1 Introduction

Purpose

The *Mental Health Services in Australia 1998–99* publication is the second in the Australian Institute of Health and Welfare's (AIHW) series of annual reports describing the characteristics and activity of Australia's mental health care services. The annual report series constitutes the data-reporting component of the Institute's National Minimum Data Sets (NMDSs) for mental health care development and data reporting project. The project provides detailed data on the characteristics and activity of mental health care services nationwide. The Mental Health Series describes the data supplied to the AIHW's National Hospital Morbidity Database (NHMD) and National Community Mental Health Establishment Database (NCMHED) by the State and Territory health authorities for the NMDSs—Mental Health Care. The report also presents data on public psychiatric hospitals and specialised psychiatric units in public acute hospitals from the National Public Hospital Establishments Database (NPHED) and the Private Health Establishments Collection (PHEC).

The AIHW's first annual report in this series, *Institutional Mental Health Services in Australia 1997–98* (AIHW: Moore et al. 2000) released data reported for the first year by States and Territories to the NHMD for the NMDS—Admitted Patient Mental Health Care. This report presents the second year of data for the NMDS—Admitted Patient Mental Health Care. The data describes the characteristics and hospital care of admitted patients who were treated in, and separated from, specialised psychiatric admitted patient services. The first report in this series presented data on all admitted patients who had a mental health diagnosis. This report focuses on admitted patients receiving specialised psychiatric care. This change in emphasis reflects the actual scope of the NMDS—Admitted Patient Mental Health Care, that is, those patients receiving specialised psychiatric care. Nevertheless, some data are presented on separations with mental health-related principal diagnoses but with no specialised psychiatric care.

This report also extends the scope of the mental health services series with the inclusion of the first year of reporting to the NCMHED for the NMDS—Community Mental Health Establishments. Data included are the staffing, expenditure and activity characteristics of the public community mental health services.

Report structure

Chapter 1 describes the background to this report, including the first and second plans of the National Mental Health Strategy. It also outlines the data sources used for this report, both those based on the NMDSs and others.

Chapter 2 summarises the available NMDS—Admitted Patient Mental Health Care data on principal diagnosis and admitted patient characteristics such as sex, age, and Aboriginal and Torres Strait Islander status.

Chapter 3 summarises the available NMDS—Admitted Patient Mental Health Care data on mental health legal status and length of stay, source of referral and mode of separation. Procedures reported to the NHMD for these episodes are also summarised.

Chapter 4 presents data on the characteristics and activity of the admitted patient and community mental health care establishments that provide specialised psychiatric care. The data are drawn from the NPHED, the PHEC, and the NCMHED.

Chapter 5 details the anticipated developments for the existing NMDSs—Mental Health Care and highlights potential areas for further development.

The appendixes provide more detailed technical notes on the data and analyses than are included in the chapters. Appendix 1 provides detailed information on the groupings of principal diagnoses for the admitted patient statistics. Appendix 2 details the Australian Refined Diagnosis Related Groups (AR-DRG) classification used in the publication. Appendix 3 provides details on the data trimming process used for the admitted patient data. Appendix 4 includes the population estimates used for population rate calculations and a summary of the indirect age-standardisation procedure used throughout the publication. Appendix 5 provides information on the introduction of International Classification of Diseases, 10th Revision, Australian Modification (ICD-10-AM) to replace the International Classification of Diseases, 9th Revision, Clinical Modification, Australian version (ICD-9-CM) used for classifying diagnoses and procedures for admitted patients. Appendix 6 provides information on the data collected for the National Survey of Mental Health Services (NSMHS) and how it compares with the data collected for the NPHED and NCMHED.

Background

Impact of mental disorders

Recent investigations into the prevalence and impact of mental disorders have found that these disorders are a significant life issue for many Australians. The 1997 National Survey of Mental Health and Wellbeing of Adults conducted by the Australian Bureau of Statistics (ABS) found that 18% of survey respondents reported that they had experienced the symptoms of a mental disorder at some time during the 12-month period before interview (ABS 1998b). Almost 10% of respondents reported experiencing symptoms of anxiety disorder. The percentage reported for affective disorders and substance use disorders were 6% and 8%, respectively.

Mental disorders have been recognised as a major burden. The *Burden of Disease and Injury in Australia* study attempted to measure and compare the burden for all diseases and injuries in Australia (AIHW: Mathers et al. 1999). The study 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 study found that mental disorders (ICD-9-CM Chapter V) were a major burden in Australia, accounting for 13% of the total DALYs in 1996. Mental disorders were the third leading cause of burden after cardiovascular diseases and cancer. They accounted for 1% of all deaths and 1% of the total years of life lost due to mortality, but were associated with 27% of the years lost due to disability. Most of this burden was attributed to affective disorders,

with 34% of the calculated burden, anxiety disorders with 23%, and substance use disorders with 13%.

Mental health care reform

The provision of mental health care has been reformed over the last few decades, with substantial changes in the way people with a mental disorder are treated. In particular, there has been a move away from segregated and custodial admitted patient 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 now spend extended periods in psychiatric hospitals; most are cared for in the community. Many of those requiring hospital admission are now short-stay patients in specialised psychiatric units of acute care hospitals.

National Mental Health Strategy

In recent years, the policy framework for enhancing mental health care nationwide has been the National Mental Health Strategy. The Strategy was endorsed by Australian Health Ministers in 1992 and commenced in 1993. The first 5 years of the Strategy built on the reforms described above that had changed the setting of care, with emphases on deinstitutionalisation and mainstreaming of mental health care. The second phase of the Strategy (1998–2003) focuses on improving the quality of care, increasing consumer participation and developing models of best practice in service delivery (DHAC 1999).

Mental health services information development

A key priority throughout the life of the first and second phases of the Strategy has been the development of consistent national data collection to ensure the availability of quality information on mental health care, for example to support and monitor the Strategy's broader objectives.

In the first 5 years, initiatives included the development of establishment surveys to monitor the reforms in mental health service delivery, surveys of the Australian population to assess the prevalence of mental disorders, and the establishment of ongoing national mental health data collections. The latter initiative has resulted in a suite of three NMDSs—Mental Health Care which are integrated into the mainstream health data collection activities undertaken under the National Health Information Agreement.

The AIHW has been responsible for the development of the three NMDSs—Mental Health Care and associated data collection strategies, as part of the National Health Information Work Program. The work is funded under the National Mental Health Strategy and undertaken 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 (ISC) of the NMHWG provides expert subject matter advice on data development and collection. The ISC refers detailed data collection issues to its NMDS subcommittee for in-depth consideration and advice. Based on advice from the ISC, additions and revisions of the NMDSs—Mental Health Care are approved each year by the National Health Information Management Group (NHIMG) and included in the AIHW National Health Data Dictionary (NHDD) and Knowledgebase.

Information-related issues remain a priority in the second 5 years of the Strategy and have been formally documented in *Mental Health Information Development: National Information Priorities and Strategies under the Second National Mental Health Plan 1998–2003* (DHAC 1999).

Data sources

This report used data drawn from a number of different data sources. These data sources included the NHMD and the NCMHED (which include data reported for the NMDSs—Mental Health Care), the NHPED and the PHEC. The characteristics of each data source are outlined below with a description of their relative strengths and weaknesses.

National Hospital Morbidity Database (NHMD)

The NMDS—Admitted Patient 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 care received is thus referred to as 'specialised'. The separations covered in the NMDS—Admitted Patient Mental Health Care are, in effect, a subset of those covered by the NMDS—Admitted Patient Health Care, which is compiled by the AIHW as the NHMD and covers all admitted patients in all hospitals.

An NMDS for admitted patient mental health care was first proposed by the ISC in 1995 and was originally based on the NMDS—Institutional Health Care (now the NMDS—Admitted Patient Care). Initially two new data elements, *Mental health legal status* and *Total psychiatric care days* were agreed for collection from 1 July 1996, alongside the existing NMDS. A separate data set for admitted patient mental health care was endorsed for collection from 1 July 1997.

The NHMD is a compilation of electronic summary records collected in admitted patient morbidity data collections in Australian hospitals. Data relating to admitted patients in almost all hospitals are included. Records for 1998–99 are for hospital separations (discharges, transfers, deaths or changes in type of episode of care) in the period from 1 July 1998 to 30 June 1999. Data on patients who were admitted on any date before 1 July 1999 are included, provided that they separated between 1 July 1998 and 30 June 1999. 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.

Patients in specialised mental health care are identified through recording the number of psychiatric care days, i.e. the number of days or part days where care was received in a specialised psychiatric unit or ward. When a separation has been reported as including psychiatric care day(s), it is identified for inclusion in the specialised mental health subset. Thus the extent to which full and accurate coverage of the NMDS is achieved depends on the accurate reporting for each admitted patient episode of the data element *Total psychiatric care days*.

In acute care hospitals, a 'specialised' episode of care or separation may comprise some psychiatric care days (care in a specialised psychiatric ward) and some days in general care, or psychiatric care days only. An episode of care from a public psychiatric hospital is deemed to comprise psychiatric care days only and to be 'specialised', unless some care was given in a unit other than a psychiatric unit, such as a drug and alcohol unit. There are several other data elements that are collected only for patients who have received specialised psychiatric care, and these are shown in Table 1.1.

Table 1.1: Data elements[a] that constitute the NMDS—Admitted Patient Mental Health Care for 1998–99

Data element	Specific to specialised mental health care	Knowledgebase[b] identifier
Identifiers		
Establishment identifier (made up of)		000050
State identifier		000380
Establishment sector		000379
Region code		000378
Establishment number		000377
Person identifier		000127
Sociodemographic items		
Sex		000149
Date of birth		000036
Country of birth		000035
Aboriginal and Torres Strait Islander status		000001
Marital status	✔	000089
Employment status	✔	000317
Area of usual residence		000016
Pension status—psychiatric patients	✔	000121
Type of usual accommodation	✔	000173
Service and administrative items		
Type of episode of care		000168
First admission for psychiatric treatment	✔	000139
Admission date		000008
Separation date		000043
Total leave days		000163
Mode of separation		000096
Source of referral to psychiatric hospital	✔	000150
Referral to further care (psychiatric patients)	✔	000143
Total psychiatric care days	✔[c]	000164
Mental health legal status	✔[c]	000092
Clinical items		
Principal diagnosis		000136
Additional diagnosis		000005
Diagnosis Related Group		000042
Major Diagnostic Category		000088
Intended length of stay		000076

(a) All data elements are defined in the *National Health Data Dictionary*, Version 7.0 (NHDC 1998).

(b) The Knowledgebase: Australia's Health, Community Services and Housing Metadata Registry can be accessed through the AIHW web site at www.aihw.gov.au.

(c) Collected for all patients but relevant only to specialised psychiatric care.

Quality of admitted patient data

This section presents some general notes from *Australian Hospital Statistics 1998–99* (AIHW 2000) and other comments specific to the NMDS—Admitted Patient Mental Health Care that should be used to guide interpretation of the hospital morbidity data presented in this report. Additional notes are provided in the descriptive commentary throughout this report highlighting data quality and interpretation issues in specific instances. For greater detail on the scope, definitions and quality of data obtained from the NHMD, refer to *Australian Hospital Statistics 1998–99.*

Separation data from the NHMD can reflect an aspect of the burden of disease in the community but they are not a measure of the incidence or prevalence of specific disease conditions. This is because not all persons with an illness are treated in hospital and the number and pattern of hospitalisations can reflect admission practices, regional differences in service provision, and multiple admissions for some chronic conditions.

The quality of reporting by States and Territories to the NHMD may be affected by variations from the *National Health Data Dictionary* (NHDD) definitions and differences in scope. The definitions used for originally recording 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.

Each State and Territory has a particular demographic structure that differs from other jurisdictions. Factors such as the geographic spread of the population and the proportion of Aboriginal and Torres Strait Islander peoples can have a substantial effect on the delivery of admitted patient health care.

Jurisdictions also differ in admission practices and this can affect comparability across States and Territories. For example, in New South Wales, Queensland, Western Australia, South Australia and Tasmania specialised psycho-geriatric units are included within the admitted patient setting, while in the Territories these patients are cared for in a community setting and are only enumerated as admitted patients if they spend some time in a psychiatric ward. Another example of jurisdictional differences is the practice in Western Australia of admitting patients for same day group therapy sessions. This is not common in other jurisdictions.

The staggered implementation of ICD-10-AM resulted in the provision of 1998–99 data to AIHW's NHMD in ICD-9-CM by four jurisdictions and in ICD-10-AM by the remaining four jurisdictions. For *Australian Hospital Statistics 1998–99* and other uses of the database including this report, AIHW mapped the data reported in ICD-9-CM to ICD-10-AM so that national data could be presented in a single classification. For detail on this mapping, refer to Appendix 5.

Western Australia was unable to report *Total psychiatric care days* for the 1998–99 period and instead supplied a flag indicating separations that had one or more days in specialised psychiatric care. For this reason, the number of days spent in specialised psychiatric care for each separation in Western Australia was allocated a value of zero for public acute and private hospitals, and was made equivalent to the number of patient days for public psychiatric hospitals. This means that, while the number of separations with specialised psychiatric care is accurate, the count of psychiatric care days for Western Australia and nationally are underestimated in this respect.

The proportion of separations with a mental health principal diagnosis that were reported as receiving specialised psychiatric care rose from 55.3% to 65.5% between 1997–98 and

1998–99. It is unlikely that this increase has occurred due to changes in hospital admission practices. A more likely explanation is that there have been improvements in the recording of the data element *Total psychiatric care days*. Improved recording of these data, such as the reporting of *Total psychiatric care days* for Western Australian public acute hospitals, should reduce the proportion of separations with a mental health principal diagnosis but no specialised psychiatric care and would increase the proportion of separations with a mental health principal diagnosis and specialised psychiatric care.

Table 1.2: Summary of data provided to the NHMD for the NMDS—Admitted Patient Mental Health Care for 1998–99

Data element	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Missing or not stated(%)
Total psychiatric care days	✔	✔	✔	✔ (a)	✔	p.h.o.	✔	p.h.o.	. .
Aboriginal and Torres Strait Islander status	✔	✔	✔	✔	✔	✔	✔	✔	7.2
Age and sex	✔	✔	✔	✔	✔	✔	✔	✔	< 0.01
Area of usual residence	✔	✔	✔	✔	✔	✔	✔	✔	< 2.0
Country of birth	✔	✔	✔	✔	✔	✔	✔	✔	< 0.01
Employment status	✖	p.p.o.	✔	✖	p.h.o.	✔	p.h.o.	✔	74.2
First admission to psychiatric care	✔	p.p.o.	✔	p.p.o.	p.h.o.	✖	p.h.o.	✖	43.2
Marital status	p.h.o.	✔ (b)	✔	✔	p.h.o.	✔	✔	✔	17.8
Mental health legal status	p.h.o.	p.h.o.	✔	✔	✔	✔	p.h.o.	✖	19.2
Mode of separation	✔	✔	✔	✔	✔	✔	✔	✔	1.1
Pension status	p.h.o.	p.h.o.	✔	✖	p.h.o.	✔	p.h.o.	✖	78.3
Principal & additional diagnoses	✔	✔	✔	✔	✔	✔	✔	✔	0.5
Referral to further care (psychiatric patients)	p.h.o.	p.p.o.	✔	p.p.o.	p.h.o.	✖	✔	✖	53.0
Source of referral to public psychiatric hospital	✔	✔	✔	✔	✔	✔	✔	✔	2.2
Type of episode	✔	✔	✔	a.h.o.	✔	✔	✔	✔	1.9
Type of usual accommodation	✖	p.p.o.	✔	✖	p.h.o.	✖	✔	✖	75.4

Abbreviations:

✖ not supplied
✔ supplied

a.h.o. supplied for acute care hospitals only
p.h.o. supplied for public hospitals only
p.p.o. supplied for public psychiatric hospitals only

(a) Flag supplied for all hospital types; number of psychiatric care days supplied for public psychiatric hospitals only.
(b) Poor data quality.

States and Territories have confirmed that all public hospitals (except public acute hospitals in Western Australia) with specialised psychiatric facilities have reported psychiatric care days to the NHMD for 1998–99. The private hospital coverage for 1998–99 has improved upon last year' coverage, with the proportion of separations with a mental health principal diagnosis receiving specialised psychiatric care rising from 67.8% in 1997–98 to 72.0% in 1998–99 (these figures exclude Western Australian separations). There remains a small proportion of private hospitals that do not report to the NHMD, which means that the number of specialised psychiatric private hospital separations presented in this report may be an underestimate. This discrepancy is described in detail in *Australian Hospital Statistics 1998–99*.

Some jurisdictions, or sectors within jurisdictions, were unable to provide data for all the required data elements. Table 1.2 provides a summary of the data provision by jurisdiction for each data element in the NMDS—Admitted Patient Mental Health Care for 1998–99. Data quality was deemed too poor for publication if the total number of separations with either missing data or 'not stated' in a data element exceeded 50%. Using this criterion, data for the *Type of usual accommodation, Employment status, Pension status* and *Referral to further care (psychiatric patient)* data elements were not included in this report.

National Community Mental Health Establishments Database

The data elements for the NMDS—Community Mental Health Establishments were agreed for collection from July 1998 and are presented in Table 1.3. Data are collected on the number of establishments, expenditure and staffing. For residential facilities, data on beds and 'separations' are also collected. Within this NMDS, the term 'separation' refers to episodes of non-admitted patient residential care in community-based residential services.

The data collected through the NMDS—Community Mental Health Establishments is collated in the National Community Mental Health Establishments Database (NCMHED). Community mental health care refers to all specialised mental health services dedicated to the assessment, treatment, rehabilitation or care of non-admitted patients. The scope is both residential and ambulatory public community mental health care establishments, both adult and adolescent and child community mental health services and non-admitted services in hospitals such as specialised psychiatric outpatient services. The scope excludes admitted patient mental health care services, support services that are not specialised mental health care services (e.g. accommodation support services), services provided by non-government organisations and residential care services that are not staffed 24 hours per day.

The *Total full-time-equivalent staff* and the *Total salaries and wages* data elements do not include the identification of expenditure in the nine staffing subcategories included in the NMDS—Public Hospital Establishments (e.g. *Registered nurses*, *Diagnostic and health professionals, Administrative and clerical staff*). Similarly, the *Non-salary operating costs* data element does not include the identification of expenditure in the subcategories included in that NMDS (e.g. *Superannuation employer contributions, Medical and surgical supplies*). The one exception is the *Payments to visiting medical officers* data element which has been agreed for inclusion, but not yet fully implemented for the NCMHED. Where available, jurisdictions are encouraged to supply data for the absent subcategories, but it is not an agreed component of the NMDS.

Table 1.3: Data elements[a] that constitute the NMDS—Community Mental Health Establishments for 1998–99

Data element	Knowledgebase[b] identifier
Establishment identifier (made up of)	000050
State identifier	000380
Establishment sector	000379
Region code	000378
Establishment number	000377
Separations[c]	000205
Geographic location of establishment	000260
Number of available beds	000255
Total full-time-equivalent staff	000252
Total salaries and wages	000254
Total non-salary operating costs	000360
Payments to visiting medical officers	000236

(a) All data elements are defined in the *National Health Data Dictionary*, Version 7.0 (NHDC 1998).

(b) The Knowledgebase: Australia's Health, Community Services and Housing Metadata Registry can be accessed through the AIHW web site at www.aihw.gov.au.

(c) The term 'separations' refers to the number of non-admitted patient separations for community residential mental health care establishments.

Other data sources

In addition to the databases including data specified as the NMDSs—Mental Health Care, a number of other data sources provide national data on mental health service delivery. Data from the PHEC and the NPHED have been used in this report to provide more complete coverage. The characteristics of each of these data sources are reviewed below with a brief comparison with the databases based on the NMDSs—Mental Health Care.

National Public Hospital Establishments Database (NPHED)

The AIHW is the data custodian of the NPHED, which holds a record for each public hospital in Australia. It is collated by State and Territory health authorities from the routine administrative collections of public acute hospitals, psychiatric hospitals, drug and alcohol hospitals and dental hospitals in all States and Territories. The database does not include private hospital data, which are collated by the ABS in the PHEC.

The collection covers only hospitals within the jurisdiction of the State and Territory health authorities. Hence, public hospitals not administered by the State and Territory health authorities (e.g. some hospitals run by correctional authorities in some jurisdictions and those in off-shore territories) are not included.

Information is included on hospital resources (beds, staff and specialised services), recurrent expenditure, non-appropriation revenue and summary information on services to admitted patient and non-admitted patients. Limitations have been identified in the financial data reported to the NPHED. In particular, some States and Territories have not yet fully implemented accrual accounting procedures and systems which means the expenditure and revenue data are a mixture of expenditure/payments and revenue/receipts, respectively. A need for further development has been identified in the areas of capital expenditure,

expenditure at the area health service administration level and group services expenditure (e.g. central laundry and pathology services). Refer to *Australian Hospital Statistics 1998–99* for further detail on the data quality for the NPHED (AIHW 2000).

Unlike the NCMHED, the NPHED does include the data for *Total full-time-equivalent staff*, *Total Salaries and wages* and the *Total non-salary operating costs* subcategory data elements for public psychiatric hospitals. No financial or staffing data are available for specialised psychiatric wards in acute hospitals, as these are not separately identified. Refer to Chapter 5 for a presentation of the potential developments to improve the amount of information available for admitted patient mental health care services.

Private Health Establishments Collection (PHEC)

The ABS conducts an annual census of all private acute hospitals and private psychiatric hospitals licensed by State and Territory health authorities and all free-standing day hospital facilities approved by the DHAC. The collection contains data on the staffing, finances and activity of these establishments. Differences in accounting policy and practices and the administration of property and fixed asset accounts by parent organisations may have resulted in some inconsistencies in the financial data (ABS 2000).

The data from PHEC have been used in this report to complete coverage and provide a point of comparison for the public hospital data obtained from the NPHED. The data definitions used in the PHEC are largely based on definitions in the *National Health Data Dictionary*, Version 7.0 (NHDC 1998), which makes the comparisons between the collections possible. The ABS definition for private psychiatric hospitals is 'those establishments that are licensed/approved by each State or Territory health authority and cater primarily for admitted patients with psychiatric or behavioural disorders'. The term 'cater primarily' applies when 50% or more of total patient days are for psychiatric patients.

Additional information on the PHEC can be obtained from the annual ABS publication on private hospitals (ABS 2000).

National Survey of Mental Health Services (NSMHS)

The NSMHS is an annual collection of establishment-level data from publicly funded hospital and community mental health care services across all States and Territories. Information is included on hospital and community mental health care resources (beds, staff and specialised services), recurrent expenditure and summary information on services provided. The NSMHS is conducted under the auspice of the NMHWG and has provided data for annual performance monitoring for the National Mental Health Strategy over the last 6 years. Summary data from the NSMHS is reported annually in the *National Mental Health Report* series (DHAC 2000). The development and implementation of establishment-level NMDSs for mental health care will essentially overtake the role of the NSMHS. The NSMHS will remain an important source of data on the mental health services in earlier years. Information on the similarities and differences in the data from the NSMHS and data from the NPHED and NCMHED is presented in Appendix 6.

This report and data on the Internet

This report is available on the Internet in PDF format at www.aihw.gov.au. Some of the national data on admitted patients are also available in an interactive data cube format at that site. Users can access this database to create customised tables based on the age group,

sex, principal diagnosis, and mental health legal status of patients with specialised psychiatric care.