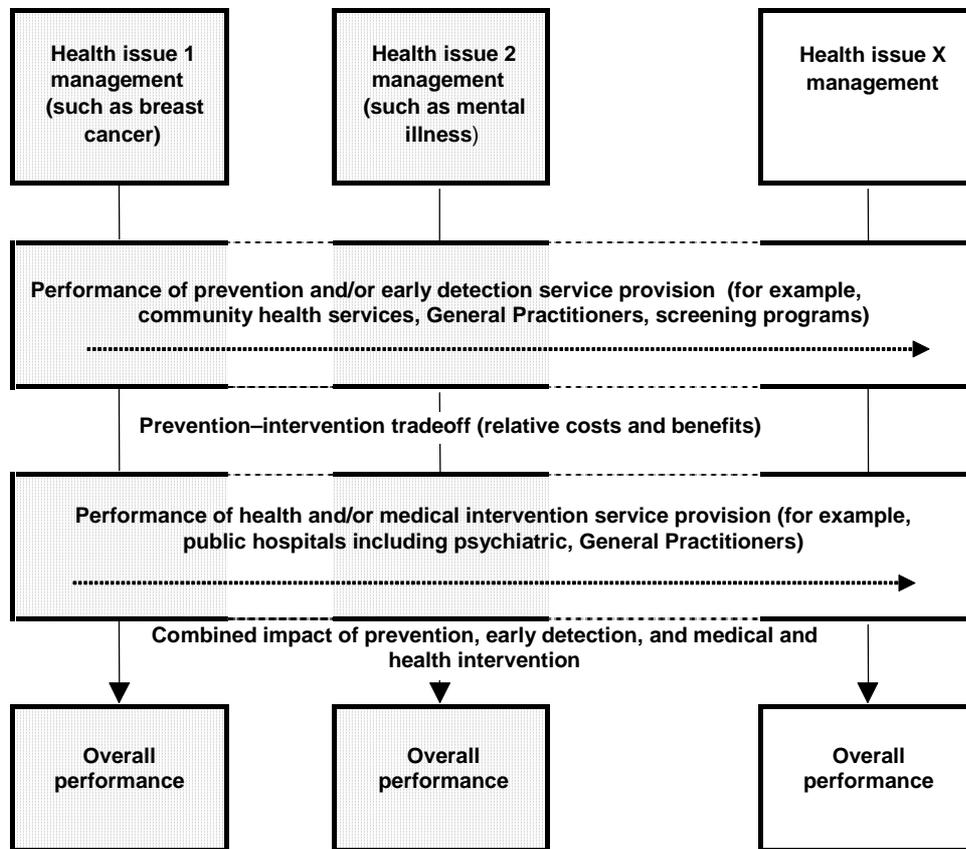
Breast cancer and mental illness are significant causes of morbidity and mortality in Australia. Cancer control and mental health are identified by governments as national health priority areas as are diabetes mellitus, cardiovascular health, injury prevention, the control of asthma, arthritis and musculoskeletal conditions. These areas represent almost 80 per cent of the total burden of disease and injury in Australia, and their management offers considerable scope for reducing this burden (AIHW 2003c).

Appropriate management of breast cancer and mental health will have a large effect on the health and wellbeing of many Australians. Both are the subject of programs designed to improve public health. Public health programs require the participation of public hospitals, primary and community health services and other services. The performance of public hospitals is discussed in chapter 9 and the performance of primary and community health services generally is discussed in chapter 10.

## **11.2 Framework for measuring the performance of health management**

The Health preface of this Report outlines the complexities of reporting on the performance of the overall health system in meeting its objectives. Frameworks for public hospitals and primary and community health services report the performance of particular service delivery mechanisms. The appropriateness of the mix of services (prevention versus intervention) and the appropriateness of the mix of delivery mechanisms (hospital based versus community-based) are the focus of reporting in this chapter. The measurement approach adopted is represented diagrammatically in figure 11.1.

Figure 11.1 Australian health system — measurement approach



The appropriate mix of services — including the prevention of illness and injury, medical treatment and the appropriate mix of service delivery mechanisms — is measured by focusing on a health management issue (represented by the vertical arrows). As in previous years, the chapter covers breast cancer detection and management and specialised mental health services. The breast cancer management framework integrates the early detection and medical intervention strategies, which should inform the tradeoffs in the allocation of resources between these two strategies. The mental health framework provides information on the interaction and integration arrangements between community-based and hospital-based providers in meeting the needs of Australians with a mental illness.

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## 11.3 Breast cancer

### Profile

Breast cancer is a disease whereby uncontrolled or malignant cell division leads to the formation of a tumour or tumours in a woman's breast (box 11.1).<sup>1</sup> Tumours may expand locally by invading surrounding tissue, or they may spread via the lymphatic or vascular systems to the rest of the body. If left untreated, most malignant tumours eventually result in the death of the affected person (AIHW 2000b). The focus of this Report is on invasive cancers, although some data are reported on *ductal carcinoma in situ* (DCIS — noninvasive tumours residing in the ducts of the breast).

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<sup>1</sup> Breast cancer in males is very rare and is not examined in this Report.

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Box 11.1 **Some common health terms used in breast cancer detection and management**

**Breast conserving surgery:** an operation to remove the breast cancer but not the breast itself. Types of breast conserving surgery include lumpectomy (removal of the lump), quadrantectomy (removal of one quarter of the breast) and segmental mastectomy (removal of the cancer as well as some of the breast tissue around the tumour and the lining over the chest muscles below the tumour).

**BreastScreen Australia:** an organisation that undertakes nationwide breast cancer screening. Services provided by BreastScreen Australia include all screening and assessment services to the point of diagnosis. The program includes health promotion activities, information provision, counselling and data collection across the screening pathway. BreastScreen Australia is jointly funded by the Australian, State and Territory governments.

**Ductal carcinoma in situ (DCIS):** abnormal cells that involve only the lining of a duct. The cells have not spread outside the duct to other tissues in the breast. DCIS is also known as intraductal carcinoma.

**Health management:** an ongoing process beginning with initial client contact and including all actions relating to the client: assessment/evaluation; education of the person, family or carer(s); diagnosis; and treatment. Problems associated with adherence to treatment and liaison with, or referral to, other agencies are also included.

**Incidence rate:** the proportion of the population suffering from a disorder or illness for the first time during a given period (often expressed per 100 000 persons).

**Invasive cancer:** a tumour whose cells invade healthy or normal tissue.

**Prevalence:** the number of cases of a disease present in a population at a given time (point prevalence) or during a given period (period prevalence).

**Screening:** the performance of tests on apparently well people to detect disease at an earlier stage than would otherwise be the case.

**Screening round (first):** a woman's first visit to a BreastScreen Australia mammography screening service.

**Screening round (subsequent):** a woman's visit to a BreastScreen Australia mammography screening service when she has previously attended such a service.

**Total mastectomy:** removal of the breast (also known as simple mastectomy).

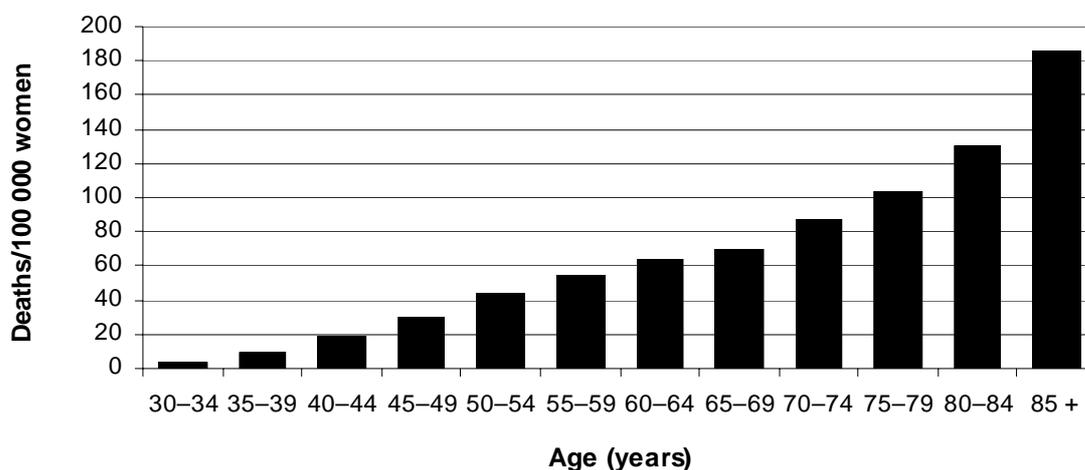
Breast cancer was responsible for 2505 female deaths in 1999, 2511 female deaths in 2000 and 2585 female deaths in 2001, making it the most frequent cause of death from cancer for females (ABS 2002a). The strong relationship between age and the mortality rate from breast cancer is shown for the period 1997–2001 in figure 11.2. Women aged 40–44 years had an annual average mortality rate over this period of

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18.2 per 100 000, whereas women aged 75–79 years had an annual average mortality rate of 103.5 per 100 000.

Figure 11.2 **Average annual mortality rates from breast cancer, by age group, 1997–2001**

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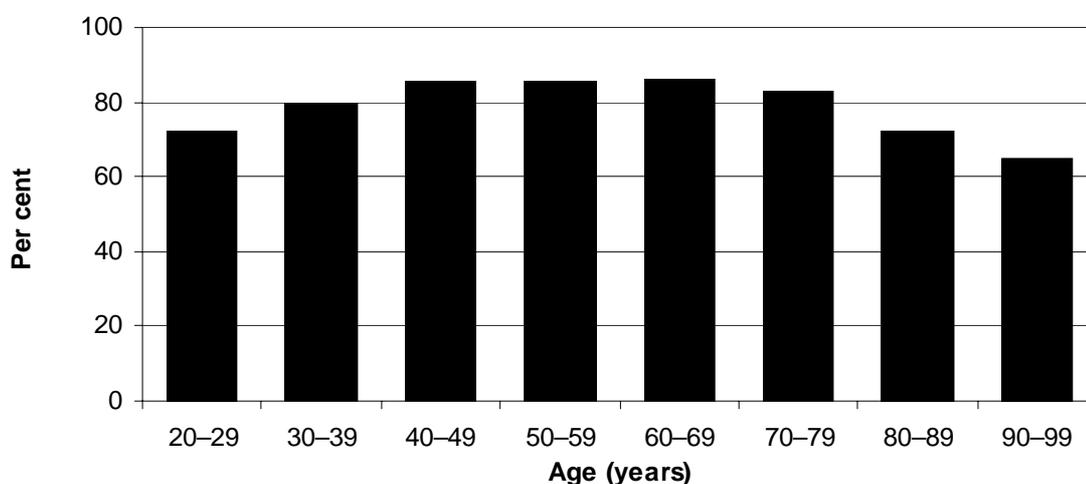


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Source: AIHW (unpublished); table 11A.19.

Relative survival after diagnosis of breast cancer in females is good compared with other cancers. Over the period 1992–97, for women of all ages in Australia, relative survival was 96.4 per cent one year after diagnosis, and 84.0 per cent five years after diagnosis. Relative survival 10 years after diagnosis was 68.3 per cent in the period 1987–91 (AIHW and AACR 2001). The five year relative survival rate for breast cancer in Australia at diagnosis over the period 1992–97 increased with age from the age group 20–29 years (72.4 per cent) to a peak for the age groups 40–49 years (85.8 per cent), 50–59 years (85.7 per cent) and 60–69 years (86.1 per cent). The five year relative survival rate declined with age for women over 70 years (figure 11.3).

Figure 11.3 **Breast cancer five year relative survival rate at diagnosis, by age groups 1992–97<sup>a</sup>**



<sup>a</sup> Five year relative survival results for the 0–19 age group are not presented because interpretation is made difficult by statistical instability.

Source: AIHW and AACR (2001); table 11A.1.

### *Incidence and prevalence*

Breast cancer is the most common cancer affecting Australian women. For the period 1992–96, the risk of a woman in Australia developing breast cancer before the age of 75 years was one in 12 (AIHW *et al.* 1999). The number of new cases of breast cancer diagnosed in Australian women increased from an annual average of 9695 over the period 1993–97 to an annual average of 10 522 over the period 1996–2000 (table 11.1). The increase in the number of cases detected reflects both an increase in the underlying rate of breast cancer as well as the early detection of cancers that previously would not have been discovered for some years (AIHW 2000b).

Annual average age standardised incidence rates of breast cancer are presented in figure 11.4. For this Report, breast cancer incidence data are averaged over five year periods to smooth volatility in year-on-year movements, particularly for smaller jurisdictions that tend to have fewer cases but relatively large variations in rates from year to year. The Australian incidence rate increased from an annual average of 108.5 per 100 000 women for the period 1992–96 to an annual average of 112.4 for the period 1996–2000. Over the period 1996–2000, the average annual incidence rate for women of all ages was highest in the ACT (118.0 per 100 000 women) and lowest in the NT (93.1 per 100 000 women).

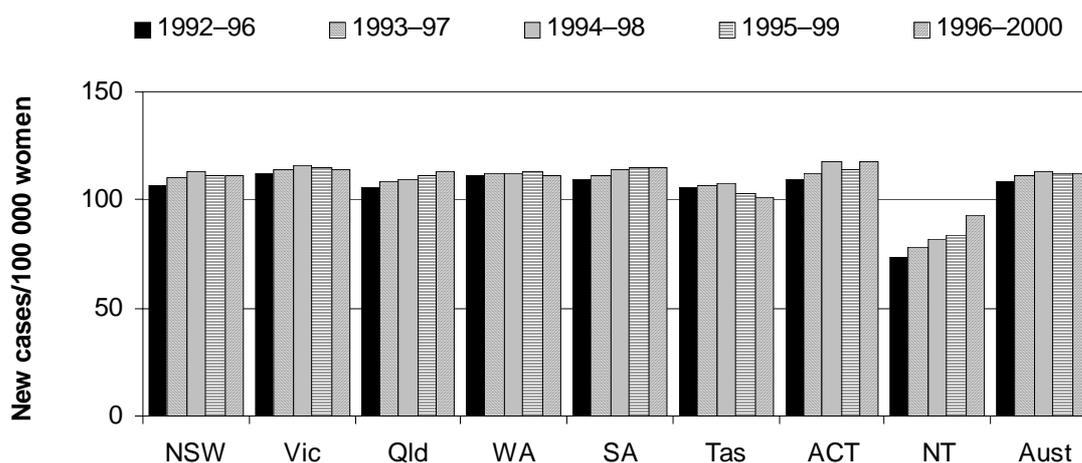
**Table 11.1 Average annual new cases of breast cancer diagnosed (number)<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
1993–97	3 356	2 561	1 629	872	850	249	136	41	9 695
1994–98	3 491	2 657	1 701	903	888	255	147	44	10 087
1995–99	3 520	2 685	1 781	937	910	247	148	44	10 271
1996–2000	3 585	2 731	1 873	949	929	248	157	50	10 522

<sup>a</sup> A new case is defined as a person who has a cancer diagnosed for the first time. One person may have more than one cancer, so may be counted twice in incidence statistics if it is decided that the two cancers are not of the same origin.

Source: AIHW (unpublished); table 11A.2.

**Figure 11.4 Average annual age standardised incidence rates of breast cancer, women of all ages<sup>a, b</sup>**

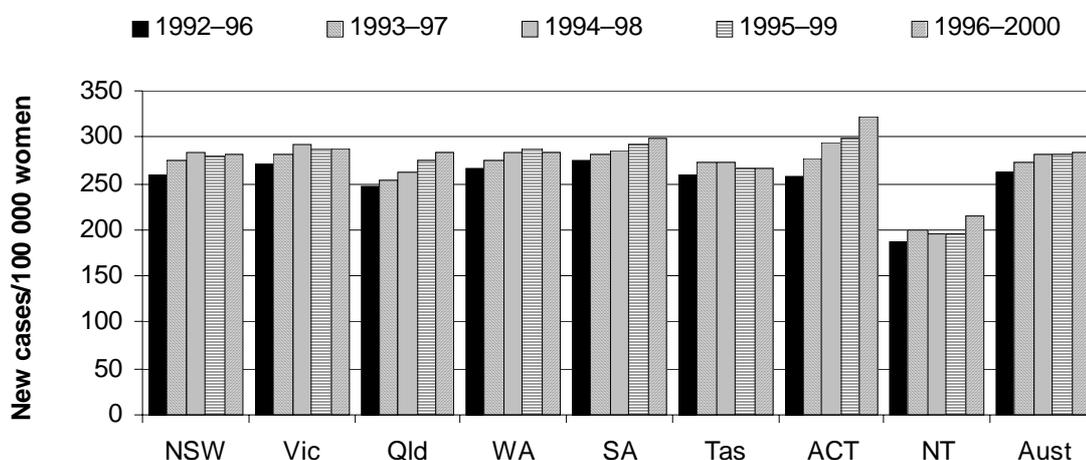


<sup>a</sup> Incidence refers to the number of new cases of breast cancer expressed per 100 000 women. <sup>b</sup> Rates are age standardised to the Australian 2001 population standard.

Source: AIHW (unpublished); table 11A.3.

Annual average age standardised incidence rates of breast cancer for women aged 50–69 years are shown in figure 11.5. For 1996–2000, average annual incidence rates were highest in the ACT (322.5 per 100 000 women) and lowest in the NT (214.7 per 100 000 women).

Figure 11.5 Average annual age standardised incidence rates of breast cancer, women aged 50–69 years<sup>a, b</sup>



<sup>a</sup> Incidence refers to the number of new cases of breast cancer expressed per 100 000 women. <sup>b</sup> Rates are age standardised to the Australian 2001 population standard.

Source: AIHW (unpublished); table 11A.3.

### *Size and scope of breast cancer detection and management services*

Breast cancer detection and management services comprise a number of major components: primary care and community-based services, including general practitioner (GP) services and community-based women's health services; screening services; acute services based in hospitals, including both inpatient and outpatient services; private consultations for a range of disciplines; and post-acute services, including home-based and palliative care (DHS 1999).

A fundamental component of breast cancer control is the use of screening mammography to enable early detection of breast cancer. There is evidence that population-based screening of women aged 50–69 years can reduce deaths from breast cancer. According to the National Breast Cancer Centre, women whose cancer is diagnosed before it has spread outside the breast have a 90 per cent chance of surviving five years. The five year survival rate drops to 20 per cent if the cancer spreads to other parts of the body before diagnosis (NBCC 2003). It is generally argued that cancers detected early may be treated more conservatively and that these women generally have a higher likelihood of survival.

A recent review of mammography screening research cast doubt on the evidence that screening for breast cancer reduces mortality, raising questions about the positive impact of screening on population health. It has also been suggested that screening may lead to aggressive treatment that may be unnecessary in some cases

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(Olsen and Gotzsche 2001). Further, some morbidity is associated with breast cancer screening, such as false positives, discomfort and anxiety. In addition, screening techniques have improved to the extent that very small growths can now be detected, but the risk of such growths posing a future danger is uncertain (Gorman 2002).

In response to these doubts, a working group convened by the International Agency for Research on Cancer of the World Health Organisation evaluated the available research on breast cancer screening in March 2002. The working group concluded that there is sufficient evidence of the efficacy of mammography screening for women aged 50–69 years. The reduction in mortality from breast cancer among women who choose to participate in screening programs was estimated to be around 35 per cent. For women aged 40–49 years, there is only limited evidence of a reduction in mortality. When considering population screening models, the working group concluded that the effectiveness of national screening programs varies due to differences in the coverage of the female population, the quality of mammography, the quality and appropriateness of treatment, and other factors. Organised screening programs are more effective in reducing deaths than sporadic screening of selected groups of women. The working group also concluded that there is insufficient evidence that clinical breast examination or self-examination reduces mortality from breast cancer (WHO 2002).

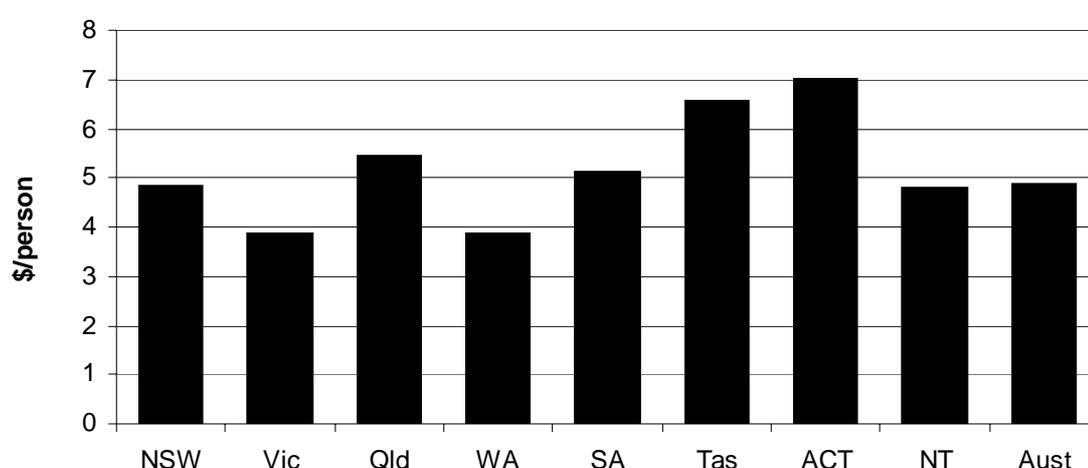
BreastScreen Australia, jointly funded by the Australian, State and Territory governments, undertakes nationwide breast cancer screening. BreastScreen Australia targets women aged 50–69 years for screening once every two years. The program aims to have 70 per cent or more women aged 50–69 participating in screening over a 24 month period. All recruitment activities undertaken by BreastScreen Australia specifically target women in this age group, although women aged 40–49 years and those over 70 years may also use the service.

Services provided by BreastScreen Australia in each State and Territory include all screening and assessment services to the point of diagnosis. The program includes health promotion activities, information provision, counselling and data collection across the screening pathway. Each jurisdiction also manages a central BreastScreen registry to ensure women with a screen detected abnormality are followed up and to enable reinvitation of women to screening at the appropriate interval. Data collected from the registries also allows for quality assurance, monitoring and evaluation of the program. All jurisdictions perform fine needle aspiration biopsy and core biopsies as part of their assessment services, but some jurisdictions do not include open biopsies in the funded program (table 11A.4).

Governments spent around \$96.1 million on breast cancer screening in 2000-01 (table 11A.5). Estimates of government expenditure on breast cancer screening per person in each jurisdiction are presented by jurisdiction in figure 11.6. The

jurisdictional estimates include Australian, State and Territory government expenditure. Differences across jurisdictions partly reflect variation in the proportion of women in the target age group for breast cancer screening, data deficiencies and collection methods, as well as the nature of the services and their relative efficiency. Some of the differences may also be due to the geography of a State or Territory and to the proportion of target women living in rural and remote areas. The data thus need to be viewed with care.

Figure 11.6 **Public health expenditure on breast cancer screening, 2000-01**<sup>a, b, c, d, e, f, g</sup>



<sup>a</sup> In every jurisdiction, BreastScreen Australia is a joint initiative funded by both the State or Territory government and the Australian Government under the Public Health Outcome Funding Agreements. <sup>b</sup> The data need to be viewed with care as a result of data deficiencies, differences across jurisdictions relating to the use of cash accounting and accrual methods, the treatment of corporate and central office costs, differences in methods used to collect expenditure figures and differences in the interpretation of public health expenditure definitions. <sup>c</sup> The Australian total includes Australian Government direct project expenditure, database or registry and other program support, population health non-grant program costs and running costs. <sup>d</sup> Medicare funding for radiographic breast examinations is excluded because it is not public health expenditure. <sup>e</sup> Victorian data include depreciation. <sup>f</sup> Data for the ACT include expenditure on BreastScreen ACT and the Cancer Registry. <sup>g</sup> Data for the NT for direct expenditure include public health information systems, disease surveillance and epidemiological analysis, public health communication and advocacy, public health policy, program and legislation development, and public health workforce development.

Source: AIHW (2003b); table 11A.5.

The number of women aged 40 years and over screened by BreastScreen Australia services indicates the size of the BreastScreen Australia program. Around 835 300 women over 40 years of age were screened in 2002, compared with 786 329 in 2000 (table 11.2).

**Table 11.2 Number of women screened by BreastScreen Australia<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
1998	270 428	168 790	146 267	63 000	60 110	20 508	11 016	na	na
1999	273 995	171 366	153 931	59 993	64 194	19 382	12 256	na	na
2000	277 400	177 232	163 722	65 581	65 494	21 314	11 438	4 148	786 329
2001	297 372	188 677	171 308	71 431	69 774	20 703	12 144	4 411	835 820
2002	294 011	187 714	177 169	69 695	68 571	22 189	11 789	4 161	835 299

<sup>a</sup> First and subsequent screening rounds, women aged 40 years or over. **na** Not available.

Source: State and Territory governments (unpublished); table 11A.6.

A number of services assist in the management of breast cancer once diagnosed. GPs are critical as the initial point of referral to treatment services. Hospitals provide initial treatment for breast cancer and assist in the management of ongoing care and follow-up. Relevant clinical disciplines include surgery, plastic and reconstructive surgery, pathology, radiation and medical oncology, nursing, diagnostic radiology, radiography, physiotherapy, allied health, and psychological and psychiatric services. Post-acute services include a range of further treatments, such as radiotherapy and chemotherapy (most of which take place on a same day or outpatient basis) and a range of follow-up and palliative care services (DHS 1999).

Inpatient separations in public hospitals for selected breast cancer related Australian refined diagnosis related groups (AR-DRGs)<sup>2</sup> in 2000-01 are presented in table 11.3.

Most of the data relating to breast cancer detection and management in this Report are provided by BreastScreen Australia. At present, data for services other than breast cancer screening are limited.

<sup>2</sup> AR-DRGs are a patient classification system that hospitals use to match their patient services (hospital procedures and diagnoses) with their resource needs. AR-DRG versions 4.1 and 4.2 are based on the ICD-10-AM classification (see chapter 9 for more detail).

**Table 11.3 Separations for selected AR-DRGs related to breast cancer, public hospitals, 2000-01 (per 10 000 people)<sup>a, b</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Major procedures for malignant breast conditions	2.3	2.7	2.2	2.9	3.8	1.9	3.4	1.2	2.6
Minor procedures for malignant breast conditions	1.6	1.6	1.3	1.5	1.6	1.2	2.1	0.7	1.5
Skin, subcutaneous tissue and plastic breast procedures	2.8	3.1	3.8	3.6	5.7	2.6	3.4	2.7	3.4
Other skin, subcutaneous tissue and breast procedures	13.9	17.4	26.4	17.7	35.3	15.5	14.7	11.5	19.2
Malignant breast disorders (age >69 years w CC)	0.3	0.5	0.1	0.2	0.3	0.2	0.3	na	0.3
Malignant breast disorders (age <70 years w CC) or (age >69 years w/o CC)	0.5	1.4	0.6	0.4	0.9	0.7	0.5	–	0.8
Malignant breast disorders (age <70 years w/o CC)	0.2	0.8	0.2	0.3	0.4	0.3	0.2	0.2	0.4
<b>Total separations in public hospitals</b>	<b>1832.7</b>	<b>2062.2</b>	<b>1819.7</b>	<b>1861.9</b>	<b>2311.2</b>	<b>1491.9</b>	<b>1914.9</b>	<b>2941.0</b>	<b>1931.5</b>

w/o CC = without complications and co-morbidities. w CC = with complications and co-morbidities.

<sup>a</sup> Care needs to be taken when comparing jurisdictions as admission practices vary. <sup>b</sup> AR-DRG version 4.2.  
**na** Not available. – Nil or rounded to zero.

Source: AIHW (2002); table 11A.7.

## Framework of performance indicators

The indicators developed to report on the performance of breast cancer detection and management are based on the shared government objective for managing the disease (box 11.2). The performance indicator framework shows which data are comparable in the 2004 Report (figure 11.7). For data that are not considered strictly comparable, the text includes relevant caveats and supporting commentary. Chapter 1 discusses data comparability from a Report-wide perspective (see section 1.6).

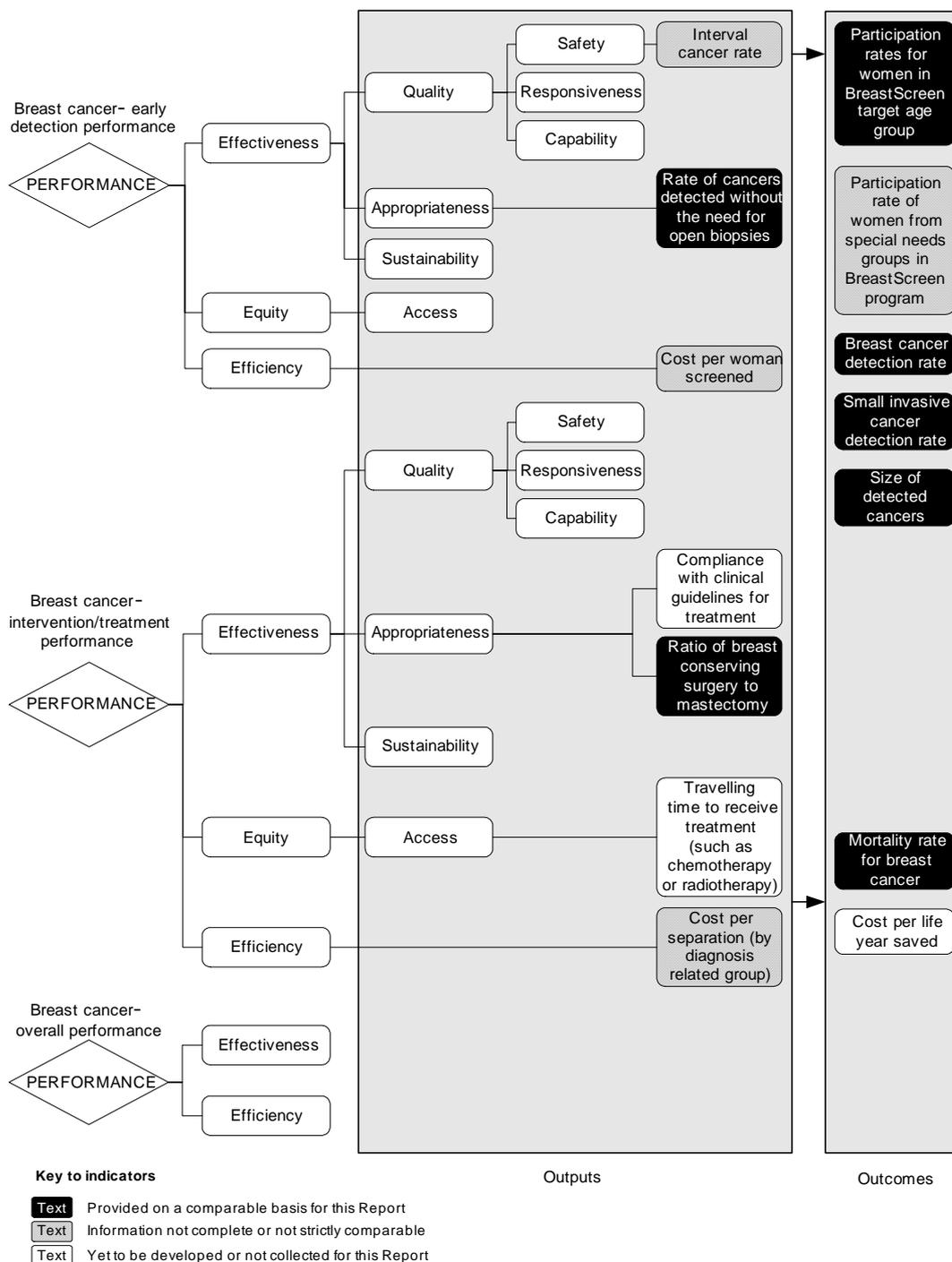
### Box 11.2 Objective for breast cancer detection and management

The objective for breast cancer detection and management is to reduce morbidity and mortality attributable to breast cancer and to improve the quality and duration of life of women with breast cancer in a manner that is equitable and efficient.

The framework for breast cancer detection and management focuses on achieving a balance between early detection of the disease and treatment. It has a tripartite structure: that is, performance indicators presented relate to early detection,

intervention and overall performance. A similar approach is adopted for reporting on Emergency management (chapter 8).

**Figure 11.7 Performance indicators for breast cancer detection and management**



This year, two modifications have been made to the framework for breast cancer detection and management. First, all health frameworks have been aligned with the

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National Health Performance Framework (NHPF). This alignment means that the performance indicator frameworks used in the health chapters are as similar as possible to the NHPF, within the constraints imposed by the need for the Review to reflect its aims and terms of reference. Second, the framework has been aligned with the new general Review framework for performance indicators implemented across all chapters. The new approach depicts the Review's focus on outcomes, consistent with demand by governments for outcome oriented performance information. The new framework also accentuates the importance of equity and draws out the distinction between equity and access. More detail on the new framework, along with the differences between outputs and outcomes can be found in chapter 1.

## **Key performance indicator results**

Given the significant amounts of data relating to breast cancer screening available, screening is the focus of reporting. Data relating to the management and treatment of breast cancer are less readily available, and it is a priority of the Review to extend reporting in this area in future.

### *Outputs*

#### *Early detection — interval cancer rate*

An interval cancer is an invasive breast cancer diagnosed in the interval between a negative screening result and the next scheduled screening examination. The interval cancer rate indicates both the effectiveness and sensitivity of breast cancer screening. The interval cancer rate needs to be interpreted in conjunction with the breast cancer detection indicators.

There is a time lag in obtaining data for this indicator due to the detection period falling between the last screening visit in the reference screening year and the next scheduled screening appointment. Following that period, a further lag time is required for the reporting of those cancers to the cancer registry, before a process of data matching can occur between each jurisdiction's screening program and its cancer registry. As a result, the most recent data available for this Report are for women screened during 1999. Stratification is by first and subsequent screening rounds to allow for expected variation in interval cancer rates between rounds.

Figure 11.8 presents the age standardised interval cancer rate by screening round for women aged 50–69 years. Differences in the rates across jurisdictions may be caused by differences in the policies of the BreastScreen services in each

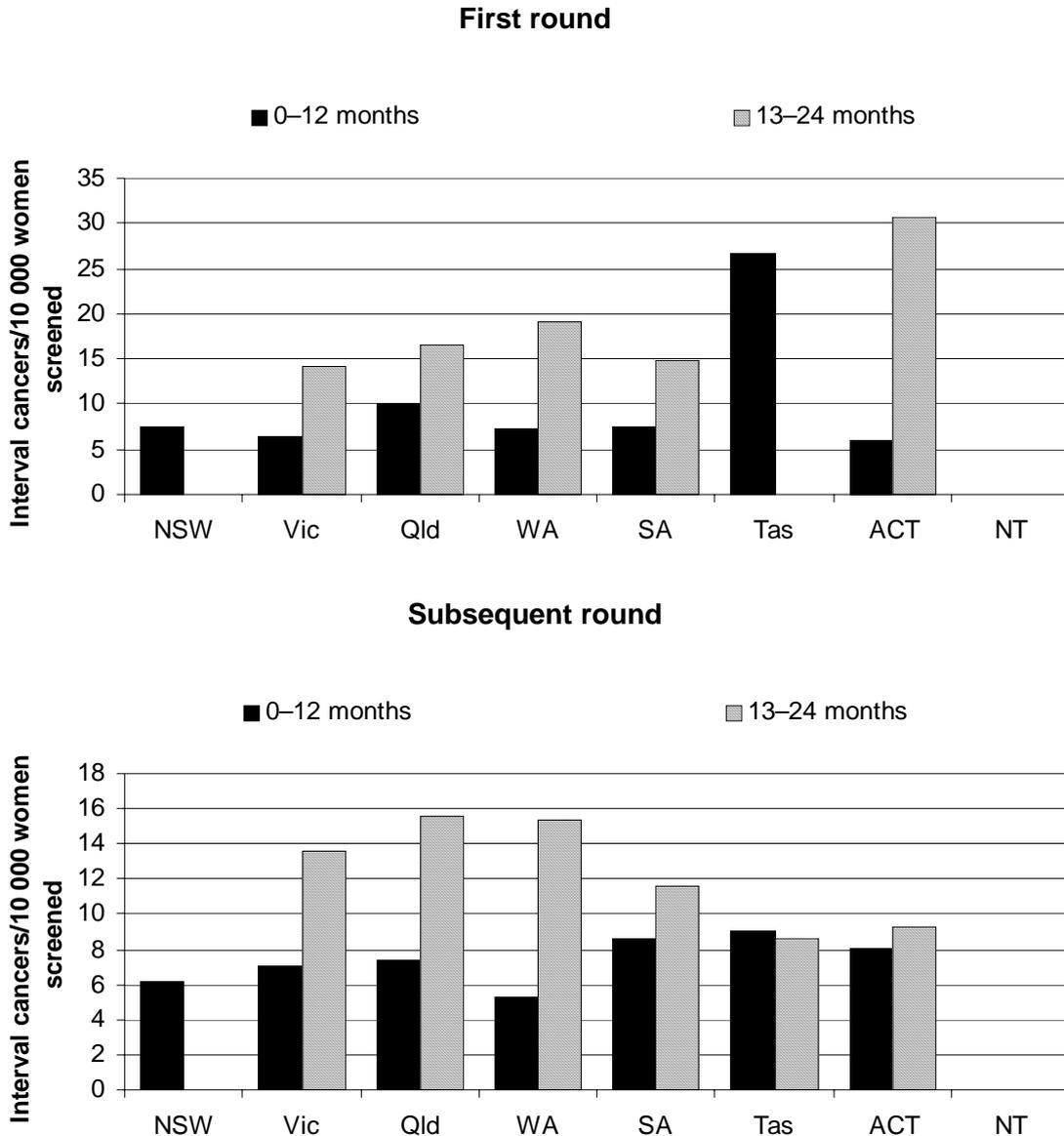
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jurisdiction. Some jurisdictions (such as SA and some services in NSW) do not further investigate an abnormality of the breast, even when a symptom is reported, if the mammogram appears normal. These women are advised to visit their GP for a referral to a diagnostic service. This could have the effect of increasing the jurisdiction's interval cancer rate and reducing their cancer detection rate if an invasive breast cancer is subsequently diagnosed outside of the breast cancer screening program. Comparisons across jurisdictions thus need to be made with care.

In 1999, for women aged 50–69 years in the first round of screening, the interval cancer rate 0–12 months following screening was highest in Tasmania (26.7 per 10 000 women screened) and lowest in the ACT (6.1 per 10 000 women screened). In the subsequent screening round, the interval cancer rate 0–12 months following screening was highest in Tasmania (9.1 per 10 000 women screened) and lowest in WA (5.3 per 10 000 women screened). Data for the NT were not available for the first or subsequent round.

In the first round, the interval cancer rate 13–24 months following screening was highest in the ACT (30.6 per 10 000 women screened) and lowest in Tasmania and the NT (both zero per 10 000 women screened). In the subsequent screening round, the interval cancer rate 13–24 months following screening was highest in Queensland (15.6 per 10 000 women screened) and lowest in Tasmania (8.6 per 10 000 women screened). Data for NSW and the NT were not available for the first or subsequent round.

Figure 11.8 Age standardised interval cancer rate, women aged 50–69 years, 1999<sup>a, b, c, d</sup>



<sup>a</sup> Rates are expressed as the number of interval cancers per 10 000 women screened. <sup>b</sup> The numbers used to measure this indicator are small, resulting in large variations from year to year. It is reasonable to view this indicator over time rather than from one year to the next. <sup>c</sup> Data for NSW for 13–24 months in both first and subsequent round are not available. <sup>d</sup> Data for the NT was zero in the first round for 13–24 months. All other NT data are not available.

Source: State and Territory governments (unpublished); table 11A.8.

*Early detection — rate of cancers detected without the need for open biopsies*

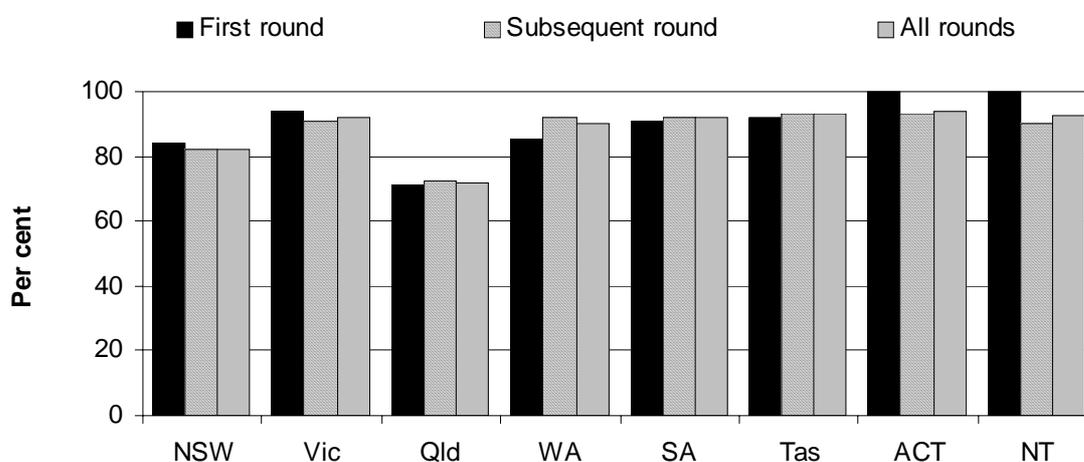
This indicator reflects the proportion of women diagnosed with breast cancer without the need for a diagnostic open biopsy in relation to their screening visit

during the reference year. The number of diagnoses without the need for a diagnostic open biopsy is divided by all breast cancers detected (invasive and DCIS). It is a measure of the effectiveness of the screening programs in diagnosing breast cancer without the need for a diagnostic open biopsy.

The BreastScreen Australia National Accreditation Standards (July 2002) state that 75 per cent or more of invasive cancers or DCIS should be diagnosed without the need for a diagnostic open biopsy. The emphasis of breast cancer screening is on detecting small cancers, so a high rate of cancers detected without the need for open biopsies indicates effectiveness in detecting malignancies while minimising the need for invasive procedures.<sup>3</sup>

In 2002, the rate of cancers detected without the need for open biopsies for women attending their first screening round was highest in the ACT and the NT (100 per cent in both jurisdictions) and lowest in Queensland (71.2 per cent). In the subsequent round, the rate was highest in Tasmania (93.3 per cent) and lowest in Queensland (72.2 per cent) (figure 11.9).

**Figure 11.9 Rate of cancers detected without the need for open biopsies, all women, 2002**



Source: State and Territory governments (unpublished); table 11A.9.

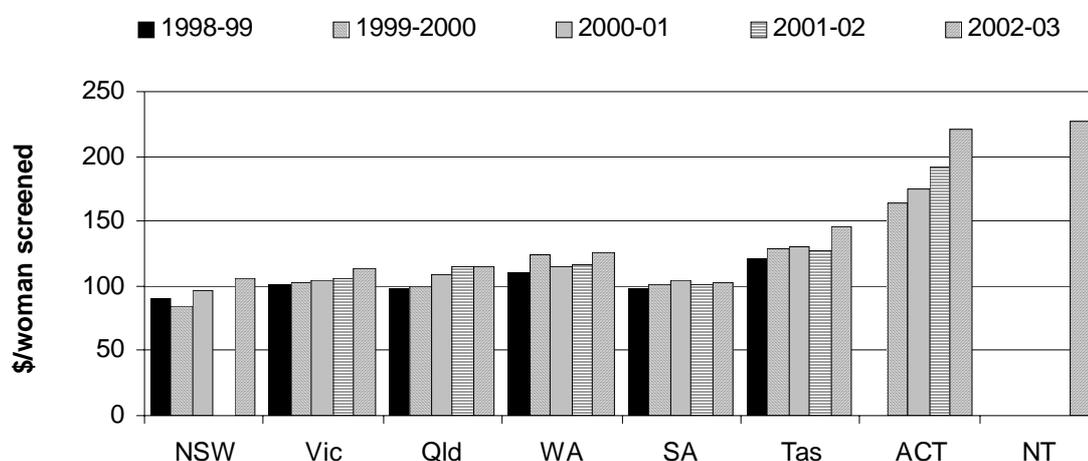
### *Early detection — cost per woman screened*

The cost per woman screened is an efficiency indicator for the breast cancer screening program. It measures the total cost per woman of providing services,

<sup>3</sup> A breast biopsy is a procedure for obtaining a specimen of breast tissue for microscopic examination to establish a diagnosis.

including screening, assessment and program management. Care needs to be taken when making comparisons across jurisdictions. There are potential differences in the items included in the measures of cost (particularly in the treatment of depreciation and capital asset charges, and the inclusion of subsidies). There may also be differences across jurisdictions in the scope of activities being costed. The Review is working to identify these differences across jurisdictions to improve data comparability in future (table 11A.11). Preliminary estimates of costs in each jurisdiction are presented in figure 11.10.

**Figure 11.10 Cost per woman screened, BreastScreen Australia services<sup>a, b, c, d</sup>**



<sup>a</sup> Data for NSW do not include subsidies. Data for NSW not available for 2001-02. <sup>b</sup> Data for Queensland include depreciation and user cost of capital for 2000-01, 2001-02 and 2002-03, but not for 1998-99 and 1999-2000. <sup>c</sup> Data for SA are calculated on an accrual basis. <sup>d</sup> Data for the NT are available only for 2002-03.

Source: State and Territory governments (unpublished); table 11A.10.

#### *Intervention/treatment — compliance with clinical guidelines for treatment*

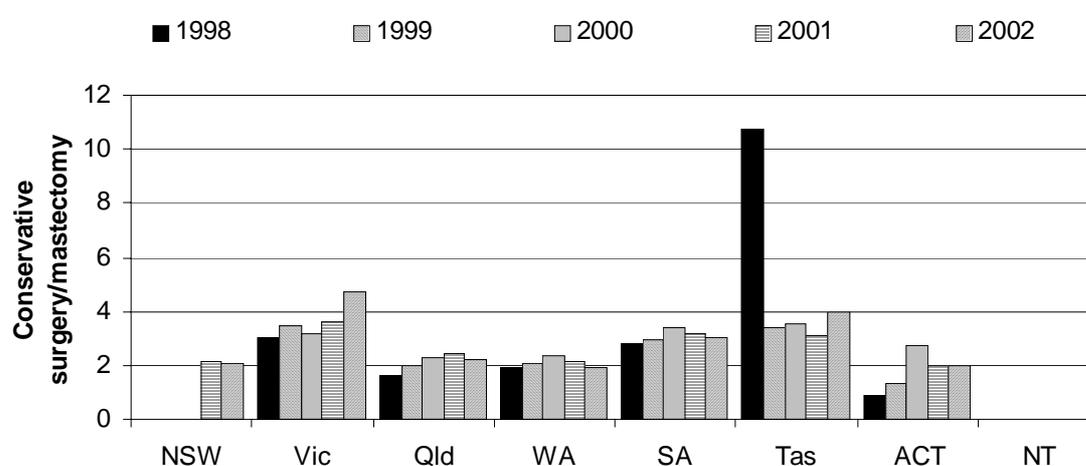
The Review has identified this indicator for development and reporting in future.

#### *Intervention/treatment — ratio of conserving surgery to mastectomy*

Breast conserving surgery removes the breast cancer but not the whole breast itself (box 11.1). A high ratio of conserving surgery to mastectomy may reflect the early detection of breast cancer, because breast conserving surgery is more likely to be possible when cancers are detected at an early stage. Other factors, however, such as the surgeon's judgment as to the best treatment for the patient, can also affect the type of surgery undertaken.

Data for this indicator are derived from BreastScreen Australia and represent only a portion of the total possible treatment information available. Further, because BreastScreen Australia aims to diagnose small cancers that can be treated more effectively and with reduced morbidity for women, the data do not necessarily provide a good indication of general clinical practice relating to breast cancer. Based on BreastScreen Australia data in 2002, the ratio of conserving surgery to mastectomy was highest in Victoria (4.7:1) and lowest in WA (1.9:1). Data for the NT were not available (figure 11.11).

Figure 11.11 Ratio of conserving surgery to mastectomy<sup>a, b</sup>



<sup>a</sup> Data for NSW are not available for 1998–2000. <sup>b</sup> Data for the NT are not available.

Source: State and Territory governments (unpublished); table 11A.12.

### *Intervention/treatment — travelling time to receive treatment*

The Review has identified this indicator for development and reporting in future.

### *Overall performance — cost per separation by diagnosis related group*

The average cost per AR-DRG is a proxy indicator of efficiency. It describes the cost of care for admitted patients in public hospitals with selected breast cancer related conditions. Not all intervention strategies are reported, and some of those reported cover treatment of a range of conditions, not all of which are related to breast cancer (for example, chemotherapy).

Data are sourced from the National Hospital Cost Data Collection (NHCDC) and are based on the AR-DRG classification version 4.2. The NHCDC is a voluntary annual collection of hospital cost and activity data covering the financial year

before the collection period. Since participation in the NHCDC is voluntary, the samples are not necessarily representative of hospitals in each jurisdiction (although this is improving over time). In addition, the purpose of the NHCDC is to calculate between DRG cost weights, not to compare the efficiency of hospitals.

Table 11.4 summarises costs for selected breast cancer AR-DRGs. The average cost of major procedures for malignant breast conditions across Australia was \$4952 in 2001-02. Minor procedures for malignant breast conditions cost \$2487 on average in Australia. Table 11A.13 also summarises the average length of stay in public hospitals associated with each AR-DRG.

**Table 11.4 Average cost per selected breast cancer AR-DRGs, public hospitals, 2001-02 (dollars)<sup>a, b, c</sup>**

AR- DRG	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Major procedures for malignant breast conditions	4 873	6 378	4 047	4 627	4 438	4 326	4 532	4 952	4 952
Minor procedures for malignant breast conditions	2 368	3 093	2 336	1 913	2 298	2 504	1 563	2 237	2 487
Malignant breast disorders age > 69 years w CC	8 815	4 245	5 090	4 596	5 601	3 391	np	np	5 773
Malignant breast disorders (age <70 years w CC) or (age >69 w/o CC)	3 206	1 695	1 440	2 665	2 792	3 175	4 247	5 573	2 217
Malignant breast disorders age <70 years w/o CC	1 199	1 032	1 203	701	1 639	682	np	np	1 075

<sup>a</sup> w CC=with complications and co-morbidities. w/o CC=without complications and co-morbidities. <sup>b</sup> Estimated population costs are obtained by weighting the sample results according to the known characteristics of the population. <sup>c</sup> Average cost is affected by a number of factors, some of which are admission practices, sample size, remoteness and the type of hospitals contributing to the collection. Direct comparison between jurisdictions is difficult as there are differences in hospital costing systems. **np** Not published due to low volume and privacy concerns.

Source: DHA, NHCDC, Round 6; table 11A.13.

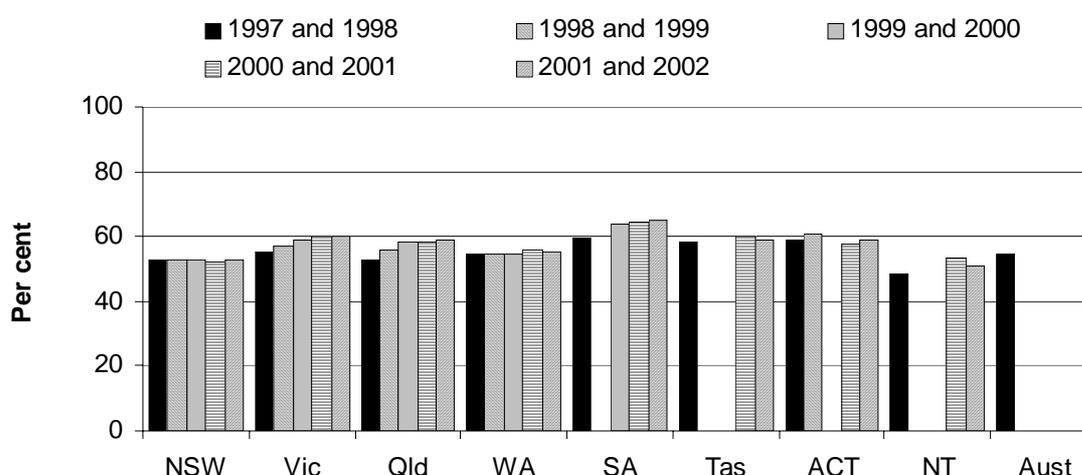
## Outcomes

### *Early detection — participation rate of women in the target age group*

The participation of women in the target age group in breast cancer screening is an indicator of the accessibility of the breast cancer screening programs. The aim under the National Accreditation Standards (July 2002) is that greater than or equal to 70 per cent of women aged 50–69 years participate in screening over a 24 month period. Recruitment activities undertaken by BreastScreen specifically target women in this age group although access to the program is also provided for women aged 40–49 years and 70–79 years (BreastScreen Australia 2002).

In the 24 month period 2001 and 2002, the participation of women aged 50–69 was highest in SA (64.8 per cent) and lowest in the NT (51.2 per cent) (figure 11.12). Data for 1997 and 1998 were sourced from the Australian Institute of Health and Welfare (AIHW) and more recent data were sourced from State and Territory governments.

**Figure 11.12 Age standardised participation rates of women aged 50–69 years in BreastScreen Australia screening programs (24 month period)<sup>a, b</sup>**



<sup>a</sup> The participation rate is the number of individual women resident in the catchment area of the jurisdiction screened during the reference period, divided by the number of women resident in the catchment area using the Australian Bureau of Statistics estimated resident population. This value represents the estimated population at the midpoint of the reference period. It is an average of the two estimated resident populations for the two calendar years (by adding both years and dividing by two). The catchment area is a geographic region based on service size in relation to the population, accessibility and the location of other services. It is uniquely defined for each service based on postcode or statistical local area. <sup>b</sup> Data for 1997 and 1998 are sourced from the AIHW; data for 1998 and 1999, 1999 and 2000, 2000 and 2001, and 2001 and 2002 are sourced from State and Territory governments. There may be differences in estimated resident population used in the denominators between the two sources, which may cause a break in the time series.

Source: State and Territory governments (unpublished); AIHW (2000b); table 11A.14.

### *Early detection — participation rates of women from selected community groups in BreastScreen programs*

The participation rate of women from selected groups in the community — that is, Indigenous women, women from non-English speaking backgrounds (NESB) and women living in rural and remote areas — in breast cancer screening is another indicator of the effectiveness (in terms of access and equity) of the breast cancer screening program. Data for this indicator are presented in table 11.5. Care needs to be taken when comparing data across jurisdictions because differences in the

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collection of Indigenous, NESB, and rural and remote status across jurisdictions make comparisons difficult.

For the 24 month period 2001 and 2002, the age standardised participation of Indigenous women aged 50–69 years was markedly lower than that of all females in that age group, although this may be influenced by problems with identification of Indigenous status. The largest difference between Indigenous and other females' participation was in SA (26.2 percentage points). The smallest difference was in Queensland (10.4 percentage points). For the same period, the participation of women in non-metropolitan areas was higher than that of women in metropolitan areas, except in Tasmania where it was the same. The participation of NESB women aged 50–69 years was higher than that of the total female population aged 50–69 years in Queensland, WA and the ACT, and lower in other jurisdictions.

**Table 11.5 Age standardised participation rates of women aged 50–69 years from selected communities in BreastScreen Australia programs (per cent)<sup>a</sup>**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1999–2000 (24 month period)								
Indigenous <sup>b</sup>	29.1	na	46.6	36.7	42.3	na	48.0	na
NESB <sup>c</sup>	42.7	na	66.2	56.2	54.0	na	na	na
Metropolitan or capital city <sup>d</sup>	50.8	na	55.2	51.0	63.0	na	na	na
Rural and remote or rest of State <sup>e</sup>	56.7	na	61.0	61.1	66.5	na	..	na
Total aged 50–69 years	52.9	58.8	58.1	54.5	63.9	na	na	na
2000–2001 (24 month period)								
Indigenous <sup>b</sup>	32.6	51.4	48.8	35.9	43.9	na	36.6	37.7
NESB <sup>c</sup>	42.3	65.4	67.2	50.9	53.1	na	57.2	na
Metropolitan or capital city <sup>d</sup>	51.6	58.0	57.1	60.8	63.5	62.7	57.3	41.1
Rural and remote or rest of State <sup>e</sup>	59.2	66.0	62.4	58.4	67.7	62.8	..	67.6
Total aged 50–69 years	52.3	60.2	58.5	55.7	64.6	60.1	57.4	53.3
2001–2002 (24 month period)								
Indigenous <sup>b</sup>	41.3	42.1	48.3	31.3	38.6	33.4	41.4	25.3
NESB <sup>c</sup>	45.1	52.1	69.1	56.4	62.4	45.4	70.7	na
Metropolitan or capital city <sup>d</sup>	51.4	58.4	56.6	53.9	63.8	61.1	58.9	34.1
Rural and remote or rest of State <sup>e</sup>	57.7	64.4	61.8	63.7	67.7	59.1	..	53.5
Total aged 50–69 years	53.0	60.0	58.7	55.2	64.8	59.1	59.0	51.2

<sup>a</sup> First and subsequent rounds. <sup>b</sup> Those women who self identify as being of Aboriginal or Torres Strait Islander descent. <sup>c</sup> Women who speak a language other than English at home. <sup>d</sup> Includes 'capital city' (State and Territory capital city statistical divisions) and 'other metropolitan centre' (one or more statistical subdivisions that have an urban centre with a population of 100 000 or more). <sup>e</sup> Includes 'large rural centre' statistical local areas where most of the population resides in urban centres with a population of 25 000 or more); 'small rural centre' (statistical local areas in rural zones containing urban centres with populations between 10 000 and 24 999); 'other rural area' (all remaining statistical local areas in the rural zone); 'remote centre' (statistical local areas in the remote zone containing populations of 5000 or more) and 'other remote area' (all remaining statistical local areas in the remote zone). **na** Not available **..** Not applicable.

Source: State and Territory governments (unpublished); tables 11A.14 and 11A.15.

### *Early detection — breast cancer detection rate*

The breast cancer detection rate is an indicator of the effectiveness of screening services in identifying breast cancers at an early stage. Mammographic screening aims to reduce mortality from breast cancer by detecting cancers while they are still small and localised to the breast. It is important to consider all of the following rates: invasive cancer detection rates, small invasive cancer detection rates, DCIS detection rates and the interval cancer rates.

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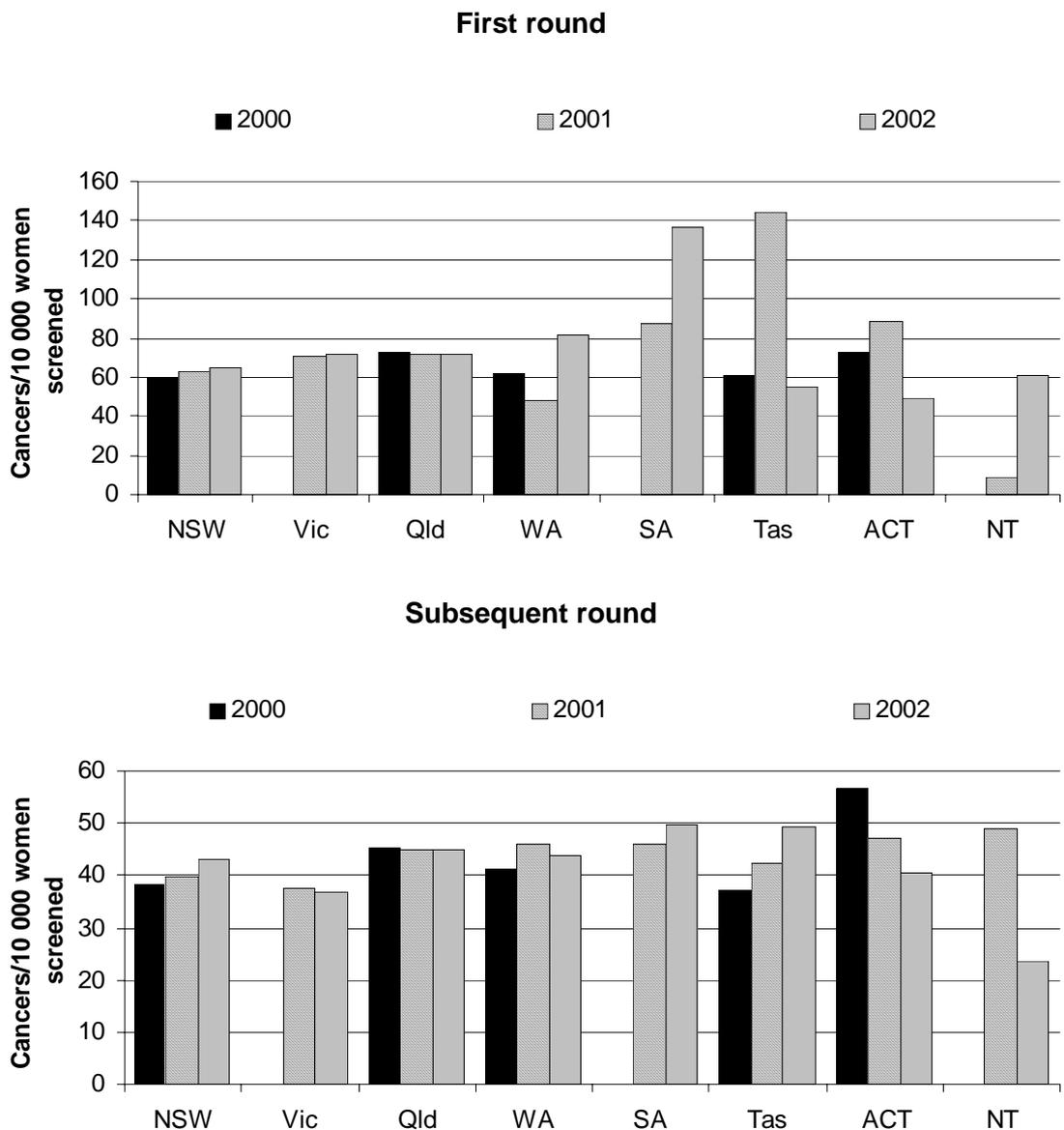
Figure 11.13 reports the age standardised number of invasive cancers detected per 10 000 women screened aged 50–69 years by screening round. Detection rates for DCIS per 10 000 women screened are reported in the attachment (table 11A.16). (Definitions can be found in box 11.1 and section 11.7.) Data are reported by round because larger cancers are expected to be found in the first round of screening. In subsequent rounds, cancers should be smaller if the program is achieving what it has set out to achieve — that is, early detection of small cancers through regular two yearly screening.

The following are the relevant BreastScreen Australia National Accreditation Standards for detection rates (BreastScreen Australia 2002):

- Greater than or equal to 50 per 10 000 women aged 50–69 years who attend for their first screen are diagnosed with invasive breast cancer
- Greater than or equal to 35 per 10 000 women aged 50–69 years who attend for their second or subsequent screen are diagnosed with invasive breast cancer
- Greater than or equal to 12 per 10 000 women aged 50–69 years who attend for their first screen are diagnosed with DCIS
- Greater than or equal to seven per 10 000 women aged 50–69 years who attend for their second or subsequent screen are diagnosed with DCIS.

For women aged 50–69 years, in the first round in 2002, SA had the highest detection rates (136.7 cancers per 10 000 women) while the ACT had the lowest (49.4 cancers per 10 000 women). In the subsequent round in 2002, SA had the highest detection rates (49.8 cancers per 10 000 women) while the NT had the lowest (23.7 cancers per 10 000 women) (figure 11.13).

**Figure 11.13 Age standardised breast cancer detection rate for women aged 50–69 years, invasive cancers<sup>a</sup>**



<sup>a</sup> Rates are expressed per 10 000 women screened and age standardised to the Australian population of women attending a BreastScreen service in 1998.

Source: State and Territory governments (unpublished); table 11A.16.

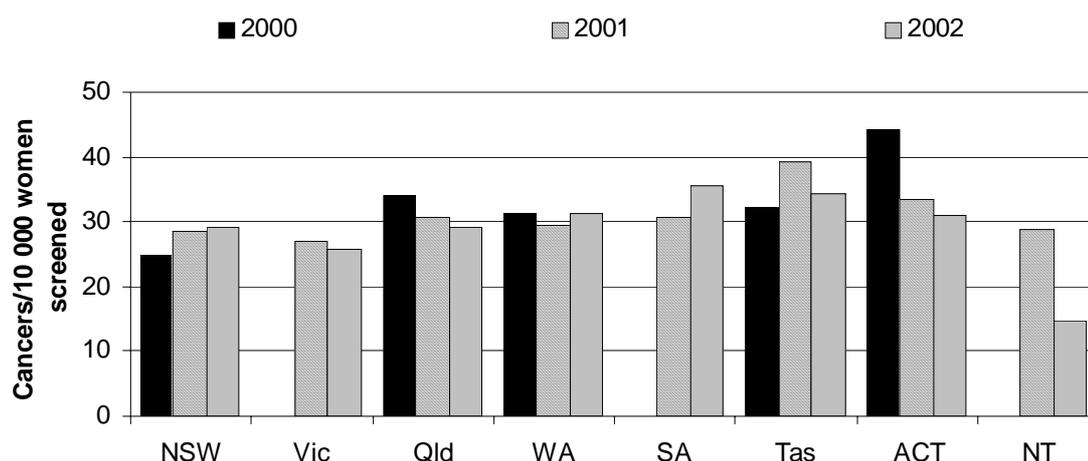
*Early detection — small invasive cancer detection rate*

The small (15 millimetres diameter or less) invasive cancer detection rate is an important outcome indicator for breast cancer screening programs. Detection of small cancers is generally associated with increased survival rates and reduced morbidity and mortality, leading to some cost savings to the health care system and

women (AIHW *et al.* 1998). It is important to consider together all of the following rates: invasive cancer detection rates, small invasive cancer detection rates, DCIS detection rates and the interval cancer rates.

The BreastScreen Australia National Accreditation Standards (July 2002) specify that 25 or more per 10 000 women aged 50–69 years who attend screening are diagnosed with a small (15 millimetres or less) invasive breast cancer (BreastScreen Australia 2002). Age standardised rates are reported in figure 11.14. For women aged 50–69 years screened by BreastScreen Australia in 2002, the highest rate of detection for small invasive cancers was in SA (35.5 cancers per 10 000 women screened) while the lowest was in the NT (14.6 cancers per 10 000 women screened).

Figure 11.14 **Age standardised small diameter cancer detection rate for women aged 50–69 years, all rounds of screening<sup>a, b</sup>**



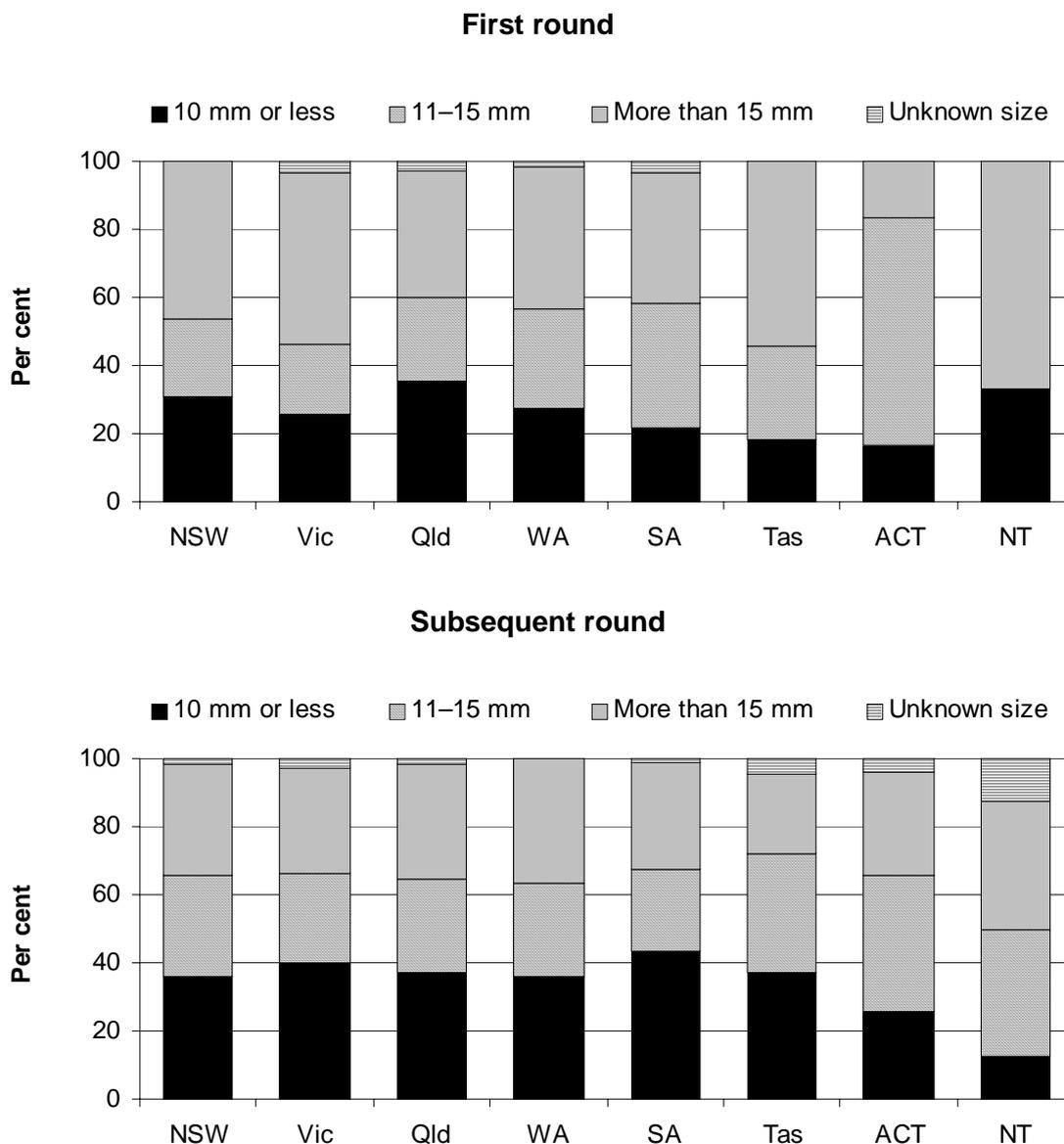
<sup>a</sup> Small diameter cancers are defined as invasive cancers up to and including 15 millimetres in diameter.  
<sup>b</sup> Rates are expressed per 10 000 women screened and age standardised to the Australian population of women attending a BreastScreen service in 1998.

Source: State and Territory governments (unpublished); table 11A.17.

### *Early detection — size of detected cancers*

Figure 11.15 presents the proportion of cancers by size by screening round for 2002. BreastScreen Australia is the source of the data which cover only its clients. The data for 2002 reflect that larger cancers tend to be discovered in the first round and that smaller cancers tend to be detected in subsequent rounds.

Figure 11.15 **Detected invasive cancers as a proportion of total detected invasive cancers, women aged over 40 years, by size of cancer 2002<sup>a</sup>**



<sup>a</sup> Non-breast malignancies not counted.

Source: State and Territory governments (unpublished); table 11A.18.

### Overall performance — mortality rate for breast cancer

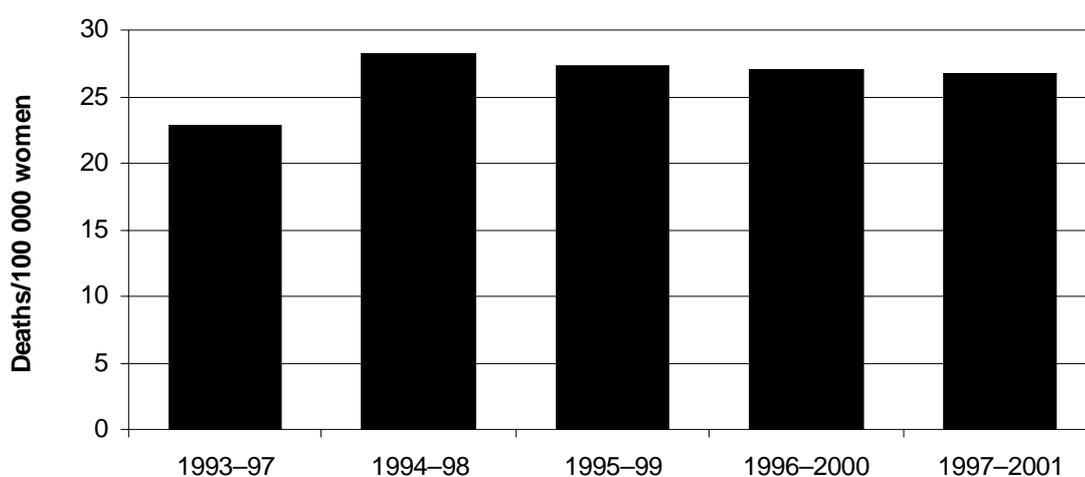
Breast cancer mortality data in this year's Report are averaged over five year periods to smooth volatility in year-on-year movements particularly for smaller jurisdictions that tend to have fewer cases but relatively large variations in rates from year to year.

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Mortality rates indicate the effectiveness of both early detection and treatment services for breast cancer. Age standardised mortality rates are the most appropriate measure for looking at changes in mortality rates. The average annual age standardised mortality rate declined from a peak of 28.2 per 100 000 women over the period 1994–98 to an average of 26.8 per 100 000 women over the period 1997–2001 (figure 11.16).

**Figure 11.16 Average annual age standardised mortality rate from breast cancer, all ages<sup>a</sup>**

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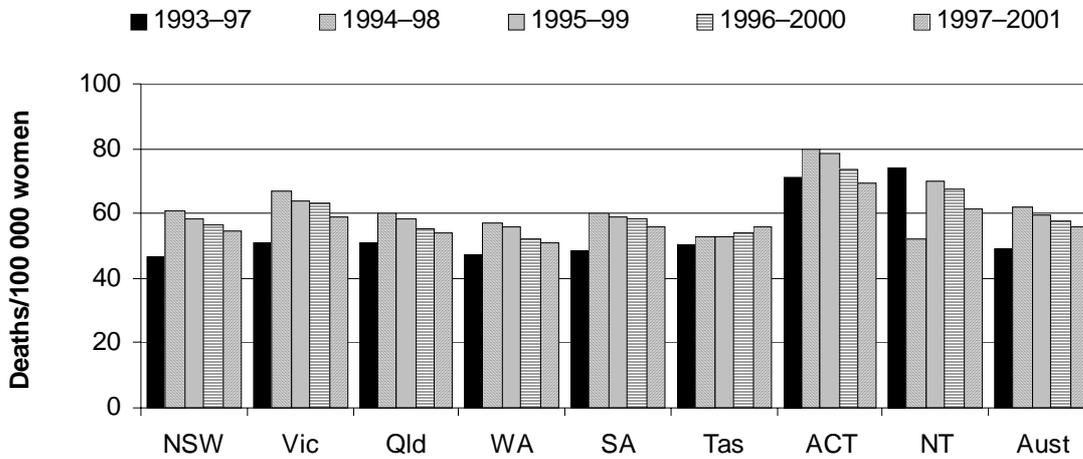
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<sup>a</sup> Age standardised to the Australian population at 30 June 2001.

Source: AIHW (2000b); AIHW (unpublished); table 11A.19.

The average annual age standardised mortality rate from breast cancer for women aged 50–69 years over the period 1997–2001 was highest in the ACT (69.3 per 100 000 women) and lowest in WA (50.8 per 100 000 women) (figure 11.17).

Figure 11.17 **Average annual age standardised mortality rate from breast cancer, women aged 50–69 years<sup>a, b</sup>**



<sup>a</sup> Age standardised to the Australian population at 30 June 2001. <sup>b</sup> The high reported age standardised mortality rate from breast cancer has been reviewed in detail by ACT Health. The review found that the higher rate of mortality in the ACT was unlikely to be due to the major modifiable determinants of mortality — namely, participation in screening, or treatment by experienced surgeons according to established guidelines (ACT Health 2003).

Source: AIHW (unpublished); table 11A.19.

### *Overall performance — cost per life year saved*

The Review has identified this indicator for development and reporting in future.

## **11.4 Mental health**

This section covers specialist mental health care services that mostly treat low prevalence but severe disorders. GPs are important service providers for people with a mental disorder (chapter 10) but the Report does not currently include performance information on GPs’ services for those affected by mental illness. The Review aims to incorporate alcohol and drug treatment services in the Primary and community health chapter in future reports; brief descriptive information has been included this year. Some common terms used in mental health management are outlined in box 11.3.

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### Box 11.3 **Some common terms relating to mental health**

**Acute services:** the National Survey of Mental Health Services (NSMHS) defines acute services as specialist psychiatric care for people who present with acute episodes of mental illness. These episodes are characterised by recent onset of severe clinical symptoms of mental illness that have potential for prolonged dysfunction or risk to self and/or others. The key characteristic of acute services is that this treatment effort is focused on symptom reduction with a reasonable expectation of substantial improvement. In general, acute psychiatric services provide short term treatment. Acute services may focus on assisting people who have had no prior contact or previous psychiatric history, or individuals with a continuing psychiatric disorder for whom there has been an acute exacerbation of symptoms.

**Ambulatory care services:** mental health services dedicated to the assessment, treatment, rehabilitation and/or care of non-admitted inpatients, but not confined to crisis assessment and treatment services, mobile assessment and treatment services, outpatient clinic services (whether provided from a hospital or community mental health centre), child and adolescent outpatient treatment teams, social and living skills programs (including day programs, day hospitals and living skills centres), and psychogeriatric assessment teams and day programs.

**Community residential services:** staffed residential units established in community settings that provide specialised treatment, rehabilitation and/or care for people affected by a mental illness or psychiatric disability. To be defined as community-based residences, the services must provide residential care to people with a psychiatric illness or disability, be located in a community setting external to the campus of a general hospital or psychiatric institution, employ onsite staff for at least some part of the day, and be government funded.

**Inpatient services:** stand alone psychiatric hospitals or specialist psychiatric units located within non-psychiatric hospitals.

**Mental disorder:** a diagnosable illness that significantly interferes with an individual's cognitive, emotional and/or social abilities.

**Mental health:** the capacity of individuals within groups and the environment to interact with one another in ways that promote subjective wellbeing, the optimal development and use of mental abilities (cognitive, affective and relational) and the achievement of individual and collective goals consistent with justice.

**Mental illness prevention:** interventions that occur before the initial onset of a disorder.

**Mental health problem:** diminished cognitive, emotional and/or social abilities, but not to the extent that the criteria for a mental disorder are met.

(Continued next page)

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Box 11.3 (Continued)

**Mental health promotion:** activities designed to improve the mental health functioning of people through prevention, education and intervention activities and services.

**Non-acute services:** rehabilitation services that have a primary focus on intervention to reduce functional impairments that limit the independence of patients. Rehabilitation services focus on disability and the promotion of personal recovery. They are also characterised by an expectation of substantial improvement over the short term to medium term. Patients treated by rehabilitation services usually have a relatively stable pattern of clinical symptoms. Non-acute services also consist of extended care services that provide care over an indefinite period for patients who have a stable but severe level of functional impairment and inability to function independently without extensive care and support. Patients of extended care services usually show a relatively stable pattern of clinical symptoms, which may include high levels of severe unremitting symptoms of mental illness. Treatment effort focuses on preventing deterioration and reducing impairment. Improvement is expected only over a long period.

**Non-government organisations:** private not-for-profit community managed organisations that receive State and Territory government funding specifically for the purpose of providing community support services for people affected by a mental illness or psychiatric disability. Programs provided by the non-government organisation sector may include supported accommodation services (including community-based crisis and respite beds), vocational rehabilitation programs, advocacy programs (including system advocacy), consumer self-help services, and support services for families and primary carers.

**Outpatient services (community-based):** services primarily provided to non-admitted patients on an appointment basis and delivered from health centres located in community settings physically separated within hospital sites. Services provided may also include outreach or domiciliary care as an adjunct to services provided from the centre base.

**Outpatient services (hospital-based):** services primarily provided to non-admitted patients on an appointment basis and delivered from clinics located within hospitals. Services provided may also include outreach or domiciliary care as an adjunct to services provided from the clinic base.

**Prevalence:** the number of cases of a disease present in a population at a given time (point prevalence) or during a given period (period prevalence).

**Specialised care service:** services whose primary function is specifically to provide treatment, rehabilitation or community support targeted to people affected by a mental disorder or psychiatric disability. This criterion is applicable regardless of the source of funds. Such activities are delivered from a service or facility that is readily identifiable as both specialised and serving a mental health function.

Source: DHA (2002).

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Mental health relates to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioural incapacity (DHAC and AIHW 1999). Problems and disorders that interfere with this ability and diminish quality of life and productivity cover cognitive, emotional and behavioural disorders. Some of the major mental disorders perceived to be public health problems are schizophrenia, depression, anxiety disorders, dementia and substance use disorders (DHAC and AIHW 1999). Each of these disorders is unique in terms of its incidence across the lifespan, causal factors and treatments.

Mental disorders are a major cause of chronic disability. In 1996 (the most recent year for which data are available), mental disorders accounted for 1 per cent of years of life lost as a result of mortality, but were the leading cause of years of healthy life lost as a result of disability (nearly 30 per cent of the non-fatal burden of disease) (Mathers and Stevenson 1999). Most of this burden has been attributed to affective disorders (35 per cent of the calculated burden), anxiety disorders (24 per cent) and substance use disorders (20 per cent).

### *Prevalence*

Little information is available on the prevalence of mental disorders in Australia. The most recent data are for 2001, showing levels of psychological distress in the community. As part of the National Health Survey in 2001, the Australian Bureau of Statistics (ABS) surveyed adults on the level of psychological distress that they had experienced in the four weeks before the survey. This survey used the Kessler-10 (K10) scale, which measures non-specific psychological distress. The scale consists of 10 questions about non-specific psychological distress and seeks to measure the level of current anxiety and depressive symptoms that a person might have experienced in the four weeks before the interview (ABS 2002b).<sup>4</sup>

The results showed that almost all adults aged 18–64 years had experienced some form of psychological distress. Nationally, 61.4 per cent of those aged 18–64 years had experienced a low level of distress, 23.5 per cent had experienced moderate distress and 13.0 per cent had experienced a high or very high level of distress.

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<sup>4</sup> Respondents were asked whether in the previous four weeks they had felt: tired for no good reason; nervous; so nervous nothing could calm them down; hopeless; restless or fidgety; so restless they could not sit still; depressed; everything was an effort; so sad that they could not be cheered up; and worthless. For each question, there is a five level response scale based on the amount of time that the respondent reported experiencing the particular problem. Generally each item was scored from 1 for 'none of the time', to 5 for 'all of the time'. Scores of the 10 questions were then summed, yielding a minimum possible score of 10 and a maximum possible score of 50. Low scores indicated low levels of psychological distress and high scores indicated high levels of psychological distress (ABS 2002b).

Generally, people aged 65 years or over tended to experience lower levels of moderate and high to very high levels of distress, compared with the younger age group (table 11.6). Overall, in percentage terms, more males than females had experienced lower levels of distress, and more females than males had experienced moderate and high to very high levels of distress (table 11A.20).

**Table 11.6 K10 level of psychological distress, 2001 (per cent of population)<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT<sup>b</sup></i>	<i>Aust</i>
18–64 years									
Low	61.1	62.0	62.2	61.5	60.0	61.9	62.8	na	61.4
Moderate	24.1	23.6	22.4	24.7	23.2	22.8	23.8	na	23.5
High and very high	13.4	13.2	12.4	11.1	14.8	13.8	9.8	na	13.0
Total	98.6	98.8	97.0	97.2	97.9	98.4	96.4	na	97.9
65 years or over									
Low	65.8	68.8	71.1	68.9	65.2	65.0	74.7	na	67.7
Moderate	18.4	13.8	15.8	15.1	18.3	15.7	14.3	na	16.3
High and very high	8.9	9.9	6.2	9.4	8.4	12.9	4.4 <sup>c</sup>	na	8.7
Total	93.1	92.6	93.1	93.3	91.9	93.7	93.3	na	92.8
Total adults									
Low	61.9	63.1	63.6	62.6	61.0	62.5	64.2	na	62.4
Moderate	23.1	22.0	21.3	23.2	22.2	21.5	22.7	na	22.3
High and very high	12.6	12.7	11.5	10.8	13.6	13.6	9.2	na	12.3
Total	97.7	97.8	96.4	96.6	96.8	97.6	96.0	na	97.1

<sup>a</sup> Psychological distress as measured by the K10 scale. <sup>b</sup> Separate estimates for the NT are not available for this survey, but the NT contributed to national estimates. <sup>c</sup> Estimate has a relative standard error of between 25 per cent and 50 per cent and needs to be interpreted with caution. **na** Not available.

Source: ABS (unpublished); table 11A.20.

Other prevalence data are available from the 1995 National Survey of Mental Health and Wellbeing (initiated by the [former] Department of Health and Family Services). The survey comprised:

- a survey of a nationally representative sample of 10 000 adults aged 18 years or over, focusing on common mental disorders
- a survey of mental disorders among children and adolescents aged 4–17 years
- a study of low prevalence disorders (people living with psychotic illness).

The ABS survey of adults undertaken in 1997 did not include people in institutions (such as nursing homes and psychiatric hospitals) and other accommodation arrangements (such as supported accommodation and boarding houses). It did not

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attempt to cover all mental disorders; rather, it focused on the relatively common anxiety disorders, affective disorders and substance use disorders.<sup>5</sup>

The 1997 survey suggested that 10.6 per cent of adults aged 18–64 years, and 4.5 per cent of adults aged over 65 years suffered from anxiety disorders. It also suggested that 6.5 per cent of adults aged 18–64 years and 1.7 per cent of adults aged over 65 years suffered from affective disorders. In terms of substance use disorders, 8.9 per cent of adults aged 18–64 years were sufferers while 1.1 per cent of adults over 65 years were sufferers. Overall, the survey suggested that almost one in five people aged 18 years or over suffered from one or more mental disorders during the 12 months before the survey was conducted. Of the disorders that were covered, people were most likely to report anxiety disorders (54.6 per cent of those reporting symptoms of a mental disorder), followed by substance use disorders (43.7 per cent) and affective disorders (32.7 per cent) (ABS 1998).

The child and adolescent component of the National Survey of Mental Health and Wellbeing involved 4500 children aged 4–17 years in randomly selected households. The survey was undertaken by the University of Adelaide in consultation with the National Collaborating Centres for the Survey of Mental Health of Young People. Data were collected between February and April 1998. Prevalence data from the survey were based on information derived from parents and adolescents aged 13–17 years. The survey found:

- mental health problems in 14.1 per cent of those aged 4–17 years
- depressive disorders, conduct disorders and attention deficit/hyperactivity disorders in 14.2 per cent of those aged 6–17 years. Importantly, there was substantial co-morbidity between these disorders (Sawyer *et al.* 2000).<sup>6</sup>

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<sup>5</sup> An anxiety disorder is represented by feelings of tension, distress or nervousness, and includes agoraphobia, social phobia, panic disorder, generalised anxiety disorder, obsessive compulsive disorder and post-traumatic stress disorder. An affective disorder is a mood disturbance that includes mania, hypomania and depression. Substance use disorders are harmful use and or dependence on drugs (including sedatives, stimulants, marijuana and opioids) and/or alcohol. Survey participants in some cases reported more than one disorder, so percentages do not add to 100.

<sup>6</sup> Children with depressive disorders feel sad, lack interest in activities that they previously enjoyed, criticise themselves and are pessimistic or hopeless about the future. They may contemplate suicide or be irritable or aggressive. They may be indecisive and have problems concentrating and sleeping. Children with conduct disorders exhibit antisocial behaviour, such as aggression to people or animals, destruction of property, deceitfulness or theft, and serious violations of rules. Attention deficit/hyperactivity disorder is a persistent pattern of inattentive behaviour and/or hyperactivity impulsiveness that is more frequent and severe than typically observed in individuals of the same development level.

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The University of Western Australia coordinated an epidemiological and clinical study of people aged 18–64 years living with psychotic illness. Psychotic disorders cover a diverse group of illnesses that are characterised by fundamental distortions in thinking, perception or emotional response, and include schizophrenia, bipolar affective disorders and delusional disorders. Participants in the survey were drawn from people who attended mental health services in Queensland and WA. People with schizophrenia and schizoaffective disorders accounted for over 60 per cent of people with disorders covered by the study (Jablensky *et al.* 1999).

### *Services used*

The 1997 ABS survey of health and wellbeing included only self-reported service use by adults. Of those adults with the mental disorders covered, 38.0 per cent had contacted a health service for their problem. GPs were the main mental health service providers, seeing 29.4 per cent of patients with a mental disorder. Less than 1 per cent of people with the types of mental disorder covered by the ABS survey were admitted to hospital (ABS 1998).

People of different ages have different service use characteristics. Of those adults aged 18–34 years with the mental disorders covered by the ABS survey, only 31.8 per cent had contacted a health service for their problem. GPs were the main mental health service providers, seeing about 21.2 per cent of patients in this age group with a mental disorder (ABS 1998). Adults aged 35–64 years with a mental disorder were more likely to contact a health service for their problem (44.2 per cent of those with the mental disorders covered by the survey). Again, GPs were the main mental health service providers, seeing about 36.9 per cent of patients in this age group with a mental disorder (ABS 1998). Comparable figures for those aged over 65 years were not published, but a substantial proportion of older people with a mental disorder are in residential aged care, so were not incorporated in the ABS survey (DHFS 1997).

The 1995 child and adolescent survey suggested the following findings (Sawyer *et al.* 2000):

- Of the 14.1 per cent of those aged 14–17 years with a mental health problem, 25 per cent had attended one or more services in the six months before the survey. Most commonly, the services were provided by family doctors or school-based counselling. Few had attended a specialist mental health service.
- Of those aged 6–17 years with depression, conduct or attention deficit/hyperactivity disorder, 29 per cent had attended at least one service in the six months before the survey. The services most frequently used were counselling in schools, family doctors and paediatricians. Around 3 per cent had

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attended a mental health clinic, while only 2 per cent had attended a hospital-based department of psychiatry.

The 1995 study of people living with psychotic illness found that four to seven adults per 1000 in urban areas were in contact with mental health services during any given month due to symptoms of psychotic disorders. Over half the participants in the study had one or more inpatient admissions in the year before interview. On average, the length of an inpatient stay was six weeks; 10 per cent had been in an inpatient facility for the whole of the year. Outpatient care had been used by 60 per cent of survey participants, while 44 per cent had used emergency services (mainly attending a general hospital department or using the services of a psychiatric team). Terms are defined in box 11.3. Overall, 81 per cent had been in contact with a GP, averaging 12 visits per year (Jablensky *et al.* 1999).

Specialised mental health services in Australia generally do not treat the substance use disorders covered by the ABS 1997 survey of adults except where these disorders co-occur with a primary mental disorder. The ABS survey indicated for all adults a low co-morbidity of substance use and anxiety disorders (0.6 per cent) and of substance use and affective disorders (0.2 per cent) (ABS 1998). For adults aged over 65 years, co-morbidity of both anxiety disorders and affective disorders with substance abuse was very low because substance use in this age group was negligible (ABS 1998). People with psychotic disorders, on the other hand, appeared to have rates of alcohol abuse/dependence and drug abuse/dependence far in excess of the rates found in the general population. Co-morbidity of a psychotic disorder and substance abuse was diagnosed in one person in four in the sample of people living with a psychotic illness (Jablensky *et al.* 1999). In most jurisdictions, alcohol and drug problems are treated separately by specialist drug services.

This chapter reports on specialist mental health care services only. The performance of non-specialist service providers is examined more closely in chapter 9 (Public hospitals), chapter 10 (Primary and community health) and chapter 12 (Aged care services). Mental health patients often have complex needs and may access a number of other services, for example, those covered in chapter 3 (School education), chapter 7 (Corrective services), chapter 8 (Emergency management) and chapter 13 (Services for people with a disability).

### *Roles and responsibilities*

Specialist mental health care providers include a range of government and non-government service providers offering promotion, prevention, treatment and management, and rehabilitation services. Community mental health facilities, psychiatrists, clinical psychologists, psychotherapists, mental health clinicians in

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private practice, counsellors, public hospitals with specialist psychiatric units and stand alone psychiatric hospitals all provide specialist mental health care. In addition, a number of health services provide care to mental health patients in a non-specialist health setting — for example, GPs, public hospital emergency departments and outpatient departments, and public hospital general wards (as opposed to specialist psychiatric wards). Some people with a mental disorder are cared for in residential aged care services.

State and Territory governments are the primary sources of funding and service delivery for specialist public mental health services. The Australian Government also provides funding to States and Territories via the Australian Health Care Agreements and through the Medicare Benefits Schedule (private psychiatrists and GPs). The Australian, State and Territory governments also fund other services that people with mental disorders can access, such as emergency relief, employment, accommodation, income support, rehabilitation, residential aged care and other services for people with a disability. These services are not discussed in this chapter, but residential aged care is discussed in chapter 12 and services for people with a disability are discussed in chapter 13.<sup>7</sup>

### *Funding*

Public real recurrent spending of around \$2.9 billion was allocated to mental health services in 2001-02 (tables 11A.21 and 11A.22).<sup>8</sup> State and Territory governments made the largest contribution (\$1.7 billion, or 61.0 per cent), although this included some Australian Government funds under the Australian Health Care Agreements (table 11A.22). The Australian Government spent \$1.1 billion. Real Australian Government spending per person in 2000-01 was \$54, increasing to \$57 in 2001-02 (figure 11.18).

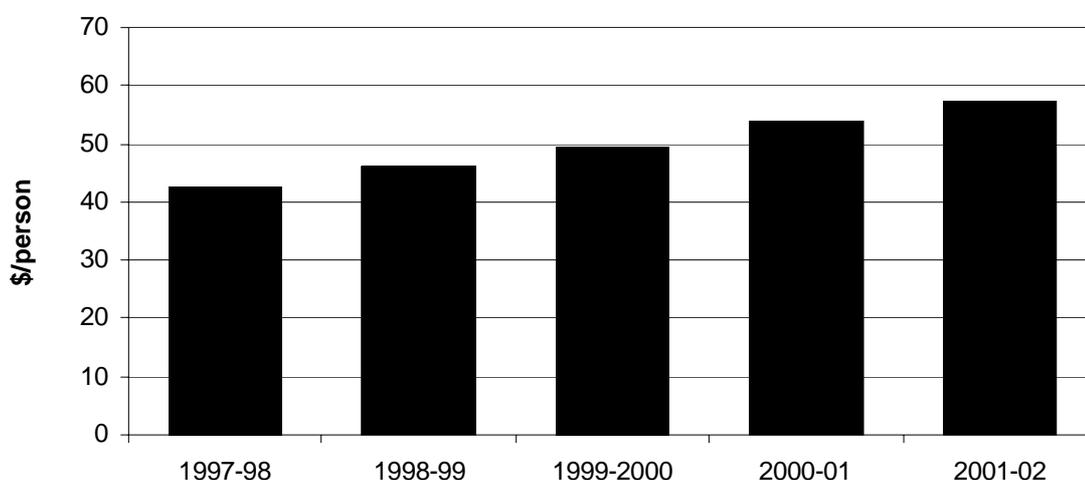
Data in the Report relating to public mental health services are drawn from the National Survey of Mental Health Services (NSMHS). These survey data for 2001-02 are preliminary, because validation has not yet been completed. Final validation is ongoing before publication in the (forthcoming) *National Mental Health Report 2004*. Data for 2001-02, therefore, need to be treated with care.

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<sup>7</sup> In some jurisdictions, psychiatric disability support services provide specialist mental health care. Victoria advised, for example, that while these services received some Australian Government funding under the Commonwealth–State Disability Agreement, the Victorian Government provides most of the funding for these services in Victoria.

<sup>8</sup> The data include revenue from other sources (including patient fees and reimbursement by third party compensation insurers) and ‘other Australian Government funds’.

Figure 11.18 **Real Australian Government recurrent spending on mental health services per person (2000-01 dollars)<sup>a, b, c</sup>**



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Data for years before 2001-02 are as published in the *National Mental Health Report 2003*. Some historical adjustments are likely to be made for *National Mental Health Report 2004*. <sup>c</sup> Constant price expenditure for all years (2000-01 dollars), using the implicit price deflator for non-farm gross domestic product.

Source: Department of Health and Ageing (DHA) (unpublished); table 11A.23.

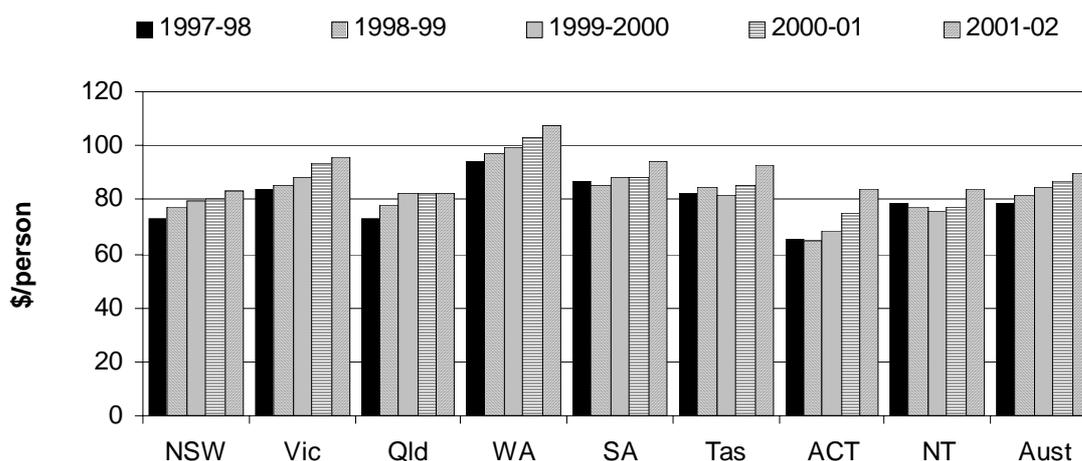
The largest component of Australian Government expenditure on mental health services in 2001-02 was expenditure under the Pharmaceutical Benefits Schedule for psychiatric medication (43.6 per cent). Medicare Benefits Schedule payments for consultant psychiatrists accounted for a further 17.2 per cent of Australian Government expenditure on mental health services, followed by expenditure for mental health care by GPs (14.6 per cent). The residual was provided by the Department of Veterans' Affairs (DVA) (11.7 per cent), the National Mental Health Strategy (NMHS) (7.9 per cent), private hospital insurance premium rebates, research and other time limited program and project support (table 11A.21).

Real spending per person at State and Territory discretion has increased over time (figure 11.19). Data in figure 11.19 for State and Territory government expenditure include Australian Government funds provided as part of the Australian Health Care Agreements base grants but excludes Special Purpose Grants provided for mental health reform and funding provided to States and Territories by the DVA. The data are thus referred to as expenditure 'at State and Territory discretion'.

In 2001-02, WA spent the most (\$108 per person) and NSW and Queensland each spent the least (\$83 per person). The data in figure 11.19 exclude depreciation. Estimates of depreciation are presented in table 11A.25. State and Territory government expenditure estimates (excluding revenue from other sources and other Australian Government funds) are presented in table 11A.24. The revenue

categories are subject to minimal validation and may be inconsistently treated across jurisdictions. In addition, it is not possible to extract revenue from other sources and other Australian Government funds uniformly across time.

**Figure 11.19 Real recurrent expenditure at the discretion of State and Territory governments (2000-01 dollars)<sup>a, b, c, d, e</sup>**

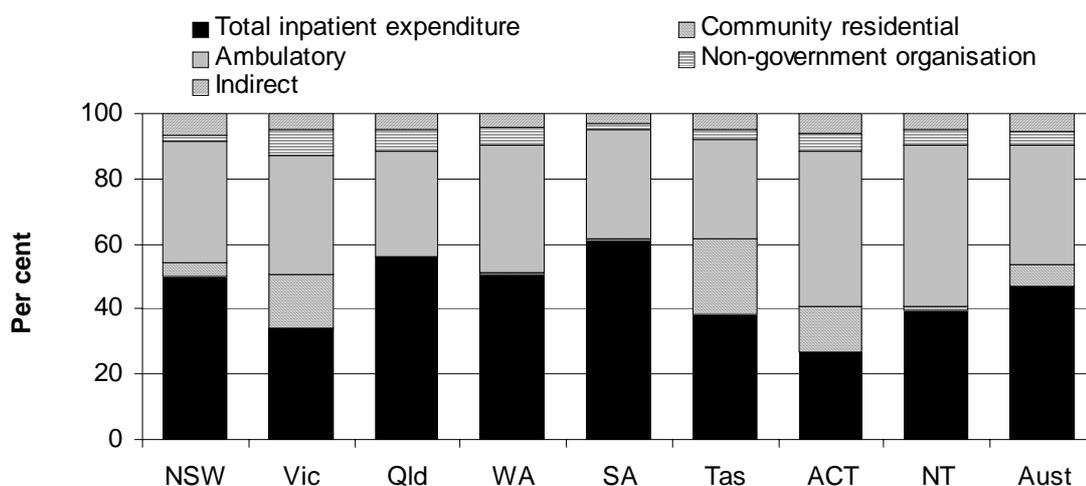


<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Constant price expenditure (2000-01 dollars), using government final consumption expenditure on hospital and clinical services as the deflator. <sup>c</sup> Estimates of State and Territory government spending include revenue from other sources (including patient fees and reimbursement by third party compensation insurers) and 'other Australian Government funds', but exclude Australian Government funding provided under the NMHS and through the DVA. <sup>d</sup> Depreciation is excluded for all years. Depreciation estimates are reported in table 11A.25. <sup>e</sup> Funding is a mix of Australian Government funds provided under the Australian Health Care Agreements as well as funds provided by State and Territory governments.

Source: DHA NSMHS database (unpublished); State and Territory governments (unpublished); table 11A.22.

Figure 11.20 shows how expenditure at the discretion of State and Territory governments was distributed across the range of mental health services in 2001-02. It does not show the distribution of the Australian Government expenditure discussed under figure 11.18. Recurrent expenditure allocated to total inpatient expenditure (including both psychiatric hospitals and psychiatric units in public [non-psychiatric] hospitals) was highest in SA (61.2 per cent) and lowest in the ACT (26.6 per cent). (The ACT and the NT do not have public psychiatric hospitals.) Recurrent expenditure allocated to ambulatory services was highest in the NT (49.3 per cent) and lowest in Tasmania (30.4 per cent).

Figure 11.20 Recurrent expenditure, by service category, 2001-02<sup>a, b, c, d, e, f</sup>



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Includes all spending regardless of source of funds. <sup>c</sup> Depreciation is excluded. Depreciation estimates are reported in table 11A.25. <sup>d</sup> Community residential is defined as all staffed community-based units (external to the campus of a general hospital or psychiatric institution) regardless of the number of hours that staff are present. <sup>e</sup> The differential reporting of clinical service providers and non-government organisations artificially segregates the mental health data. Given that the role of non-government organisations varies across jurisdictions, the level of non-government organisations resourcing does not accurately reflect the level of community support services available. <sup>f</sup> WA advised that the two community residential facilities in WA are not representative of the development of current State mental health policy and are under review. WA has been increasing funding to the non-government organisations sector to provide services to people in their own homes, rather than to provide publicly funded community residential services.

Source: DHA NSMHS database (unpublished); State and Territory governments (unpublished); table 11A.26.

## Size and scope of sector

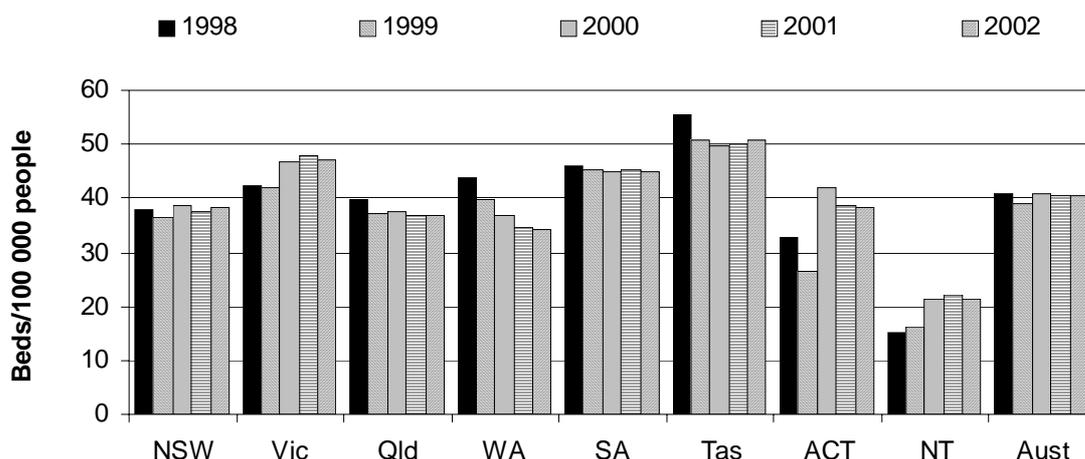
### The number of beds

Beds are counted as those immediately available for use at 30 June by admitted patients if required. They are immediately available for use if located in a suitable place for care with nursing or other auxiliary staff available, or if available within a reasonable period of time. Also included are beds in wards that are temporarily closed due to factors such as renovations or strikes but that would normally be open.

The number of beds per 100 000 people for public hospitals and community residential facilities combined are presented in figure 11.21. There was a definitional change for community residential facilities in 1999-2000, which caused a break in the series. Prior to 1999-2000, 'community residential' was defined as 24 hour staffed residential units in community settings (external to the campus of a public hospital or psychiatric institution) and funded by government. From 1999-2000, the definition has been broadened to incorporate all staffed

community-based units, regardless of the number of hours that staff are present. In 2002, Tasmania had the highest number of beds per 100 000 people (51.0) and the NT had the lowest (21.2).

Figure 11.21 **Bed rate at 30 June**<sup>a, b, c</sup>



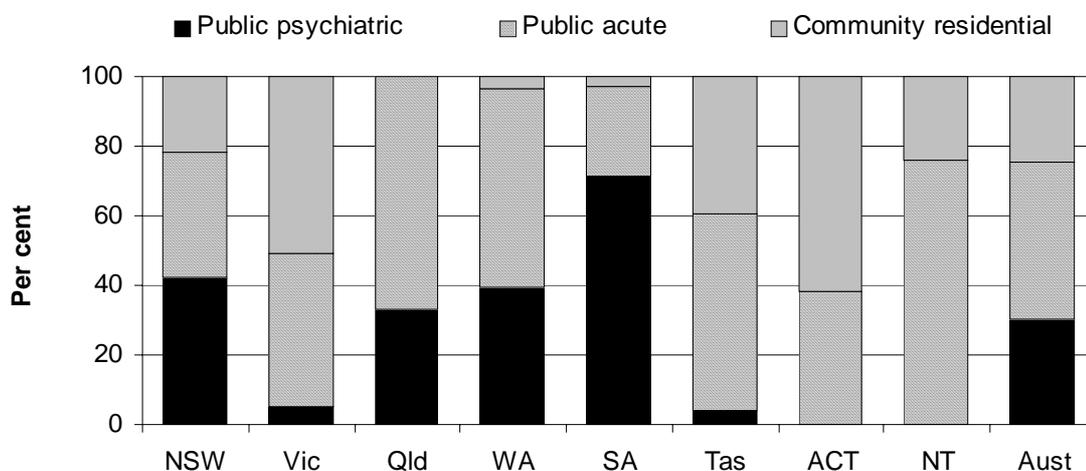
<sup>a</sup> 2002 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Includes beds in public hospitals and publicly funded community residential units. <sup>c</sup> Prior to 1999-2000, 'community residential' was defined as 24 hour staffed residential units in community settings (external to the campus of a public hospital or psychiatric institution) and funded by government. From 1999-2000, the definition has been broadened to incorporate all staffed community-based units, regardless of the number of hours that staff are present.

Source: DHA NSMHS database (unpublished); State and Territory governments (unpublished); table 11A.27.

The number of beds by service category are presented for 2002 in figure 11.22. These data show the differences in service mix across States and Territories. SA had the highest proportion of beds in public psychiatric hospitals (71.3 per cent) and Tasmania had the lowest (3.7 per cent). The ACT and the NT do not have public psychiatric hospitals. The ACT had the highest proportion of beds in community residential services (61.8 per cent) and SA had the lowest (2.9 per cent).

The apparent absence of community residential beds in 2002 in Queensland reflects Queensland's preference for describing such facilities as 'extended inpatient care'. Queensland has adopted a range of extended treatment services to replace beds previously provided by psychiatric hospitals. New facilities include both campus-based and non-campus-based extended treatment and rehabilitation facilities for the adult and aged populations. Queensland does not consider these facilities to be 'community residential services'. This approach is not consistent with the definition of such services used by the NSMHS. Data before 2002 reflect the survey definition.

Figure 11.22 Beds at 30 June, by service category, 2002<sup>a, b, c, d</sup>



<sup>a</sup> 2002 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> The apparent absence of community residential beds in 2002 in Queensland reflects Queensland's preference for describing such facilities as 'extended inpatient care'. This approach is not consistent with the definition of such services used for the NSMHS. <sup>c</sup> WA advised that the two community residential facilities in WA are not representative of the development of current State mental health policy and are under review. WA has been increasing funding to the non-government organisation sector to provide services to people in their own homes, rather than provide publicly funded community residential services. <sup>d</sup> Tasmania advised that beds reported under 'public acute hospitals' are located within an adult correctional service.

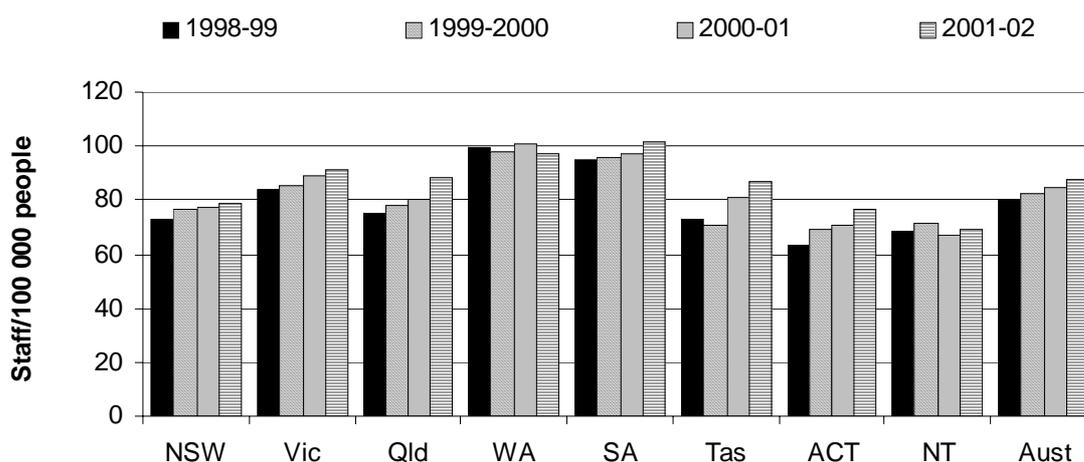
Source: DHA NSMHS database (unpublished); State and Territory governments (unpublished); table 11A.27.

### Staff

Figure 11.23 reports full time equivalent (FTE) direct care staff per 100 000 people and includes only staff within the health professional categories of 'medical', 'nursing' and 'allied health'. 'Other personal care' direct care staff are excluded. Medical staff consist of consultant psychiatrists, psychiatry registrars, and other medical officers who are neither registered as psychiatrists within the State or Territory, nor are formal trainees of the Royal Australian and New Zealand College of Psychiatrists' Postgraduate Training Program. Nursing consists of registered and non-registered nurses. Allied health consists of occupational therapists, social workers, psychologists and other allied health staff. Other personal care staff include attendants, assistants, home companions, family aides, ward helpers, wardsmen, orderlies, ward assistants and nursing assistants who are engaged primarily in the provision of personal care to patients or residents and who are not formally qualified or who are undergoing training in nursing or allied health professions. Definitions for staffing categories are provided in more detail in section 11.7.

In 2001-02, SA had the most FTE direct care staff per 100 000 people in specialist mental health services (101.4) and the NT had the least (68.9). There was a definitional change for community residential facilities in 1999-2000, which caused a break in the time series.

Figure 11.23 FTE health professional direct care staff per 100 000 people<sup>a, b, c, d</sup>



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Includes health professional occupational categories only. <sup>c</sup> Prior to 1999-2000, community residential was defined as 24 hour staffed residential units in community settings (external to the campus of a general hospital or psychiatric institution) and funded by government. From 1999-2000, the definition was broadened to incorporate all staffed community-based units, regardless of the number of hours that staff are present. <sup>d</sup> Tasmania has suggested some direct care staff were not counted in previous years because they were incorrectly attached to administrative cost centres.

Source: DHA NSMHS database (unpublished); table 11A.28.

Nursing staff comprise the largest FTE component of health care professionals employed in mental health services. Across Australia in 2001-02, 57.0 nurses per 100 000 people were working in specialised mental health services, compared with 20.6 allied health care staff and 9.7 medical staff (table 11A.28). FTE direct care staff employed in specialised mental health services, by service setting, are reported in table 11A.29.

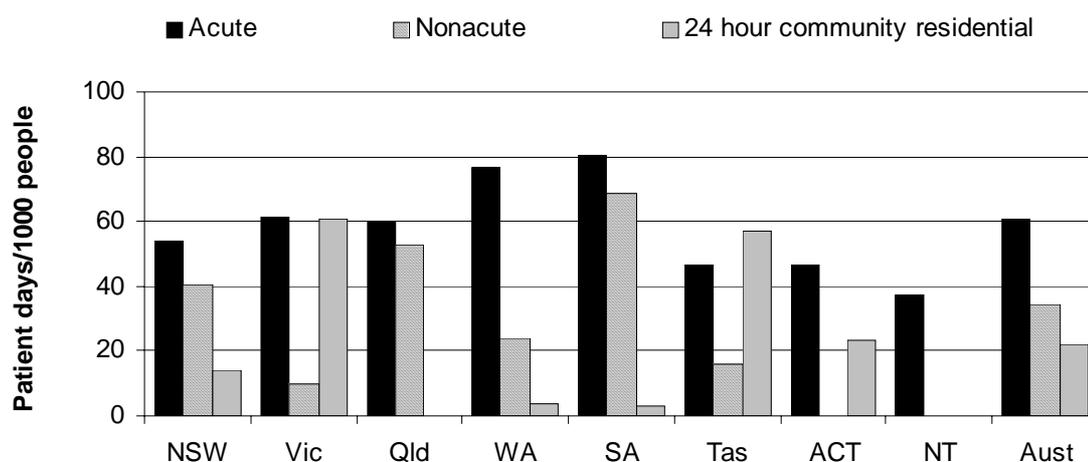
### Services provided

Estimating activity across the specialised mental health services sector is problematic. Data for patient days are provided in figure 11.24 by acute, non-acute and 24 hour staffed community residential care (as defined in box 11.3) but show

only part of the picture.<sup>9</sup> Hospital inpatient days and community residential patient days are included in figure 11.24, but other types of community service are not covered. Data outlining community mental health care patient contacts are limited, although collection of these data commenced in July 2000 as part of the National Minimum Data Set.

In 2001-02, patient days per 1000 people in acute units were highest in SA (80.6) and lowest in the NT (37.2). In non-acute units, patient days per 1000 people were highest in SA (68.7) and lowest in Victoria (9.9). The ACT and the NT did not provide mental health care in non-acute units in 2001-02. Victoria had the most patient days per 1000 people in 24 hour community residential facilities (60.8) and SA had the least (3.3) (figure 11.24). The NT did not provide mental health care in 24 hour community residential facilities in 2001-02. The previously discussed caveat for the apparent absence of community residential beds in Queensland also applies to the data in figure 11.24.

Figure 11.24 **Mental health patient days, 2001-02<sup>a, b, c, d, e</sup>**



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> The apparent absence of community residential beds in 2001-02 in Queensland reflects Queensland's preference for describing such facilities as 'extended inpatient care'. This approach is not consistent with the definition of such services used for the NSMHS. <sup>c</sup> The two community residential facilities in WA are not representative of the development of current State mental health policy and are under review. WA has been increasing funding to the non-government organisation sector to provide services to people in their own homes, rather than provide publicly funded community residential services. <sup>d</sup> The ACT and the NT did not provide mental health care in non-acute units. <sup>e</sup> The NT did not provide mental health care in 24 hour community residential facilities.

Source: DHA NSMHS database (unpublished); table 11A.30.

<sup>9</sup> Under the NSMHS, patient days are all days or part days for which the patient was in hospital during the survey period, regardless of the original date of admission or discharge.

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In public psychiatric hospitals in 2000-01, there were 14 227 overnight separations with specialised psychiatric care and 3116 same day separations (AIHW 2003a). In public acute hospitals in that year, there were 62 328 overnight separations with specialised psychiatric care and 20 552 same day separations. Schizophrenia accounted for a large proportion of overnight separations related to mental disorders in public hospitals (23.4 per cent in public acute hospitals and 23.8 per cent in public psychiatric hospitals in 2000-01) (table 11A.31).

The high level of same day separations reflects varying admission practices rather than genuine admissions to hospital. Unlike the general acute hospital sector, mental health has few procedural same day admissions, these being mainly related to electroconvulsive therapy treatment of people living in the community which represent only 6–10 per cent of all same day separations. Work for the Mental Health Classification and Service Costs Project suggested that the majority of same day hospitalisations are better described as ambulatory care and involve consumer attendance at a variety of day and group based programs that otherwise could be provided in community settings (Buckingham *et al.* 1998).

Limited data are available on GP care of mental health patients. The following data are collected from a sample of 1000 GPs. In 2001-02, the most frequently reported mental health related patient reason for an encounter with a GP was depression (1.9 per 100 encounters).<sup>10</sup> Sleep disturbance was the next most common reason (1.3 per 100 encounters), followed by anxiety (1.1 per 100 encounters). In total, 7.8 per 100 encounters involved mental health problems reported by patients as a reason for an encounter with a GP (AIHW 2003a).

In 2001-02, the most frequently reported mental health related problem managed by a GP was depression (3.4 per 100 encounters). Anxiety and sleep disturbance were the next most common problems managed (each 1.6 per 100 encounters), followed by acute stress reaction (0.6 per 100 encounters) and drug abuse (0.5 per 100 encounters). In total, 10.6 per 100 encounters involved mental health problems managed by a GP (AIHW 2003a). In 2002-03, depression was the fourth most frequently managed problem by a GP (Britt *et al.* 2003).<sup>11</sup>

Very limited data are available on specialised psychiatric care of Indigenous patients in hospital. Comparisons are difficult because data on Indigenous status are incomplete and there may be differences in the use of hospital services relative to

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<sup>10</sup> In the Bettering the Evaluation and Care of Health study, participating GPs were asked to record at least one, and up to three, patient reasons for the encounter (Britt *et al.* 2003). Reasons for encounter reflect the patient's demand for care and can indicate service use patterns.

<sup>11</sup> A GP often managed more than one problem at a single encounter. Problems managed reflect the GP's understanding of the health problem presented by the patient.

other health services used by Indigenous people compared with other Australians. The data reflect a range of factors, such as the spectrum of public, primary care and post-hospital care available; Indigenous people's access to these as well as hospital services; social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disorders. Indigenous Australians were nearly twice as likely compared with the rest of the population to be admitted for overnight psychiatric care. The average length of stay for Indigenous people was similar, however, to that for the rest of the population (table 11.7).

**Table 11.7 Specialised psychiatric care, by Indigenous status, 2000-01<sup>a, b</sup>**

	Same day separations	Overnight separations	Total separations	Total patient days	Total psychiatric care days	Average length of stay (overnight)	Psychiatric care days per overnight separation
<i>No.</i>							
Indigenous	569	3 343	3 912	65 307	64 495	19.4	19.1
Total pop.	79 471	99 016	178 487	2 151 441	2 128 042	20.9	20.7
<i>Per 1000 population<sup>c</sup></i>							
Indigenous	1.7	9.3	11.1	209.1	206.1	..	..
Total pop.	4.1	5.2	9.3	112.3	111.1	..	..

<sup>a</sup> The completeness of data on Indigenous status varies, so these data need to be used with care.

<sup>b</sup> Specialised psychiatric care refers to separations in which at least one day of specialised psychiatric care was received. <sup>c</sup> Separations per 1000 population are indirectly age standardised rates based on the projected Aboriginal and Torres Strait Islander population for 30 June 2000 and the estimated resident population for 30 June 2000. .. Not applicable.

Source: AIHW (2003a); table 11A.32.

Schizophrenia disorders accounted for a large proportion of overnight specialised psychiatric care separations reported for Indigenous patients in Australia in 2000-01 (27.0 per cent). They also accounted for around 45.8 per cent of patient days for Indigenous patients and a similar percentage of psychiatric care days (46.1 per cent) in 2000-01 (table 11A.33).

## Policy developments

The National Mental Health Strategy — agreed by Australian, State and Territory health ministers in 1992 — places the focus of care on the community, advocating a fundamental shift in the service balance away from the historical reliance on separate psychiatric hospitals, towards the development of local comprehensive mental health service systems. The aim is to provide integrated services that emphasise continuity of care, both over time and across service boundaries, mainstreamed with the health system as a whole.

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While the NMHS calls for a change in the balance of services, it does not prescribe a specific service mix. Instead, each State and Territory (and area/region where required) is required to develop a plan covering the range of mental health services to be made available. While community-based care has been expanding (only a small proportion of people with mental disorders now spend extended periods in psychiatric hospitals; most are cared for in the community), differences exist across States and Territories in the balance of inpatient services and of community care across ambulatory, residential and non-government services.

The NMHS is articulated in a number of policy documents:

- the National Mental Health Policy
- the Mental Health Statement of Rights and Responsibilities
- the National Mental Health Plan 2003–08 and the two previous plans
- the Australian Health Carer Agreements 2003–08, and the previous 1998–2003 Australian Health Care Agreements and the Medicare Agreements.

The aims of the Policy are to:

- promote the mental health of the Australian community and, where possible, prevent the development of mental health problems and mental disorders
- reduce the impact of mental disorders on individuals, families and the community
- assure the rights of people with mental disorders.

The first plan (1992–98) outlined agreed strategies for implementing the policy. The second plan (1998–2003) maintained the same policy objectives and targeted three additional themes: quality and effectiveness, promotion and prevention, and partnerships in service reform and delivery. The third plan (2003–08) builds on the priorities of the first and second plans. It is guided by four priority themes: promoting mental health, and preventing mental health problems and mental illness; increasing service responsiveness; strengthening quality; and fostering research, innovation and sustainability. Governments have agreed to develop performance indicators around these themes, and to improve information structures to support data collection to assist reporting. While some data in this Report flow from these information structures, other data developments are likely to have an impact on future reports (as outlined in section 11.5).

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## Framework of performance indicators

The distinction between prevention and intervention is more difficult in the case of mental illness. Preventing the onset of mental illness is challenging, primarily because individual disorders have many origins. Most efforts have been directed at treating mental illness when it occurs, particularly, at determining the most appropriate setting for providing treatment, as well as emphasising early intervention. The indicators used in this Report focus on service delivery reforms that commenced under the First National Mental Health Plan and were extended under the second plan. However, the second plan also emphasised promoting mental health and preventing mental illness. The Mental Health Promotion and Prevention National Action Plan has been drawn up specifically to meet the prevention and promotion priorities and outcomes outlined in the second plan. Details of national mental health promotion and prevention initiatives in the field are described in chapter 7 of the *National Mental Health Report 2002* (DHA 2002). The performance indicator framework will be redeveloped in future reports to reflect these components of mental illness management and the new mental health plan.

The framework of performance indicators for mental health services builds on government objectives for mental health service delivery (box 11.4) as encompassed in the NMHS. The framework reports on the equity, effectiveness and efficiency of specialised mental health services. It covers a number of service delivery types (institutional and community-based services) and indicators of systemwide performance. Improving the framework is a priority for the Review and the Australian Health Ministers' Advisory Council National Mental Health Working Group.

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#### Box 11.4 **Objectives for mental health service delivery**

Key objectives include to:

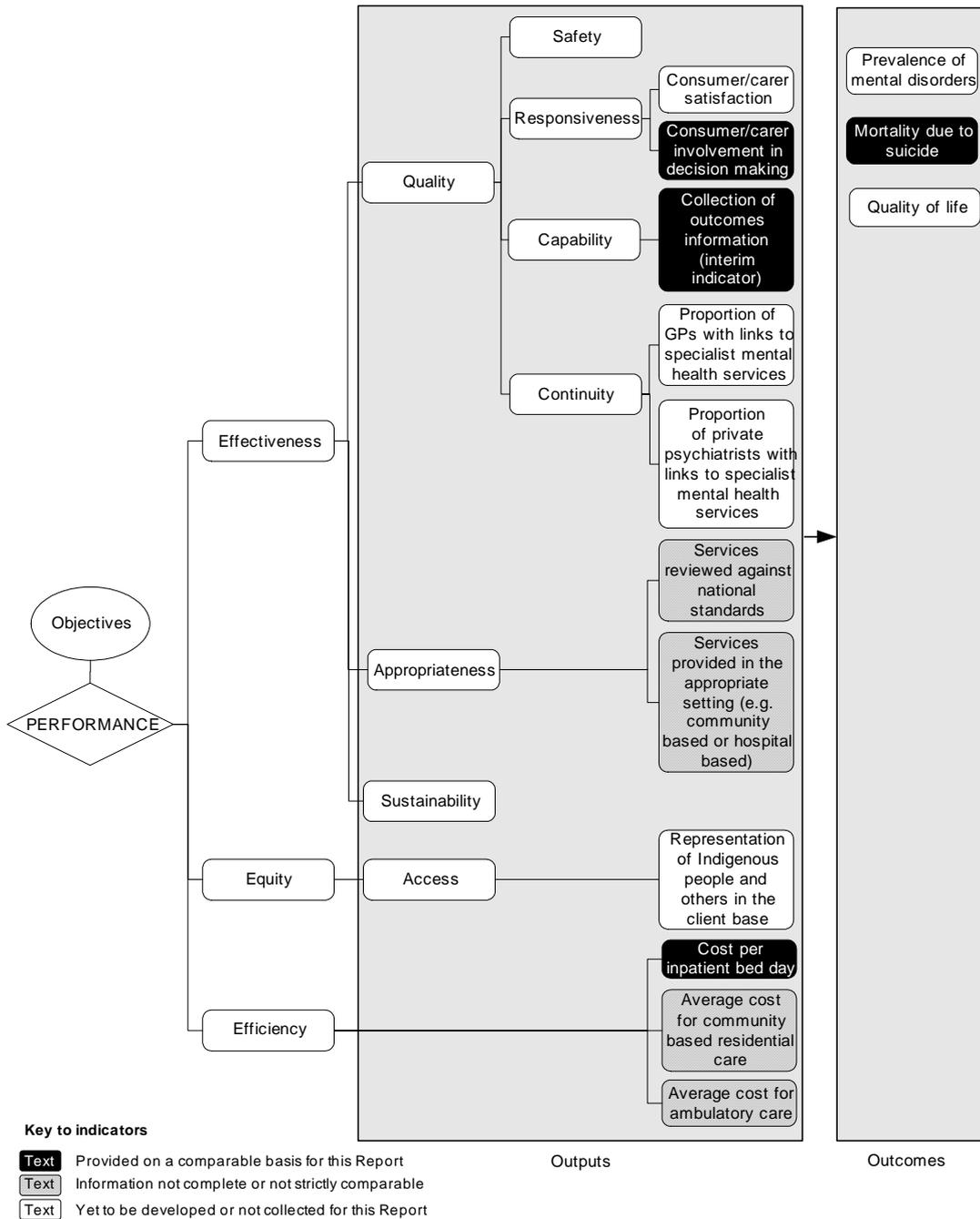
- improve the effectiveness and quality of service delivery and outcomes
- promote, where appropriate, community awareness of mental health problems
- prevent, where possible, the development of mental health problems and mental disorders
- undertake, where appropriate, early intervention of mental health problems and mental disorders
- reduce, where possible, the impact of mental disorders on individuals, families and the community
- assure the rights of persons with mental disorders
- encourage partnerships among service providers and between service providers and the community.

Governments also aim to provide services in an equitable and efficient manner.

The performance indicator framework shows which data are comparable in the 2004 Report (figure 11.25). For data that are not considered strictly comparable or that have not been completely validated, the text includes relevant caveats and supporting commentary. Chapter 1 discusses data comparability from a Report-wide perspective (see section 1.6).

This year, two modifications have been made to the mental health management framework (the same as for breast cancer detection and management). First, the framework along with all health frameworks have been aligned with the NHPF. This alignment means that the performance indicator frameworks used in the health chapters are as similar as possible to the NHPF, within the constraints imposed by the need for the Review to reflect its aims and terms of reference. Second, the framework has been aligned with the new general Review framework for performance indicators implemented across all chapters. The new approach depicts the Review's focus on outcomes, consistent with demand by governments for outcome oriented performance information. The new framework also accentuates the importance of equity and draws out the distinction between equity and access. More detail on the new framework can be found in chapter 1.

Figure 11.25 Performance indicators for mental health management



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## Key performance indicator results

### *Outputs*

#### *Quality — consumer and carer satisfaction*

The Review has identified this indicator for development and reporting in future.

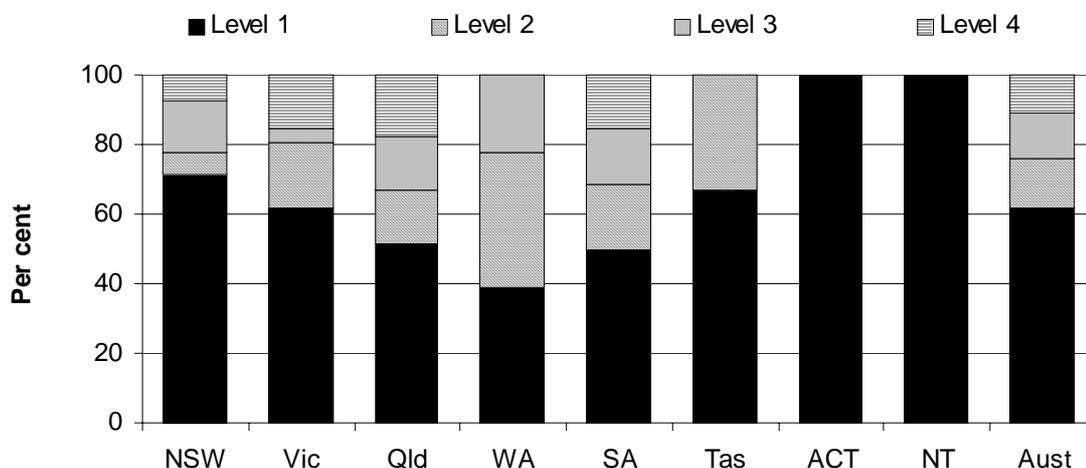
#### *Quality — consumer and carer involvement in decision making*

Consumer and carer participation in decision making is used as an indicator of the responsiveness of specialised mental health services. Public sector mental health service organisations are asked each year to describe the arrangements provided to allow consumers and carers to contribute to local service planning and delivery. Responses are grouped into four categories:

- level 1 — appointment of a person to represent the interests of consumers and carers on the organisation management committee or a specific consumer and carer advisory group to advise on all aspects of service delivery
- level 2 — a specific consumer and carer advisory group to advise on some aspects of service delivery
- level 3 — participation of consumers and carers in broad based committees
- level 4 — other/no arrangements.

In 2002, the ACT and the NT had the highest proportion of organisations with a level 1 rating (100 per cent). (Both the ACT and NT data are for three organisations.) WA had the lowest (38.9 per cent). Queensland had the highest proportion of organisations reporting no consumer and carer involvement in decision making (level 4) (17.9 per cent of 39 organisations) (figure 11.26).

Figure 11.26 Organisations with consumer and carer participation in decision making, 2002<sup>a, b, c, d, e</sup>



<sup>a</sup> 2002 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> NSW advised that the government has no authority to require consumer participation in services delivered through the primary care program. <sup>c</sup> Victoria advised that its model of consumer consultants fits poorly with the Australian Health Care Agreement categories. It has paid consumer consultants working in mental health services. Many agencies report this in the 'other' category, which has a low ranking and, according to Victoria, does not reflect the active role played by consumer consultants in service operation. <sup>d</sup> Queensland advised that the apparent decrease in the percentage of services providing level 1 consumer/carer participation in mental health services is a reporting artefact following a modification to the level of reporting for Queensland mental health organisations. <sup>e</sup> WA advised that National Survey of Mental Health Services does not accurately represent consumer and carer participation strategies used in WA. At the State and regional levels, the Office of Mental Health gives high priority to the involvement of consumers and carers in developing a responsive mental health service. Several key consumer and carer advisory groups are supported and provided with financial assistance by the Office of Mental Health. Collectively, these groups provide advice and representation on consumer and carer issues.

Source: DHA NSMHS database (unpublished); table 11A.34.

### *Quality — collection of outcomes information (interim indicator)*

Collection of outcomes information is used as a proxy indicator of capability. There is no information on consumer outcomes, but jurisdictions are introducing a collection that will enable reporting in future (see section 11.5). This is an interim indicator until information on client outcomes is available. The consumer outcomes measurement implementation strategy is summarised in box 11.5. The percentages of specialised mental health services that have introduced routine consumer outcome measurement is shown by jurisdiction in table 11.8.

**Box 11.5 Summary of the consumer outcomes measurement implementation strategy**

States and Territories have taken the following approach to introducing consumer outcome measurement as part of day-to-day service delivery:

- measures to include ratings by clinicians and self-ratings by consumers
- all clinical staff to have undergone training
- processes established to ensure uniformity in collection
- funding for information systems to store, analyse and report on the data
- a national approach to data analysis, reporting and benchmarking.

Source: DHA (2002).

**Table 11.8 Specialised mental health services that have introduced routine collection of consumer outcome measurement (per cent)<sup>a</sup>**

	NSW	Vic	Qld	WA <sup>b</sup>	SA <sup>c</sup>	Tas	ACT	NT	Aust
December 2000	–	–	–	–	–	–	–	–	–
June 2001	–	11.3	–	–	–	–	–	–	3.0
June 2002	55.8	11.3	–	–	–	17.6	–	–	20.9
June 2003	77.3	72.6	47.5	7.4	–	94.4	81.3	100.0	57.2

<sup>a</sup> Data are based on reports from jurisdictions. Jurisdictions report at varying levels, reflecting differences in service structure; for example, data may be reported at area health service level or at hospital level, with each level containing a number of specialist mental health services. Data are thus aggregated. National averages are weighted by the relative share of total mental health expenditure (see *National Mental Health Report 2003* for further details). <sup>b</sup> There has been a significant delay in the expected State-wide implementation of the new mental health clinical information system, due to technical and system complexity issues. Implementation is expected to be completed by June 2004. All sites that have the new mental health clinical information system implemented are now collecting consumer outcome measurements, with other sites using an interim paper-based collection. <sup>c</sup> SA has not yet started collecting these data. – Nil or rounded to zero.

Source: DHA (unpublished), based on State and Territory progress reports submitted under the reporting requirements of Information Development Agreements; table 11A.35.

*Quality — proportion of GPs with links to specialist mental health services*

The Review has identified this indicator for development and reporting in future.

*Quality — proportion of private psychiatrists with links to specialist mental health services*

The Review has identified this indicator for development and reporting in future.

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### *Appropriateness — services reviewed against the national standards*

The percentage of specialised public mental health services reviewed by an external accreditation agency against the national standards for mental health services (box 11.6) is used as a process indicator of appropriateness. It reflects progress towards accreditation against the national standards.

#### **Box 11.6 The national standards for mental health services**

The national standards for mental health services were developed under the First National Mental Health Plan for use in assessing service quality and as a guide for continuous quality improvement in all Australian mental health services. They comprise 11 major criteria:

- consumer rights
- safety
- consumer and carer participation
- promoting community acceptance
- privacy and confidentiality
- prevention and mental health promotion
- cultural awareness
- integration
- service development
- documentation
- delivery of care.

*Source:* DHA (2002).

External accreditation agencies, such as the Australian Council on Healthcare Standards, undertake accreditation processes in relation to a parent health organisation (for example, a hospital) that may cover a number of specialist services, including mental health services. Accreditation of a parent organisation thus does not currently require a mental health service to be separately assessed against the national standards. Accreditation *per se* does not assess or provide information on implementation of the national standards for mental health services. Assessment of a service against the national standards must be specifically requested and involves a separate review process. Data in table 11.9 relate to the percentage of specialised public mental health services that have participated in or are currently participating in an in-depth review, by an external accreditation agency, against the national standards for mental health services. Such reviews may

take place in conjunction with, or separate to, overall accreditation of a parent organisation. Review against the national standards will, in some cases and in some jurisdictions, be delayed until an appropriate point is reached within the overarching accreditation cycle (for example, a mid-term review).

The extent to which reviews were completed varied across jurisdictions at June 2003. At June 2003, reviews were completed in all of the ACT specialist mental health organisations whereas no reviews have been completed in the NT. At the end of June 2003, 91 per cent of services had commenced a review and 49 per cent had completed a review. It cannot be concluded at this time that services yet to complete a review are necessarily of poorer quality (table 11.9).

**Table 11.9 Specialised public mental health services reviewed against the national standards for mental health services (per cent)<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
December 2000									
Review commenced	37	28	100	13	26	–	100	–	42
Review completed	9	28	23	–	–	–	94	–	16
June 2001									
Review commenced	37	28	100	13	47	–	100	–	43
Review completed	9	28	37	–	–	–	100	–	18
June 2002									
Review commenced	64	43	100	66	47	17	100	100	62
Review completed	16	39	86	16	27	–	100	–	35
June 2003									
Review commenced	70	100	100	100	65	100	100	100	91
Review completed	27	50	90	53	48	22	100	–	49

<sup>a</sup> 'Review commenced' means the percentage of specialised public mental health services that had formally registered for review against the national standards for mental health services by an external accreditation agency; 'review completed' means the percentage of specialised public mental health services that had formally completed a review against the national standards for mental health services by an external accreditation agency. <sup>b</sup> Totals for Australian are weighted by expenditure. – Nil or rounded to zero.

Source: DHA (unpublished), based on State and Territory progress reports submitted under the reporting requirements of Information Development Agreements; State and Territory governments (unpublished); table 11A.36.

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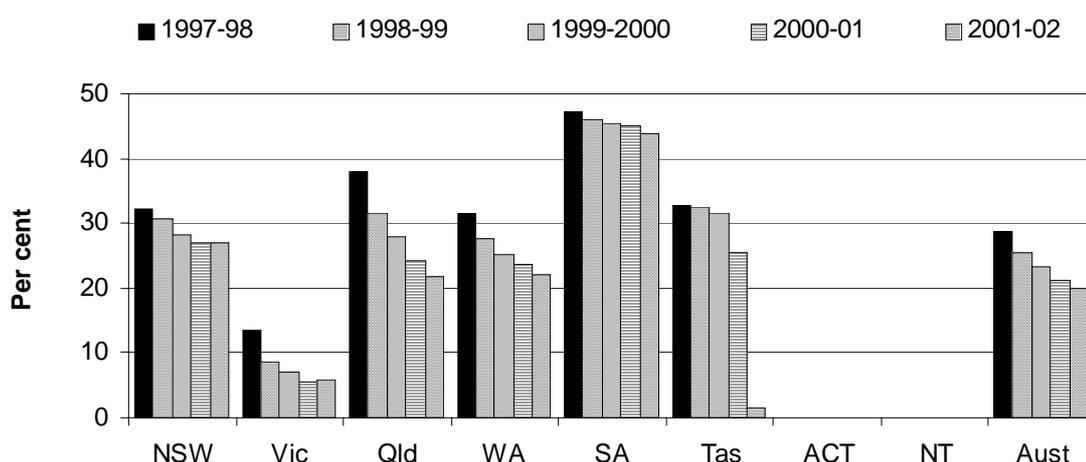
### *Appropriateness — services provided in the appropriate setting*

The NMHS advocates the development of local comprehensive mental health service systems. The services must be capable of responding to the individual needs of people with mental disorders and of providing continuity of care, so consumers can move between services as their needs change. Under the directions set by the Strategy, structural reform of mental health services has resulted in:

- a reduced reliance on stand alone psychiatric hospitals
- the expanded delivery of community-based care integrated with inpatient care
- mental health services being mainstreamed with other components of health care.

By encouraging the treatment of patients in community settings and public (non-psychiatric) hospitals rather than in stand alone psychiatric hospitals — that is, to substitute the service settings — more appropriate treatment options can be provided. Figure 11.27 shows recurrent expenditure on stand alone psychiatric hospitals as a proportion of total spending on mental health services. In 2001-02, the proportion was highest in SA (43.9 per cent) and lowest in Tasmania (1.5 per cent). (As noted earlier, the ACT and the NT have no psychiatric hospitals.)

**Figure 11.27 Recurrent expenditure on stand alone psychiatric hospitals as a proportion of total spending on mental health services<sup>a, b, c</sup>**

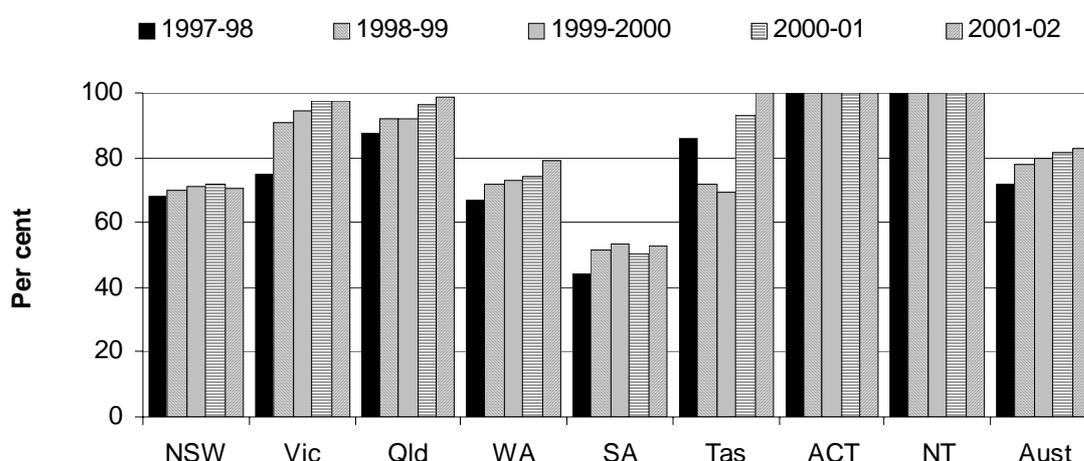


<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Tasmania advised that beds reported under 'public psychiatric hospitals' are located within an adult correctional service. <sup>c</sup> The ACT and the NT do not have public psychiatric hospitals.

Source: DHA NSMHS database (unpublished); table 11A.37.

Figure 11.28 shows acute patient days in public acute hospitals as a proportion of total acute inpatient bed days in public acute and psychiatric hospitals. In 2001-02, aside from the Territories (neither of which has psychiatric hospitals), the highest proportion of acute patient days in public acute hospitals was in Tasmania (100.0 per cent) and the lowest was in SA (52.8 per cent).

**Figure 11.28 Acute patient days in public acute hospitals as a proportion of total acute inpatient bed days in public acute and psychiatric hospitals<sup>a</sup>**



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*.

Source: DHA NSMHS database (unpublished); table 11A.37.

### *Equity — representation of Indigenous people and others in the client base*

The Review has identified this indicator for development and reporting in future.

### *Efficiency*

Data in the Report relating to public mental health services are drawn from the NSMHS. As noted, the survey data for 2001-02 are preliminary because validation has not yet been completed. Final validation is ongoing before publication in the forthcoming *National Mental Health Report 2004*. Data for 2001-02, therefore, need to be treated with caution.

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### *Efficiency — cost per inpatient bed day*

A proxy indicator of efficiency is the level of government inputs per unit of output (unit cost). The most suitable indicator for mental health services would be to adjust the number of separations by the type and complexity of cases, to develop a cost per casemix-adjusted separation similar to that presented for public hospitals (chapter 9). All States and Territories have committed to collecting and reporting casemix related data based on the Mental Health Classification and Service Costs model, and they intend to refine the classification for routine adoption across all service settings. Through this process, casemix-adjusted comparisons across jurisdictions are expected to be possible in future years. The current method for adjusting inpatient separations (AR-DRGs), however, does not account for the full range or complexity of mental health services provided. Until an appropriate casemix classification has been developed and introduced, average inpatient day costs will be used as an indicator of efficiency. These data need to be used with caution when making comparisons.

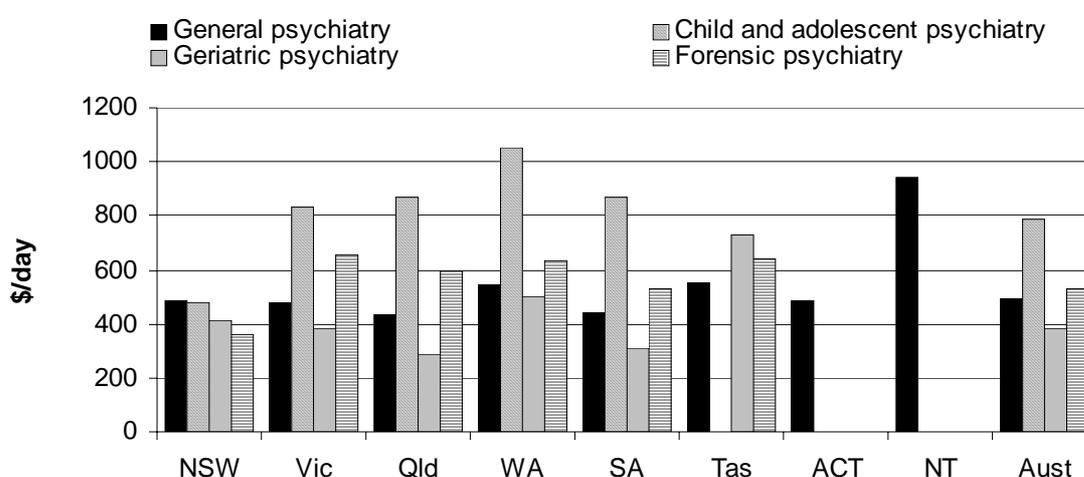
This efficiency indicator is affected by factors such as differences in the client mix and average length of stay. The client mix in inpatient settings may differ — for example, some jurisdictions treat a higher proportion of less complex patients in inpatient settings rather than in the community. Longer lengths of stay may also be associated with lower average inpatient day costs because the cost of admission and discharge and more intensive treatment early in a stay are spread over more days of care.

Real inpatient costs per day are reported disaggregated by inpatient program type (general psychiatry, child and adolescent psychiatry, geriatric psychiatry, and forensic psychiatry) and hospital type (psychiatric hospitals [acute units], psychiatric hospitals [non-acute units] and general hospitals). Disaggregating these data improves comparability across jurisdictions. Real inpatient costs per day are presented in figures 11.29 and 11.30. Changes over time partly reflect institutional change in accordance with the NMHS.

In terms of inpatient program type in 2001-02, average general psychiatry patient day costs were highest in the NT (\$945) and lowest in Queensland (\$432). Average patient day child and adolescent psychiatry costs were highest in WA (\$1050) and lowest in NSW (\$476). (In 2001-02, child and adolescent psychiatry programs were not available, or could not be separately identified in Tasmania, the ACT and the NT.) Geriatric psychiatry costs were highest in Tasmania (\$728) and lowest in Queensland (\$290). (Queensland advised that it provides geriatric psychiatry inpatient services using different service models, including campus and non-campus-based options. All service types are reported as geriatric psychiatry

inpatient services, which may have the effect of lowering the average patient day costs compared with the costs of jurisdictions that report aged care units separately.) Geriatric psychiatry programs were not available or could not be separately identified in the ACT and the NT. Forensic psychiatry costs were highest in Victoria (\$654) and lowest in NSW (\$359). Forensic psychiatry programs were not available or could not be separately identified in the ACT and the NT (figure 11.29).

Figure 11.29 **Average cost (recurrent) per inpatient bed day, public hospitals, by inpatient program type, 2001-02 (2000-01 dollars)<sup>a, b, c, d, e</sup>**

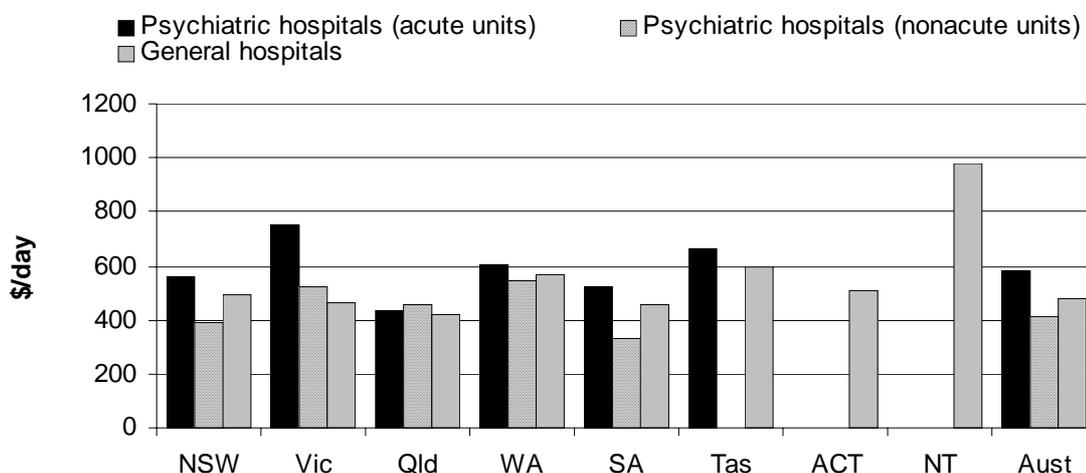


<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Depreciation is excluded. <sup>c</sup> Costs are not adjusted for differences in the complexity of cases across jurisdictions and may reflect differences in the rate of institutional change (that is, the mainstreaming of mental health services). <sup>d</sup> Constant price expenditure (2000-01 dollars), using government final consumption expenditure on hospital and clinical services as the deflator. <sup>e</sup> In 2001-02, child and adolescent psychiatry programs were not available, or could not be separately identified in Tasmania the ACT and the NT. Geriatric psychiatry programs were not available or could not be separately identified in the ACT and the NT. Tasmanian figures include child and adolescent psychiatry within the general psychiatry category. Forensic psychiatry were not available or could not be separately identified in the ACT and the NT.

Source: DHA NSMHS database (unpublished); table 11A.38.

In terms of hospital type in 2001-02, average patient day costs in psychiatric hospitals (acute units) were highest in Victoria (\$752) and lowest in Queensland (\$431). Average costs in psychiatric hospitals (non-acute units) were highest in WA (\$548) and lowest in SA (\$332). The ACT and the NT do not have psychiatric hospitals. Average costs in public general hospitals were highest in the NT (\$978) and lowest in Queensland (\$421) (figure 11.30).

Figure 11.30 **Average cost (recurrent) per inpatient bed day, public hospitals, by hospital type, 2001-02 (2000-01 dollars)<sup>a, b, c, d, e, f</sup>**



<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Depreciation excluded. <sup>c</sup> Costs are not adjusted for differences in the complexity of cases across jurisdictions and may reflect differences in the rate of institutional change (that is, the mainstreaming of mental health services). <sup>d</sup> Constant price expenditure (2000-01 dollars), using government final consumption expenditure on hospital and clinical services as the deflator. <sup>e</sup> Mainstreaming has occurred at different rates in different jurisdictions. Victoria advised that the data for psychiatric hospitals comprises mainly forensic services, because nearly all general psychiatric treatment occurs in mainstreamed units in general acute hospitals. This means the client profile and service costs are very different from those of a jurisdiction in which general psychiatric treatment still occurs mostly in psychiatric hospitals. <sup>f</sup> The ACT and the NT do not have psychiatric hospitals. Tasmania did not have any psychiatric non-acute unit in 2001-02.

Source: DHA NSMHS database (unpublished); table 11A.39.

### *Efficiency — average cost for community-based residential care*

The average cost to government (recurrent) per patient day for community residential services is presented in table 11.10. These data are likely to be affected by institutional changes occurring as a result of the NMHS. In addition, differences across jurisdictions in the types of patient admitted to community residential care will affect average costs in these facilities. Average (recurrent) cost to government per patient day for these services are reported for both care of adults and care of older people. The distinction is made to reflect the differing unit costs of treating the two groups.

For general adult units in 2001-02, the average cost to government per patient day for 24 hour staffed community residential services nationally was an estimated \$285 (table 11.10). Across jurisdictions, it was highest in Tasmania (\$490) and lowest in SA (\$111). In the NT, 24 hour staffed residential services were not available in 2001-02. For non-24 hour staffed community residential units, the average cost to government per patient day Australia wide was \$87. Across jurisdictions, it was

highest in the ACT (\$134) and lowest in the NSW (\$44). Non-24 hour staffed residential services were not available in WA, SA and Tasmania in 2001-02. The previous caveat for the apparent absence of community residential beds in Queensland also applies to the data in table 11.10.

For jurisdictions that had community-based aged care units in 2001-02, the average cost to government per patient day for 24 hour staffed community residential services nationally was \$231. For non-24 hour staffed community residential aged care units, the average cost to government per patient day in NSW was \$78.

**Table 11.10 Average cost to government (recurrent) per patient day for community residential services, 2001-02 (2000-01 dollars)<sup>a, b, c, d, e</sup>**

	NSW	Vic	Qld <sup>f</sup>	WA	SA <sup>g</sup>	Tas	ACT	NT	Aust
<i>General adult units</i>									
24 hour staffed units	209.1	299.4	..	299.8	111.2	489.9	414.0	..	284.7
Non-24 hour staffed units	43.8	128.3	..	..	..	..	134.1	65.8	87.1
<i>Aged care units</i>									
24 hour staffed units	228.6	222.0	..	..	..	332.7	..	..	230.7
Non-24 hour staffed units	78.2	..	..	..	..	..	..	..	78.2

<sup>a</sup> 2001-02 data are preliminary only; final validation is ongoing before publication in the *National Mental Health Report 2004*. <sup>b</sup> Depreciation is included, although treated differently across jurisdictions. <sup>c</sup> Costs are not adjusted for differences in the complexity of cases across jurisdictions and may reflect differences in the rate of institutional change (that is, the mainstreaming of mental health services). <sup>d</sup> Constant price expenditure (2000-01 dollars), using government final consumption expenditure on hospital and clinical services as the deflator. <sup>e</sup> Prior to 1999-2000, community residential was defined as 24 hour staffed residential units in community settings (external to the campus of a public hospital or psychiatric institution) and funded by government. From 1999-2000, the definition has been broadened to incorporate all staffed community-based units, regardless of the number of hours that staff are present. <sup>f</sup> The apparent absence of community residential beds in Queensland reflects Queensland's preference for describing such facilities as 'extended inpatient care'. This approach is not consistent with the definition of such services used for the NSMHS. <sup>g</sup> SA does not have any community residential services that are aged care units. .. Not applicable.

Source: DHA NSMHS database (unpublished); table 11A.40.

### *Efficiency — average cost for ambulatory care*

Estimates of average cost for ambulatory or non-admitted care are presented as an indicator of efficiency. The provision of ambulatory treatment, rehabilitation and support to non-inpatients and post-acute care is an important component of service provision and it is a priority for the Review to continue improving reporting in this area. Unit costs (dollars per treated patient in the community) for 2001-02 are presented for all States and Territories except WA, which did not provide data.

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The data currently reported for this indicator are unreliable, and comparisons across jurisdictions are not possible for several reasons. First, information covering costs of services across jurisdictions is incomplete. Second, the absence of unique patient identifiers in many jurisdictions means clients who happen to use mental health services other than their usual service may be counted twice. This double counting may artificially reduce average costs in some States or Territories. Victoria, WA and the NT have State-wide systems of unique identifiers, so the extent of overcounting of patients in these jurisdictions is relatively low compared with overcounting in other jurisdictions. Third, differences across jurisdictions in the complexity of cases treated, the service options available for treatment and the admission practices also reduce comparability of data between States and Territories. Finally, cost components such as depreciation are not measured consistently across jurisdictions.

- NSW reported ambulatory care unit costs of \$794 in 2001-02, with 19.5 per cent of services not reporting (table 11A.41).
- Victoria reported ambulatory care unit costs of \$1969, with 4.8 per cent of services not reporting (table 11A.42).
- Queensland reported ambulatory care unit costs of \$1319, with 1.0 per cent of services not reporting (table 11A.43).
- SA reported unit ambulatory care unit costs of \$1066, with 13.8 per cent of services not reporting (table 11A.44).
- Tasmania reported ambulatory care unit costs of \$1804, with 4.8 per cent of services not reporting (table 11A.45).
- The ACT reported ambulatory care unit costs of \$1052, with 14.3 per cent of services not reporting (table 11A.46).
- The NT reported ambulatory care unit costs of \$1108, with 6.3 per cent of services not reporting (table 11A.47).

### *Outcomes*

#### *Prevalence of mental disorders*

The Review has identified this indicator for reporting. There are no nationally comparable data on the prevalence of mental disorders treated by specialised mental health services, other than the data discussed in the profile for section 11.4.

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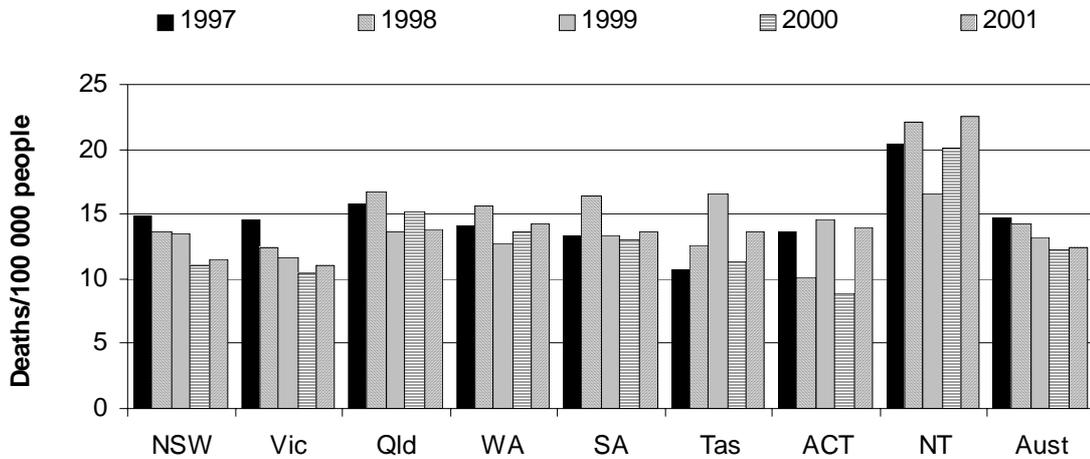
### *Mortality due to suicide*

Evidence indicates that people with a mental disorder are at a higher risk of suicide than the general population (although they are also at a higher risk of death from other causes, such as cardiovascular disease). While the performance of mental health services is important in reducing suicide, other government services also play a significant role. Public mental health programs are primarily concerned with providing treatment and support services for individual clients affected by serious mental illness, some of whom have either attempted, or indicated the intention, to commit suicide. Suicide prevention targeted at the wider population is also addressed through the initiatives of other government departments, non-government organisations and other special interest groups. Any impact on suicide rates, therefore, will be a result of a coordinated response across a range of collaborating agencies, including police, education, housing, justice and community services agencies.

In addition, many factors outside the control of mental health services may influence a person's decision to commit suicide. These include environmental, sociocultural and economic risk factors. Adverse childhood experiences such as sexual abuse, for example, can increase the risk of suicide, particularly in adolescents and young adults. Alcohol and other drugs are also often associated with increased risk of suicidal behaviour. Other factors that can influence suicide rates include economic growth rates, which affect unemployment rates and social disadvantage. Often, a combination of these factors can increase the risk of suicidal behaviour.

Not all of those who commit suicide are patients of mental health services. An improved indicator would be restricted to suicide by patients of mental health services. In 2001, 2454 deaths by suicide were recorded in Australia — equivalent to 12.5 deaths per 100 000 people. The national rate fell each year from 1997 to 2000, followed by a slight increase in 2001. The rate for males was around four times that for females in 2001 — a ratio that was constant over the 10 years to 2001 (table 11A.49). The NT had the highest suicide rate in 2001 (22.6 suicides per 100 000 people) and Victoria had the lowest rate (11.0) (figure 11.31).

Figure 11.31 Suicide death rate<sup>a, b, c</sup>

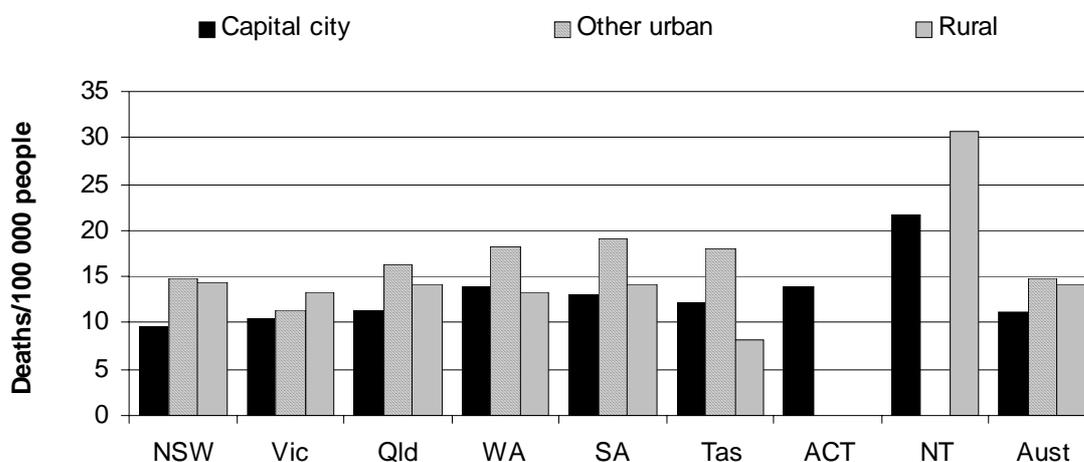


<sup>a</sup> By year of registration of death. Year-to-year variation can be influenced by coronial workloads. <sup>b</sup> For 1997 to 2000 age standardised death rate to the mid-year 1991 population. For 2001 age standardised death rate to the mid-year 2001 population. <sup>c</sup> Low populations can result in small variations in the number of suicides appearing as large changes in rates (which are not statistically significant).

Source: ABS (2002a); table 11A.50.

In 2001, suicide was the second leading cause of death for people aged 15–24 years, after transport accidents (ABS 2002a). A total of 339 people in this age group died as a result of suicide, which represented 22.5 per cent of deaths in this age group — a rate of 12.5 deaths per 100 000 people aged 15–24 years. The NT recorded the highest suicide rate per 100 000 people aged 15–24 years (32.5 deaths) while Tasmania recorded the lowest (6.4 deaths) (table 11A.51). Suicide was the leading cause of death for 25–34 year olds in 2001, with 26.4 per cent of deaths in this age group resulting from suicide (ABS 2002a). The suicide rate per 100 000 people in 2001 was generally higher outside capital cities. Nationally in 2001, there were 14.8 suicides per 100 000 people in other urban centres and 14.2 suicides per 100 000 people in rural areas compared with 11.2 suicides per 100 000 people in capital cities (figure 11.32).

Figure 11.32 Suicide death rate, by area, 2001<sup>a, b, c, d, e</sup>



<sup>a</sup> Other urban = centres with more than 20 000 population. Rural = all areas except capital cities and other urban. <sup>b</sup> Age standardised death rate to the mid-year 2001 population. <sup>c</sup> By year of registration of death. Year-to-year variation can be influenced by coronial workloads. <sup>d</sup> Tasmania advised that the three criteria for these data tend to distort the Tasmanian picture due to the low level of urbanisation. <sup>e</sup> The ACT rate for rural was zero. The ACT did not have any 'other urban' areas. The NT rate for other urban was zero.

Source: ABS (unpublished); table 11A.52.

In 2001, the suicide rate for Indigenous people was considerably higher than the rate for the total population. Care needs to be taken when interpreting these data because data for Indigenous people are incomplete and data for some jurisdictions are not of publishable standard.<sup>12</sup> Estimating the Indigenous population is difficult because the propensity for people to identify as Indigenous varies across jurisdictions and over time. In addition, Indigenous people are not always accurately identified in administrative collections (such as hospital records, and birth and death registrations) due to variations in definitions, different data collection methods and failure to record Indigenous status. The Health preface discusses the quality of Indigenous mortality data collected by the ABS.

The 2001 Indigenous suicide rate in Queensland was 42.5 per 100 000 Indigenous people compared with around 13.8 per 100 000 for the total Queensland population. In WA, the suicide rate was 19.0 per 100 000 Indigenous people compared with 14.2 per 100 000 for the total population. In SA, the suicide rate was 38.9 per 100 000 Indigenous people, compared with 13.7 per 100 000 for the total population. In the NT, the suicide rate was 35.1 per 100 000 Indigenous people

<sup>12</sup> While the ABS considered data for Queensland, WA, SA and the NT to be of publishable standard, the trend figures for Indigenous suicides still need to be interpreted with care, given the low number of suicides among Indigenous people and uncertainty about the accuracy of Indigenous population estimates.

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compared with 22.6 per 100 000 for the total population (tables 11A.50 and 11A.53).

### *Quality of life*

The Review has identified this indicator for reporting in future.

## **11.5 Future directions in performance reporting**

### **Breast cancer**

Key challenges for improving reporting of breast cancer include:

- expanding the scope of reporting to include management of breast cancer
- further developing indicators of outcomes
- improving data and the measurement of existing indicators.

#### *Expanding the scope of reporting*

Existing performance data for breast cancer management places relatively more emphasis on the performance of State and Territory BreastScreen Australia programs than on the treatment and ongoing management of breast cancer. This emphasis is largely due to the relative availability of breast cancer screening data across jurisdictions. The Review aims to expand reporting in future to incorporate treatment and clinical outcomes data.

The AIHW is working with BreastScreen Australia on a data linkage project to support the mortality feasibility study. This project could begin to broaden the emphasis of the chapter from breast screening towards overall breast cancer management.

#### *Developing indicators of outcomes*

A number of international studies have found evidence that screening has been associated with a reduction in breast cancer mortality (in the United Kingdom for example — Alexander *et al.* (1999); Moss *et al.* (1999)), although there is some doubt about breast self-examination (Moss *et al.* 1999). Neither of the two United Kingdom studies noted, however, used economic evaluation tools. At present, there are no Australian studies of this nature.

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The National Advisory Committee to BreastScreen Australia Monitoring and Evaluation Working Group has developed an evaluation plan and monitoring plan that will facilitate reporting of outcomes in future.<sup>13</sup>

*Improving data and the measurement of existing indicators*

Work was undertaken this year to identify the comparability of a number of expenditure items in the cost per woman screened calculations across jurisdictions. Further work will be undertaken for the 2005 Report to improve the comparability of the cost per woman screened data.

BreastScreen Australia's policy on symptomatic women was reviewed in 2000-01. BreastScreen Australia is a population-based mammographic screening program for women without symptoms. Current BreastScreen Australia policy states that it is preferable for women with symptoms, such as breast lumps or nipple discharge, to be referred by their medical practitioner to a diagnostic service.

The National Advisory Committee considered the outcomes of the policy review in July 2001. It agreed that further work is required to implement a flexible policy framework responsive to the needs of women with symptoms presenting to BreastScreen Australia services. It also determined that standardised definitions of symptoms are critical for the local monitoring of symptomatic women in the program, and for consistent national monitoring and reporting. Projects will be undertaken in 2003-04 to establish clear and nationally consistent definitions of symptoms, principles of duty of care, and protocols to support decision making within a flexible policy framework at the State and Territory level.

Interval cancer rates have previously been reported by symptom status. Since the 2002 Report, stratification of reporting by symptom status has been discontinued until symptom status can be more accurately defined.

Victoria has developed a set of clinical performance indicators for breast cancer management as part of a comprehensive approach to quality improvement through performance monitoring and reporting. BreastCare Victoria (Department of Human Services) commissioned the project which a BreastScreen Victoria Inc team is undertaking. A collaborative approach has been adopted in the development and field testing of the indicators, to maximise key stakeholder participation in and ownership of the project. Involvement of consumers is also a key feature of the method.

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<sup>13</sup> The National Advisory Committee to BreastScreen Australia advises all Australian governments on specific policy, quality, data management and clinical and administrative issues arising out of the management of the BreastScreen Australia program.

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BreastScreen Victoria Inc. conducted a comprehensive review of the national and international literature in this area, and the recommended performance indicators are based on a combination of internationally accepted best practice and consensus among stakeholders. Nine rate-based indicators measure aspects of patient care across the continuum, and three 'critical events', are recommended for review by a breast service on a case-by-case basis. The indicators are supported by a data dictionary and framework for reporting. Further work will commence in early 2004 to undertake a phased implementation and model and evaluate these indicators as a quality improvement tool at the service level. Details on the recommended set of indicators are available from the Victorian Department of Human Services or from BreastScreen Victoria Inc.

## **Mental health**

Key challenges for improving the reporting of mental health management are similar to those of last year:

- improving the reporting of effectiveness and efficiency indicators for Indigenous, rural/remote and other special needs groups
- revising the performance indicator framework to account for the Third National Mental Health Plan, to ensure reporting remains consistent with government policy objectives for mental health
- improving the reporting of effectiveness/efficiency indicators for community-based mental health care.

As mentioned in the Policy developments section, information structures being developed under the NMHS will enable improved performance reporting in future. At present, while community-based mental health care is expanding in accordance with the NMHS, performance reporting in this area is limited by the quality of data.

The Australian Council for Safety and Quality in Healthcare was formed by Australian Health Ministers in 2000 to establish a safety and quality agenda across health care in Australia. The Australian Health Ministers Advisory Council National Mental Health Working Group is working in partnership with the Australian Council for Safety and Quality in Health Care and other key mental health stakeholders to strengthen safety and quality initiatives in the public and private mental health service sectors. An initial project to scope the situation regarding areas of concern in safety and quality, including the safety of patients placed in seclusion, the use of restraint, the range of adverse effects from pharmaceutical treatments and the difficulties in diagnosing suicidal ideation and preventing suicide and suicide attempts, has been undertaken.

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The *Mental Health Information Development Plan: National Information Priorities and Strategies under the Second Mental Health Plan 1998–2003* was released in September 1999 and includes the introduction of routine consumer outcome measurement in mental health services. The Plan puts forward information development strategies to strengthen the focus on consumer outcomes. These strategies include: developing agreed measurement standards; developing national reporting guidelines; establishing a national network of accredited organisations to provide clinician training in the use of outcome measures; encouraging broad adoption by service organisations of outcome measurement as an integral part of service delivery; and regular reporting by agencies of core measures.

In addition, all jurisdictions have undertaken to begin collecting unit record consumer outcomes data to develop the mental health casemix classification system and to collect data on the implementation of standards. Delays in the adoption of a consistent mental health casemix classification system are a particular constraint on comparable performance reporting. All States and Territories are now collecting outcomes data with comprehensive coverage expected in 2005.

Australian, State and Territory governments are also required to agree on performance indicators under the Australian Health Care Agreements. Work by the Australian Health Ministers' Advisory Council National Mental Health Working Group will contribute to performance reporting in the medium to longer term.

All of these initiatives will facilitate improvements in both the performance framework and data used by the Review to report on mental health care in future.

## **11.6 Jurisdictions' comments**

This section provides comments from each jurisdiction on the services covered in this chapter. Appendix A contains data that may assist in interpreting the performance indicators presented in this chapter. These data cover a range of demographic and geographic characteristics, including age profile, geographic distribution of the population, income levels, education levels, tenure of dwellings and cultural heritage (such as Indigenous and ethnic status).

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### **Australian Government comments**

“ The Australian Government has provided \$120 million over four years from 1 July 2001–30 June 2005 for the Better Outcomes in Mental Health Care initiative. The initiative will improve the community's access to primary mental health services by providing better education and training for general practitioners and more support for them from allied health professionals and psychiatrists. The initiative encourages evidence-based practice in primary mental health care and recognises that good practice in mental health includes both pharmacological and non-pharmacological intervention.

The Australian Government's commitment to improving health outcomes for Australians living in rural locations is demonstrated by around \$2 billion spending on targeted programs for rural health and aged care since 1996. This includes provision of more than \$550 million for the More Doctors, Better Services Initiative (2000-01 Budget) over four years. Under the Regional Health Strategy, more rural Australians are getting access to essential health services; there are more opportunities for the health force to train and practice in rural areas; and the number of rural doctors has increased.

The Australian, State and Territory governments and the National Rural Health Alliance collaborated to develop the Healthy Horizons Outlook: 2003-2007: A Framework for improving the Health of Rural, Regional and Remote Australians, to guide the provision of rural health programs and services, and agreed to implement programs with a primary care focus in their respective jurisdictions. Steps are being taken to improve the information base on regional, rural and remote health through a series of reports on health performance indicators and selected rural health issues.

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## **New South Wales Government comments**

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The 2004 Report on Government Services continues to be a valuable source of data and comparisons on key areas of interest in publicly provided services. Many improvements have been made to the Report over time, but there are still areas requiring closer attention in future publications.

Comparability of data across jurisdictions remains a significant challenge. An increasing number of measures are drawn from a single source, such as the ABS and AIHW. However, there are still variable practices in the collection of data that make up these measures within and between jurisdictions. Whilst the Report aims to provide comparable data which reflect genuine issues of performance and/or gaps in services, many of the differences observed are due to data issues rather than service delivery variation. The Steering Committee for the Report maintains the principle that imperfect data should be reported, so as to draw attention to the issues to motivate data improvements. Whilst this has led to better standardisation in some areas, there are other areas where the progress has been limited. For example, the current Report includes an expanded set of measures that overcome the problems of the inconsistent assignment of patients to urgency category in this data. This expanded set reflects work undertaken by jurisdictions and the AIHW to develop more robust measures of performance for elective surgery waiting times. However, data by urgency category continue to be sought and published in the Report. Similar problems are encountered with measuring Emergency Department waiting times, given inconsistencies between clinicians, hospitals and jurisdictions in assignment of patients to triage categories, and further efforts are required to address this issue.

Where data collection is not routine, reported measures may be unrepresentative. In addition with indicators based on small numbers of events, random fluctuations may mean difference between jurisdictions lack statistical significance. Examples where these issues are of particular concern are hospital acquired infections and maternal and perinatal health. A further challenge for the report relates to changing models of care. In hospital services, concerted attempts are now being made in some States to move to treatment of patients on an outpatient basis rather than admitted patient basis. These trends have perverse impacts on a number of indicators.

Variations in how programs are organised pose other issues for comparability. For example, jurisdictions take a varied approach to whether certain services are classified under mental health programs, such as some drug and alcohol services, early intervention services for children, programs for people with brain injury, psycho-geriatric services, and community based psycho-social services. These variations impact on several measures presented in the Report.

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## Victorian Government comments

“ Victoria welcomes the expanded focus in this Report from general practice to primary and community health. It is particularly pleasing to note the inclusion of new indicators related to potentially preventable hospitalisation, based on the Victorian Ambulatory Care Sensitive Conditions Study undertaken by the Department of Human Services.

This change also serves to highlight a key challenge in future development of the Report, namely, how to measure performance to reflect changing models of care, including greater provision of services on an ambulatory basis. Some existing performance measures for public hospitals, including separation rates and recurrent costs per casemix-adjusted separation, are becoming less useful in measuring performance, due to differences across States and Territories in how services are provided. One clear illustration of this occurs in the data on breast cancer separation rates, where differences in admission practices and service provision outside the hospital setting may largely account for what otherwise might appear to be significant differences in the level of provision of chemotherapy and radiotherapy services across jurisdictions. Another obvious example relates to the continuing validity of available beds as a measure of health system capacity. This measure is being rendered less meaningful due to the growing shift of services from hospital to the community (for example, dialysis, rehabilitation and hospital in the home), together with new models of care such as short stay units in or near emergency departments.

Victoria strongly supports the intention to expand the Report to provide a greater focus on the interrelationships between services across the health and aged care systems. This reflects the reality that many consumers will use multiple services and their satisfaction and health outcomes will include performance dimensions related to continuity of care, timely referral between services, and coordinated management of care and information.

A focus on interface issues is also important in recognising that, even for consumers without complex care needs, the availability of one type of health or aged care service can strongly influence the utilisation of related services. Victorian data demonstrate the clear relationship between access to affordable general practice services and the demand on public hospital emergency departments for primary care type services. Similarly, the utilisation of acute hospitals by older people is impacted by the availability of timely assessment services, rehabilitation and aged care services across different service settings. In Victoria the quarterly Hospital Services Report will be expanded in 2004 to recognise, and report on, these critical interfaces across hospitals, primary and community health and aged care services.

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## Queensland Government comments

“ Queensland Health continues to ensure Queenslanders have timely and appropriate access to quality and cost effective public hospital services. A number of initiatives are being undertaken to ensure Queensland is well positioned to continue in this vein. The Smart State: Health 2020 directions statement provides a vision for future health care to the year 2020 and broad directions that focus on improving the health of Queenslanders.

The Integrating Strategy and Performance (ISAP) Project has commenced to identify the directions and activities Queensland Health needs to undertake to meet its long term objectives and achieve the Health 2020 vision. The first task has been to develop a framework for strategy development and develop meaningful performance measures to assess whether Queensland Health's objectives are being achieved. The performance measures will assess the organisation's progress in achieving its objectives.

In addition to this broad strategic focus, the government has focussed on a number of specific important policy areas including suicide prevention and the health of children and young people.

Suicide is a major health issue and a significant contributor to the burden of disease and disability. Queensland has undertaken a process of widespread consultation and research to develop a future direction for suicide prevention outlined in the Reducing Suicide: Queensland Government Suicide Prevention Strategy 2003–08 Strategy. Reducing Suicide involves an integrated cross-government approach and emphasises the engagement of, and partnership with, other key stakeholders to achieve a whole-of-community approach. Reducing Suicide adopts a broad range of responses including promotion of mental health and wellbeing; illness prevention and early intervention; and quality treatment and assertive follow-up. Activities aimed at improving coordination and integration of suicide prevention are also identified.

Queensland is currently implementing the Strategic Policy Framework for Children's and Young People's Health 2002–07. The framework aims to improve the health and well-being of children and young people by giving children the best start and supporting the nurturing role of families, promoting healthy growth and development in safe, supportive environments, and ensuring quality treatment, management and monitoring.

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## Western Australian Government comments

“ In 2003 the government health system in Western Australia undertook a series of developmental projects to move on a number of important issues in the sector. Government priorities in the areas of emergency services and bed management, nurse workforce attraction and retention strategies and waiting list operations, received particular focus through a series of initiatives ran collaboratively by members of the State's Health executive.

A State Health Emergency Director was appointed to ensure a coordinated emergency management response to problems of ambulance diversions, Emergency Department overcrowding and bed pressures. Nurse West, a centralised agency nurse booking bureau, was launched to facilitate access to additional nursing capacity as the need arises. This is in addition to the implementation of nursing hours per patient day industrial requirements to provide improved nurse to patient ratios in the State's health system. Efforts continued to minimise waiting times for elective patients, particularly for those who had already been waiting longer than clinically desirable for elective surgery and ambulatory care.

In March, many of the developmental projects in health came together under the auspice of an executive team of review called the Health Reform Committee (HRC). The Committee is part of a broader State government Functional Review initiative that is to deliver improved efficiency and effectiveness of government services to its clients and directly or indirectly, to the community.

HRC was given the task of addressing strategies to improve the quality of health services in the State and to manage health system costs in order to ensure that the sector operates within a sustainable funding arrangement. The work is intended to provide a vision that will guide the next five to ten years of the health system.

As a first step in this process, a series of discussion papers were publicly released in October and November seeking comments from the community of Western Australia and any other interested parties. These papers covered topics ranging from a proposed new output and outcome structure for the system, to models of care, options for clinical services and seamless care and improved revenue generation techniques.

The comments are scheduled to be received and considered through the remaining weeks of 2003. Whichever of these proposals are supported, will be incorporated into a final report from HRC in March 2004. It is seen that a number of these initiatives, particularly any ones with a significant capital base will take some time to roll-out. On the other hand, there are some, like the Performance Agreements which share if not transfer budget and service accountability from the head of Department to second tier executives, that will proceed to implementation almost immediately.”

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## South Australian Government comments

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The Department of Human Services continues to provide a quality health service for the SA community. The Department maintains its efforts to ensure that appropriate health care is provided to all who need it and is actively undertaking further development of integrated and coordinated service provision across all three portfolio areas of health, housing and community services.

In 2002 the SA Government commissioned a comprehensive review of the SA health system including its interface with the private and non-government sectors. The aim of the Generational Health Review (GHR) was to deliver a plan that provides effective strategies for health system reform, which ensures that all South Australians enjoy the best possible health and have access to high standards of health care. The review reported its findings to the Minister for Health in 2003.

The GHR has identified a number of key themes critical to delivering the required health reform agenda. These themes form the basis for the structure of the final report and evolved throughout extensive discussions and consultations across the State with key stakeholders and communities. The final report is one of many steps in working towards a future framework for health care in SA.

The SA Government's initial response to the review identifies three key areas; building better governance, building better services and building better system support. These *First Steps Forward* will provide immediate action to two thirds of the reviews recommendations.

Constraints within the human services operational environment include a steadily increasing demand for human services, ageing capital infrastructure, and new technologies setting higher expectations of medical science. Despite these pressures the SA public hospital system is still one of the most technically efficient (as measured by the cost per casemix-adjusted separation). SA has successfully implemented population based breast and cervix screening programs, and immunisation programs as well as exploring innovative methods of case management, continuity of care and chronic illness management for target population groups and alternative models for service delivery.

Changing population demographics are a continuing challenge. People are living longer and South Australians are ageing at a faster rate than other states. Health inequalities and changing disease burden also present challenges requiring appropriate responses from the health system and service delivery. Vulnerable population groups with poor health or limited access to health services include Aboriginal people, young children, people with a mental illness and the frail aged. These challenges require appropriate responses to ensure better health for all South Australians.

The Department continues to support strategies to improve reporting of effectiveness and efficiency indicators for indigenous, rural/remote and other population groups.

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## Tasmanian Government comments

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The Tasmanian Department of Health and Human Services provides integrated services and support interventions together with a wide range of public health and safety, health promotion, individual and family support and capacity building services.

During 2003 the Department has continued to monitor and contribute to progress against the community benchmarks set by *Tasmania Together* into its performance monitoring system. *Tasmania Together* is a twenty-year social, environmental and economic plan for Tasmania developed through extensive community consultation. Under the plan Government Agencies are required to report annually to an independent body, the *Tasmania Together* Progress Board, on performance against a range of outcome targets.

Tasmania, as with other jurisdictions, has continued to develop a strong focus on safety and quality across all its health settings. Strong links have been consolidated with the Australian Council for Safety and Quality in Health Care and other jurisdictions' health agencies in working towards national strategies to improve patient safety. The Department has also developed a comprehensive statewide clinical risk governance structure to help ensure patient, staff and visitor safety throughout Tasmanian public hospitals.

While the need to manage workforce shortages is a continuing challenge in Tasmania, recruitment of medical specialists achieved significant successes in over 2002 and 2003, with both the Mental Health and Palliative Care Services successfully recruiting to a range of senior clinical positions throughout the State.

As with other jurisdictions, Tasmania also continues to face a range of other challenges associated with increasing cost and demand pressures. Growth in demand associated with an ageing population and increases in the prevalence of chronic disease and social conditions place a growing strain on the health and human services system

Notwithstanding Tasmania's support for the objectives of this Report, it should be noted that there are significant issues affecting jurisdictional comparability under some indicators. Jurisdictional differences in funding arrangements, administration and clinical practice can reduce comparability of data. For example, and as noted in the Public Hospitals chapter, standardisation of elective surgery data across jurisdictions is considered a priority for the Review.

The Department of Health and Human Services acknowledges the value of the Report on Government Services and uses information from the Report in monitoring its own performance.

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### **Australian Capital Territory Government comments**

“ The ACT provides a near complete range of health services to its residents, as well as to those living in adjoining regions of NSW. The ACT continues to support the reporting of data across jurisdictions as a tool for judging the performance of its own health system against other States and Territories and over time. However, readers should take care when reading comparisons of data across jurisdictions.

The small population of the ACT can make indicators for selected services and target groups subject to large variations across times. Published data for certain population groups in the ACT may not provide reliable insights into population health needs or service utilisation. For example, indigenous separation rates in the ACT are very prone to double counting problems. In 2001-02, almost half of 891 separations for indigenous ACT residents in ACT public hospitals were renal dialysis treatments. These renal dialysis treatments were given to fewer than 5 persons. Small numbers leave the same data extremely sensitive to non-reporting of indigenous status.

Comparison of costs for particular services across jurisdictions should also be read with caution. One issue is that accounting methods for costing services can vary considerably across the States and Territories. Another issue is that cost drivers will vary from jurisdiction to jurisdiction and jurisdictions may have little scope to address these cost drivers in the short to medium term. For example, economies and diseconomies of scale vary across the jurisdictions, as do health system structures and the ability to attract and retain skilled health workers.

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## Northern Territory Government comments

“ The Northern Territory Government provides and purchases a cluster of interdependent health and community services. The Department of Health and Community Services has the responsibility for health planning and delivery of community based and hospital services in the Territory.

A small population, remote communities and the special health needs of a youthful and Indigenous populace present challenges in providing equivalent health services in the NT that are on offer in other jurisdictions. Some specialist and emergency services are purchased interstate to ensure health services on par with those in the rest of Australia. Services must be culturally appropriate requiring special training and interpreting assistance.

There is only one private hospital in the NT. Limited availability of private sector health services such as GPs in rural and remote communities combine with reduced access to bulk billing to increase demand on the public hospital system. This Report reflects the Territory's position in delivering health services to a largely remote and young population as evidenced by higher costs to ensure access. However, there are difficulties in comparing NT data with other jurisdictions. The method used in this Report to standardise hospital separation rates does not accommodate the Territory age distribution. Then too, the use of total State/Territory populations as a denominator of Indigenous comparisons distorts comparisons because 29 per cent of Territorians are Indigenous, a much larger percentage than elsewhere.

The Department of Health and Community Services operates five public hospitals in the NT. They are located in Darwin, Nhulunbuy, Katherine, Tennant Creek and Alice Springs with a combined total of 569 beds. Hospitals are supported by a network of 98 community health centres throughout the Territory and close to 100 GP practices.

Remoteness, special needs, diseconomies of scale, an environment ranging from desert to tropical require unique ways of providing health and community services. Coordinated trials were developed to pilot new approaches that have been the forerunner to the establishment of health zones.

The thrust of health management in the NT, albeit vaccinations, education, early cancer detection and family/community/mental health support services, has been to prevent the need for hospitalisation. The effectiveness of health management services coupled with child health initiatives will be gauged through data collected and reported next year with the expected expansion of this section of the Report.

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## 11.7 Definitions

Table 11.11 Terms

<i>Term</i>	<i>Definition</i>
<b>General</b>	
AR-DRG v4.1 (Australian refined diagnosis related group, version 4.1)	A patient classification system that hospitals use to match their patient services (hospital procedures and diagnoses) with their resource needs. AR-DRG v4.1 is based on the ICD-10-AM classification and replaces the earlier AN-DRG v3.0/3.1.
Casemix-adjustment	Adjustment of data on cases treated to account for the number and type of cases. Cases are sorted into diagnosis related groups (DRGs) that represent a class of patients with similar clinical conditions requiring similar hospital services.
General practice	The organisational structure in which one or more GPs provide and supervise health care for a 'population' of patients. This definition includes medical practitioners who work solely with one specific population, such as women's health and Indigenous health.
Health management	The ongoing process beginning with initial client contact and including all actions relating to the client. Includes assessment/evaluation, education of the person, family or carer(s) and diagnosis and treatment. Problems associated with adherence to treatment and liaison with, or referral to, other agencies are also included.
Incidence rate	The proportion of the population suffering from a disorder or illness for the first time during a given period (often expressed per 100 000 persons).
Separation	As the process whereby an admitted patient completes an episode of care.
<b>Breast cancer</b>	
Adjuvant therapy	Treatment given after the primary treatment to increase the chances of a cure. Adjuvant therapy may include chemotherapy, radiation therapy or hormone therapy.
Breast conserving surgery	An operation to remove the breast cancer but not the breast itself. Types of breast conserving surgery include lumpectomy (removal of the lump), quadrantectomy (removal of one quarter of the breast) and segmental mastectomy (removal of the cancer as well as some of the breast tissue around the tumour and the lining over the chest muscles below the tumour).
Cost per woman screened	The total cost of provision of breast screening services divided by the number of women screened. The total cost of provision of breast screening services should include the cost of providing the BreastScreen Australia program in each jurisdiction, in addition to the cost of providing the program to women.
Detection rate for small cancers	The rate of small (less than or equal to 15 millimetres invasive breast cancers detected per 10 000 women screened.
<i>Ductal carcinoma in situ</i>	Abnormal cells that involve only the lining of a duct. The cells have not spread outside the duct to other tissues in the breast. Also known as intraductal carcinoma.
Invasive cancer	A tumour whose cells invade healthy or normal tissue.

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Table 11.11 (Continued)

<i>Term</i>	<i>Definition</i>
Modified radical mastectomy	Surgery for breast cancer in which the breast, some of the lymph nodes under the arm, the lining over the chest muscles, and sometimes part of the chest wall muscles are removed.
Mortality rate from breast cancer	The age specific and age standardised mortality rates of women who died as a result of breast cancer, expressed per 100 000 women in the population.
Participation	The number of women resident in the catchment area screened divided by the number of women resident in the catchment area. If a woman is screened more than once during the reference period, then only the first screen is counted. Expressed as a per cent. Catchment area is a geographic region based on service size in relation to the population, accessibility and the location of other services. It is uniquely defined for each service based on post code or statistical local area.
Radiation therapy	The use of high energy radiation from X-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumours. Radiation may come from a machine outside the body (external beam radiation therapy) or from materials called radioisotopes. Radioisotopes produce radiation and can be placed in or near the tumour or in the area near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, interstitial radiation or brachytherapy. Systemic radiation therapy uses a radioactive substance (such as a radiolabeled monoclonal antibody) that circulates throughout the body.
Screening	The performance of tests on apparently well people to detect a medical condition at an earlier stage than otherwise would be the case.
Screening round (first)	A woman's first visit to a BreastScreen Australia mammography screening service.
Screening round (subsequent)	A woman's visit to a BreastScreen Australia mammography screening service when she has previously attended such a service.
Size of detected cancers	The percentage of invasive cancers detected classified according to tumour size.
Total mastectomy	Removal of the breast. Also known as simple mastectomy.
<b>Mental health</b>	
Acute services	<p>These services provide specialist psychiatric care for people who present with acute episodes of mental illness. These episodes are characterised by recent onset of severe clinical symptoms of mental illness that have potential for prolonged dysfunction or risk to self and/or others. The key characteristic of acute services is that the treatment effort focuses on symptom reduction with a reasonable expectation of substantial improvement. In general, acute psychiatric services provide relatively short term treatment. Acute services may:</p> <ul style="list-style-type: none"> <li>• focus on assisting people who have had no prior contact or previous psychiatric history, or individuals with a continuing psychiatric disorder for whom there has been an acute exacerbation of symptoms</li> <li>• target the general population or be specialist in nature, target specific clinical populations. The latter group include psychogeriatric, child and adolescent, and forensic psychiatry services.</li> </ul>

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**Table 11.11 (Continued)**

<i>Term</i>	<i>Definition</i>
Affective disorders	A mood disturbance, including mania, hypomania, bipolar affective disorder, depression and dysthymia.
Agoraphobia	Fear of being in public places from which it may be difficult to escape. A compelling desire to avoid the phobic situation is often prominent.
Ambulatory care services	Mental health services dedicated to the assessment, treatment, rehabilitation or care of non-admitted inpatients, but not confined to: crisis assessment and treatment services, mobile assessment and treatment services, outpatient clinic services (whether provided from a hospital or community mental health centre), child and adolescent outpatient treatment teams, social and living skills programs (including day programs, day hospitals and living skills centres), and psychogeriatric assessment teams and day programs.
Antidepressant	A drug that alleviates depression, usually by energising the person and thus elevating mood.
Anxiolytics	Tranquillisers; drugs that reduce anxiety.
Anxiety disorders	Feelings of tension, distress or nervousness. Includes agoraphobia, social phobia, panic disorder, generalised anxiety disorder, obsessive-compulsive disorder and post-traumatic stress disorder.
Available beds	<p>The number of immediately available beds for use by admitted patients if required of at 30 June. They are immediately available for use if located in a suitable place of care with nursing or other auxiliary staff available within a reasonable period. Includes beds in wards that are temporarily closed due to factors such as renovations or strikes but that would normally be open and therefore available for admission of patients.</p> <p>In many cases, available beds will be less than the number of approved beds, with the former controlled by utilisation factors and resourcing levels, while the latter refers to the maximum capacity allowed for the hospital, given sufficient resources and community demand.</p>
Bipolar disorder	A mood disorder characterised by a history of manic (or hypomanic) episodes usually alternated with depressive episodes.
Child and adolescent psychiatry services	Services principally targeted at children and young people up to the age of 18 years. Classification of services in this category requires a recognition by the regional or central funding authority of the special focus of the inpatient service on children or adolescents.
Co-located services	Psychiatric inpatient services established physically and organisationally as part of a general hospital.
Community-based residential services	Staffed residential units established in community settings that provide specialised treatment, rehabilitation or care for people affected by a mental illness or psychiatric disability. To be defined as community-based residences, the services must: provide residential care to people with psychiatric illness or disability; be located in a community setting external to the campus of a general hospital or psychiatric institution; employ onsite staff for at least some part of the day; and be government funded.
Co-morbidity	The simultaneous occurrence of two or more disorders such as depressive disorder with anxiety disorder, or depressive disorder with anorexia.

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**Table 11.11 (Continued)**

<i>Term</i>	<i>Definition</i>
Consumer and carer involvement in decision making	Consumer and carer participation arrangements in public sector mental health service organisations according to the scoring hierarchy (levels 1–4) developed for monitoring State and Territory performance under Medicare Agreements Schedule F1 indicators.
Cost per inpatient bed day	The average patient day cost according to the inpatient type.
Depression	A state of gloom, despondency or sadness lasting at least two weeks. The person usually suffers from low mood, loss of interest and enjoyment, and reduced energy. Sleep, appetite and concentration may be affected.
Dysthymia	Constant or constantly recurring chronic depression of mood, lasting at least two years, which is not sufficiently severe, or whose episodes are not sufficiently prolonged, to qualify as recurrent depressive disorder. The person feels tired and depressed, sleeps badly and feels inadequate, but usually can cope with the basic demands of everyday life.
Forensic psychiatry services	Services principally providing assessment, treatment and care of mentally disordered individuals whose behaviour has led them to commit criminal offences or makes it likely that they will offend in the future if not adequately treated and contained.
General psychiatry services	Services that principally target the general adult population (18–65 years old) but that may provide services to children, adolescents or the aged. Includes, therefore those services that cannot be described as specialist child and adolescent, geriatric or forensic services.  General psychiatry inpatient services include hospital units whose principal function is the provision of some form of specialised service to the general adult population (for example, inpatient psychotherapy) or that focus on specific clinical disorders within the adult population (for example, post-natal depression, anxiety disorders).
Generalised anxiety disorder	Unrealistic or excessive anxiety and worry about two or more life circumstances for six months or more, during which the person has these concerns or more days than not.
Geriatric psychiatry services	Services principally targeting people in the age group 65 years or over. Classification of services in this category requires a recognition by the regional or central funding authority of the special focus of the inpatient service on aged persons. Excludes general psychiatry services that may treat older people as part of a more general service.
Hypomania	A lesser degree of mania characterised by a persistent, mild elevation of mood and increased activity lasting for at least four days. Increased sociability, overfamiliarity and a decreased need for sleep are often present, but not to the extent that they lead to severe disruption.
Inpatient services	Stand alone psychiatric hospitals or specialist psychiatric units located within general hospitals.
Mental disorder	A diagnosable illness that significantly interferes with an individual's cognitive, emotional and/or social abilities.

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**Table 11.11 (Continued)**

<i>Term</i>	<i>Definition</i>
Mental health	The capacity of individuals within groups and the environment to interact with one another in ways that promote subjective wellbeing, the optimal development and use of mental abilities (cognitive, affective and relational) and the achievement of individual and collective goals consistent with justice.
Mental health problems	Diminished cognitive, emotional or social abilities, but not to the extent of meeting the criteria for a mental disorder.
Mental illness prevention	Interventions that occur before the initial onset of a disorder.
Mental health promotion	Activities designed to lead to improvement of the mental health functioning of persons through prevention, education and intervention activities and services.
Mortality rate from suicide	The percentage of the population who died as a result of suicide.
Non-acute services	Rehabilitation services that have a primary focus on intervention to reduce functional impairments that limit the independence of patients. Rehabilitation services focus on disability and the promotion of personal recovery. They are also characterised by an expectation of substantial improvement over the short to medium term. Patients treated by rehabilitation services usually have a relatively stable pattern of clinical symptoms. Non-acute services also consist of extended care services that provide care over an indefinite period for patients who have a stable but severe level of functional impairment and inability to function independently without extensive care and support. Patients of extended care services usually show a relatively stable pattern of clinical symptoms, which may include high levels of severe unremitting symptoms of mental illness. Treatment effort focuses on preventing deterioration and reducing impairment. Improvement is expected only over a long period.
Non-government organisations	Private not-for-profit community managed organisations that receive State and Territory government funding specifically for the purpose of providing community support services for people affected by a mental illness or psychiatric disability. Programs provided by the non-government organisation sector may include: supported accommodation services (including community-based crisis and respite beds); vocational rehabilitation programs; advocacy programs (including system advocacy); consumer self-help services; and support services for families and primary carers.
Obsessive-compulsive disorder	<i>Obsessions</i> : recurrent, persistent ideas, thoughts, images or impulses that intrude into the person's consciousness against his or her will. The person experiences these as being senseless or repugnant, but cannot ignore or suppress them. <i>Compulsions</i> : recurrent, stereotyped behaviours performed according to certain rules. The person often views them as preventing some unlikely event, often involving harm to, or caused by, themselves. The person generally recognises the senselessness of the behaviour, attempts to resist it and does not derive any pleasure from carrying out the activity.

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**Table 11.11 (Continued)**

<i>Term</i>	<i>Definition</i>
Outpatient services —community-based	Services primarily provided to non-admitted patients on an appointment basis and delivered from health centres located in community settings, physically separated within hospital sites. Services provided may also include outreach or domiciliary care as an adjunct to services provided from the centre base.
Outpatient services —hospital-based	Services primarily provided to non-admitted patients on an appointment basis and delivered from clinics located within hospitals. May include outreach or domiciliary care as an adjunct to services provided from the clinic base.
Panic disorder	Panic (anxiety) attacks that occurs suddenly and unpredictably. A panic attack is a discrete episode of intense fear or discomfort.
Patient days (occupied bed days)	All days or part days that each patient was in hospital during the reporting year (1 July to 30 June), regardless of the original data of admission or discharge. Key definitional rules include the following: <ul style="list-style-type: none"> <li>• For a patient admitted and discharged on different days, only the day of admission is counted as a patient day.</li> <li>• Admission and discharge on the same day is equal to one patient day.</li> <li>• Leave days are not included when they involve an overnight absence.</li> <li>• A patient day is recorded on the day of return from leave.</li> </ul>
Percentage of facilities accredited	The percentage of facilities providing mental health services that are accredited according to the national standards for mental health services.
Post-traumatic stress disorder	A delayed and/or protracted response to a psychologically distressing event that is outside the range of usual human experience.
Prevalence	The number of cases of a disease present in a population at a given time (point prevalence) or during a given period (period prevalence).
Preventive interventions	Programs designed to decrease the incidence, prevalence and negative outcomes of disorders.
Psychiatrist	A medical practitioner with specialist training in psychiatry.
Public health	The organised, social response to protect and promote health, and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole or population subgroups. Public health is characterised by a focus on the health of the population (and particular at-risk groups) and complements clinical provision of health care services.
Public (non-psychiatric) hospital	A hospital that provides at least minimum medical, surgical or obstetric services for inpatient treatment and/or care, and around-the-clock, comprehensive, qualified nursing services as well as other necessary professional services.
Schizophrenia	A combination of signs and symptoms that may include delusions, hallucinations, disorganised speech or behaviour, a flattening in emotions and restrictions in thought, speech and goal directed behaviour.
Social phobia	A persistent, irrational fear of being the focus of attention, or fear of behaving in a way that would be embarrassing or humiliating.

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Table 11.11 (Continued)

Term	Definition
Specialised mental health services	Services whose the primary function is specifically to provide treatment, rehabilitation or community support targeted towards people affected by a mental disorder or psychiatric disability. This criterion applies regardless of the source of funds. Further, such activities are delivered from a service or facility that is readily identifiable as both specialised and serving a mental health function.
Specialised residential services	Services provided in the community that are staffed by mental health professionals on a 24 hour basis.
Staffing categories (mental health)	<p><i>Medical officers:</i> all medical officers employed or engaged by the organisation on a full time or part time basis. Includes visiting medical officers who are engaged on an hourly, sessional or fee-for-service basis.</p> <p><i>Other medical officers:</i> medical officers employed or engaged by the organisation who are not registered as psychiatrists within the State or Territory or formal trainees within the Royal Australian and New Zealand College of Psychiatrists' Postgraduate Training Program.</p> <p><i>Psychiatrists and consultant psychiatrists:</i> medical officers who are registered to practice psychiatry under the relevant state or territory medical registration board.</p> <p><i>Psychiatry registrars and trainees:</i> medical officers who are formal trainees within the Royal Australian and New Zealand College of Psychiatrists' Postgraduate Training Program.</p> <p><i>Nursing staff:</i> all categories of registered nurses, enrolled nurses, student nurses or trainee/pupil nurses employed or engaged by the organisation.</p> <p><i>Registered nurses:</i> persons with at least a three year training certificate or tertiary qualification who are certified as being a registered nurse with the State or Territory registration board. This is a comprehensive category and includes general and specialist categories of registered nurses.</p> <p><i>Non-registered nurses:</i> enrolled nurses and student nurses not included in the previous category.</p> <p><i>Diagnostic and health professionals:</i> qualified staff (other than qualified medical or nursing staff) engaged in duties of a diagnostic, professional or technical nature. This category covers all allied health professionals, such as social workers, psychologists, occupational therapists, physiotherapists, pharmacists, speech pathologists, and dietitians.</p> <p><i>Social workers:</i> persons who have completed a course of recognised training and are eligible for membership of the Australian Association of Social Workers.</p> <p><i>Psychologists:</i> persons who are registered as psychologists with the relevant State or Territory registration board.</p> <p><i>Occupational therapists:</i> persons who have completed a course of recognised training and who are eligible for membership of the Australian Association of Occupational Therapists.</p> <p><i>Other personal care staff:</i> attendants, assistants, home companions, family aides, ward helpers, wardsmen, orderlies, ward assistants and nursing assistants who are engaged primarily in the provision of personal care to patients or residents and who are not formally qualified or who are undergoing training in nursing or allied health professions.</p>

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Table 11.11 (Continued)

<i>Term</i>	<i>Definition</i>
Staffing categories (mental health) (Continued)	<p><i>Administrative and clerical staff:</i> Staff engaged in administrative and clerical duties. Excludes medical, nursing, diagnostic and health professional and domestic staff wholly or partly involved in administrative and clerical duties, who should be counted under their appropriate occupational categories.</p> <p><i>Domestic and other staff:</i> Staff involved in the provision of food and cleaning services. Includes all staff not elsewhere included (for example, maintenance staff, tradespersons, gardening staff).</p>
Stand alone hospitals	<p>Beds within health establishments that are primarily devoted to the treatment and care of inpatients with psychiatric, mental or behavioural disorders, and that are situated at physically separate locations from a general hospital. Stand alone hospitals may or may not be managed by the mainstream health system. Psychiatric hospitals situated at physically separate locations from a general hospital are included within the 'stand alone' category regardless of whether they are under the management control of a general hospital.</p>
Substance use disorders	<p>Disorders in which drugs or alcohol are used to such an extent that behaviour becomes maladaptive, social and occupational functioning is impaired, and control or abstinence becomes impossible. Reliance on the drug may be psychological (as in substance misuse), or physiological (as in substance dependence).</p>

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