

1 Introduction

This report represents the release of the first year of reporting by States and Territories to the National Minimum Data Set—institutional mental health care. The report provides detailed statistics on the characteristics and hospital care of admitted patients who had a mental health diagnosis and/or who were treated in and separated from specialised psychiatric admitted patient services during the reporting period 1997–98, and includes hospital morbidity data for both public and private sectors. Statistics on public psychiatric hospitals and specialised services in public acute hospitals are also provided. A broad range of other information sources has also been included in the report to locate the hospital data in the broader context of service delivery across different settings.

The National Minimum Data Set—institutional mental health care was endorsed by the National Health Information Management Group in November 1996, for collection from 1 July 1997. At this stage, the status of reporting for institutional mental health care is that data for the NMDS are collected for admitted patients but are not developed for hospital establishments. NMDS data released in this report are collected by hospital services at the patient unit record level for reporting to State and Territory health authorities and national collation at AIHW within the National Hospital Morbidity Database.

The Australian Institute of Health and Welfare (AIHW) is responsible for the carriage of National Minimum Data Set (NMDS) definitional developments and collection strategies for mental health care, through the National Health Information Work Program. The work is funded under the National Mental Health Strategy and developed under the auspices of the Australian Health Ministers' Advisory Council's (AHMAC) National Mental Health Working Group (NMHWG). The National Mental Health Information Strategy Committee (NMHISC) of the NMHWG provides expert subject matter advice on data development and collection.

In addition to the annual release of the NMDS—institutional mental health care, as presented in this report for the 1997–98 reference year, AIHW has responsibility for the continued development of the NMDS—community mental health care. Community care data are agreed for collection at the establishment level from July 1998, and at the patient level from July 2000, and are not yet available for national collection or release. While these are separate collections (of institutional care data and community care data at two levels), the projects have close links and will be carried out under the broader rubric of the NMDS—mental health care. The work also includes improving data standards and developing new data elements as required for the strategic purpose of the data set.

1.1 Strategic requirements for mental health information in Australia

National Mental Health Strategy

Until recent years there has been little data on the mental health status of Australians or on the delivery of health services for people with mental disorders. During the period 1993 to 1998, initiatives by the Commonwealth, States and Territories under the National Mental Health Strategy have led to a number of improvements in the development and collection of data on a range of mental health issues. These include the development of data collections to monitor the reforms in mental health service delivery introduced under the National Strategy, the establishment of ongoing national data collections drawn from records kept by

hospitals and mental health services in the community, and a major survey of the general population to establish the prevalence of mental disorders and associated disabilities.

National Minimum Data Set—institutional mental health care

The National Minimum Data Set (NMDS)—institutional mental health care represents an agreement between States and Territories to collect and report information on patients in hospital who receive specialised psychiatric care. This includes patients who receive treatment and/or care in psychiatric hospitals or in specialised psychiatric units of public acute hospitals (also referred to as designated units). The NMDS—institutional mental health care is in effect a sub-set of the broader NMDS—institutional health care which covers all patients in all hospitals. The care received is thus referred to as 'specialised'.

Hospital morbidity data are a compilation of electronic summary records collected in admitted patient morbidity data collection systems in Australian hospitals. Data relating to admitted patients in almost all hospitals are included. Records for 1997–98 are for hospital separations (discharges, transfers, deaths or changes in type of episode of care) in the period from 1 July 1997 to 30 June 1998. Data on patients who were admitted on any date before 1 July 1998 are included, provided that they also separated between 1 July 1997 and 30 July 1998. A record is included for each separation, not for each patient, thus patients who separated more than once in the year have more than one record in the database.

The patients in specialised mental health care are identified through recording the number of psychiatric care days, that is the number of days where care was received in a specialised psychiatric unit or ward (defined by the data element Total psychiatric care days, NHDD V7). When a patient has been reported as having received one or more 'psychiatric care days', their record is identified for inclusion in the specialised mental health sub-set. Thus the extent to which full and accurate coverage of the NMDS is achieved depends on the accurate reporting for each admitted patient of the data element Total psychiatric care days.

There are several data elements that are collected only for patients who have received specialised psychiatric care, and these are shown in Table 1.3.1. The data element Mental health legal status has been agreed for collection for all patients in hospital, however involuntary status would only apply to patients in specialised treatment settings.

The First Plan of the Strategy, 1993–1998, has strengthened reforms in the provision of mental health services in the past two decades, leading to substantial changes in the way people with a mental disorder are treated. This is particularly evident in the move away from segregated and custodial institutional care to a more balanced system that integrates hospital services with continuing care in community settings (Richmond 1983; Australian Health Ministers 1992). Only a small proportion of people with mental disorders need to spend extended periods in psychiatric hospitals; most can be cared for in the community, and of those who do require a hospital admission, many are short-stay patients who can be cared for more appropriately in specialised psychiatric units of acute care hospitals. The second plan of the Strategy takes forward a broad range of objectives that seek to improve the quality of care, consumer participation and models of best practice in service delivery; in support of these objectives substantial efforts in information development are planned (CDHAC 1999).

National Health Priority Areas

In addition to initiatives under the Strategy, mental health has been included in the National Health Priority Areas (NHPA) process since 1996. Its inclusion as a priority area in the NHPA initiative generates involvement from various levels of government and draws on expert advice from non-government organisations, with the primary goal of improving the mental health of the Australian population.

The NHPA initiative emphasises collaborative action between Commonwealth and State and Territory governments, the National Health and Medical Research Council (NHMRC), the AIHW, non-government organisations, appropriate experts, clinicians and consumers. It recognises that specific strategies for reducing the burden of illness should be pluralistic, encompassing the continuum of care from prevention through to treatment, management and maintenance, and based on appropriate research and data sources.

By targeting specific areas that impose high social and financial costs on Australian society, collaborative action can achieve significant and cost-effective advances in improving the health status of Australians. The diseases and conditions targeted through the NHPA process were chosen because these are areas where significant gains in the health of Australia's population can be achieved. In recognition of the prevalence, associated social, human and economic costs and public health impact of depression in Australia, the National Health Priority Committee (NHPC), in consultation with the NMHWG, has identified depression as a mental health disorder requiring a particular focus in the area.

1.2 Mental health in context

The *National Health Priority Areas Report on Mental Health* defined mental health as 'the capacity of individuals and groups to interact with one another and the environment, in ways that promote subjective wellbeing, optimal development and the use of cognitive, affective and relational abilities' (CDHAC & AIHW 1999, p. 5). A diverse range of social, environmental, biological and psychological factors can impact on an individual's mental health. In turn, people can develop symptoms and behaviours that are distressing to themselves or others, and interfere with their social functioning and capacity to negotiate daily life. These symptoms and behaviours may require treatment or rehabilitation, even hospitalisation. This chapter reviews the prevalence of these disorders and the patterns of service utilisation by people with particular mental disorders, both in Australia and internationally.

The proportion of those with a mental disorder who actually receive institutional mental health care in hospitals is comparatively small. Institutionalised care is a shrinking sector of mental health service delivery. A greater understanding of the circumstances of this specific group of patients in institutional care in hospitals will be obtained when viewed in comparison with the majority of people with mental disorders, many of whom receive care in community settings only.

International context

The World Health Organization (WHO) estimates that there are as many as 1,500 million people worldwide with a mental disorder at any one time, with three-quarters of them living in developing countries (WHO 1996). These estimates suggest that there are 340 million people worldwide at any one time experiencing affective disorders. The equivalent estimates for anxiety disorders and schizophrenia disorders are 400 million and 45 million, respectively.

The Organization of Economic Co-operation and Development (OECD) collates health service-related statistics from its 29 member countries (OECD 1999). Table 1.2.1 presents some OECD data on the mortality rate and length of hospital stay associated with mental disorders and the number of available psychiatric care hospital beds. Comparisons between countries should be made with caution and in the recognition that there are significant gaps with respect to international agreements on health data collection methods. The same term (e.g. psychiatric care beds) can refer to very different reporting arrangements among the 29 OECD countries.

According to the 1995 OECD figures, the Australian age-standardised mortality rate for mental disorders (14 per 100,000 population) was above the average for the OECD countries with available data (11 per 100,000 population). The mortality rate for mental health disorders (ICD-9 codes 290–319) across the countries ranged from 1 to 221 per 100,000 population. Taken at face value, the data suggest that Australia had an elevated rate of mortality attributable to mental disorders in comparison with other OECD countries. The extreme ranges for these scores suggest that inconsistencies in reporting arrangements between countries may make up a large proportion of this variation.

Table 1.2.1 also presents the number of hospital beds provided for psychiatric care available per 1,000 population across the 21 OECD countries with data for the 1996 calendar year. The figure indicates that Australia was below the average of 0.9 bed per 1,000 population, with a rate of 0.3 beds per 1,000 population. The rate of available psychiatric hospital beds ranged from 0.1 to 2.9 per 1,000 population. In many OECD member countries, an ongoing decline in psychiatric beds has been apparent since the 1960s (OECD 1999). This trend has been apparent in Australia, United Kingdom and the United States (Figure 1.2.1). This decline contrasts with other developed countries like Japan in which the number of psychiatric beds has been rising over the same period.

The OECD data also suggest that Australia had an average length of stay for mental disorders of 14.6 days in 1996¹. This compares with an average length of stay of 38.6 days across the selected OECD countries. The average length of stay ranged from 6.3 to 330.7 days.

¹ *Australian Hospital Statistics 1995–96* report an average length of stay of 11.3 days for mental health disorders (or 15.7 days excluding same-day separations) for 1995–96.

Table 1.2.1: Mental disorder deaths per 100,000 population, mental disorder average length of stay and psychiatric care hospital beds per 1,000 population, OECD member countries, 1995 and 1996

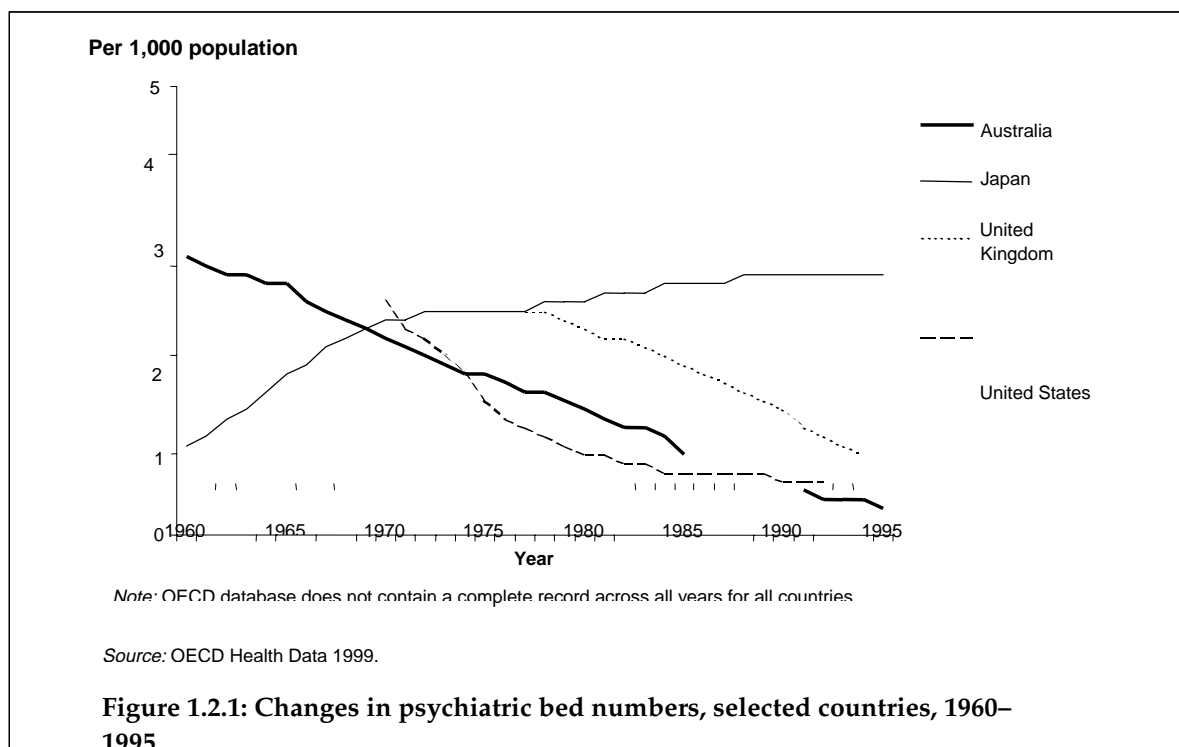
OECD member countries	Deaths per 100,000 population, 1995 ^(a)	Average length of stay, mental disorders 1996 (days) ^(b)	Psychiatric care hospital beds per 1,000 population, 1996 ^(c)
Australia	14	14.6	0.3
Austria	4	27.9	0.7
Belgium	n.a.	n.a.	n.a.
Canada	14	29.2	n.a.
Czech Republic	n.a.	18.3	1.0
Denmark	n.a.	7.7	0.8
Finland	26	29.6	1.2
France	13	7.3	1.3
Germany	10	40.2	1.2
Greece	1	n.a.	1.1
Hungary	13	23.3	0.5
Iceland	1	n.a.	n.a.
Ireland	8	10.4	1.5
Italy	n.a.	14.1	0.5
Japan	n.a.	330.7	2.9
Korea	n.a.	93.0	0.5
Luxembourg	16	n.a.	1.0
Mexico	10	21.4	n.a.
Netherlands	18	31.4	1.6
New Zealand	n.a.	32.0	n.a.
Norway	16	6.3	0.7
Poland	5	n.a.	0.8
Portugal	3	17.6	0.7
Spain	15	n.a.	n.a.
Sweden	17	27.9	0.8
Switzerland	n.a.	n.a.	n.a.
Turkey	n.a.	20.2	0.1
United Kingdom	11	n.a.	n.a.
United States	11	8.5	0.5
Average	11	38.6	0.94

(a) Per 100,000 population. Age-standardised to World Standard Population.

(b) Average length of stay for ICD-9 290–319 mental disorders. Type of hospital varies between countries, and is mainly public acute. Australian data are for public acute and private hospitals, and exclude psychiatric hospitals.

(c) Type of hospital varies. Most countries, including Australia, count beds in both psychiatric hospitals units and psychiatric units of acute care hospitals.

Source: OECD Health Data 1999.



Burden of disease

The WHO recently employed a measure called the Disability Adjusted Life Year (DALY) to assess the population burden of various health conditions (Murray & Lopez 1996). This measure combines the years of life lost to premature death with years of equivalent healthy life lost due to disability to give an assessment of the impact of each particular health condition. One DALY is equivalent to one lost year of healthy life. Additional detail on the derivation of the DALY is provided below in the section on the Burden of Disease and Injury in Australia study.

Employing this measure of disease burden has highlighted the tremendous impact of mental disorders worldwide (WHO 1999). Mental disorders have a comparatively limited mortality rate, which has meant traditional mortality measures have failed to identify their significant impact. In 1998, an estimated 10% of the disease burden in low-income and middle-income countries was attributed to neuropsychiatric conditions (includes mental disorders and dementia). This figure was 23% for high-income countries. In 1990, unipolar major depression was found to be the fourth leading cause of disease burden globally. Four of the ten leading causes of disease burden amongst young adults (15–44 year age group) were neuropsychiatric conditions.

In Australia, recent years have seen a significant amount of effort directed towards enhancing the information base related to prevalence of mental disorders and the activities of mental health services. The following sections provide an outline of research and survey activities undertaken through the National Survey of Mental Health and Wellbeing and the Burden of Disease and Injury in Australia study.

Australian context

The National Survey of Mental Health and Wellbeing was conducted as an evidence base to inform governments about the need for improvements in mental health service delivery in the Australian community, and also provided a range of broad-based epidemiological data on the mental status of the population. It comprised three component investigations:

- an Australian Bureau of Statistics (ABS) national mental health survey of over 10,000 adults from randomly selected households;
- a representative survey of children's and adolescent mental health undertaken by the University of Adelaide and collaborating centres; and
- a study of low-prevalence disorders, or psychotic disorders, in selected urban centres coordinated by the University of Western Australia.

Both the adult-survey and the low-prevalence disorders study have been completed and have reported estimates of the prevalence of various mental disorders amongst the Australian adult population. These prevalence estimates provide a useful context for interpreting the results from the NMDS—institutional mental health care. The child and adolescent survey report is yet to be completed.

National Survey of Mental Health and Wellbeing of Adults

The National Survey of Mental Health and Wellbeing of Adults was conducted by the ABS from May to August 1997 using a nationally representative sample of 10,600 people aged 18 and over (response rate of 78%). The ABS measured mental health and wellbeing using a modified version of the Composite International Diagnostic Interview (CIDI). The CIDI was originally developed through a World Health Organisation collaborative study that involved 17 contributing centres for use in epidemiological studies of mental disorders in general population groups in different countries (WHO 1994). It is a comprehensive interview instrument designed to translate self-reported symptoms to a diagnostic category based on the ICD-10 classification. The limitations of CIDI, along with the low-prevalence levels of some disorders, meant that much of the data were reported for three broad mental disorder categories: anxiety disorders, affective disorders and substance use disorders.

Table 1.2.2 shows that 18% of survey respondents reported that they had experienced the symptoms of a mental disorder at some time during the twelve-month period before interview. Figure 1.2.2 suggests that women were more likely than men to have reported the symptoms of anxiety disorders (12% of women compared to 7% of men). Women were more likely to have reported affective disorders, such as depression (7% of women compared with 4% of men), and young women reported the highest rates (11% for those women aged 18–24) (Figure 1.2.3). Figure 1.2.4 indicates that men were more than twice as likely to have reported the symptoms of substance use disorders (11% of men compared with 4% of women). Young people are much more likely to report a mental disorder, and there is a substantial and steady decline across age groups. Young men reported the highest rate of substance use disorder, at 22% for those men aged 18–24 (Figure 1.2.4).

Table 1.2.2: Prevalence of common mental disorders in Australia, 1997^(a)

Mental disorders ^(b)	Males		Females		Persons	
	'000	Per cent	'000	Per cent	'000	Per cent
Anxiety disorders						
Panic disorder	36.7	0.6	133.8	2.0	170.5	1.3
Agoraphobia	49.2	0.7	101.9	1.5	151.1	1.1
Social phobia	161.4	2.4	207.3	3.0	368.7	2.7
Generalised anxiety disorder	156.8	2.4	256.0	3.7	412.8	3.1
Obsessive-compulsive disorder	19.3	0.3	29.2	0.4	48.6	0.4
Post-traumatic disorder	153.3	2.3	285.8	4.2	439.2	3.3
<i>Total anxiety disorders</i>	<i>470.4</i>	<i>7.1</i>	<i>829.6</i>	<i>12.1</i>	<i>1,299.9</i>	<i>9.7</i>
Affective disorders						
Depression	227.6	3.4	465.3	6.8	692.9	5.1
Dysthymia	63.4	1.0	88.3	1.3	151.7	1.1
<i>Total affective disorders^(c)</i>	<i>275.3</i>	<i>4.2</i>	<i>503.3</i>	<i>7.4</i>	<i>778.6</i>	<i>5.8</i>
Substance use disorders						
Alcohol harmful use	285.4	4.3	123.8	1.8	409.2	3.0
Alcohol dependence	339.8	5.1	126.9	1.9	466.7	3.5
Drug use disorders	206.9	3.1	89.2	1.3	296.0	2.2
<i>Total substance use disorders^(d)</i>	<i>734.3</i>	<i>11.1</i>	<i>307.5</i>	<i>4.5</i>	<i>1,041.8</i>	<i>7.7</i>
Total mental disorders	1,151.6	17.4	1,231.5	18.0	2,383.1	17.7
Total persons	6,627.1	100.0	6,837.7	100.0	13,464.8	100.0

(a) During the last 12 months before interview.

(b) A person may have more than one mental disorder. The components when added may therefore be larger than the subtotals or total.

(c) Includes other affective disorders such as mania, hypomania and bipolar affective disorder.

(d) Includes harmful use and dependence.

Source: ABS 1998a.

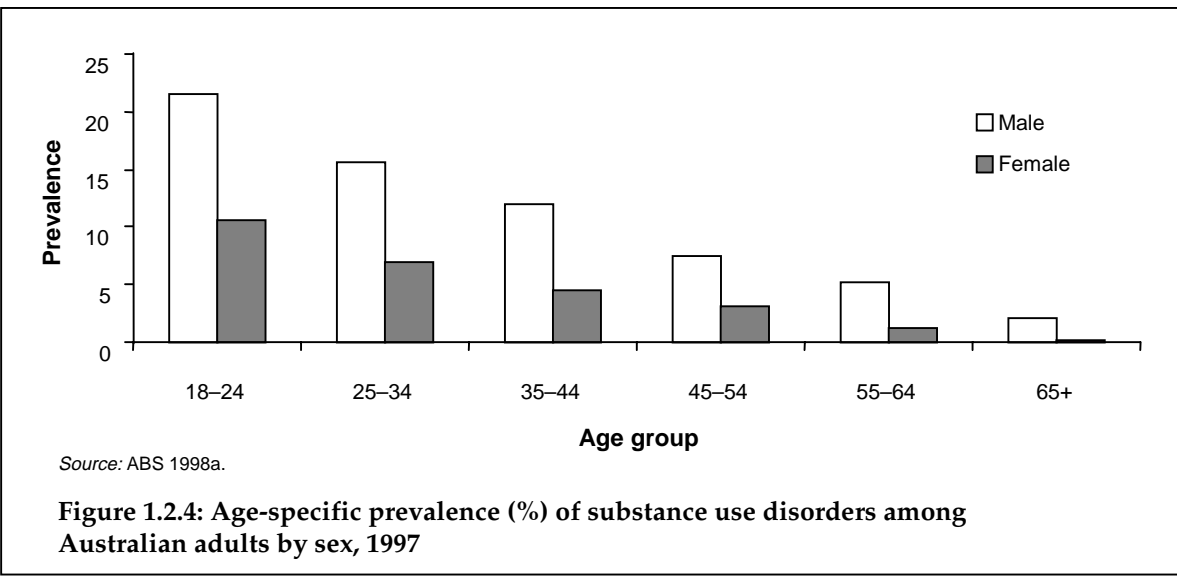
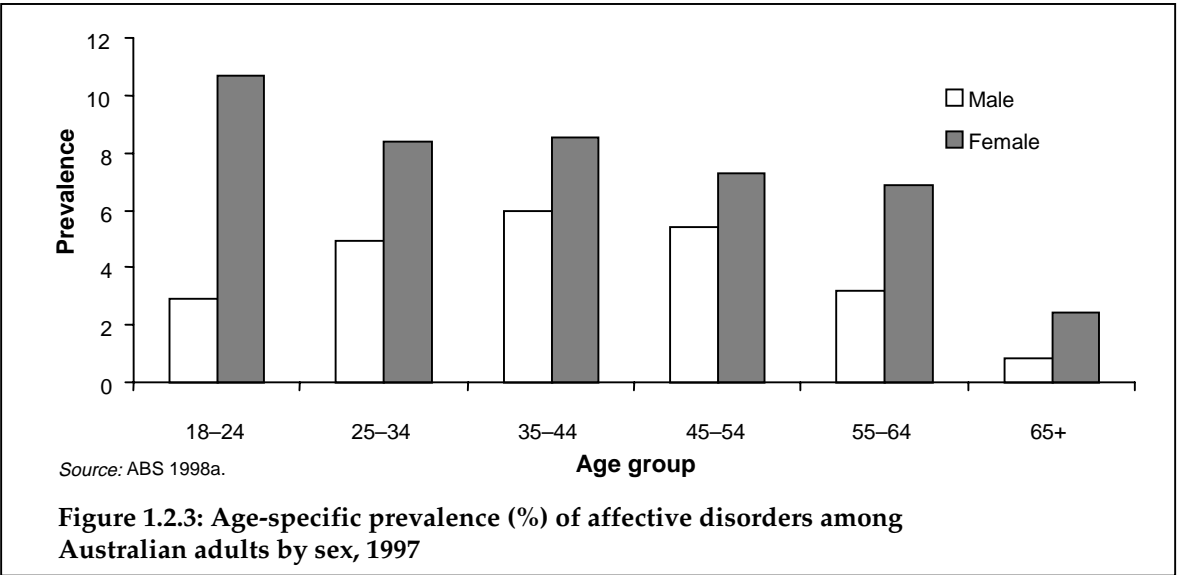
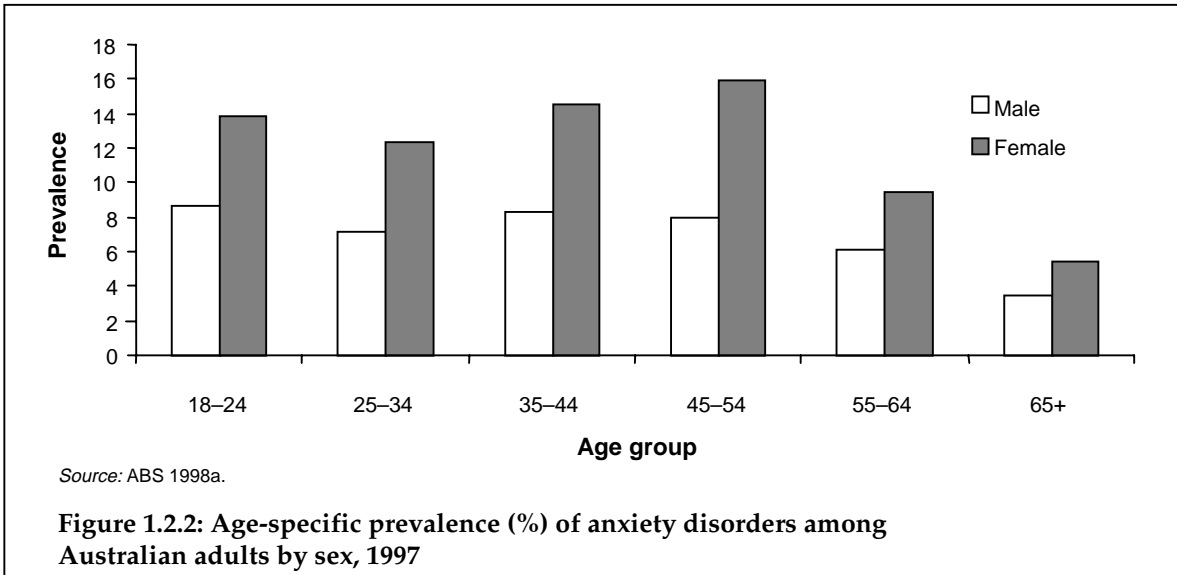


Table 1.2.3 shows that respondents born in Australia had a marginally higher prevalence of mental disorders during the last twelve months before interview than respondents born in other countries. There were too few Aboriginal and Torres Strait Islander people included in the sample to make a reliable estimate of their mental health status.

Table 1.2.3: Prevalence of mental disorder by country of birth, Australia, 1997

Country of birth	Anxiety disorders (%)	Affective disorders (%)	Substance abuse disorders (%)	Total mental disorders (%)
Australia	9.8	6.1	8.6	18.6
Other English-speaking countries ^(a)	8.6	4.2	6.8	15.7
Non-English-speaking countries	9.6	5.3	4.0	14.5
Total	9.7	5.8	7.7	17.7

(a) Other English-speaking countries comprise New Zealand, United Kingdom, Ireland, Canada, United States of America and South Africa.

Source: ABS 1998a.

Table 1.2.4 indicates the differences in the prevalence of the three broad mental disorder types between participants in capital cities and regional and remote areas.

Table 1.2.4: Prevalence of selected mental disorders by geographic area, Australia, 1997

Geographic area	Substance use disorders (%)	Affective disorders (%)	Anxiety disorders (%)	Total persons ('000)
Capital city	7.7	5.6	9.4	8741.0
Rest of state	7.8	6.1	10.1	4723.8
Total	7.7	5.8	9.7	13464.8

Note: Capital city is the city Statistical Division for each State or Territory. Rest of State covers the remaining areas.

Source: ABS 1998a.

People Living with Psychotic Illness Study

The third component of the National Survey of Mental Health and Wellbeing was a study of psychotic disorders, coordinated by the University of Western Australia. The study consisted of a systematic one-month census of 3,800 people with a psychotic disorder, who attended a mental health service within defined areas of Brisbane and surrounds, Melbourne, Perth and the Australian Capital Territory.

This was followed up by interviews of 980 individuals with likely psychotic disorders, randomly selected from a sample of people in a wide range of service settings (e.g. acute hospitals, general practice) to obtain detailed demographic, functioning and service use data. The interviews utilised the Diagnostic Interview for Psychosis (DIP), a semi-structured, clinical interview instrument specifically designed for the study. Participants in the study were residents of defined urban areas and were aged between 18 and 64 years. This limits the conclusions that can be drawn about psychotic disorders amongst rural populations or older people.

The study estimated that between 4 and 7 people per 1,000 adults (a weighted mean of 4.7) in the selected urban areas were in contact with mental health services during any given

month due to the symptoms of a psychotic disorder (Jablensky et al. 1999). Demographic data was collected from the 980 people who were enumerated in the one-month census and had agreed to participate in the DIP interviews. This sample included 586 men and 394 women with the age group profile as given in Table 1.2.5.

Table 1.2.5: People living with psychotic illness study: age group by sex

Age group (years)	Males (%)	Females (%)	Persons (%)
Under 25	13.1	9.6	11.7
25–34	29.2	21.1	25.9
35–44	28.2	26.9	27.7
45–54	19.1	28.4	22.9
55 and over	10.4	14.0	11.8
Total (%)	100.0	100.0	100.0
Total (persons)	586	394	980

Source: Jablensky et al. 1999.

Over 75% of the sample were Australia-born (Table 1.2.6). The largest group of overseas-born participants was from the United Kingdom or Ireland (9%). Those from the rest of Europe, including the former USSR, formed 5% of the sample. Aboriginal and Torres Strait Islander persons made up 4% of the sample and 5% of the Australian-born participants.

Table 1.2.6: People living with psychotic illness study: country of birth by sex

Country of birth	Males (%)	Females (%)	Persons (%)
Australia	76.6	74.9	75.9
Other	23.4	25.1	24.1
Total	100.0	100.0	100.0

Source: Jablensky et al. 1999.

In the month before the interview, approximately one in five participants had been in an institution such as a hospital or nursing home. Thirty-one per cent of participants lived in rental accommodation, including 17% residing in public rental accommodation (Table 1.2.7). The proportion of participants living in their own home or in a family home was relatively low (both 15%).

Table 1.2.7: People living with psychotic illness study: type of accommodation in past month by sex

Accommodation	Males (%)	Females (%)	Persons (%)
Rented home (public, private)	27.8	36.8	31.4
Family home	16.4	12.7	14.9
Own home	10.1	21.1	14.5
Other accommodation	50.7	35.8	44.7
Institution (hospital, nursing home)	20.5	18.3	19.6
Hostel	15.2	11.2	13.6
Group home	3.4	2.0	2.9
Supported housing, rented room, crisis shelter, homeless, rooming house.	15.0	5.8	11.3
Total	100.0	100.0	100.0

Note: An individual may have used more than one type of accommodation in the month before the interview.

Source: Jablensky et al. 1999.

More than 60% of the individuals interviewed met the criteria for the schizophrenia or schizoaffective disorders (Table 1.2.8). The mean age for onset was 24 years for males and 25 years for females.

Table 1.2.8: People living with psychotic illness study: ICD-10 classification

Disorder classification	ICD-10 (%)
Schizophrenia	52.0
Schizoaffective disorder	10.4
Bipolar disorder mania	11.4
Depressive psychosis	8.1
Other psychosis	14.8
Did not meet criteria for psychosis	3.3
Total (%)	100.0
Total (persons)	980

Source: Jablensky et al. 1999.

Health service utilisation

Before the National Survey of Mental Health and Wellbeing, it was recognised that the prevalence of serious mental disorders in the community was largely under estimated, and that clinical records are not an adequate proxy indicator; a large proportion of those experiencing mental illnesses were likely to have had no clinical care or diagnosis (Andrews 1994). Historically, there have been few reliable data sources on the use of health services by individuals with a mental disorder. A main aim of National Survey of Mental Health and Wellbeing was to provide information on the patterns of service use by people with a diagnosable mental disorder. Both the adult survey and the low-prevalence disorders study

collected basic information on the use of health services by adults with mental disorders. This service utilisation information provides a suitable background for the interpretation of data from the NMDS—institutional mental health care.

In addition to attempting to assess the prevalence of mental disorders, the National Survey of Mental Health and Wellbeing of Adults sought to obtain data on patterns of service utilisation and perceived service needs. The results indicated that about 38% of those with a mental disorder used a health service for mental health problems in the twelve months before interview. General practitioners were the most commonly accessed service (29% of all reported services) by people with a mental disorder.

Seventy per cent of males and 54% of females with a mental disorder used none of the services listed in the survey. The health service list included contact with a psychiatrist, a psychologist, any other mental health professional and any other health professional. This level of service use can be understood in the framework of perceived need: 53% of participants assessed as having a mental disorder perceived no need for information, 37% perceived no need for medication and 25% perceived no need for counselling. The level of service use in the past year before the interview was particularly low for those with substance use disorders (Table 1.2.9).

Table 1.2.9: Service use of persons with a selected mental disorder

Mental disorder	Total who used health service (%)	Total who did not use health service (%)	Total persons ('000)
Anxiety only	28.1	71.9	386.3
Affective only	55.8	44.2	191.7
Substance use only	13.8	86.2	479.7
Combination of mental disorders only	66.1	33.9	304.1
<i>Total mental disorders only</i>	<i>35.4</i>	<i>64.6</i>	<i>1,361.8</i>
Anxiety and physical condition	33.7	66.3	386.3
Affective and physical condition	55.4	44.6	191.7
Substance and physical condition	15.6	84.4	479.7
Combination of mental disorders and physical condition	63.8	36.2	304.1
<i>Total mental disorders and physical condition</i>	<i>41.3</i>	<i>58.7</i>	<i>1,021.3</i>
Total mental disorders	38.0	62.0	2,383.1

Source: ABS 1998a.

An additional source of data on service utilisation is the interviews conducted for the People Living with Psychotic Illness Study. As detailed above, this study involved interviews of 980 individuals with likely psychotic disorders, randomly selected from a sample of people in a wide range of service settings (e.g. acute hospitals, general practice) to obtain detailed demographic, functioning and service use data. More than half of the interviewees (52%) in the low-prevalence disorders study had been admitted to hospital in the twelve months before the interview (Table 1.2.10). The majority of the patients were admitted to either a public psychiatric unit in a general hospital (53%), or a public psychiatric hospital (37%). The proportion of patients who were admitted to a private facility was small (8%).

Table 1.2.10: Self-reported hospital service used in year before interview

Hospital service type	Proportion who had contact (%)
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Psychiatric unit in general/psychiatric hospital	83.2
Public psychiatric unit, general hospital	53.0
Public psychiatric hospital	36.8
General medical inpatient facilities	16.4
Private admitted inpatient facilities (mainly psychiatric)	7.5
Public drug and alcohol unit	2.6

Note: An individual may have used more than one type of admitted patient services in the year before interview.

Source: Jablensky et al. 1999.

Overall in this study, the average length of stay was 6 weeks for all inpatient services. As a point of comparison, the average length of stay for public psychiatric hospitals in the 1997–98 period, excluding same-day separations, was almost nine weeks (AIHW 1999). Around 10% of the interview participants had been in an inpatient facility for the entire twelve months. Of the total interviewees admitted, about 46% were admitted involuntarily (Table 1.2.11). Additional information derived from the low-prevalence disorders study interviews about the use of non-admitted patient services can be found in Section 4.2.

Table 1.2.11: Self-reported hospital services: type of stay in year before interview

Stay type	Proportion of admitted patients (%)
Voluntary only	54.2
Involuntary only	33.4
Both voluntary and involuntary	12.5
Total admitted patients (%)	100.0

Note: Due to rounding, proportions do not add to exactly 100%.

Source: Jablensky et al. 1999.

In summary, the constituent investigations of the National Survey of Mental Health and Wellbeing have added, and continue to add, to the knowledge about the prevalence of mental disorders in Australia and the patterns of service use associated with them. In addition to this prevalence and service use information, there is a growing awareness of the need to measure the impact of various mental disorders in this community and to compare them with other mental disorders and with physical disorders and injuries. The next section on the Burden of Disease and Injury in Australian Study provides a summary of the assessed impact, in terms of mortality and disability, of mental disorders in Australia and how they compare with other illnesses.

Burden of disease and injury in Australia

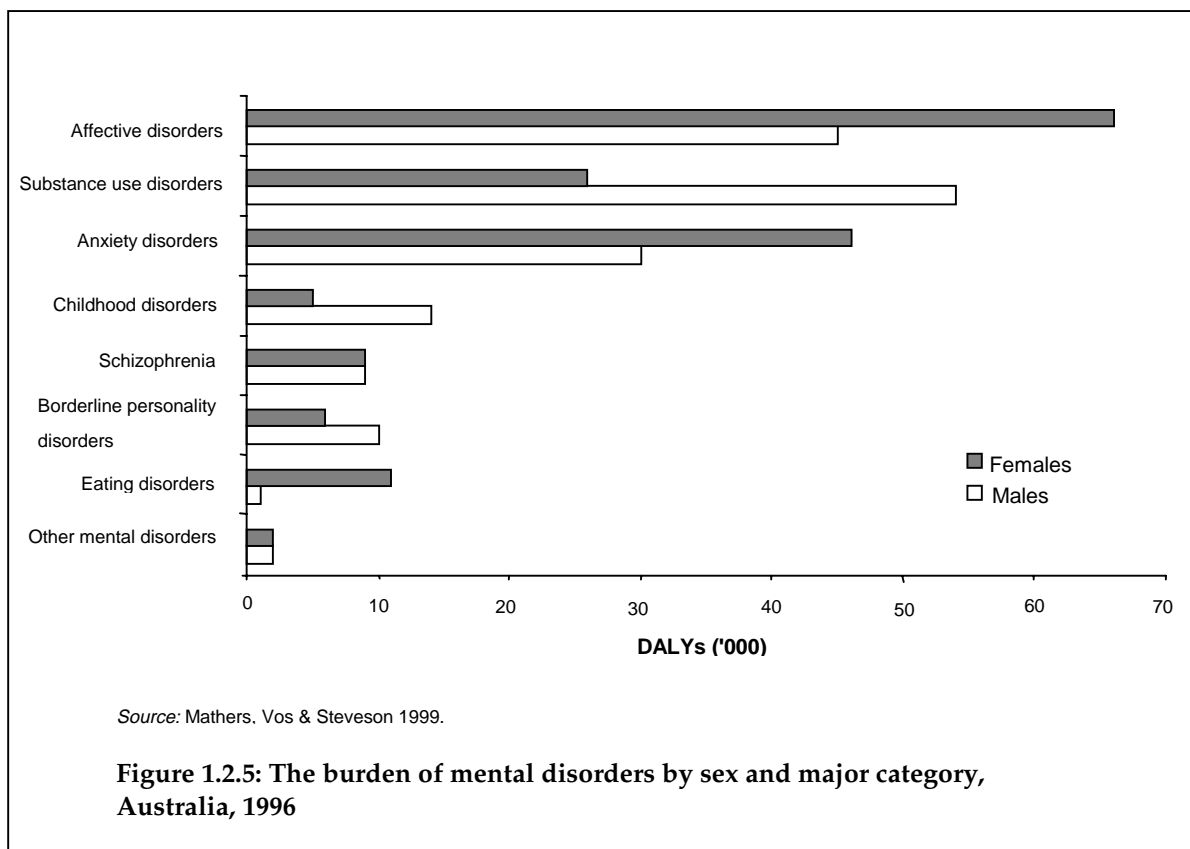
Traditional mortality statistics have been frequently used to assess the significance or impact of various disorders or injuries. Such methodologies can underestimate the impact of mental disorders, which typically have a comparatively low mortality rate despite their capacity for chronic disability. Combining years lost due to premature mortality with years lost due to disability provides a more comprehensive picture of the impact of various disorders and injuries. Mathers, Vos & Stevenson (1999) have attempted to do this for all diseases and injuries, in the Burden of Disease and Injury in Australia Study.

The Burden of Disease and Injury in Australia Study was conducted by the AIHW in close association with the Victorian Department of Human Services. It employed methodologies similar to those developed for the Global Burden of Disease Study, mentioned above. Both studies utilised a health summary measure called a Disability-adjusted life year, or DALY, developed by Murray & Lopez (1996). This measure was designed to combine the concept of years of life lost (YLL) due to premature death with a similar concept of years of equivalent healthy life lost through disability (YLD). One DALY represents one lost year of healthy life.

The years of life lost were derived using projected trends in mortality rates to estimate the average life expectancies likely to be achieved by Australians alive in 1996. The years of equivalent healthy life lost due to disability was calculated by multiplying the incidence of a health condition by its disability weight by the average duration for that condition. The disability weights had been derived previously in a number of studies that utilised structured valuation exercises with lay and expert participants and generated explicit weights for each health condition. The Burden of Disease Study utilised data from the ABS National Survey of Adult Mental Health and Wellbeing, the National Drug Strategy Household Survey and a number reviews of epidemiological studies to calculate the YLD for 21 specific mental disorders (not including senile dementias which are included in central nervous system conditions).

The study found that mental disorders were a major burden in Australia, with 13% of the total DALYs in 1996. Mental health disorders are the third leading cause of burden after cardiovascular diseases and cancer. Mental disorders accounted for only 1% of all deaths and only 1% of the total years of life lost due to mortality, but was associated with 27% of the total years lost due to disability. This is a clear indication that mental disorders are not a major cause of death, but are a major cause of chronic disability. Most of this burden has been attributed to affective disorders, with 34% of the calculated burden, to anxiety disorders with 23% and to substance use disorders with 13%. Substance use disorders were the only category with a significant YLL component.

Figure 1.2.5 presents the distribution of mental health DALYs by sex and by major category of mental disorder. The anxiety, affective and substance use disorders dominated both male and female DALYs. For males, the mental health category with the greatest proportion of DALYs was substance use disorders, accounting for 31% of the male mental health DALYs. The majority of these were due to alcohol abuse (61%). For females the mental health category with the greatest proportion of DALYs was affective disorders, accounting for 39% of female mental health DALYs. The majority of these were attributed to depression (87%).



1.3 Overview of institutional mental health data

Institutional mental health care

Data collected in the first year of States' and Territories' reporting to the NMDS— institutional mental health care, that is 1997–98, constitute the central focus of information provided in this report. Table 1.3.1 presents the data elements that constitute the NMDS— institutional mental health care. Tables that are presented in Chapters 2 and 3 compare these data with data from the broader hospital morbidity collection. Comparisons are mainly related to differences between reports for admitted patients in specialised psychiatric care with reports for admitted patients in general care who had a mental health principal diagnosis.

Table 1.3.1: Data elements that constitute the National Minimum Data Set—institutional mental health care

Data element	Specific to specialised	Knowledgebase
Identifiers		
Establishment identifier		000050
Person identifier		000127
Sociodemographic items		
Sex		000149
Date of birth		000036
Country of birth		000035
Indigenous status		000001
Marital status		000089
Area of usual residence		000016
Type of usual accommodation	✓	000173
Employment status	✓	000317
Service and administrative items		
Type of episode of care		000168
Previous specialised treatment	✓	000139
Admission date		000008
Separation date		000043
Total leave days		000163
Mode of separation		000096
Source of referral	✓	000150
Referral to further care	✓	000143
Total psychiatric care days	✓	000164
Mental health legal status	✓	000092
Clinical items		
Principal diagnosis		000136
Additional diagnosis		000005
Diagnosis-related group		000042
Major diagnostic category		000088
Intended length of stay		000076

Notes: 1. All data elements are defined in the *National Health Data Dictionary, Version 6.0 (NHDC 1997)*.

2. The Knowledgebase: Australia's health and community services data registry can be accessed through the AIHW Internet home page at <http://www.aihw.gov.au>.

The collections are planned as annual compilations of data to be managed by the Institute, and have been developed to facilitate policy and epidemiological analyses of mental health services and the characteristics of their clients and to monitor service delivery in mental health admitted, non-admitted and community care under the provisions of the second plan of the National Mental Health Strategy.

The National Hospital Morbidity Database

The NMDS—institutional mental health care is collected within the context of the National Hospital Morbidity Database,

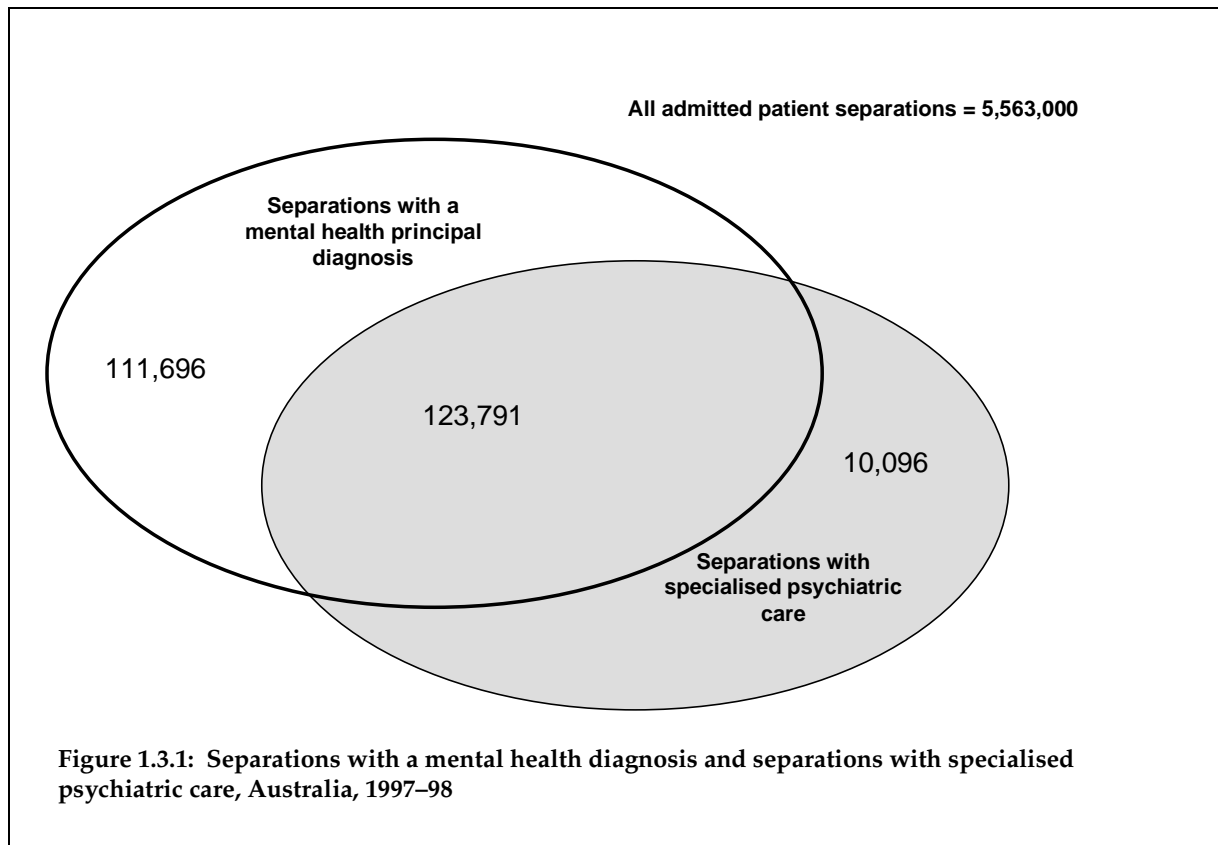


Figure 1.3.1 shows that of the approximately 5.5 million records in the National Hospital Morbidity Database, 133,887 separations received at least one day of specialised psychiatric care. Of these, 123,791 were recorded as having a mental health principal diagnosis. There were, however, 111,696 separations with a mental health principal diagnosis which received no specialised psychiatric care.

This report investigates mental health services in the hospital setting in two ways: on the basis of principal mental health diagnosis, and by looking at specialised psychiatric care. It needs to be noted that it is this second component that is the report on the NMDS. The first component is additional reporting based on the mental health diagnoses of admitted patients. A distinction is also made between separations on the basis of length of stay.

Principal mental health diagnosis

In this report data are presented for admitted patients with a mental health diagnosis in both specialised and general care. Chapter 2 provides a description of principal diagnoses in mental health and the way in which a diagnosis is established for a patient. Data presented by mental health diagnosis represent diagnostic groups that have been clustered at a higher level than the detailed three-digit ICD-9-CM codes. Where relevant, the clustering is based on the classification used for the Australian Survey of Mental Health and Wellbeing (ABS 1998a), and has been adopted to promote continuity throughout the report. ICD-9-CM codes at higher levels indicate that all lower level codes are included in that group; for example, all levels below the ICD code 295 are included in the grouping for schizophrenia, regardless of

the number of digits reported. The classifications used in this report are presented in Appendix 1.

Specialised psychiatric care

Specialised psychiatric care refers to any treatment given in a public psychiatric hospital or in a designated psychiatric ward or unit of an acute hospital. In public psychiatric hospitals most of the care received by patients is classified as specialised psychiatric care, whereas in acute hospitals only days spent in psychiatric wards are considered specialised. The data element *total psychiatric care days* distinguishes specialised mental health care data from other institutional care and enables the extraction of specialised institutional mental health data from the mainstream morbidity collection.

In acute hospitals, a separation is considered a 'specialised care' separation if at least one day during that separation was in a specialised psychiatric ward. In accordance with this definition, an episode of care may comprise some psychiatric care days and some days in general care, or may comprise psychiatric care days only. An episode of care from a public psychiatric hospital is deemed to comprise psychiatric care days only. Table 1.3.2 compares key statistics for specialised and general care for same-day separations and overnight stay patients (see also Table 1.3.4 for figures showing the proportion of general care patient days for those separations designated as 'specialised psychiatric separations').

'Short-stay' and 'long-stay' episodes of care

This report distinguishes between short-stay (excluding same-day) and long-stay patients using a cut-off point of 35 days before a patient is classified as a 'long-stay patient'. While this point is largely arbitrary, use of such a split in the data enables an investigation of mental disorders that require long-term care. Chapter 2 provides more information on this group of patients.

Hospital activity

Table 1.3.2 presents an overview of mental health activity in hospitals, comparing all hospital separations with mental health separations. Data include same-day separations, overnight separations and patient days. The data also compare short-stay separations with long-stay separations by specialised and general care.

The term mental health-related separations refers to all separations with a mental health principal diagnosis and all separations for which specialised psychiatric care was reported. Mental health-related separations accounted for 4.4% of total hospital separations in 1997–98, and approximately 15% of all patient days. Separations with a mental health principal diagnosis comprised 96% of total mental health-related separations. Long-stay separations with a mental health diagnosis comprised only 5.4% of all mental health-related separations, but contributed 55.7% of all mental health-related patient days. Sixty per cent of same-day separations with a mental health principal diagnosis received specialised care, compared to 50% of short-stay separations. For long-stay separations, approximately 75% of separation received some specialised care.

Table 1.3.3 focuses on patients with a mental health principal diagnosis, divided into same day, short and long-stay. The bulk of these separations fell into the short-stay category (136,973 separations). The relatively small number of long-stay separations contributed the greatest number of psychiatric care days (1,501,305 as compared to 710,765 for short-stay separations).

Affective disorders accounted for the greatest number of same-day separations as well as the highest proportions of short-stay separations (Table 1.3.3). *Schizophrenic disorders* had the highest incidence amongst long-stay separations (Table 1.3.3).

Table 1.3.4 differentiates between patients with some specialised care and general care only. For general care separations, *other organic psychotic conditions* and *other affective disorders* contributed the greatest number of overnight separations while *senile and presenile organic conditions* contributed the most patient days. In specialised care, *affective* and *schizophrenic disorders* had the greatest number of separations as well as the highest number of psychiatric care days.

Data quality and interpretation

This section presents some general notes that should be used to guide interpretation of the hospital morbidity data presented in this report. Additional notes are provided in the descriptive commentary that highlight data quality issues and the limits to interpretation in some instances.

The quality of reporting the NMDS—institutional mental health care depends on the quality of reporting to the National Hospital Morbidity Database. The quality of reporting by States and Territories may be affected by variations in *National Health Data Dictionary* definitions as well as by differences in scope. The definitions used for original recording of the data may have varied among the data providers and from one year to another. In addition, fine details of the scope of the data collections may vary from one jurisdiction to another. Comparisons between States and Territories, reporting years and hospital sectors should therefore be made with reference to the accompanying notes.

Private hospital separations are included in the NMDS—institutional mental health care. However, a small proportion of private hospitals do not report to the National Hospital Morbidity Database. Because of this, the counts of private hospital separations presented in this report may be underestimated. This discrepancy is described in detail in *Australian Hospital Statistics 1997–98* (AIHW 1999).

Each State and Territory has a particular demographic structure that differs from other jurisdictions. Population factors such as age and Aboriginal/Torres Strait Islander status can have a substantial effect on the nature of health care delivery amongst jurisdictions. For example, the average length of stay in hospital, or the frequency of different procedures, can be affected by remoteness or the demographic composition of the population in a particular region or jurisdiction.

Data on separations from the National Hospital Morbidity Database can reflect an aspect of the burden of disease in the community; they do not provide measures of the incidence or prevalence of conditions. This is because not all persons with a type or degree of illness are treated in hospital and the number and pattern of hospitalisations can be affected by differing admission practices, differing levels and patterns of service provision and multiple admissions for some chronic conditions, in addition to the differing patterns of morbidity in the population.

The quality of reporting *total psychiatric care days* has been reviewed during the production of this report and problems in analysis have been identified where data cannot be directly attributed to a financial year reporting period. This occurs in cases where a patient episode includes both psychiatric and non-psychiatric care and crosses over reporting periods; in such cases analysis cannot discern the period in which the psychiatric care occurred.

The data element *pension status—psychiatric patients* has not been included in the analysis of the NMDS for this report. There are substantial difficulties associated with use of this data element over time, particularly mapping between contemporary pension and benefit structures to a rigid data domain. Nor can the data provide meaningful comparative analysis between jurisdictions. For these reasons, *pension status—psychiatric patients* has been

retired from the NMDS—institutional mental health care and will be removed from the *National Health Data Dictionary Version 9.0* (to be published in 2000). Data developments currently underway are working toward a better standard to capture information on government pensions or benefits as a principal source of income (see future data developments described in Chapter 5).

Type of accommodation, employment status, source of referral and referral to further care were not analysed for the current report due to the inadequacy of the current definitions in providing meaningful information. States and Territories could not report this information consistently because of the lack of clarity in these definitions. Further development for these data elements is required.

Further analysis in relation to the scope, data definitions and collection implementation of the NMDS—institutional mental health care will need to continue to be undertaken by AIHW to inform the data development process of the NMDS.

Table 1.3.1: Specialised and general care of all mental health separations^(a), Australia, 1997–98

	Sameday separations	Per cent all hospital separations	Per cent of all mental health separations	Overnight separations	Per cent all hospital separations	Per cent of all mental health separations	Patient days	Percent of all patient days	Per cent of all mental health patient days
All hospital separations	2,578,000			2,985,000			22,565,000		
Short stay ^(b)									
General care	34,059	0.61	13.87	67,856	1.22	27.63	542,233	2.40	16.42
Specialised care	51,324	0.92	20.90	69,117	1.24	28.14	762,089	3.38	23.07
Total	85,383	1.53	34.77	136,973	2.46	55.77	1,304,322	5.78	39.49
Long stay ^(b)									
General care	—	—	—	3,350	0.18	3.98	339,512	1.50	10.28
Specialised care	—	—	—	9,781	0.06	1.36	1,501,305	6.65	45.45
Total	—	—	—	13,131	0.24	5.35	1,840,817	8.16	55.73
Total separations with a mental health principal diagnosis	85,383	1.53	34.77	150,104	2.70	61.12	3,145,139	14.09	95.21
Separations with specialised psychiatric care but no mental health principal diagnosis	4,483	0.08	1.83	5,613	0.10	2.29	158,066	0.70	4.79
Total mental health related separations	89,866	1.62	36.59	155,717	2.80	63.41	3,303,205	14.64	100.00

(a) Includes all separations with a mental health principal diagnosis as defined in Appendix 2 and all separations receiving specialised psychiatric care

(b) Short stay - 35 patient days or less. Long stay - 36 patient days or more.

Table 1.3.2: Specialised and general care of all mental health related separations,^(a) Australia, 1997–98

	Number	Per cent of all hospital separations	Per cent of all mental health separations
Separations			
Same-day separations			
All same-day separations ^(c)	2,578,000	46.34	
Same-day separations with a mental health principal diagnosis			
General care	34,059	0.61	13.87
Specialised care	51,324	0.92	20.90
Total	85,383	1.53	34.77
Same-day separations with specialised psychiatric care but no mental health principal diagnosis	4,483	0.08	1.83
Total mental health-related same-day separations	89,866	1.62	36.59
Overnight separations			
All overnight separations ^(c)	2,985,000	53.66	
Short-stay ^(b) separations with a mental health principal diagnosis			
General care	67,856	1.22	27.63
Specialised care	69,117	1.24	28.14
Total	136,973	2.46	55.77
Long-stay ^(b) separations with a mental health principal diagnosis			
General care	3,350	0.18	1.36
Specialised care	9,781	0.06	3.98
Total	13,131	0.24	5.35
Total overnight separations with a mental health principal diagnosis	150,104	2.70	61.12
Overnight separations with specialised psychiatric care but no mental health principal diagnosis	5,613	0.10	2.29
Total mental health-related overnight separations	155,717	2.80	63.41
Total mental health-related separations	245,583	4.41	100.00
Patient days			
All patient days^(c)	22,565,000	100.00	
Same-day patient days with a mental health principal diagnosis			
General care	34,059	0.15	1.03
Specialised care	51,324	0.23	1.55
Total	85,383	0.38	2.58
Short-stay ^(b) patient days with a mental health principal diagnosis			
General care	508,174	2.25	15.38
Specialised care	710,765	3.15	21.52
Total	1,218,939	5.40	36.90
Long-stay ^(b) patient days with a mental health principal diagnosis			
General care	339,512	1.50	10.28
Specialised care	1,501,305	6.65	45.45
Total	1,840,817	8.16	55.73
Total patient days with a mental health principal diagnosis	3,145,139	13.94	95.21
Patient days with specialised psychiatric care but no mental health principal diagnosis	158,066	0.70	4.79
Total mental health-related patient days	3,303,205	14.64	100.00

(a) Includes all separations with a mental health principal diagnosis as defined in Appendix 1 and all separations for which specialised psychiatric care was reported.

(b) Short-stay separations are those with less than 36 patient days, excluding same-day separations. Long-stay separations are those with 36 patient days or more.

(c) From *Australian Hospital Statistics 1997–98*.

Table 1.3.3: Mental health principal diagnosis^(a) by length of stay, Australia, 1997–98

Principal diagnosis	Same-day separations		Separations with less than 36 patient days excluding same-day			Separations with 36 patient days or more		
	Same-day separations	Same-day separations with psychiatric care	Separations	Patient days in general care	Psychiatric care days	Separations	Patient days in general care	Psychiatric care days
Senile and presenile organic conditions	438	286	5,858	64,662	17,483	1,540	131,058	113,849
Other organic psychotic conditions	1,764	342	13,821	92,020	29,040	987	75,119	172,221
Schizophrenic disorders	8,475	6,345	22,132	26,921	217,981	3,949	26,331	719,992
Affective disorders ^(b)	28,102	18,466	27,688	98,195	207,868	3,503	43,302	186,452
Other affective psychoses	6,607	2,968	10,571	39,180	55,534	902	15,823	123,630
Anxiety disorders ^(b)	8,145	4,823	3,570	11,636	24,920	315	3,253	13,873
Paranoid states	687	203	1,321	3,370	10,773	156	2,004	28,397
Other psychoses	1,253	429	3,129	6,961	19,418	173	5,751	13,841
Other neurotic disorders	3,215	1,212	5,035	16,988	8,529	119	2,664	5,032
Personality disorders ^(c)	2,823	1,416	5,496	7,131	26,839	212	3,011	14,675
Eating disorders	5,012	4,512	1,513	8,109	8,354	419	10,410	17,258
Substance abuse	2,407	470	3,266	6,439	5,340	49	868	1,587
Substance dependence	3,952	1,686	12,203	60,629	22,756	339	8,037	15,877
Acute alcoholic intoxication	1,001	171	2,399	6,942	3,915	20	291	630
Other drug dependence and abuse	500	332	1,256	4,084	4,447	44	413	1,818
Physiological malfunction arising from mental factors	246	n.p.	302	1,174	154	n.p.	163	43
Special syndromes or syndromes not elsewhere classified	534	260	1,093	4,482	465	n.p.	217	78
Acute reaction to stress	1,005	397	3,018	8,169	4,741	29	1,133	615
Adjustment reaction excluding PTSD	3,532	2,314	9,942	24,451	33,149	162	2,875	6,584
Specific non-psychotic mental disorders ^(d)	290	167	1,453	11,765	1,936	116	3,942	11,598
Other non-psychotic mental conditions	5,273	4,460	1,680	4,460	6,401	81	2,765	53,010
Observation for suspected mental condition	86	61	164	194	601	n.p.	—	142
V codes associated with mental illness ^(e)	36	n.p.	63	212	121	n.p.	82	103
Total	85,383	51,324	136,973	508,174	710,765	13,131	339,512	1,501,305

(a) See category inclusions list in Appendix 1.

(b) Cluster of disorders replicates the ABS National Survey of Mental Health and Wellbeing; see classification appendix for a detailed list of inclusions.

(c) Includes sexual deviations and disorders.

(d) Due to organic brain damage.

(e) V11, V15.4, V17.0, V40, V65.2, V66.3, V79.0, V79.1, V79.3, V79.8 and V79.9.

— Nil

n.p. Not published

Table 1.3.4: Mental health principal diagnosis^(a) by type of care, Australia, 1997–98

Principal diagnosis	Specialised care ^(b)				General care		
	Overnight Separations	Same-day separations	Patient days in general care	Psychiatric care days	Overnight Separations	Same-day separations	Patient days in general care
Senile and presenile organic conditions	1,760	286	463	131,618	5,638	152	195,409
Other organic psychotic conditions	3,596	342	511	201,603	11,212	1,422	168,050
Schizophrenic disorders	22,565	6,345	3,262	944,318	3,516	2,130	52,120
Affective disorders ^(b)	20,266	18,466	4,889	412,786	10,925	9,636	146,244
Other affective psychoses	5,992	2,968	2,242	182,132	5,481	3,639	56,400
Anxiety disorders ^(b)	2,231	4,823	371	43,616	1,654	3,322	17,840
Paranoid states	1,105	203	249	39,373	372	484	5,609
Other psychoses	2,240	429	269	33,688	1,062	824	13,267
Other neurotic disorders	1,206	1,212	252	14,773	3,948	2,003	21,403
Personality disorders ^(c)	4,447	1,348	365	42,930	1,261	1,383	10,399
Eating disorders	1,020	68	774	30,124	912	24	10,423
Substance abuse	840	470	46	7,397	2,475	1,937	9,198
Substance dependence	2,441	1,686	328	40,319	10,101	2,266	70,604
Acute alcoholic intoxication	629	171	231	4,716	1,790	830	7,832
Other drug dependence and abuse	574	332	72	6,597	726	168	4,593
Physiological malfunction arising from mental factors	21	n.p.	—	199	284	244	1,579
Special syndromes or syndromes not elsewhere classified	55	4,772	154	803	1,045	774	13,428
Acute reaction to stress	1,121	397	68	5,753	1,926	608	9,842
Adjustment reaction excluding PTSD	5,576	2,314	451	42,047	4,528	1,218	28,093
Specific non-psychotic mental disorders ^(d)	246	167	89	13,701	1,323	123	15,741
Other non-psychotic mental conditions	832	4,460	24	63,871	929	813	8,014
Observation for suspected mental condition	113	61	12	804	54	25	207
V codes associated with mental illness ^(f)	22	n.p.	n.p.	226	44	34	325
Total	78,898	51,324	15,125	2,263,394	71,206	34,059	866,620

(a) See category inclusions list in Appendix 1

(b) A separation is classified as having specialised care if at least one day of care was given in a specialised psychiatric unit or ward. A specialised care separation may therefore include some general care days.

(c) Cluster of disorders replicates the ABS National Survey of Mental Health and Wellbeing; see classification appendix for a detailed list of inclusions.

(d) Includes sexual deviations and disorders.

(e) Due to organic brain damage.

(f) V11, V15.4, V17.0, V40, V65.2, V66.3, V79.0, V79.1, V79.3, V79.8 and V79.9.

— Nil

n.p. Not published