5 Health management issues

Some fundamental changes have taken place in the Australian health care system in recent years. Policy makers are emphasising service substitution and service integration, and the prominence of community based health care services has increased with the growing interest in preventative care.

The ability of health care providers to offer integrated services is best determined by concentrating on particular health issues. Measuring the management of a health issue involves measuring both the performance of providers and the tradeoff between prevention/early detection and intervention.

The issues discussed in this chapter relate to breast cancer management and mental illness management. Each has a broad ranging public health focus and involves a variety of services (prevention/early detection and intervention) available in a range of settings (public acute care hospitals, community health services and general practice) (box **5.1**). Cancer control and mental health are identified by governments as National Health Priority Areas, along with diabetes mellitus, cardiovascular health and injury prevention and control. These areas represent a significant proportion of the burden of illness in Australia and their management offers considerable scope for reducing this burden (AIHW and DHFS 1997).

This chapter provides descriptive information for each health management issue (section 5.1), a discussion of the framework of performance indicators for each (section 5.2), the future directions for performance reporting in these areas (section 5.3) and the key performance results (section 5.4). The chapter also includes comments from each jurisdiction on their performance in managing breast cancer and mental illness (section 5.5).

Performance data are presented for these health management issues for the first time in this Report. The data for breast cancer control cover the effectiveness of early detection programs (in particular, BreastScreen Australia) and the effectiveness of breast cancer control generally. The data for mental illness cover aspects of both the efficiency and effectiveness of health care services provided to treat mental illness.

Box 5.2 **Some common health terms used in this chapter**

Acute care 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

Ambulatory care: services provided by hospitals to non-admitted patients

Casemix adjustment: adjustment of data on cases treated to account for the number and type of cases. Cases are sorted into diagnosis related groups which represent a class of patients with similar clinical conditions requiring similar hospital services.

Community health services: health services for individuals and groups delivered in a community setting, rather than in hospitals or in private facilities

General practice: a medical practice that offers primary, continuing, comprehensive whole-person care for individuals, families and the community

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.

5.1 Profile of health management

Breast cancer and mental illness are significant causes of morbidity and mortality in Australia, so appropriate management of these illnesses will have a large effect on the health and wellbeing of many Australians. Both are the subject of public health campaigns designed to improve community awareness (box **5.3**). Their treatment also requires public acute care hospital services, community health services and general practice services. The public acute care hospital and general practice components of the health care system are discussed in chapter 4.

Box 5.4 Public and community health

Public health is defined as the organised social response to protect and promote health and to prevent illness, injury and disability. All jurisdictions perform services or undertake programs to enhance the health of the population. Activities provided and classified as public health are grouped under four headings:

- promotion of health (for example, public campaigns designed to improve nutrition);
- protection against hazards (for example, surveillance of food premises and control of water and air quality through legislation or regulation);
- prevention and early detection of illness (for example, child immunisation and breast and cervical cancer screening services); and
- provision of health services (for example, school dental services and drug and alcohol treatment services).

Promotion and protection activities are often referred to as population public health activities because they are delivered to populations rather than individuals. Prevention and provision activities are termed public health personal clinical activities.

This Report focuses on public health activities related to promotion, prevention and provision activities. Most protection activities are not the responsibility of health care providers and therefore are not included in the analysis.

Public health efforts currently target communicable diseases (such as HIV/AIDs and tuberculosis), childhood immunisation, asthma, oral health, nutrition and risk factors for disease.

The latter (improving people's awareness of the risk factors for disease) has implications for both mental illness and breast cancer. The incidence of mental illness in the population is affected by risk factors such as excess alcohol consumption, other drug abuse and inadequate physical activity. Similarly, the incidence of breast cancer is affected by poor diet and nutrition and obesity.

Many public health activities are delivered by a range of health care providers — general practitioners, public acute care hospitals and community health services. General practitioners and public acute care hospitals provide a range of services in addition to these public health services, whereas community health services concentrate on health promotion, early detection of health problems, and the assessment and care of health problems. Community health care services are diverse by nature, incorporating a range of service providers (dieticians, community nurses, psychologists and so on). This multidisciplinary approach makes it difficult to attribute health outcomes to a particular service or provider.

(Continued on next page)

Box 5.2 **(Continued)**

Public and community health accounted for 7 per cent of total government health care funding in 1994-95. It was not possible to identify all government expenditure on public and community health services in 1995-96; only expenditure by the Commonwealth Government was easily identifiable. The Commonwealth Government spent $521 million dollars on public and community health in that year, accounting for 2.8 per cent of all its expenditure on health care services. Public and community health services represented a similar proportion of Commonwealth Government expenditure in 1994-95 (2.9 per cent).

Sources: AIHW (1998a); Fry (1994); NPHP (1997).

Breast cancer control

Breast cancer was the most common cancer afflicting Australian women, with over 9800 new cases diagnosed in 1996 (AIHW 1998b). Breast cancer was also responsible for 2602 deaths in 1997, making it the most common cause of cancer deaths among females (ABS 1999).

The incidence of breast cancer (that is, the number of new cases reported each year) increased steadily between 1983 and 1990, growing by 2.5 per cent each year on average. The average annual growth rate increased to 5.0 per cent between 1990 and 1996 (AIHW 1998b). This stronger growth may have reflected more widespread screening as well as a real increase in disease rates.

The risk of a woman developing breast cancer before the age of 75 in Australia is one in eleven. The risk factors for breast cancer include age, family history of breast cancer, previous history of benign breast diseases, first full-term pregnancy at 35 years of age and older, and late menopause. However, known risk factors explain only one third of all breast cancers. Age is the best indicator of risk, with women over the age of 50 years accounting for almost three quarters of all new cases.

The illness is difficult to prevent, so the focus of breast cancer control is on screening and other means of early detection. Cancers detected early are much easier to treat and patients have a higher likelihood of a full recovery.

BreastScreen Australia is a population-based screening program that offers apparently well women free screening mammograms every two years. It was established in 1991 and is jointly funded by the Commonwealth and State and Territory Governments.

Because age is the most significant risk factor, the program targets women aged 50–69 years, although women aged 40–49 years and over 70 years may also use the service. The program aims to achieve a participation rate of 70 per cent among women aged 50–69 years by 1999.

BreastScreen Australia screening and assessment services operated in over 500 locations throughout Australia via fixed, relocatable or mobile screening units in 1996, screening over 52 000 women each month. The State and Territory coordination units plan and coordinate services and are largely responsible for recruiting women.

Mental health

Mental disorders refer to a group of illnesses such as depression, mania, eating disorders (anorexia and bulimia), anxiety, phobias, schizophrenia and other psychoses, and drug and alcohol addiction. There is evidence that some people may be predisposed to illnesses such as schizophrenia. Factors such as stress, bereavement, relationship breakdown, child abuse, unemployment and social isolation can also contribute to the onset of mental illness (DHFS 1998).

It is estimated that a mental disorder will affect one in five Australians at some stage of their life and 10–15 per cent of young people in any one year. The episode may be mild or temporary for some people, but severe or prolonged for others. Some people recover spontaneously, although the majority require some form of treatment (such as counselling and/or pharmacotherapy). Most requiring treatment enjoy a full recovery; only a small number of people experience long periods of distress and disability (DHFS 1998).

Estimates of the burden of mental disorder (in terms of total health system resources) indicated that they accounted for 8.4 per cent (or $2.6 billion) of total health care expenditure in 1993-94 — the fourth largest share behind digestive system diseases, circulatory diseases and musculoskeletal disorders (AIHW 1998a). Commonwealth and State and Territory Governments recognised the importance of mental health (in terms of its effect on both quality of life and the total health care budget) by launching the National Mental Health Strategy in 1992.

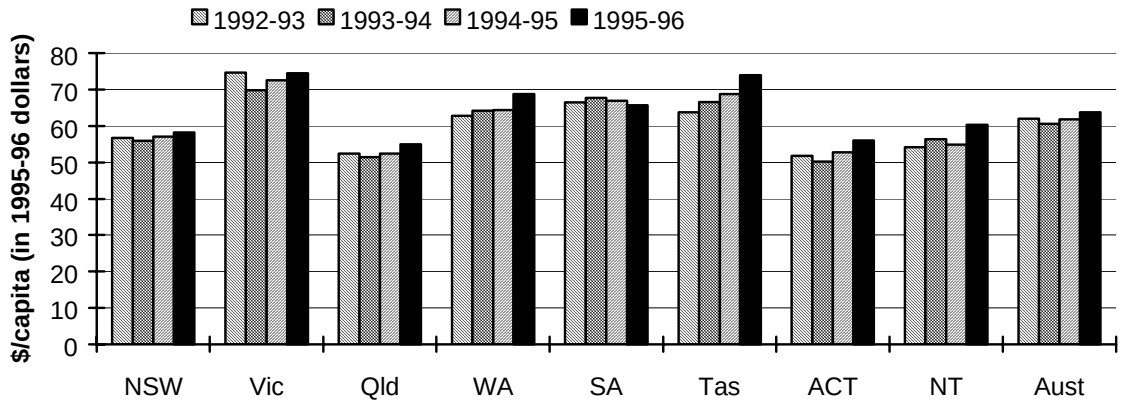
Targeted spending on mental health and related services was $1997 million in 1995-96. This understated total health expenditure on mental health because it excluded general hospital services and general community support programs; for example, expenditure on treating a patient for depression who was admitted to a general ward of a hospital would not be included.

State and Territory Governments contributed $1158 million (58.0 per cent of targeted spending on mental health), the Commonwealth Government contributed $661 million (33.1 per cent), and $178 million (8.9 per cent) was privately funded (DHFS 1998).

The level of targeted funding for mental health has increased by 24.1 per cent (in 1995-96 dollars) between 1992-93 (when the Strategy commenced) and 1995-96. The largest increase came from the Commonwealth Government, whose expenditure rose by $250.2 million (or 61 per cent). Private hospital funding rose by $66.1 million (or 59 per cent) while expenditure by State and Territory Governments rose by $68.6 million (or 6 per cent). At the State and Territory level, the strongest growth in expenditure occurred in the NT (18.5 per cent) and Tasmania (17.1 per cent). Recurrent expenditure increased by 1.4 per cent in Victoria and fell by 0.4 per cent in SA (DHFS 1998).

Expenditure per capita on targeted mental health services rose by 2.7 per cent (in 1995-96 dollars) to $63.70 over the same period. Across jurisdictions, Victoria had the highest per capita expenditure ($74.50) and Queensland had the lowest ($55.00). The strongest growth occurred in Tasmania (up 16.3 per cent) and the NT (up 11.4 per cent). Falls in per capita expenditure were recorded in SA (–1.2 per cent) and Victoria (–0.3 per cent) (figure **5.1**) (DHFS 1998).

Figure 5.2 **Average targeted expenditure on mental health services**



Data source: table 5A.8.

An estimated 18 500 full time equivalent staff were employed in public mental health services in 1995-96, of whom 62 per cent worked in inpatient facilities (psychiatric hospitals and general hospitals). Nursing and related occupations accounted for 54 per cent of the total workforce, while medical, allied and

administrative/domestic staff comprised 8 per cent, 15 per cent and 22 per cent respectively (table 5A.9).

The overall size of the workforce did not change substantially between 1992-93 and 1995-96. However, there were some important changes in composition: the proportion of staff working in ambulatory care settings and community residential services rose by 39 per cent and 59 per cent respectively, while the proportion of staff employed in inpatient facilities fell by 15 per cent (DHFS 1998).

5.2 Framework of performance indicators

The 'Health preface' outlined the complexities of reporting on the performance of the health system in meeting its objectives. This Report breaks the health system into smaller components and reports their performance (see figure C.4 in the 'Health preface'). Frameworks for public acute care hospitals and general practitioners 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 indicated by focusing on health management issues.

The frameworks for breast cancer control and mental illness management are discussed in more detail in the following section. The framework for breast cancer control focuses on the tradeoff between disease prevention (or early detection in this case) and intervention. Thus, the performance indicators developed relate to prevention performance, intervention performance and overall performance. A similar approach is adopted for emergency management services (chapter 9).

The distinction between prevention and intervention is more difficult for mental illness. Preventing mental illness is challenging primarily because individual disorders have many origins. Most efforts to date have been directed at treating mental illness when it occurs and, in particular, at determining the most appropriate setting for providing treatment. Thus, the mental illness indicators focus on aspects of service delivery by different providers.

However, the Second National Mental Health Strategy places considerable emphasis on promoting and preventing mental illness. Indicators representative of these components of mental illness management will be developed for future Reports.

Breast cancer control

The framework developed to report on the performance of breast cancer control is based on the shared government objective for the disease's control (box **5.5**). The framework reports on the effectiveness and efficiency of public and community health initiatives to encourage early detection of breast cancer and the treatment of breast cancer in public acute care hospitals (figure **5.3**). It includes systemwide indicators of performance (such as age-specific death rates for breast cancer and combined expenditure on early detection and intervention per episode of illness), as well as indicators of the performance of early detection and intervention strategies.

Box 5.6 **Objective for breast cancer control**

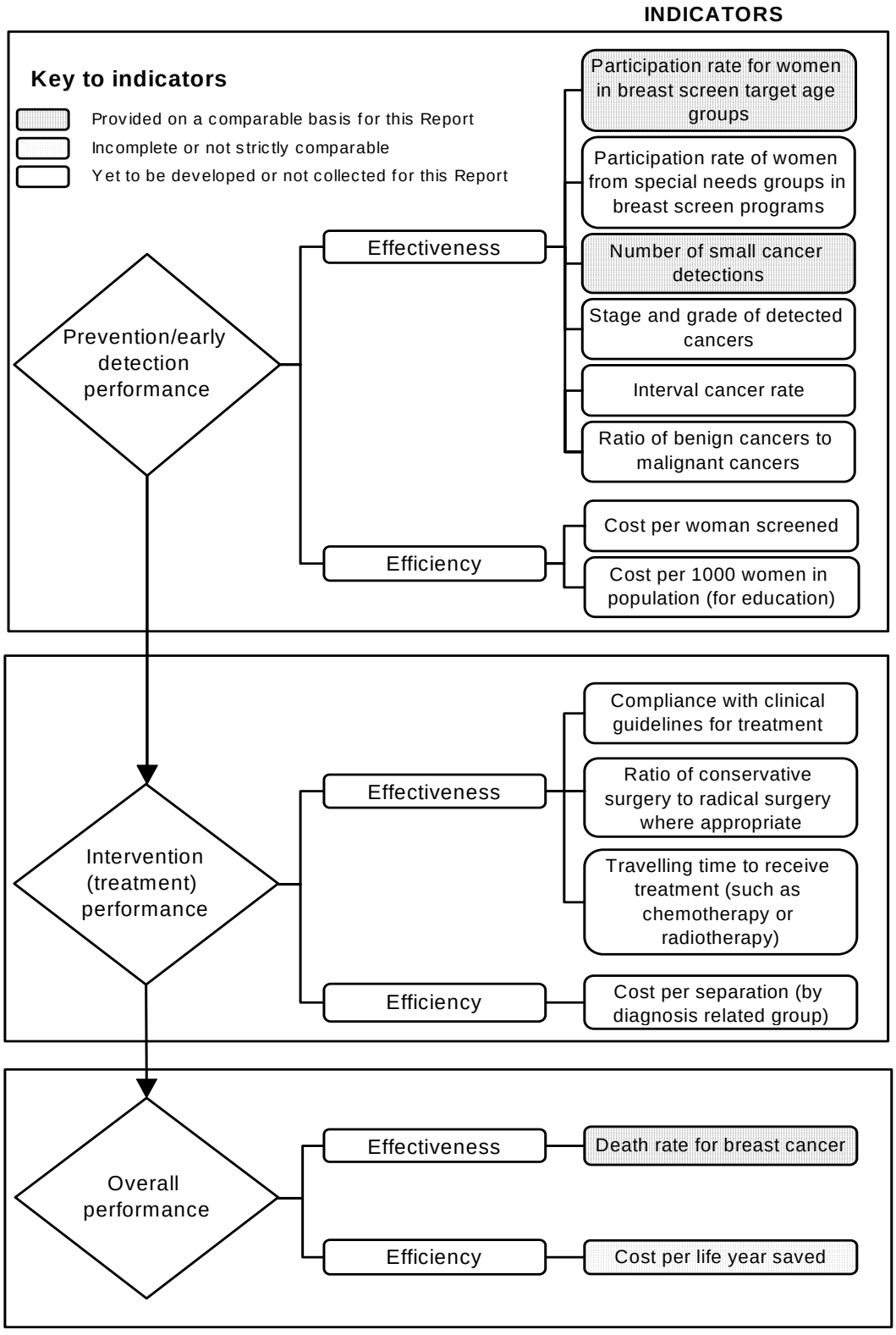
The objective for breast cancer management is to reduce the morbidity and mortality due to breast cancer in a cost effective manner.

Early detection programs include breast cancer screening (primarily targeted at women aged 50–69 years) and education programs encouraging self examination (targeted at all women). The stage and grade of detected cancers reflect the effectiveness of both early detection programs. Other effectiveness indicators, such as participation of women in screening and the number of small cancer detections, are specific to breast cancer screening programs. There are two indicators of the efficiency of early detection programs: cost per women screened (for screening programs) and cost per 1000 women in the population (for education programs).

Effectiveness indicators for intervention strategies focus on appropriateness (GPs' and surgeons' compliance with clinical guidelines for treating early breast cancer, and the ratio of conservative surgery to radical surgery) and access (travelling time for radiotherapy and/or chemotherapy). The indicator of efficiency is cost per separation for each Australian National Diagnosis Related Group (AN-DRG).

Some data on the effectiveness of breast cancer screening services are presented in this Report for the first time. In particular, effectiveness data relate to the participation of women in the target group in breast screening programs and the small cancer detection rate. Data on the overall effectiveness of breast cancer control, as indicated by death rates from breast cancer, are also presented. Efficiency data is limited to a crude estimate of the cost of breast cancer control by each new case diagnosed.

Figure 5.4 **Performance indicators for breast cancer control**



Data collection for some of the other indicators (such as the ratio of benign to malignant cancers, cost per woman for education services and cost per separation for treatment services) is hampered by conceptual and practical issues with data definitions and identifying data items. These issues will be addressed for future Reports. The indicators may change over time as better ones are developed. The framework can also be expected to evolve as the focus and objectives for breast cancer control change.

Mental health

The framework of performance indicators for mental health services builds on the objectives for the National Mental Health Strategy (box **5.7**). The framework reports on the effectiveness (in terms of quality, appropriateness, access and outcomes) and efficiency (in terms of unit cost) of mental health services (figure **5.5**). It covers a number of service delivery types (institutional and community based services) and indicators of systemwide performance.

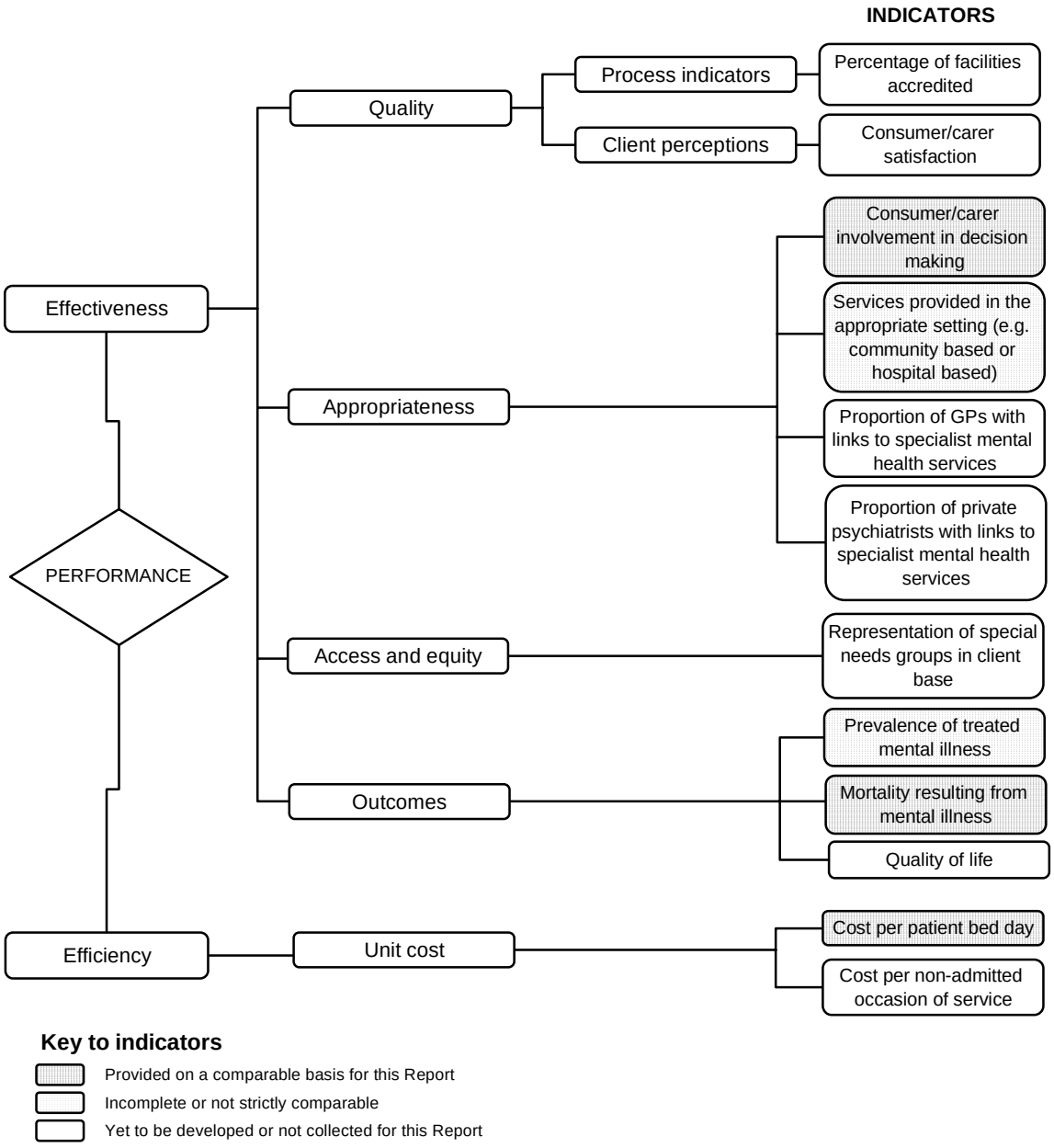
Box 5.8 **Objectives for the National Mental Health Strategy**

The Strategy has six objectives:

- to promote the mental health of the Australian community;
- where possible, to prevent the development of mental health problems and mental disorders;
- to reduce the impact of mental disorders on individuals, families and the community;
- to assure the rights of people with mental disorders;
- to encourage partnerships between service providers; and
- to improve the quality of service delivery.

The prevalence of mental disease in the general population and the death rate from suicide (both indicators of outcomes of mental health services) reflect two goals of the National Mental Health Strategy: to promote the mental health of the Australian community; and, where possible, to prevent the development of mental health problems. The third outcome indicator (quality of life) provides some information on the ability of mental health services to reduce the effect of mental illness on individuals, families and the community. It is important to note that these outcome indicators may be influenced by a range of factors in addition to mental health care services: for example, social and disability support, education and employment are all likely to have an impact on the prevalence of mental illness and the number of deaths from suicide.

Figure 5.6 **Performance indicators for mental health services**



Client/carer involvement in decision making is an appropriateness indicator, and it reflects the Strategy's aim to assure the rights of people with mental disorders. The proportions of GPs and private psychiatrists with links to specialist mental health services are also appropriateness indicators for mental health care services, and they reflect the Strategy's objective to encourage partnerships between service providers.

Other effectiveness indicators included in the framework report on other aspects of appropriateness (for example, the extent to which mental health services are offered

as part of mainstream health care services), quality imperatives (for example, the proportion of facilities accredited and client/carer satisfaction) and access and equity (the representation of special needs groups such as Aboriginal and Torres Strait Islander people, people from non-English speaking backgrounds, and people in rural and remote areas in the client base). The efficiency of mental health services is indicated by the cost per bed day for inpatient services and the cost per non-admitted occasion of service for outpatient and community based services.

Reporting requirements under the National Mental Health Strategy mean that some performance data for mental health services are already available. This Report presents data on some aspects of the effectiveness of mental health services (consumer/carer involvement in decision making, the appropriateness of care setting, the prevalence of mental disease in the general population and death rates from suicide) and the efficiency of institutional services (cost per patient bed day).

5.3 Future directions

Key challenges for improving reporting on health management performance are:

- filling the large gaps in reporting on breast cancer control and mental illness; and
- extending the coverage of the Review.

Filling in gaps in reporting

Breast cancer

Currently, performance data for breast cancer control are limited to some aspects of the effectiveness of the breast cancer screening program, BreastScreen Australia, and breast cancer control overall. Data availability on the efficiency of early detection (such as cost per woman screened) will be investigated for the 2000 Report, along with some effectiveness indicators such as the interval cancer rate, the participation of women from special needs groups in screening programs, and compliance with clinical guidelines for treatment.

The interval cancer rate measures the number of cancers that occur in the time period between a negative screening examination and the next scheduled examination. The BreastScreen National Advisory Committee recently endorsed a report by National Breast Cancer Centre on developing an interval cancer definition for use in Australia. Similarly, the National Health and Medical Research Council has approved clinical guidelines for the treatment of breast cancer.

Mental illness

Little accurate cost data are available for reporting the efficiency of mental health services, particularly services provided outside hospitals. Funding for these services is generally based on historic cost plus or input based funding methods which hardly allow for differences in the illness and/or severity of clients. Further, these funding methods do not provide strong financial incentives for efficiency, quality, improved consumer outcomes or substitution between different service types.

The frameworks for public acute care hospitals and breast cancer management include cost per casemix-adjusted separation as an efficiency indicator, which accounts for the differences in patient mix across operators. Each casemix class groups patients with clinical similarities and resource use similarities.

The main classification system used in Australia is the AN-DRG model. However, AN-DRGs do not accurately predict the cost of treating different people with mental illnesses. Further, they were developed for classifying acute inpatient episodes and therefore may provide perverse incentives to substitute inpatient care for community based care.

The Mental Health Classification and Service Costs (MH-CASC) project involves developing a casemix classification for mental health (Buckingham *et al.* 1998). The aim of the project is to develop a classification that:

- is based on patient characteristics (such as psychiatric diagnosis, severity and level of functioning, and whether a client has received involuntary treatment);
- minimises variation within each class but maximises variation across classes;
- has sensible clinical groupings; and
- relies on information generated for clinical purposes.

The project developed an episode classification for inpatient and community health care. The recommended first version of the classification system includes 42 patient classes — 19 for community episodes and 23 for inpatient episodes.

Extending the coverage of the Review

A longer term goal of the Review is to extend the health management framework to other health issues, such as the remaining National Health Priority Areas (that is, cardiovascular health, diabetes mellitus and injury prevention and control).

These National Health Priority Areas focus government attention on areas where a concerted effort could achieve significant gains in the health of the nation. A limited

number of priority indicators, encompassing the continuum of care (from prevention through to treatment, rehabilitation and palliation) are reported for each area every two years. The first report on injury prevention and control was released in 1998; reports for cardiovascular health and diabetes mellitus are due for release 1999.

5.4 Key performance indicator results

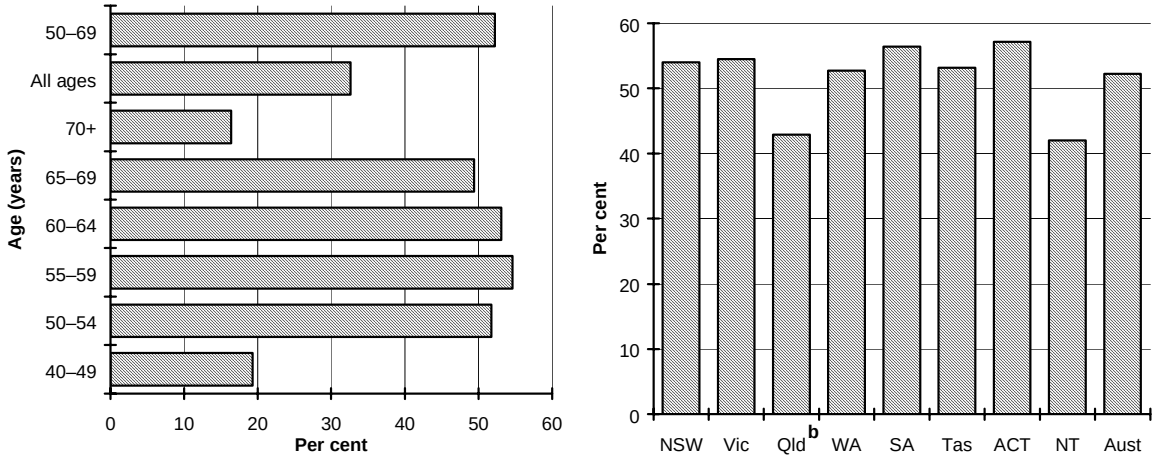
Breast cancer control

Effectiveness

The participation of women in the target group in breast cancer screening is an indicator of the effectiveness of early detection programs. BreastScreen Australia targets mammographic screening services for women aged 50–69 years of age, although women aged 40–49 years and 70 years and older may also access services.

Almost one third of Australian women over 40 years of age participated in breast cancer screening programs in 1996 and 1997 (figure **5.7**). Women in the 50–69 age bracket recorded the highest participation rate — 52.2 per cent of all women in this age group — compared with 19.3 per cent of women aged 40–49 years and 16.4 per cent of women 70 years and older.

Figure 5.8 **Participation of women in BreastScreen Australia, 1996 and 1997 (combined)[a]**



Participation rates by age | Participation by women aged 50–69 years

a Rates were calculated using the average of the 1996 and 1997 estimated resident population. **b** Only five of the 11 BreastScreen Queensland services were in place.

Data source: table 5A.1.

Participation rates varied within the target group. Women aged 55–59 years were most actively involved in breast screening, with 54.6 per cent of women in that age group participating in the BreastScreen Australia program. The lowest participation rate was recorded for women in the 65–69 age bracket (49.4 per cent)

Participation of women in the target age group was highest in the ACT, where 57.1 per cent of women aged 50–69 years of age were involved, followed by SA (56.4 per cent of the target group). By contrast, Queensland and the NT recorded the lowest participation rates (42.9 per cent and 42.0 per cent respectively).

The small cancer detection rate is also an indicator of the effectiveness of early detection programs for breast cancer. Small cancers (those with a diameter less than or equal to 10 millimetres) are generally associated with increased survival rates and reduced morbidity and mortality, and thus they are less expensive to manage. Women with small cancers are less likely to require a mastectomy, for example, than women with larger tumours (AIHW 1998b).

Breast cancer screenings services detected 952 small cancers in 1997 — a rate of 14.2 for every 10 000 women screened (table **5.1**). Over two thirds (68.7 per cent) of small cancers detected were found in women in the target group, which was the equivalent of 14.4 for every 10 000 women screened.

The detection rate for small invasive cancers increased with age, rising from 4.9 per 10 000 women screened for women aged 40–49 years to 28.3 for women aged 70 years and older. Within the target age range, the detection rate was highest for women aged 65–69 years.

There was significant variation in the small cancer detection rate within the target age group across jurisdictions in 1997. The number of small invasive cancers per 10 000 was 23.2 in the NT, compared with 3.2 in Tasmania (table **5.2**). The remaining jurisdictions recorded detection rates of between 12 and 17 small cancers for every 10 000 women screened.

Table 5.3 **Detection rate of small diameter invasive breast cancers, 1997 (number per 10 000 women screened)**

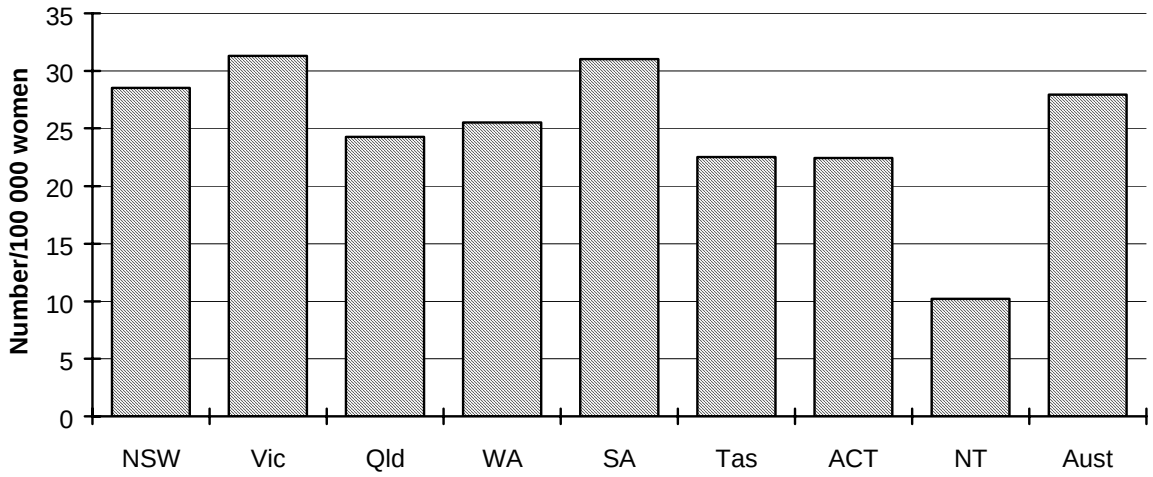
	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*	*NT*	*Aust*
Women aged 40–49 years	4.9	5.9	3.1	9.6	3.7	2.3	3.2	8.6	4.9
Women aged 50–54 years	8.9	11.2	11.2	6.5	17.2	2.7	3.6	17.2	10.2
Women aged 55–59 years	15.5	13.7	11.8	10.5	15.9	0.0	24.3	38.0	13.9
Women aged 60–64 years	19.6	14.5	16.1	17.0	11.3	7.2	0.0	25.3	16.2
Women aged 65–69 years	19.4	23.3	16.0	21.1	22.6	4.0	24.8	0.0	19.9
Women aged 70 years +	23.5	33.6	31.1	34.1	42.8	10.6	17.1	87.7	28.3
All women	14.1	16.4	13.0	13.3	16.3	3.4	9.8	20.7	14.2
Women aged 50–69 years	15.2	14.9	13.4	12.6	16.6	3.2	12.0	23.2	14.4

Source: table 5A.2.

The number of women dying from breast cancer and age-specific death rates provide some indication of the effectiveness of both early detection and intervention services for breast cancer. Breast cancer claimed the lives of 2602 Australian women in 1997, accounting for the largest proportion of cancer deaths of women in that year. It also comprised 4.3 per cent of all deaths in that year (ABS 1999).

The number of deaths from breast cancer per 100 000 women was 27.9 in 1997 (figure **5.9**). The highest rates of deaths from breast cancer were recorded in Victoria and SA — 31.3 and 31.0 deaths per 100 000 women respectively. The NT recorded the lowest rate, with 10.2 deaths for every 100 000 women.

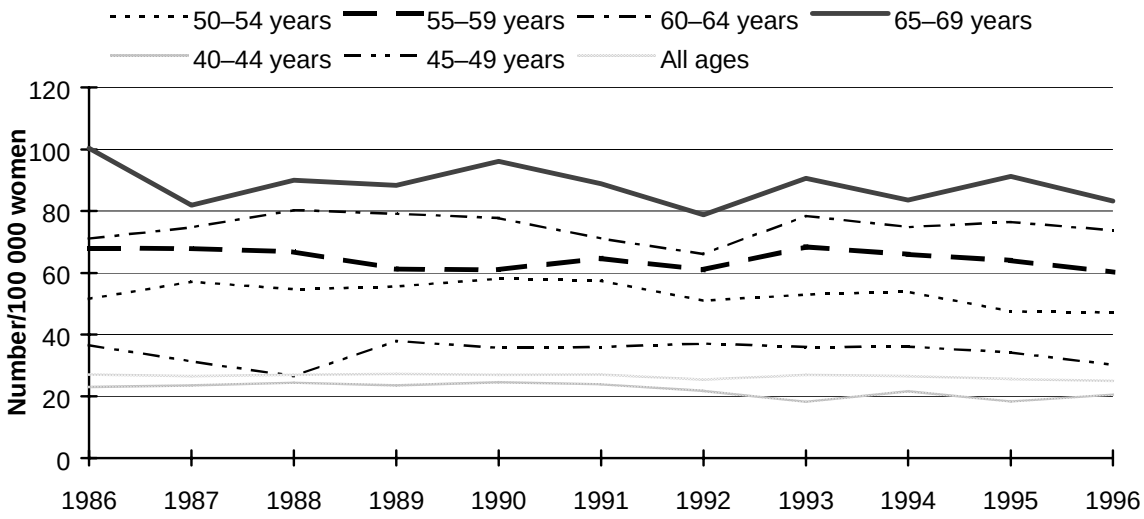
Figure 5.10 **Death rate from breast cancer, 1997**



Data source: table 5A.4.

Age standardised death rates are the most appropriate measure for looking at changes in death rates over time. These data are available for the 10 years to 1996. The age standardised death rate for all ages fell from 27 deaths per 100 000 women in 1986 to 25 deaths per 100 000 women in 1996 (figure **5.11**).

Figure 5.12 **Age specific and age standardised death rates from breast cancer for women[a]**



a Rates were age standardised to the Australian 1991 population.

Data source: table 5A.3.

Of more interest were changes that occurred in age specific breast cancer death rates. The death rate for women in the target age group fell from 71.3 deaths per 100 000 women in 1986 to 65 deaths in 1996. Within the target age range, the largest change in death rates for breast cancer occurred for women aged 65–69 years, where the death rate fell from 100.3 deaths per 100 000 women in 1986 to 83.2 deaths in 1996. The death rate also fell for women aged 50–54 years and 55–59 years. By contrast, the number of deaths per 100 000 women rose from 71.1 in 1986 to 73.7 in 1996 for women aged 60–64 years.

Over the same period, the number of deaths per 100 000 women for those in younger age groups (40–44 years and 45–49 years) also fell.

Efficiency

A proxy indicator of efficiency is government inputs per unit of output (unit cost). No unit cost data were available for early detection services for breast cancer (that is, cost per woman screened and cost per 1000 women for education services) or

intervention services for breast cancer (cost per separation). However, it was estimated that the direct health system costs of breast cancer management and treatment (that is, costs for hospital inpatient and outpatient services, nursing homes, medical services, pharmaceuticals, allied health services, research and other institutional and administrative services) was over $9600 for every new case in 1993-94 (DHFS and AIHW 1998).

Mental illness

Appropriateness

One objective of the National Mental Health Strategy was to encourage treatment of patients in community settings and general hospitals, rather than in stand alone psychiatric hospitals — that is, to encourage treatment in more appropriate settings.

Across Australia, per capita expenditure on community based mental health services was $27 in 1995-96, compared with $15 for services in co-located units in general hospitals and $23 for stand alone psychiatric hospitals (table **5.4**). Per capita expenditure on community services ranged from $19 in Queensland to $41 dollars in Victoria.

Per capita expenditure on community based services recorded the strongest growth between 1992-93 and 1995-96, rising by almost 50 per cent over the period. Per capita expenditure on co-located units rose by almost 14 per cent over the same period, but fell by almost 25 per cent for stand alone hospitals. A similar pattern of change was experienced by most jurisdictions between 1992-93 and 1995-96. The only exceptions were NSW, Queensland and the NT, where per capita expenditure on services provided in co-located units fell over the period.

Table 5.5 **Average per capita government expenditure, by service type[a]**

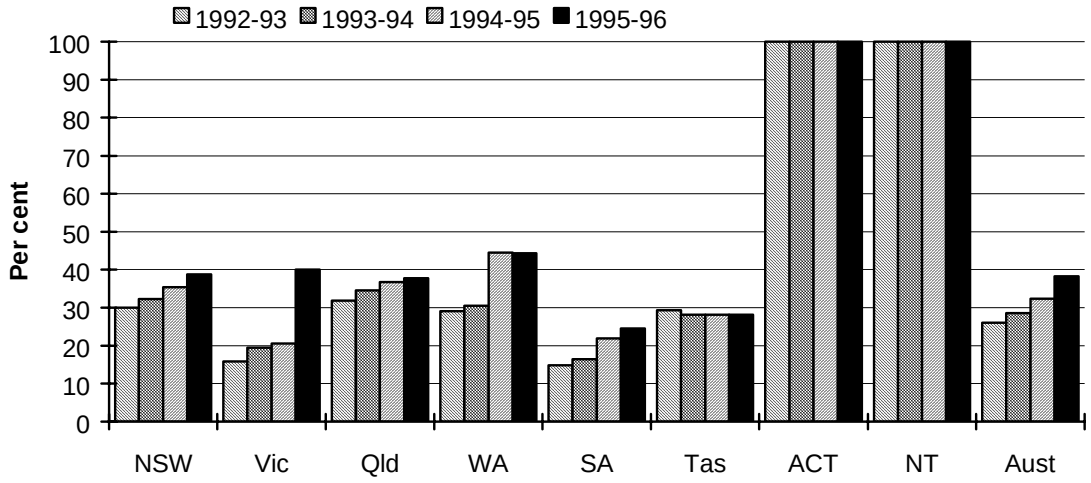
	Stand alone hospitals			*Co-located units*			*Community services*		
	1992-93	*1995-96*	*Change*	*1992-93*	*1995-96*	*Change*	*1992-93*	*1995-96*	*Change*
	$	$	%	$	$	%	$	$	%
NSW	26	23	–10.6	15	14	–3.1	17	22	30.2
Vic	40	19	–53.4	10	15	56.6	23	41	73.0
Qld	25	23	–5.3	17	15	–8.2	11	19	64.4
WA	32	28	–14.7	14	19	35.5	16	25	49.7
SA	39	36	–8.8	7	9	34.7	20	24	20.9
Tas	30	26	–15.1	13	16	30.3	20	33	66.2
ACT	0	0	..	21	23	8.7	29	33	16.0
NT	0	0	..	29	29	–1.6	22	37	68.7
Aust	31	23	–24.6	13	15	13.7	18	27	49.3

a In 1995-96 dollars. **..** Not applicable.

Source: table 5A.10.

The trend away from stand alone hospitals towards co-located units in general hospitals and services offered in community settings was also reflected in changes in patient days over the period. Approximately 26 per cent of total inpatient bed days occurred in co-located units in general hospitals in 1992-93, rising to 38 per cent in 1995-96 (figure **5.13**). Across jurisdictions, the largest increase occurred in Victoria, where the co-located unit share of inpatient bed days rose from 16 per cent to 40 per cent. WA also recorded a large gain — up from 29 per cent to 44 per cent. Tasmania recorded a small fall over the same period.

Figure 5.14 **Bed days in co-located units as a proportion of total inpatient bed days**



Data source: table 5A.11.

WA recorded the highest proportion of inpatient days occurring in co-located units in 1995-96 (44 per cent), followed by Victoria (40 per cent) (in jurisdictions where both service types are available). By contrast, the proportion was lowest in SA and Tasmania (25 per cent and 28 per cent respectively).

The number of patient bed days recorded in community based services delivering 24 hour specialised mental health care rose by 32 per cent between 1992-93 and 1995-96 — from 259 200 to 343 290. Very strong growth in the number of bed days in Victoria (74 per cent) and NSW (23 per cent) offset falls in WA (–16 per cent), SA (–45 per cent) and Tasmania (–4.4 per cent). The ACT also recorded a rise in the number of community based bed days (2.3 per cent). These services were not available in Queensland and the NT.

Another indicator of appropriateness is consumer/carer participation in decision making. 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/carer advisory group to advise on all aspects of service delivery;
- Level 2 — a specific consumer/carer advisory group to advise on some aspects of service delivery;
- Level 3 — participation of consumers/carers in broadly based committees; and
- Level 4 — other/no arrangements.

Of the 137 organisations responding in 1993-94, 17 per cent reported a Level 1 rating. Almost half (47 per cent) reported a Level 4 rating, with 16 per cent reporting a Level 2 rating and the remaining 20 per cent reporting a Level 3 rating.

By 1995-96, the survey results suggested consumers/carers had a greater involvement in decision making, with 33 per cent of the 187 respondents reporting a Level 1 rating. There was little or no change in the proportion reporting Level 2 and Level 3 ratings (16 per cent and 17 per cent respectively). By contrast, the proportion reporting a Level 4 rating fell to 34 per cent.

Outcomes

Outcomes indicators for mental health management include the prevalence of mental illness in the community and deaths from suicide.

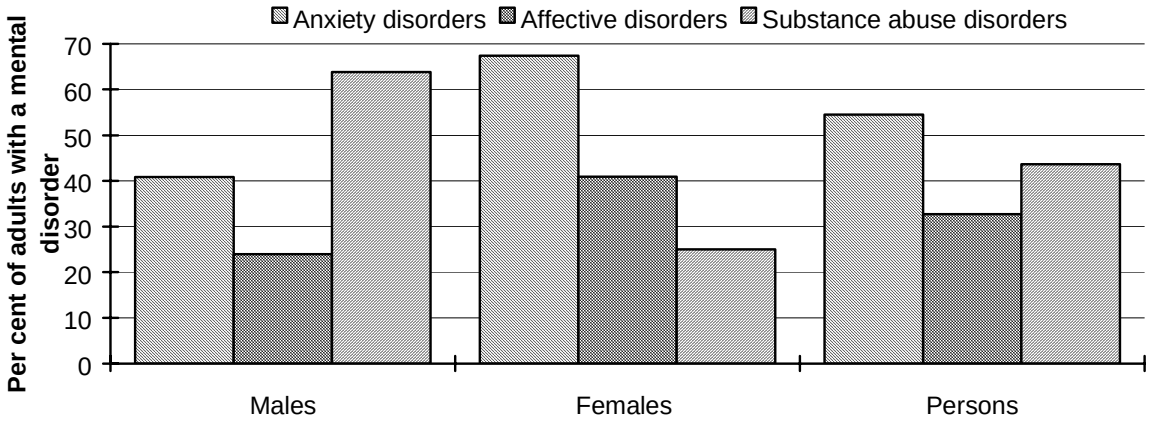
According to the 1997 National Survey of Mental Health and Wellbeing, approximately 2.4 million adults (or 17.7 per cent of adults) experienced the symptoms of a mental disorder at some time in the 12 months before the survey. Slightly over half (51.7 per cent) of those reporting symptoms were female.

Overall, anxiety disorders (such as agoraphobia, post-traumatic stress disorder and social phobia) were the most common type of mental disorder reported in 1997, with persons reporting anxiety symptoms accounting for 54.5 per cent of those reporting symptoms of a mental disorder (figure **5.15**). Persons reporting substance abuse accounted for 43.7 per cent of the total and persons with affective disorders (such as depression, mania and bipolar disorder) accounted for 32.7 per cent.

There were differences between males and females. Anxiety disorders were most common for females (accounting for 67.4 per cent of females experiencing mental

disorder symptoms), followed by affective disorders (40.9 per cent) and substance abuse (25.0 per cent). By contrast, substance abuse was most common for males (accounting for 63.8 per cent of males experiencing mental disorder symptoms), followed by anxiety disorders (40.8 per cent) and affective disorders (23.9 per cent).

Figure 5.16 **Prevalence of mental disorders, 1997[a]**

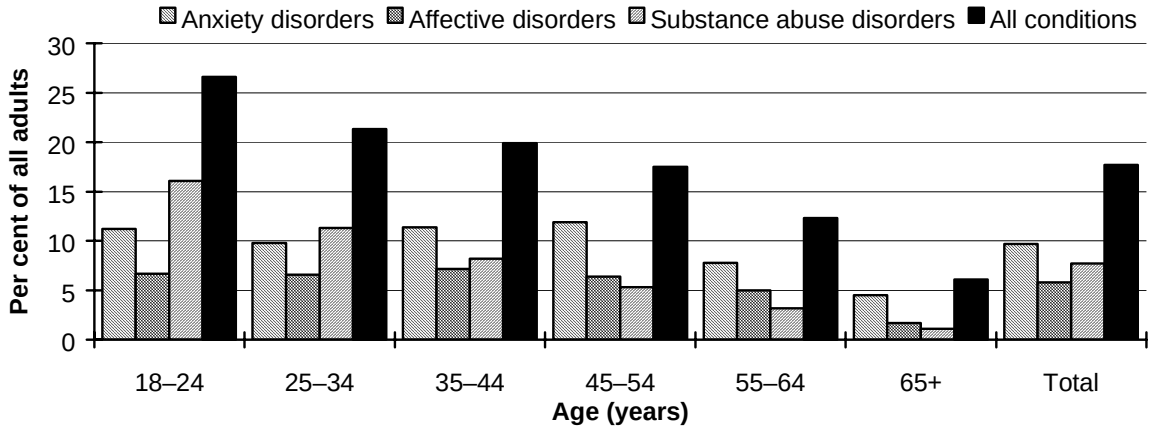


a Components do not add to 100 because respondents may have reported symptoms for more than one type of mental disorder.

Data source: table 5A.14.

The prevalence of mental disorders was higher for younger people than older people (figure **5.17**). Almost 27 per cent of adults aged 18–24 years experienced symptoms of a mental disorder in the 12 months before the survey, compared with 6.1 per cent of people aged 65 years and over. The prevalence of anxiety disorders was highest for adults aged 45–54 (11.9 per cent); the prevalence of affective disorders was highest in the 35–44 year age range (7.2 per cent); and the prevalence of substance abuse disorders was highest in adults aged 18–24 (16.1 per cent).

Figure 5.18 **Prevalence of mental disorders, by age, 1997[a]**

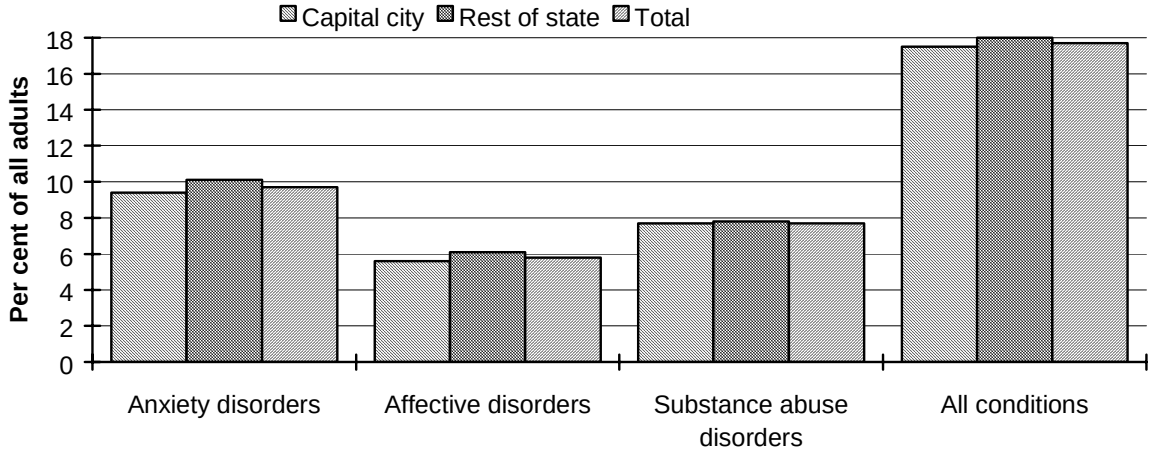


a Components do not add to 100 because respondents may have reported symptoms for more than one mental disorder.

Data source: table 5A.15.

The prevalence of mental illness did not vary much with geographic location, although it was slightly higher outside capital cities (figure **5.19**). Eighteen per cent of adults residing outside capital cities experienced mental disorder symptoms in the 12 months before the survey, compared with 17.7 per cent of adults living in capital cities. A similar pattern was recorded for individual disorders.

Figure 5.20 **Prevalence of mental disorders, by geographic location, 1997[a]**



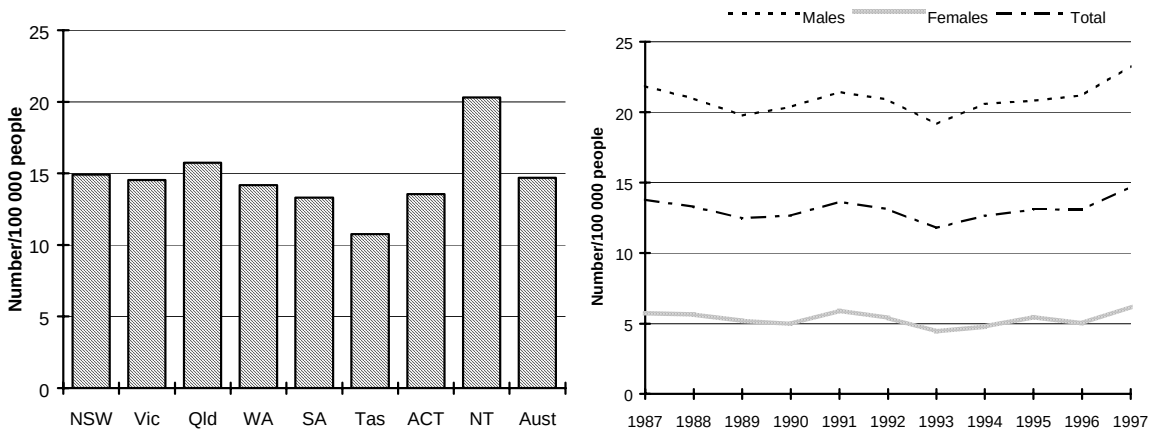
a Components do not add to 100 as respondents may have reported symptoms for more than one mental disorder.

Data source: table 5A.16.

The prevalence of mental illness is thought to have a significant effect on the number of deaths from suicide. Over 2700 deaths from suicide were recorded in Australia in 1997. Put another way, there were 14.7 deaths from suicide for every 100 000 people. Across jurisdictions, the death rate from suicide ranged from 10.8 per 100 000 people in Tasmania to 20.3 in the NT (figure **5.21**).

The death rate from suicide for males was over three times that for females in 1997, a trend that was consistent over the 10 years to 1997 (figure **5.22**). Overall, the death rate from suicide was relatively stable between 1987 and 1997, although there was a large increase in the number of deaths from suicide in the latest year, increasing the death rate from 13.1 deaths per 100 000 people in 1996 to 14.7 in 1997.

Figure 5.23 **Death rate from suicide**

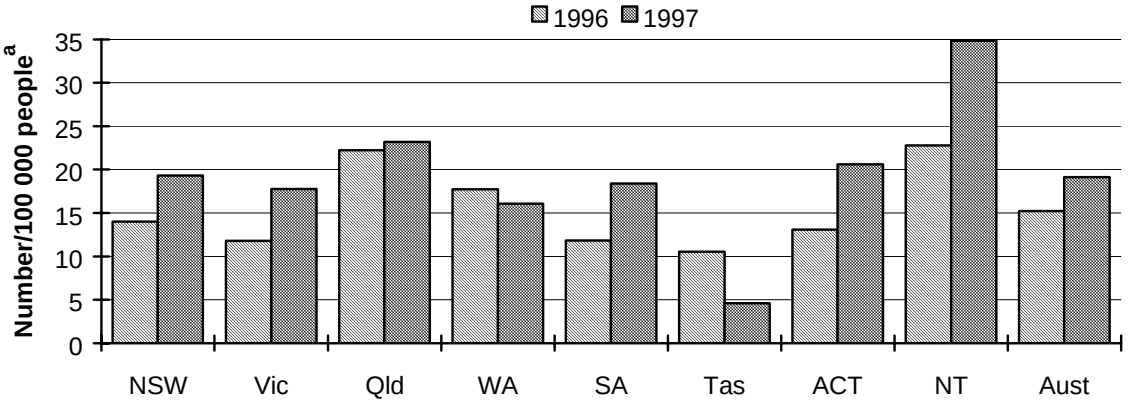


1997 Time series

Data sources: tables 5A.17 and 5A.18.

The largest proportion of suicides in 1997 were committed by people aged 25–44 years, followed by people aged 15–24 years (18.7 per cent). Moreover, suicide was among the main causes of death for people in both age groups. The high proportion of deaths of people aged 15–24 years (especially males) attributable to suicide prompted governments to establish specific mental illness and suicide prevention programs for this group. The death rate from suicide for people in this age group was 19.1 deaths per 100 000 people aged 15–24 years in 1997. The NT recorded the highest death rate from suicide in 1997 (34.8 per 100 000 people), while Tasmania recorded the lowest (4.6 per 100 000 people) (figure **5.24**).

Figure 5.25 **Death rate from suicide for people aged 15–24 years**



a Aged 15–24 years.

Data source: table 5A.19.

The death rate from suicide for this age group rose by 25.6 per cent between 1996 and 1997. The largest rises occurred in the ACT, the NT and SA. Only WA and Tasmania recorded falls in the death rate from suicide for people aged 15–24 years.

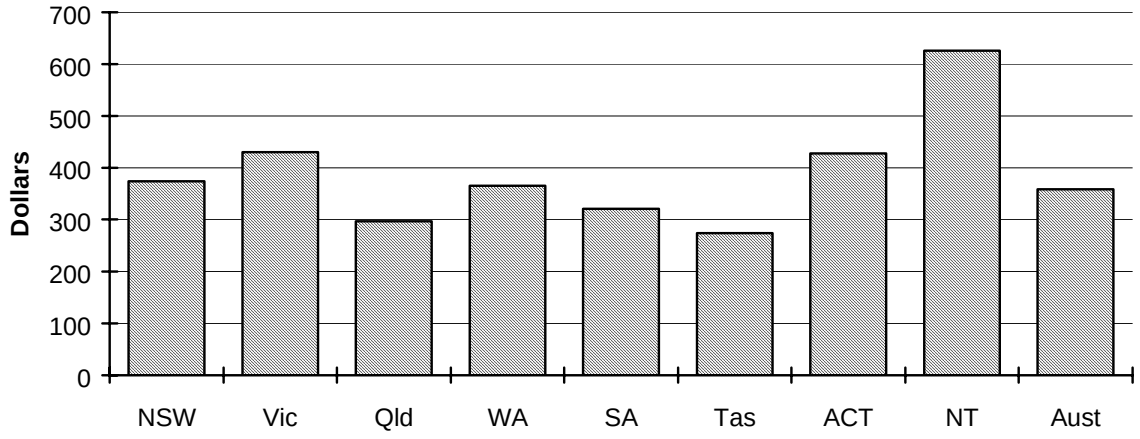
Efficiency

A proxy indicator of efficiency is government inputs per unit of output (unit cost). The most suitable indicator for mental health services would 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 acute care hospitals. However, the current method for adjusting inpatient separations (AN-DRGs) does not accurately reflect differences in treating those with mental illnesses (section 5.3).

Until an appropriate casemix classification has been developed and introduced, average patient day costs will be used as an indicator of efficiency. However, it is important to note that the average length of stay influences the average patient day cost — the longer the stay in hospital, the lower the average cost of treating patients. Therefore, the lowest cost may not necessarily reflect a high level of efficiency.

The average cost of treating an inpatient was $359 per day in 1995-96 (figure **5.26**). Across jurisdictions, the average cost ranged from $274 in Tasmania to $626 in the NT.

Figure 5.27 **Average patient day costs, 1995-96**



Data source: table 5A.20.

5.5 Jurisdictions' comments

This section provides comments from each jurisdiction on the services covered in this chapter. Appendix A contains detailed statistics and short profiles on each State and Territory, which may assist in interpreting the performance indicators presented in this chapter. The information covers aspects such as age profile; geographic distribution of the population; income levels; education levels; tenure of dwellings; and cultural heritage (such as aboriginality and ethnicity).

New South Wales Government comments

“NSW health is pleased to see an extension of the scope of the health chapter to include indicators for general practice and mental health. The focus of previous years has been on public acute hospitals and whilst they account for around 28 per cent of total health expenditures in Australia, there are many other health programs that are in scope for the Review, but have received little or no attention.

The predominant basis for presentation of performance indicators is at the State/Territory aggregate level. A problem with this presentation is that it fails to standardise for factors that are known to influence performance indicators. For example, differences between services delivered in metropolitan, rural and remote regions are known to be significant and should be taken into account, as should differences between peer groups of hospitals. Techniques to standardise for such factors should be developed for the next Report.

Currently a major gap is the absence of a comprehensive categorisation of the products of the health care system. The current approach tends to bundle far too many diverse services under the umbrella of ‘public acute hospitals’. Within hospitals a variety of inpatient, non-admitted patient and other services are provided including: acute patient services; designated mental health services; rehabilitation services; palliative care services; other sub- and non-acute services; and teaching and research activities. Unfortunately differences have emerged between the approach adopted for presenting costs in this Report and the major national DRG costing study, *The Australian Hospital Costing Survey* (Commonwealth Department of Health and Family Services 1998).

Data presented on the costs for public acute hospitals for NSW in 1996-97 represented a significant improvement over the previous year. Average costs reported for NSW dropped from $2877 to $2586 per casemix weighted separation. Whilst there continue to be concerns over the comparability of these data between States, NSW Health has been working to systematically improve the consistency with which data is collected. However NSW continues to have a number of reservations over the consistency of cost data across States and Territories. Key areas of concern include: (a) the methodology utilised in determining inpatient fractions; (b) depreciation (NSW depreciates assets worth $5000 or more — a number of States depreciate assets worth much less than this amount); (c) commercially oriented activities (the potential effect of these activities is evident through an analysis of revenues other than ‘Patient fees’; NSW reports $32 per capita in these revenues compared to $6 per capita for Queensland and $3 for capita for SA); and (d) treatment of insurances, workers’ compensation and centralised activities such as statewide pathology services. The work coordinated by the Productivity Commission on superannuation illustrates that these issues can be complex, but with close attention, better approaches can be developed.”

Victorian Government comments

“ Victoria strongly supports the expanded focus of this Report. The provision of health services through all tiers of government and the private sector is interrelated and complex. Many services provided by the Federal Government substitute and complement services provided by State Government. Arrangements also differ between States. For example, breast screening may be provided through a GP in one State and by acute hospital or community services in another. Therefore a valid comparison of this service would require a discussion of the service in all three settings.

As public hospital structures vary across jurisdictions, it is essential that individual services are appropriately defined, separated and costed, otherwise appropriate comparisons cannot be made. In this context, all public acute services delivered outside acute settings, say from a statewide pathology centre or ‘community hospitals’ should be costed and included with acute service data irrespective of whether this expense has been met by the hospital. Conversely non-acute services, such as psychiatric services and aged care, should be separately identified and excluded from acute service data.

In Victoria, public hospitals provide a range of non-acute services such as planned geriatric respite, rehabilitation, palliative care, designated psychiatric and psycho-geriatric inpatient and community base services and non-acute nursing home type, as well as acute services. Of significance is that all acute psychiatric services in Victoria were mainstreamed by 1996-97, while most other jurisdictions maintained separately managed psychiatric hospitals which have been excluded from this ‘benchmarking’ process. This is appropriate as casemix weights are not an accepted output measure for non-acute and psychiatric services.

In order to address this anomaly and bring Victorian data closer in line with other jurisdictions, it was appropriate to exclude the cost of psychiatric and non-acute services from the comparison of cost per casemix-adjusted separation in 1996-97. Victoria notes that most jurisdictions are moving towards agreed defined outputs for these services and supports the development of agreed output measures. This will enable the appropriate analysis of these services and which could be used as the basis for funding in the future.

This underlies the importance of basing interstate comparisons on service outputs rather than attempting to compare institutions with differing mixes of services and with no accepted common output measure. This will become increasingly important as governments progressively implement the principles of National Competition Policy and public services are purchased via a contestable process where prices are set by competitive tender and not historical input costs. ”

Queensland Government comments

“Queensland supports the comparison of performance through the use of performance indicators between States, although it is recognised that many indicators need refinement. Furthermore, differences in performance between States can result from their unique circumstances. In particular, Queensland Health operates in a distinctive environment of a resident population dispersed over large rural areas. Additionally, significant indigenous communities are found at many remote sites, posing particular challenges to Queensland's public health system.

Queensland Health, along with the rest of the Queensland Government, is making the transition to an accrual output budget for the 1999-2000 financial year. The focus will shift from managing cash to managing the achievement of the social and economic objectives of Government. Fiscal responsibility will be promoted by identifying the full cost of services, promoting total asset management and monitoring the sustainability of service delivery. The move to this system of accounting if known as *Managing for Outcomes*.

Queensland Health has been committed to a focus on outcomes, rather than input, for a number of years. This commitment is reflected in the development of the Queensland Health Hospital Funding Model. The model provides a mechanism for funding hospitals on the basis of their outputs rather than on the basis of historical funding levels. Hospitals are expected to benchmark their costs against the prices determined in the Hospital Funding Model. Over time it is anticipated that hospitals will achieve the necessary efficiencies to ensure they are operating within the established prices.

The importance of benchmarking in maximising outcomes is well recognised and the process of benchmarking is inherent within Queensland Health's operations. Specifically, Queensland Health entered into a second Certified Enterprise Agreement on 26 March 1997 with unions representing Queensland Health employees. The Agreement provided for pay increases in return for the achievement of price and process benchmarks in the areas of clinical services, corporate services, support services, pathology services, aged care, building and maintenance and central pharmacy. The benchmarks have been measured each quarter and all Districts and the Corporate Office have demonstrated improvements in the majority of the seven benchmarking areas.

A recent benchmarking exercise announced in the 1998-99 Queensland Health Budget is one designed to target Emergency Department waiting times. The Government has provided recurrent funding for the benchmarking of Emergency Department waiting times across the State. Significant funding to support this initiative has been provided, being $2.5 million for 1998-99 and $5 million in the outyears.”

Western Australian Government comments

Government in WA is working to develop output based measures of service provision. In pursuit of this objective the government health sector is developing and refining suites of indicators to evaluate performance by health service providers and by the Health Department. The indicators are developed using the three intervention strategies that comprise one dimension of WA's health program. The three strategies are: reducing the incidence of preventable disease, injury, disability and premature death; restoring the health of people with acute illness; and improving the quality of life of people with chronic illness and disability. The indicators report on services provided in hospitals and by community health, mental health and dental health providers and on services provided to the frail aged and the disabled.

For the hospital sector, a significant amount of work was initiated in late 1996 to construct a cost model for acute admitted patient activity. The model, developed in collaboration with providers and first implemented in July 1997, is based on estimates by AN-DRG, of a one time cost and a per diem rate for every night stayed in hospital. Importantly, the cost model distinguishes between central episodes and exceptional episodes. The activity profile of public hospitals shows that the vast majority of admitted episodes fall within a predetermined central range of length of stay and cost. However, episodes which have unusually long stays or those which have unusually high costs (exceptional episodes) and which make up approximately 5–10 per cent of episodes, account for up to 25 per cent of inputs. In recognition of this, the State established an insurance pool to share the risk of exceptional episode occurrences among health services and with the department, when the costing model was implemented.

As part of a strategic management plan for dealing with elective surgery waiting lists, WA established a Central Waitlist Bureau in 1997-98. This Bureau works to facilitate effective referrals and patient placements across metropolitan Perth hospitals. It has responsibility for coordinating high quality information on elective surgery waiting lists. The information is made available to hospitals, clinicians and consumers in appropriate levels of detail to assist in more informed decisions for accessing elective surgery.

Reconfiguration of health services was introduced as a purchasing strategy in WA in 1997-98. Activities and funds were moved between health services to achieve a number of goals, including bringing care closer to people's homes, developing a more efficient configuration of providers of tertiary and non-tertiary services, and increasing the involvement of the primary health care sector in care management. This policy will be further refined in future purchasing arrangements.

South Australian Government comments

“The SA Department of Human Services is continuing to provide a quality public health service within the dual constraints of cost pressures and increasing demand. These pressures result from a number of factors including developments in technology and the continuing ageing of the population. Another important element of demand is that arising from the increasing numbers of people in SA dependent on government income support (for example, the unemployed, single parents) who, along with the elderly, are among the largest users of the public health system.

Despite these pressures the SA public hospital system remains one of the most technically efficient (as measured by the cost per casemix-adjusted separation). The department has maintained its efforts to ensure that appropriate health care is provided to all who need it, and to provide that care in an optimal way through the coordination of services both pre-and post-hospitalisation.

SA has for many years had a strong community health service sector, in both the health and welfare fields. The restructuring of the health, welfare and housing into a single department has provided the opportunity to further develop integrated and coordinated service provision in these areas. The department also supports the development of performance indicators across the broader (non-hospital) health sector.”

Tasmanian Government comments

“

The combination of a highly ruralised low level population base, relative social and economic disadvantage of the population generally, low health status, rising community expectations about ready access to high quality (and expensive) medical treatment, and isolation all contribute to the costs of service provision in Tasmania being higher than in other larger jurisdictions.

The Department of Health and Human Services developed an integrated budget, planning and performance framework in 1997-98. It aims to achieve better accountability and create a more rigorous and timely performance management system by: measuring the major improvements expected for the department; ensuring that those responsible for the delivery of the outputs are held accountable for results; providing a set of performance measures that can be disaggregated for use by each output and at different levels within the department; ensuring performance measures are well understood and used consistently; and improving the integration of department’s strategic and business planning with the Treasury budgeting cycle.

Tasmania supports the continued reporting and publication of information to inform both purchaser and provider as well as the community about the performance of the public health sector. However, care should be exercised in drawing conclusions from data published at a jurisdiction level due to differences between States and Territories in how health services are managed.

The cost of providing public hospital inpatient services has continued to decline according to the methodology adopted by the Health Working Group. However, it should be noted that hospital activity reported for 1996-97 did not fully account for changes in episodes of care. Tasmania implemented a casemix based funding methodology from 1 July 1997 which is expected to affect the activity levels reported for 1997-98 and subsequent years.

The average length of stay continues to decline in Tasmanian hospitals. However, it should be noted that hospital activity included a small number of nursing home-type patients with very long stays. This significantly affects the crude length of stay reported where data were not trimmed to remove long stay outliers.

Following a review in 1996, Tasmania developed a plan to improve the management of its waiting lists. Two core elements are enhancing information systems to improve the reliability and consistency of reporting and developing policy and guidelines for use in major hospitals.

Expenditure on mental health services reflects Tasmania’s commitment to the National Mental Health Strategy and its reforms. In all areas Tasmania has shown growth in spending from 1992-93 to 1995-96. Shifting from inpatient to community based care will continue as a focus of reform in mental health in Tasmania.

”

Australian Capital Territory Government comments

“The evidence produced in this Report suggests that the mix of factors affecting the cost of service provision in the ACT is still broadly at play. Some of these are structural issues and some pertain to the ACT's inability to generate any economies of scale.

The ACT has been concerned to address costs while maintaining the high quality of the services it provides. To this end, a number of strategies have been put in place designed to foster not only efficiency but also effectiveness in service delivery. These include a coordinated care trial, the work of the Clinical Health Outcomes Centre and the development of clinical pathways.

1996-97 saw refinements made to the casemix funding model and an increased awareness by service purchasers and providers regarding the importance of casemix cost and other data as a management tool. 1996-97 data was used for an independent audit of morbidity data coding in ACT public hospitals.

The ACT was also able to begin some discriminatory purchasing, based around assessment of value for money. Contracted casemix throughput moved between ACT public hospitals as a consequence. Contestability is being developed within the limits of the ACT's relatively small provider base. Initiatives were undertaken to reduce waiting lists and a limited range of public services, in areas such as ophthalmology, were contracted to the private sector.

Despite difficulties inherent in making comparisons between the performance of the ACT and other jurisdictions, the ACT remains a strong supporter of the development of performance comparison data. The challenge is to develop the measures to ensure that they reflect not only efficiency but effectiveness.”

Northern Territory Government comments

“

1998 has been a year of significant planning for future health services involving:

- the development of the Territory Health Services Acute and Specialist Health Services Strategic Plan;
- the development of Territory Health Services Corporate Directions for 1999–2003 which identified the department’s strategic directions and core business focus. These provide the framework for the achievement, across Territory Health Services, of four practical but stretching goals:
  - strengthening community capacity;
  - a quantum shift to service delivery by others;
  - a significant increase in Aboriginal involvement in health; and
  - total Health Solutions through intersectional collaboration;
- the NT Government’s ‘Planning for Growth’ Review; and
- the development of a planning and purchasing framework for the whole of Territory Health Services under which all programs within Territory Health Services will operate.

Additionally, output based funding and reporting arrangements were applied to all NT hospitals through the Hospital Budget Model (Casemix) to foster greater efficiency and effectiveness in NT hospitals. This model will project patient activity budget for each hospital and associates the financial resources required to provide the projected level of services. The estimated financial budget is created using national measures and benchmarks, adjusted for NT factors.

A critical milestone for the NT was achieved last year when Royal Darwin Hospital was granted three year accreditation through the Australian Council on Health Care Standards. This demonstrates our commitment to the provision of high quality care and equates to 51 per cent of the public hospital beds now accredited.

Finally, the NT supports the comparison of performance between States by using an agreed set of indicators. Attempting to compare service provision between jurisdictions should be done with caution unless the same collection methods can be guaranteed. For example, the dispersed nature of the population, the larger number of unproductive costs associated with health service delivery, and the small number of hospitals are just some of the factors to be taken into account when comparing the NT with other jurisdictions.

”