

# Appendix 1: Data sources

In order to present a broad picture of mental health-related care in Australia, this report uses data drawn from a variety of sources. These data sources include AIHW databases such as the National Hospital Morbidity Database (NHMD), the National Public Hospital Establishments Database (NPHEd) and the National Community Mental Health Establishments Database (NCMHED), for which data were supplied under the National Health Information Agreement and specified in the National Minimum Data Sets (NMDSs) for Mental Health Care in the *National health data dictionary*, Version 13 (HDSC 2006).

This report also presents data from other AIHW data collections such as the AIHW labour force surveys, the Bettering the Evaluation and Care of Health (BEACH) survey of general practice activity, the Supported Accommodation Assistance Program (SAAP) National Data Collection and the Commonwealth State/Territory Disability Agreement (CSTDA) National Minimum Data Set collection.

Data from collections external to the AIHW were also used, including the Australian Bureau of Statistics' Private Health Establishments Collection (PHEC) and the Department of Health and Ageing's Medicare, Pharmaceutical and Repatriation Pharmaceutical Benefits Schemes (MBS, PBS and RPBS) data collections.

The characteristics of each of the data sources used in this report should to be considered when interpreting the data. The data sources used in this report are briefly described below.

## **AIHW labour force surveys: Medical Labour Force Survey, Nursing and Midwifery Labour Force Survey and Psychology Labour Force Survey (Chapter 13)**

The AIHW Medical Labour Force Survey and the Nursing and Midwifery Labour Force Survey are conducted by the state and territory departments of health with the cooperation of the medical and nursing registration boards in each jurisdiction, and in consultation with the AIHW. The AIHW is the data custodian for these national collections and is responsible for collating, editing and weighting the survey data.

The Medical Labour Force Survey is a census of all registered medical practitioners in each state and territory in Australia. The Nursing and Midwifery Labour Force Survey is a census of all registered nurses and midwives in each state and territory in Australia. The surveys are a mail-out survey conducted in association with the annual registration renewal process. The Medical Labour Force Survey has been conducted annually since 1993. The Nursing and Midwifery Labour Force Survey was conducted every 2 years from 1995 to 2003, and annually since then.

In the surveys, information on demographic details, main areas and specialty of work, qualifications and hours worked are collected from registered professionals. The data collected generally relate to the 4 weeks before the survey for medical practitioners and to the week before the survey for nurses. Average weekly hours worked refers to average total hours worked per week in the main, second and third medical job for medical practitioners, and the main and second nursing jobs for nurses.

Survey responses are weighted by state, age and sex (and the number of registered and enrolled nurses for nursing) to produce state and territory and national estimates of the total

medical and nursing and midwifery labour force. Benchmarks for weighting come from registration information provided by state and territory registration boards.

The response rates to these surveys vary from year to year and across jurisdictions. While the response rate for the Medical Labour Force Survey has stayed fairly stable over the 5 years to 2004, there has been a decline in the response rate for the Nursing and Midwifery Labour Force Survey from 78.1% in 1999 to 59.8% in 2004. In 2004, the estimated national response rate for the Medical Labour Force Survey was 71.4%, and it ranged from 43.8% in the Northern Territory to 87.5% in Queensland. For the Nursing and Midwifery Labour Force Survey, in 2004 the overall response rate was 59.8%, ranging from 35.1% in the Northern Territory and 37.7% in Western Australia to 71.2% in South Australia and 71.1% in the Australian Capital Territory.

It should also be noted that, for both surveys (although more so for the nursing than for the medical survey), the questionnaires have varied over time and across jurisdictions. Mapping of data items has been undertaken to provide time series data. However, because of this and the variation in response rates, some caution should be used in interpreting change over time and differences across jurisdictions. This is particularly the case for mental health nurses, as the definition of these is reliant on the responses to one particular question within the questionnaire.

More detailed information about how these surveys were conducted is available from the *Medical labour force 2004* (AIHW 2006f) and *Nursing and midwifery labour force 2004* (AIHW 2006g).

The AIHW Psychology Labour Force Survey was conducted in 2003 using a similar methodology to the Medical and Nursing and Midwifery Labour Force Surveys. However, only five jurisdictions participated in the AIHW Psychology Labour Force Survey (namely, New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory). Registered psychologists in each of the participating states and territory were surveyed at the time of registration renewal. The data generally relate to the week before the survey. Average weekly hours worked refers to average total hours worked per week in the main and second psychology job.

The overall response rate for the five jurisdictions was 55.7%, although it ranged from a low of 29.5% in Victoria to 76.1% in New South Wales. Queensland did not report on the sex of respondents. Survey data have been weighted, using registration data, to produce estimates of the total psychology labour force in participating jurisdictions. The latest information on this survey is published in *Psychology labour force 2003* (AIHW 2006h).

The AIHW labour force survey data presented in this report are estimates, based on weighted responses. As a result, row and column numbers may not add to totals due to rounding.

### **Australian Bureau of Statistics Labour Force Survey (Chapter 13)**

The ABS Labour Force Survey was first run in 1960 and is the basis for official estimates of employment and unemployment in Australia. It is based on a multi-stage area sample of private dwellings (currently about 30,000 houses and flats) and a list sample of non-private dwellings (for example, hotels and motels), and covers about 0.45% of the population of Australia. Information is obtained from the occupants of selected dwellings by trained interviewers. The ABS Labour Force Survey collects a wide range of information on both employed and unemployed people. All information, including occupation, is self-reported by respondents. The information about employment relates to the week before the interview.

ABS Labour Force Survey estimates are calculated in such a way as to add up to independent estimates of the civilian population aged 15 years and over (that is, population benchmarks). The ABS Labour Force Survey is based on a sample of households and, as a result, is subject to sampling variability and relatively large standard errors for small populations and occupations. As this limitation applies to psychologists, the level of disaggregation possible with these data is limited.

Descriptions of the sources and methods used in compiling the estimates from the ABS Labour Force Survey are available from *Labour Statistics: Concepts, Sources and Methods* (ABS 2006a).

## **Bettering the Evaluation and Care of Health survey (Chapter 2)**

The BEACH survey of general practice activity is a collaborative study between the AIHW and the University of Sydney. For each year's data collection, a random sample of about 1,000 general practitioners each report details of 100 consecutive general practice encounters of all types on structured encounter forms. Each form collects information about the consultations (for example, date and type of consultation), the patient (for example, date of birth, sex, and reasons for encounter), the problems managed and the management of each problem (for example, treatment provided, prescriptions and referrals). Data on patient risk factors, health status and general practitioner characteristics are also collected.

Additional information on the 2003–04 BEACH survey can be obtained from *General practice activity in Australia 2003–04* (Britt et al. 2004).

## **Commonwealth State/Territory Disability Agreement National Minimum Data Set collection (Chapter 10)**

Data pertaining to the CSTDA are collected through the CSTDA National Minimum Data Set (NMDS). This NMDS, which is managed by the AIHW, facilitates the annual collation of nationally comparable data about CSTDA-funded services. Services within the scope of the collection are those for which funding has been provided during the specified period by a government organisation operating under the CSTDA. A funded agency may receive funding from multiple sources. Where a funded agency is unable to differentiate service users according to funding source (that is, CSTDA or other), they are asked to provide details of all service users.

With the exceptions noted below, agencies funded under the CSTDA are asked to provide information about:

- each of the service types they are funded to provide (that is, service type outlets they operate);
- all service users who received support over a specified period; and
- the CSTDA NMDS service type(s) the service users received.

However, certain service type outlets – such as those providing advocacy or information and referral services – are not requested to provide any service user details while other service type outlets (such as recreation and holiday programs) are only asked to provide minimal service user details.

The 2003–04 collection was the first full financial year of data available, with an overall service type outlet response rate of 93%. The data were reported in *Disability support services 2003–04* (AIHW 2005a). The most recent data available is for the 2004–05 collection period

were released in *Disability support services 2004–05* (AIHW 2006c). For the 2004–05 collection, there was an overall service type outlet response rate of 94%.

The collection includes those disability support service providers that receive funding under the CSTDA, including psychiatric-specific disability service providers, as well as other disability service providers that may be accessed by persons with a psychiatric disability. It should be noted that the CSTDA does not apply to the provision of services with a specialist clinical focus. In addition, the collection does not include psychiatric-specific disability support services that are not funded through the CSTDA.

There is some variation between jurisdictions in the services included under the CSTDA as follows:

- In New South Wales, psychiatric-specific disability services are provided by the New South Wales Department of Health and are not included in the CSTDA NMDS collection.
- In Victoria, psychiatric-specific disability services are included in the CSTDA NMDS collection.
- In Queensland, psychiatric-specific disability services that receive CSTDA funding through Disability Services Queensland are included in the CSTDA NMDS collection.
- In Western Australia, only some psychiatric disability services are included in the CSTDA NMDS collection. The health department is the main provider of services for people with a psychiatric disability and these services are not included.
- Tasmania, the Australian Capital Territory and the Northern Territory do not include any services classified as ‘psychiatric disability services’. However, these jurisdictions do provide ‘mental health services’. There appears to be no sharp distinction between what is classified as a ‘psychiatric disability service’ and a ‘mental health service’, with some mental health services providing support to people with psychiatric disability.

## **Medicare data (Chapter 6)**

Medicare Australia (formerly known as the Health Insurance Commission) collects data on the activity of all providers that make claims through the Medicare Scheme and it provides this information to DoHA. Information collected includes the type of service provided (Medicare item number) and the benefit paid by Medicare for the service. The item number and benefits paid by Medicare are based on the *Medicare Benefits Schedule Book* (DoHA 2006b).

The Medicare data presented in this report refer only to services that were performed by a recognised psychiatrist (with the exception of ECT, which can be claimed by medical practitioners other than psychiatrists) qualified for a Medicare benefit, and for which a claim was processed by Medicare Australia in the reporting period. They relate to services provided on a ‘fee-for-service’ basis for which Medicare benefits were paid.

Services that are not included in Medicare are not included in the data.

Under the Better Access to Psychiatrists, Psychologists and General Practitioners through the Medicare Benefits Schedule initiative announced by the Commonwealth Government in 2006, new mental health-related Medicare items were introduced to the MBS (items 296–299) in November 2006 (DoHA 2006a). These are not included in this report as the latest time period for which data are reported is 2005–06.

In the Medicare data, the state or territory is determined according to the postcode of the patient’s mailing address at the time of making the claim. In some cases, this will not be the same as the postcode of the patient’s residential address. The year is determined from the

date the service was processed by Medicare Australia, rather than the date the service was provided.

### **Mental health-related emergency department data (Chapter 3)**

While there is no national agreement on the collection of information on mental health-related services provided by emergency departments in hospitals in Australia, states and territories agreed to provide the AIHW with aggregate data to compile national information on mental health-related occasions of service provided by emergency departments in public hospitals.

All state and territory health authorities collect a core set of nationally comparable information on most of the emergency department occasions of service in public hospitals within their jurisdiction. This episode-level data are compiled annually by the AIHW to form the National Non-admitted Patient Emergency Department Care Database (NAPEDCD) (AIHW 2006b). The data are collected by state and territory health authorities according to definitions in the NAPEDC National Minimum Data Set (NMDS) and cover occasions of service provided in emergency departments of public hospitals categorised in the previous financial year as peer groups A (that is, principal referral and specialist women's and children's hospitals) and B (large hospitals). For 2004–05, data were also collected by some states and territories for hospitals in peer groups other than A and B.

The total number of emergency department occasions of service for all public hospitals in 2004–05 was 5,993,248. Episode-level data were collected by state and territory health authorities departments for 76% of these occasions of service (a total of 4,529,412 occasions of service) (AIHW 2006b:99). Episode-level data were available for 99% of all emergency department occasions of service for public hospitals in peer groups A and B, and approximately 26% of emergency department occasions of service for other public hospitals.

#### **Definition of mental health-related emergency department occasions of service**

While, as noted above, there is a national data compilation of episode-level data on emergency department occasions of service (the NAPEDCD), there is currently no national agreement to collect information on the principal diagnosis for emergency department occasions of service. In addition, there is no standard or agreed classification for diagnoses in use across emergency departments that could be used uniformly to identify mental health-related care, or any other data item (such as, based on referral, reason for the occasion of service, intentional self-harm codes, mental health flags) that is collected in a nationally consistent manner that would allow for the identification of mental health-related occasions of service in emergency departments. Thus, it is difficult to identify and report on mental health-related emergency department occasions of service in a comparable manner across jurisdictions.

However, in 2004–05, all jurisdictions did collect some information on the principal diagnosis of an estimated 93% of emergency service department occasions of service for which they reported episode-level data to the NAPEDCD. As a result, it was determined that a definition of 'mental health-related' based on the collected diagnosis information could be applied nationally, for the purposes of compiling data for this publication.

Data on mental health-related emergency department occasions of service reported in Chapter 3 of this report have been provided by the state and territory health authorities according to the following definition: 'occasions of service in public hospital emergency

departments that have a principal diagnosis of ‘Mental and behavioural disorders’ (i.e., codes F00–F99) in ICD-10-AM or the equivalent codes in ICD-9-CM’.

This definition does not capture all mental health-related presentation to emergency departments and the caveats listed below should be taken into consideration when interpreting the data presented on mental health-related emergency department occasions of service.

Most jurisdictions had coded the principal diagnosis of emergency department occasions of service in 2004–05 using ICD-10-AM. However, ICD-9-CM was used for emergency department occasions of service reported in South Australia, and for some of those in New South Wales. A mapping of the relevant ICD-10-AM codes to ICD-9-CM codes was undertaken to assist those states using ICD-9-CM to provide data (Table A1.1).

Aggregate data on the demographic characteristics of the patients, the triage category, departure status and the diagnosis category were provided by all states and territories to AIHW for occasions of service that met the definition of a mental health-related occasion of service.

**Table A1.1: Mental health-related emergency department occasions of service, principal diagnosis codes included, ICD-10-AM and ICD-9-CM**

ICD-10-AM <sup>(a)</sup> codes	ICD-9-CM <sup>(b)</sup> codes
F00–F09: Organic, including symptomatic, mental disorders	290, 293, 294, 310
F10–F19: Mental and behavioural disorders due to psychoactive substance use	291, 292, 303, 304, 305 (excl. 305.8 and 305.9)
F20–F29: Schizophrenia, schizotypal and delusional disorders	295, 297, 298 (excl. 298.0, 298.1, 298.2), 301.22
F30–F39: Mood (affective) disorders	296, 298.0, 298.1, 300.4, 301.1, 311 2982, 300 (excl. 300.4, 300.19), 306 (excl. 306.3, 306.51, 306.6), 307.53, 307.80, 307.89, 308, 309 (excl. 309.21, 309.22)
F40–F48: Neurotic, stress-related and somatoform disorders	
F50–F59: Behavioural syndromes associated with physiological disturbances and physical factors	302.7, 305.8, 305.9, 306.3, 306.51, 306.6, 307.1, 307.4, 307.5 (excl. 307.53), 316, 648.44
F60–F69: Disorders of adult personality and behaviour	300.19, 301 (excl. 301.1, 301.22), 302 (excl. 302.7), 312.3
F70–F79: Mental retardation	317, 318, 319
F80–F89: Disorders of psychological development	299, 315, 330.8
F90–F98: Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	307.0, 307.2, 307.3, 307.6, 307.7, 307.9, 309.21, 309.22, 312 (excl. 312.3), 313, 314
F99: Unspecified mental disorder	—

(a) International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification.

(b) International Classification of Diseases, 9th revision, Clinical Modification.

## Caveats

To ensure that the data on emergency department mental health-related occasions of service are interpreted correctly, the following should be noted:

- there is no nationally agreed-upon method of identifying mental health-related occasions of service in emergency departments;
- there is no standard diagnosis classification in use across states and territories in relation to emergency department data;

- there is no standard way to disaggregate those occasions of service identified as mental health-related into subcategories of mental health conditions; and
- not all potential mental health-related emergency department occasions of service are represented in the data, for the following reasons:
  - not all emergency department occasions of service are collected by state and territory authorities at the episode-level;
  - not all occasions of service episode-level data collected by state and territory authorities include diagnosis information;
  - the principal diagnosis codes included in the definition do not cover all mental health-related conditions; and
  - the mental health-related condition or illness may not have been coded as the diagnosis, if it was either not diagnosed by the emergency department or was not recognised as a reason for presentation at an emergency department.
  - The definition is based on a single diagnosis only. As a result, if a mental health-related condition was reported as a second or other diagnosis and not as the 'principal diagnosis', the occasion of service will not be included as mental health-related.

It should also be noted that the data refer to occasions of service and not to individuals. An individual may have had multiple occasions of service within the same year.

### **Coverage**

As noted above, episode-level data were available for 76% of public hospital emergency department occasions of service for public hospitals in 2004–05, and that these data are mainly from the larger metropolitan hospitals (Table A1.2). Of the data available on emergency department occasions of service, it is estimated that 93% had a diagnosis code. Using these figures, and assuming that mental health-related occasions of service are evenly distributed, it can be roughly estimated that the number of mental health-related occasions of service reported in this publication represents around 70% of all public hospital emergency department mental health-related occasions of service as defined above. Taking this into account, the actual number of such occasions of service would be closer to 190,000 than the reported 133,403 (Table A1.2).

In addition, it should be noted that coverage of the data are biased toward the larger metropolitan emergency departments; mental health-related occasions of service in smaller rural hospitals may differ from those in the larger metropolitan hospitals.

**Table A1.2: Emergency department occasions of service in public hospitals, estimated coverage and estimated actual number, states and territories, 2004–05**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Estimated % of total public hospital emergency department occasions of service with episode-level data for the following hospital groups: <sup>(a)</sup>									
Peer group A&B <sup>(b)</sup>	100	100	98	97	100	99	100	100	99
Other hospitals	32	40	0	32	22	0	n.a.	100	26
<b>Total estimated %</b>	<b>76</b>	<b>88</b>	<b>64</b>	<b>68</b>	<b>68</b>	<b>84</b>	<b>100</b>	<b>100</b>	<b>76</b>
Estimated % of occasions of service reported at episode-level that have a principal diagnosis code <sup>(c)</sup>	95	95	100	71	86	100	83	92	93
Estimated % of total emergency department occasions of service with a principal diagnosis <sup>(d)</sup>	72	83	64	48	58	84	83	92	70
Number of emergency department occasions of service with a 'mental health-related' principal diagnosis <sup>(e)</sup>	48,223	28,757	21,393	10,114	15,426	4,539	2,248	2,703	133,403
Estimated actual number of emergency department occasions of service with a 'mental health-related' principal diagnosis <sup>(f)</sup>	67,000	34,000	33,000	21,000	26,000	5,000	3,000	3,000	190,000

(a) The proportion of all occasions of service in emergency departments in public hospitals in 2004-05 that are reported at episode-level to the NAPEDCD.

(b) Peer group A: Principal referral and specialist women's and children's hospitals; Peer group B: Large hospitals.

(c) The proportion of emergency department occasions of service reported at episode-level to the NAPEDCD that had a diagnosis. Total is estimated based on state and territory proportions and numbers.

(d) Calculated by multiplying the total % of all occasions of service in emergency departments in public hospitals in 2004–05 that are reported at episode-level to the NAPEDCD by the % of emergency department occasions of service reported at episode-level to the NAPEDCD that had a diagnosis (divided by 100).

(e) Number of 'mental health-related emergency department occasions of service' as defined for the purposes of this publication, and provided by state and territory health authorities.

(f) Estimate of the actual number of 'mental health-related emergency department occasions of service', as defined for the purposes of this publication, if coverage were 100 per cent.

n.a. Not available.

Source: Data provided by state and territory health authorities, AIHW 2006.

### Additional data on mental health-related emergency department occasions of service

Because the above definition does not identify all possible mental health-related occasions of service in emergency departments, jurisdictions were asked to provide additional data, if possible, according to the following two definitions:

Definition 2: Other emergency department occasions of service that were coded as related to intentional self-harm (or attempted suicide), excluding those captured under the main definition and those that only had a flag for previous intentional self-harm.

Definition 3: Other emergency department occasions of service that could be considered to be mental health-related, excluding those captured under the main or second definition.

As only one-half of the jurisdictions could provide data under definition 2 or 3, and the actual specifications used to extract the data varied across those jurisdictions, the additional data are not published in the main body of this report. However, the following information provided by Victoria is presented as an indication of the relative number of emergency

department occasions of service that could be considered 'mental health-related' under these broader definitions. These are in addition to the 28,757 occasions of service reported by Victoria under the main definition.

**Definition 2:** Victoria reported 6,517 occasions of service in 2004–05 based on the most likely role of human intent in the occurrence of an injury or poisoning being self-harm (as assessed by a clinician). These were in addition to any self-harm occasions of service that also had a principal diagnosis of 'Mental and behavioural disorders' (ICD-10-AM codes F00–F99) and thus already included under the main definition.

**Definition 3:** Victoria reported 5,153 occasions of service identified as those that had a diagnosis of 'Mental and behavioural disorders' (ICD-10-AM codes F00–F99) in the second or third diagnosis, or had a diagnosis code of 'General psychiatric examination requested by authority' (ICD-10-AM code Z04.6) or 'Personal history of self-harm' (ICD-10-AM code Z91.5) recorded. These occasions of service were in addition to those captured under the main and second definitions.

## **National Aboriginal and Torres Strait Islander Health Survey (Chapter 1)**

The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) is a health survey of Indigenous Australians conducted by the ABS on a sample of 10,439 persons (or about one in 45 of the total Indigenous population). The survey was conducted in remote and non-remote areas throughout Australia, with the purpose of collecting a range of information from Indigenous Australians about health-related issues.

The 2004–05 NATSIHS collected data on the social and emotional wellbeing of Indigenous adults for the first time. The module included selected questions from the Kessler 10 Scale of Psychological Distress (K10) and the Medical Outcome Short Form (SF-36) Health Survey, as well as questions related to feelings of anger, the impact of psychological distress, cultural identification and stressors (ABS 2006b).

## **National Community Mental Health Care Database (Chapter 4)**

### **Scope**

The National Community Mental Health Care Database (NCMHCD) includes data on service contacts provided by government-operated community mental health services. The data collated in the NCMHCD are specified by the NMDS for Community Mental Health Care. The NCMHCD contains data on client demographics, including information such as age and sex, and data on each individual service contact, such as principal diagnosis and mental health legal status. Detailed specifications for the NMDS for Community Mental Health Care can be found in METeOR, the AIHW's online metadata registry, at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

The scope for this collection is all ambulatory mental health service contacts provided by the government-operated community mental health services that are included in the NMDS for Community Mental Health Establishments.

A list of the government-operated community mental health services contributing this patient-level data to NCMHCD can be found online in the 'Internet only tables' section that accompanies this publication on the AIHW website <[www.aihw.gov.au/mentalhealth/](http://www.aihw.gov.au/mentalhealth/)> (follow the link to *Mental health services in Australia 2004–05*).

A mental health service contact for the purposes of this collection was defined as the provision of a clinically significant service by a specialised mental health service provider(s) for patient/clients, other than those admitted to psychiatric hospitals or designated psychiatric units in acute care hospitals, and those resident in 24-hour staffed specialised residential mental health services where the nature of the service would normally warrant a dated entry in the clinical record of the patient/client in question. Any one patient can have one or more service contacts over the relevant period (that is, 2004–05). Service contacts are not restricted to face-to-face communication but can include telephone, video link or other forms of direct communication. Service contacts can also either be with the patient or with a third party, such as a carer or family member, and/or other professional or mental health workers or other service providers.

It should be noted that there is some variation across jurisdictions as to what is classified as a service contact. For example, New South Wales, Queensland, South Australia and Tasmania may include written correspondence as service contacts, while others do not.

### **Coverage**

The NCMHCD was agreed to be collected from 1 July 2000 and collated for the first year during 2002. Each year of the collection has seen an increase in the number of service contacts, probably reflecting, to some degree, improved coverage of the data collection.

States and territories provided estimates of their coverage for 2004–05 as a proportion of full coverage:

- New South Wales estimated their coverage for 2004–05 to be around 70% of full coverage;
- Victoria estimated their coverage for 2004–05 to be 83–85%;
- Queensland stated that all in-scope services are currently recording service contact data; however, within these services it is estimated that only 50–55% of the expected number of service contacts are being recorded. Queensland based these estimates on duration of the service contacts and full-time-equivalent staff numbers for the services;
- Western Australia estimated 98% coverage for 2004–05 based on compliance from services within the jurisdiction;
- South Australia estimated their coverage to be from 88% to 92%, depending on methods used when estimating;
- Tasmania estimated that they collected approximately 55% of potential service contacts for 2004–05. This is based on assumptions regarding service delivery models;
- the Australian Capital Territory report their coverage to be 98.9%; and
- the Northern Territory estimated 90% coverage based on all in-scope services reporting, but there being some missing data due to non-compliance of some clinicians.

### **Quality of Indigenous identification**

Data from the NCMHCD on Indigenous status should be interpreted with caution. Across the jurisdictions, the data quality and completeness of Indigenous identification varies or is unknown.

All states and territories provided information on the quality of the Indigenous data for the NCMHCD 2004–05 as follows:

- New South Wales stated that the quality of Indigenous data has not been evaluated;

- Victoria considered the quality of Indigenous data was not acceptable due to lack of consistency in data entry across its services;
- Queensland reported that the quality of Indigenous data are acceptable at a broad level, that is, in distinguishing Indigenous Australians and other Australians. However, they believe that there are quality issues regarding the coding of more specific details (that is, 'Aboriginal', 'Torres Strait Islander', 'Both Aboriginal and Torres Strait Islander'). Queensland reported that several strategies have been implemented to improve the quality of Indigenous data and noted that a replacement for the existing collection system with in-built validation checks would further improve the quality of this data;
- Western Australia reported that the quality of Indigenous status data for 2004–05 was acceptable. However, the data could be improved with the appropriate resources, training and reporting standards;
- South Australia indicated that there has been limited analysis of the quality of Indigenous status data. Therefore, the quality of the data are uncertain at this stage;
- Tasmania reported the quality of its data to be acceptable;
- the Australian Capital Territory considered the quality of its Indigenous status data to be acceptable, noting that there is some room for improvement regarding the reporting of the 'Not stated' category; and
- the Northern Territory indicated its Indigenous status data to be of acceptable quality.

### **Principal diagnosis data quality**

It should also be noted that there is variability across the states and territories in the data collection and coding practices in relation to principal diagnosis in the NCMHCD; this may also affect data quality. In particular, there are:

- differences among states and territories in the classification used. Six of the state and territory health authorities used the complete ICD-10-AM classification to code principal diagnosis. However, New South Wales used a combination of ICD-10-AM and the International Classification of Diseases, 10<sup>th</sup> revision, Primary Care (ICD-10-PC), and the Northern Territory used only the 'Mental and behavioural disorders' chapter of the ICD-10-AM classification;
- differences according to the size of the facility (for example, large versus small) in the ability to accurately code principal diagnosis;
- differences in the availability of appropriate clinicians to assign principal diagnoses (diagnoses are generally to be made by psychiatrists, whereas service contacts are mainly provided by non-psychiatrists); and
- differences according to whether the principal diagnosis is applied to an individual service contact or to a period of care. New South Wales and the Australian Capital Territory mainly report the current diagnosis for each service contact rather than a principal diagnosis for a longer period of care. The remaining jurisdictions mainly report principal diagnosis as applying to a longer period of care.

### **Estimating the number of patients**

The estimated number of patients in the NCMHCD has been calculated by counting the number of unique person identifier–establishment identifier combinations. Within each establishment or facility, a patient is allocated a unique identifier. However, this means that

persons who utilised services in more than one establishment will be counted more than once; therefore the number of patients may be overestimated.

## **National Community Mental Health Establishments Database (Chapter 12)**

The NCMHED includes data on government-operated community mental health establishments and their expenditure and staffing. For residential facilities, data on beds and episodes of residential care are also collected. The data collated in the NCMHED are specified by the NMDS for Community Mental Health Establishments.

For this NMDS, 'community mental health care' refers to all specialised government-operated 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, including adult, aged, 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 (such as accommodation support services) and services provided by non-government organisations. Only residential services that were staffed 24 hours a day were included. A list of the public community mental health establishments contributing to this report can be found online in the 'Internet only tables' section that accompanies this publication on the AIHW website <[www.aihw.gov.au/mentalhealth/](http://www.aihw.gov.au/mentalhealth/)> (follow the link to *Mental health services in Australia 2004–05*).

Data collected in 2004–05 is the last that will be collated in the NCMHED. From 2005–06, the NCMHED will be replaced by a new database specified by the NMDS for Mental Health Establishments, and incorporating a wider range of facilities and data items.

## **National Drug Strategy Household Survey (Chapter 1)**

The most recent National Drug Strategy Household Survey was conducted by the AIHW in 2004. Previous surveys were conducted in 1985, 1988, 1991, 1993, 1995, 1998 and 2001.

The 2004 survey collected information from 29,445 respondents, using a household-based sample. Homeless and institutionalised people were not included in the sample. People aged 12 years and older were included in the sample (although not all questions were asked of 12 and 13 year olds). Survey responses were weighted to the Australian population aged 12 years or older, or 14 years and older, as appropriate.

In addition to information of licit and illicit drug use and perceptions and attitudes associated with these drugs, the survey collected information on the level of psychological distress of respondents aged 18 years and over, as measured by the Kessler 10 scale, and self-reported mental illness (AIHW 2005e).

## **National Hospital Morbidity Database (Chapter 5 and 8)**

The National Hospital Morbidity Database (NHMD) is a compilation of electronic summary records from admitted patient morbidity data collections in Australian hospitals. It includes demographic, administrative and length of stay data, as well as data on the diagnoses of patients, the procedures they underwent in hospital, external causes of injury and poisoning, and the AR-DRG for each hospital separation.

Records in relation to 2004–05 are for hospital separations that occurred between 1 July 2004 and 30 June 2005. Data on patients admitted before 1 July 2004 are included, provided they separated between 1 July 2004 and 30 June 2005. 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.

Data relating to admitted patients in almost all hospitals are included. The coverage is described in greater detail in *Australian hospital statistics 2004–05* (AIHW 2006b).

Specialised mental health care is identified through the fact that a patient had one or more psychiatric care days recorded – that is, care was received in a specialised psychiatric unit or ward. In acute care hospitals, a ‘specialised’ episode of care or separation may comprise some psychiatric care days 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.

Before interpreting any NHMD data presented in this report, note that mental health care for admitted patients in Australia is provided in a large and complex system, and there are state and territory differences in the scope of services provided for admitted patients. Differences in the data presented by jurisdiction may reflect different service delivery practices, differences in admission practices and/or differences in the types of establishments categorised as hospitals. Interpretation of the differences between jurisdictions therefore needs to be done with care. For example, there are some differences in the approach that states and territories and the public and private sectors take to the formal admission and separation of people attending hospital on a same-day basis (such as for group therapy sessions or day programs). In Tasmania and the territories, these attendances are recorded as non-admitted patient occasions of service. In other jurisdictions, patients are formally admitted for this care and therefore this care is reported as same-day separations.

## **National Health Survey (Chapter 1)**

The National Health Survey (NHS) was conducted in Australia by the ABS in 1977–78, 1983, 1989–90, 1995, 2001 and 2004–05. This survey collects information on the health status of the population, including: long-term medical conditions and recent injuries; health-related aspects of people’s lifestyles, such as smoking, diet, exercise and alcohol consumption; use of health services such as consultations with health practitioners; and demographic and socioeconomic characteristics.

The 2004–05 survey was conducted on a sample of 19,501 private dwellings across Australia (covering 25,900 respondents). Very remote areas of Australia and non-private dwellings, such as hotels, hospitals, nursing homes and short-stay caravan parks, were not included. Within each selected dwelling, one adult (aged 18 years and over) and one child were randomly selected for inclusion in the survey. Children under 15 years were not interviewed personally (an adult within the house provided details about the selected child). Responses to the survey were weighted by sex, age and area of usual residence to infer results for the total population at 31 December 2004. As with any sample survey, estimates are subject to sampling and non-sampling error.

In the NHS, long-term medical conditions were described using the ICD-10-AM classification. The prevalence estimates for long-term mental or behavioural problems are considered to be less reliable than prevalence estimates for other conditions derived from the

2004–05 NHS as responses could be based on self-diagnosis rather than diagnosis by a health professional.

Pharmaceuticals were classified by generic type, based on the WHO Anatomical Therapeutic Chemical Classification System (WHO 2006a).

The NHS also collected information on the level of psychological distress of persons aged 18 years and over, as measured by the Kessler 10 scale.

## **National Public Hospital Establishments Database (Chapter 12)**

The AIHW is the custodian of the National Public Hospital Establishments Database (NPHEd), which holds a record for each public hospital in Australia. The data are collected by state and territory health authorities from routine administrative collections of public acute hospitals, psychiatric hospitals, drug and alcohol hospitals, and dental hospitals in all states and territories.

The collection covers only hospitals within the jurisdiction of the state and territory health authorities. Public hospitals not administered by the state and territory health authorities (such as some hospitals run by correctional authorities in some jurisdictions and those in offshore territories) are not included.

Information is included on hospitals resources (beds, staff and specialised services), recurrent expenditure, non-appropriation revenue and summary information on services to admitted 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 (for example, central laundry and pathology services).

The NPHEd includes the data for *Full-time-equivalent staff, Salaries and wages* and the *Non-salary operating costs* subcategory data elements (types of staff and types of non-salary expenditure). The public acute hospital establishments that contain one or more specialised psychiatric units or wards are flagged in NPHEd. However, no financial or staffing data are available for these specialised psychiatric wards.

For greater detail on the scope, definitions and quality of data obtained from the NPHEd, see *Australian hospital statistics 2004–05* (AIHW 2006b).

A list of the public psychiatric hospitals contributing to this report can be found online in the 'Internet only tables' section that accompanies this publication on the AIHW website <[www.aihw.gov.au/mentalhealth/](http://www.aihw.gov.au/mentalhealth/)> (follow the link to *Mental health services in Australia 2004–05*).

## **National Residential Mental Health Care Database (Chapter 8)**

### **Scope**

The National Residential Mental Health Care Database (NRMHCD) includes data on episodes of residential care provided by government-funded and operated residential mental health services as specified by the NMDS for Residential Mental Health Care. The NRMHCD contains data that pertain to the resident, such as demographic information (for

example, age and sex), and data that pertain to each individual episode the resident has, such as principal diagnosis and mental health legal status.

The scope for this collection is all episodes of residential care for residents in all government-funded and operated residential mental health services in Australia, except those residential care services that are in receipt of funding under the Aged Care Act and subject to Commonwealth reporting requirements (that is, they report to the System for the Payment of Aged Residential Care collection). For 2004–05, government-operated services that employ mental health trained staff on-site 24 hours per day are included. Government-funded, non-government operated services and non-24-hour staffed services could be included optionally; however, none such service was reported for 2004–05. A list of the residential mental health services contributing data to the NRMHCD can be found online in the 'Internet only tables' section that accompanies this publication on the AIHW website <[www.aihw.gov.au/mentalhealth/](http://www.aihw.gov.au/mentalhealth/)> (follow the link to *Mental health services in Australia 2004–05*).

Queensland and the Northern Territory do not have any in-scope residential mental health services and therefore do not report to this collection.

## Coverage

The NRMHCD was agreed for collection from 1 July 2004; therefore, 2004–05 marks the first compilation of the data. States and territories provided estimates of their coverage for 2004–05 as a proportion of full coverage:

- New South Wales estimated their coverage to be close to 100% with all in-scope service units reporting close to 100% of episodes;
- Victoria reported that their data included 100% of the in-scope residential services;
- Western Australia, Tasmania and the Australian Capital Territory all reported 100% coverage; and
- South Australia estimated their coverage to be from 33% (based on the number of in-scope services actually reporting to the collection) to 87% (based on the estimated number of episodes).

## Indigenous data quality

Data from the NRMHCD on Indigenous status should be interpreted with caution. Across the jurisdictions, the data quality and completeness of Indigenous identification varies or is unknown.

All states and territories provided information on the quality of the Indigenous data for the NRMHCD 2004–05 as follows:

- New South Wales stated that the quality of Indigenous data had not been evaluated;
- Victoria indicated that the quality of Indigenous data was not acceptable due to a lack of consistency in data entry across its services;
- Western Australia reported that, while that the data could be improved with the appropriate resources, training and reporting standards, the quality of Indigenous status data was acceptable;
- South Australia indicated that there has been limited analysis of the quality of Indigenous status data and thus the quality of their data was uncertain;
- Tasmania reported that the quality of their data was acceptable; and

- the Australian Capital Territory considered the quality of its Indigenous status data to be acceptable.

### **Principal diagnosis data quality**

There is some variability across the states and territories in the data collection in relation to the classification used to code principal diagnosis. With one exception, the state and territory health authorities used the complete ICD-10-AM classification to code principal diagnosis. The one exception is New South Wales; they used a combination of ICD-10-AM and the International Classification of Diseases, 10<sup>th</sup> revision, Primary Care (ICD-10-PC).

## **National Survey of Mental Health and Wellbeing of Adults (Chapter 1)**

The National Survey of Mental Health and Wellbeing of Adults (NSMHW) was conducted by the ABS in 1997 to provide information on the prevalence of a range of mental disorders, the level of disability associated with these disorders, and the health services used and needed as a consequence of a mental health problem for Australians aged 18 years or older. A computerised version of the Composite International Diagnostic Interview was used to identify mental illness in the adult component. The survey also collected information on the level of psychological distress of respondents aged 18 years and over, as measured by the Kessler 10 scale. Other scales and measures (such as the General Health Questionnaire 12 and SF-12), related to the respondent's general health and wellbeing, were also included in the NSMHW.

The survey was conducted on a sample of 15,500 private dwellings across Australia, with one person aged 18 years and over selected from each household. Very remote areas of Australia and non-private dwellings, such as hotels, hospitals, nursing homes and short-stay caravan parks, were not included. Estimates are based on the 10,600 responses to the survey, weighted to the 1997 Australian population aged 18 years and over.

## **Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS) data (Chapter 11)**

Medicare Australia (formerly known as the Health Insurance Commission) collects data on prescriptions funded through the PBS and RPBS and provides the data to DoHA. Information collected includes the characteristics of the person who is provided with the prescription, the medication prescribed (for example, type and cost), the prescribing practitioner and the supplying pharmacy (for example, location). The figures reported in this publication relate the number of mental health-related prescriptions processed by Medicare Australia in the reporting period, as well as the prescription costs funded by the PBS/RPBS. Although the PBS/RPBS data capture the majority of prescribed medicines dispensed in Australia, it has the following limitations:

- It refers only to prescriptions scripted by registered medical practitioners who are approved to work within the PBS/RPBS and to paid services processed from claims presented by approved pharmacists who comply with certain conditions (DoHA 2006d:38). It excludes adjustments made against pharmacists' claims, any manually paid claims, or any benefits paid as a result of retrospective entitlement or refund of patient contributions.

- It excludes non-subsidised medications, such as private and below copayment prescriptions (where the patient copayment covers the total costs of the prescribed medication) and over-the-counter medications.
- The level of the copayment increases annually, which means that some medicines that were captured in previous years might be below the copayment level and thus, excluded in following years.

The number of prescriptions issued through community pharmacies that are not covered by the PBS/RPBS is estimated through the Pharmacy Guild Survey, which is an ongoing survey of 250 community pharmacies that provide records of all dispensed prescriptions for medicines listed on the PBS/RPBS (AIHW 2003). In 2001, it was estimated that slightly less than 80% of all community prescriptions were dispensed under the PBS/RPBS.

State and territory are determined by DoHA according to the patient's residential address. If the patient's state/territory is unknown, then the state or territory of the pharmacy supplying the item is reported. If the pharmacy's state/territory details are also missing then the data are not included by DoHA. The data are also excluded by DoHA when the specialty of the prescribing provider is not known. These exclusions accounted for about 0.2% of all the mental health-related prescriptions reported for 2005-06.

The year was determined from the date the service was processed by Medicare Australia, rather than the date of prescribing or the date of supply by the pharmacy.

## **Private Health Establishments Collection (Chapter 12)**

The ABS conducts an annual census of all private hospitals licensed by state and territory health authorities and all freestanding day hospitals facilities approved by DoHA. As part of that census, data on the staffing, finances and activity of these establishments are collected and compiled in the Private Health Establishments Collection (PHEC).

The data definitions used in the PHEC are largely based on definitions in the *National health data dictionary*, Version 13 (HDSC 2006). The ABS definition for private psychiatric hospitals is 'those establishments that are licensed or approved by a 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 *Private Hospitals, Australia* (ABS 2006d).

## **Supported Accommodation Assistance Program National Data Collection (Chapter 9)**

The SAAP National Data Collection (NDC) is a nationally consistent information system that combines information from SAAP agencies state and territory and Australian government funding departments. The AIHW manages the collection.

The scope of the SAAP NDC includes all agencies that receive funding through the national SAAP agreement and/or state and territory SAAP funds. In 2004-05, 1,294 non-government, community and local government agencies were funded nationally under the program. Of these, 93% participated in the data collection.

The data presented in this report were extracted from the Client Collection component of the SAAP NDC, which includes information about all clients receiving SAAP support lasting at

least 1 hour. Data are recorded by service providers during or immediately following contact with clients and are then forwarded to the AIHW after the clients' support periods have ended or, for ongoing clients, at the end of the reporting period (31 December and 30 June of each year). Data collected include basic sociodemographic information and information on the services needed, and provided to, each client. Information about each client's situation before and after receiving SAAP services is also collected.

There are high levels of non-response to particular questions in the data collection forms received by the AIHW. This means that caution should be exercised when interpreting the data because the results may not fully reflect the entire population of interest.

Furthermore, the protocols established for the NDC require that SAAP clients provide information in a climate of informed consent. If a client's consent is not obtained, only a limited number of questions can be completed on data collection forms. In 2004–05, valid consent was obtained from clients in 87% of support periods in participating agencies.

While data reported from the SAAP Client Collection are generally weighted to take non-participation of agencies and non-consent of clients into account, unweighted data are presented in this report. Based on unweighted responses, there were a total of 142,232 closed support periods reported in the SAAP Client Collection for 2004–05. For the same period, the number of closed support periods using weighted data is estimated to be 153,900.

For further information on the SAAP collection, refer to the *Homeless people in SAAP: SAAP National Data Collection annual report 2004–05 Australia* (AIHW 2006e).

## **Survey of Disability, Ageing and Carers (Chapter 1)**

This survey was conducted by the ABS throughout Australia from June to November 2003, as well as in 1998. The primary objective of the survey was to collect information on people with a disability, older people (aged 60 years and over) and carers. Disability was defined as any limitation, restriction or impairment which has lasted, or is likely to last, for at least 6 months and restricts everyday activities.

The scope of the survey included people in both private and non-private dwellings (including people in cared accommodation establishments, but excluding correctional facilities). The survey covered all areas of Australia except remote and sparsely settled areas. The survey target population was identified by screening questions asked of a responsible adult within households, and selected by a nominated contact officer within cared-accommodation establishments. The 2003 survey results were benchmarked to the estimated population living in non-sparsely settled areas at 30 June 2003.

For further information on this survey, refer to *Disability, Ageing and Carers: summary of findings, Australia 2003* (ABS 2004a).

# Appendix 2: Technical notes

## Data presentation

Throughout this publication, data may not sum to the totals shown due to missing and/or not stated values, as well as rounding. Totals reported include missing and/or not stated values. The percentages shown within the tables are calculated excluding the missing and/or not stated figures, unless indicated otherwise. Percentage distributions may not sum to 100 due to rounding.

Cells may be suppressed for confidentiality reasons or where estimates are based on small numbers, resulting in low reliability.

## Population rates

Crude (or observed) rates were calculated using the ABS estimated resident population (ERP) at the midpoint of the data range (for example, rates for 2004–05 data were calculated using ERP at 31 December 2004, while rates for 2004 calendar year data were calculated using ERP at 30 June 2004). Rates for 2005–06 data were calculated using preliminary ERP at 31 December 2005.

Rates for Indigenous, country of birth and Remoteness Areas data were calculated using ERP at 30 June of the relevant year.

The direct method of age standardisation was used for the calculation of age-standardised rates using 5-year age groups. The total Australian population for 30 June 2001 was used as the population for which expected rates were calculated.

# Appendix 3: Classifications used

Health-related classifications have multiple purposes, including the facilitation of data collection and management in the clinical setting, the analysis of the data to inform public policy, and the allocation of financial and other resources. This section provides a short description of the classification systems mentioned in this report.

## Australian Classification of Health Interventions

The Australian Classification of Health Interventions (ACHI) is the Australian national standard for procedure and intervention coding in Australian hospitals.

The National Centre for Classification in Health (NCCH) developed ACHI based on the *Medicare Benefits Schedule (MBS)*. The MBS is a fee schedule for Medicare services including general practice consultations, specialist consultations, operations and other medical services such as diagnostic investigations and optometric services. DoHA updates the MBS at least twice each year and these code changes are either incorporated into ACHI or the MBS codes are mapped to existing ACHI codes.

ACHI captures procedures and interventions performed in public and private Australian hospitals, day centres and ambulatory settings, as well as allied health interventions, dentistry and imaging. The structure of ACHI is anatomically based, rather than based on the surgical specialty.

In order to maintain parity with disease classification, ACHI chapters resemble the chapter headings of the ICD-10. ACHI is updated biennially by the NCCH in line with the disease section of ICD-10-AM. Use of the codes is guided by the *Australian Coding Standards*, volume 5 of ICD-10-AM.

Further information on ACHI is available from the NCCH website:  
<<http://www3.fhs.usyd.edu.au/ncch/4.1.3.htm>>.

## Australian Standard Geographical Classification

The Australian Standard Geographical Classification (ASGC) was developed by the ABS for the collection and dissemination of geographically classified statistics. It is an essential reference for understanding and interpreting the geographical context of statistics in Australia.

In this report the ASGC applies to the data presented by remoteness area, which is based on the Accessibility/Remoteness Index of Australia, which measures the remoteness of a point based on the physical road distance to the nearest urban centre.

This report uses the ASGC to present data in the following categories:

- Major cities
- Inner regional
- Outer regional
- Remote
- Very remote

For further information on this classification system, refer to *Australian Standard Geographical Classification* (ABS 2002a).

## **Anatomical Therapeutic Chemical Classification System**

The Anatomical Therapeutic Chemical (ATC) Classification System, developed by the WHO, assigns therapeutic drugs to different groups according to the organ or system on which they act, as well as their therapeutic and chemical characteristics.

The coding of pharmaceutical products within the *Schedule of Pharmaceutical Benefits* is based on the ATC Classification System.

For further information on this classification system, refer to the World Health Organization website <<http://www.whocc.no/atcddd/>>.

## **International Classification of Diseases**

The International Classification of Diseases (ICD), which was developed by the WHO, is the international standard for coding morbidity and mortality statistics. It was designed to promote international comparability in the collection, processing, classification and presentation of these statistics. The ICD is periodically reviewed to reflect changes in clinical and research settings (WHO 2006b).

Although the ICD is primarily designed for the classification of diseases and injuries with a formal diagnosis, it also classifies a wide variety of signs, symptoms, abnormal findings, complaints and social circumstances that may stand in place of a diagnosis.

Further information on the ICD is available from the WHO website <<http://www.who.int/classifications/icd/en/>>.

## **International Statistical Classification of Diseases, 9th revision, Clinical Modification**

The International Statistical Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM) is based on the ninth revision of the ICD (NCC 1996). The ICD-9-CM was the official system of assigning codes to diagnoses and procedures associated with hospital utilisation in Australia before it was superseded by the ICD-10-AM.

## **International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification**

The Australian Modification of ICD-10 (called ICD-10-AM) is used to classify diseases in the acute health sector in Australia. The ICD-10-AM was developed in Australia by the National Centre for Classification in Health with the purpose of making it more relevant to Australian clinical practice (NCCH 2006).

## **International Classification of Primary Care, 2nd edition, and ICPC-2 PLUS**

The International Classification of Primary Care, version 2 (ICPC-2) is a classification method for primary care (that is, general practice) encounters; this method has been adopted by the WHO. It allows for the classification of three elements of a health care encounter in relation to the patient: reasons for encounter; diagnoses or problems; and process of care.

The ICPC-2 PLUS (which is also known as the BEACH coding system) is an extended vocabulary of terms classified according to the ICPC-2, which enables greater specificity in coding. The ICPC-2 PLUS is primarily used in the context of the Australian general practice.

The ICPC-2 is currently being used in electronic health records within the clinical general practice, as well as in the research of general practice (that is, BEACH) and other statistical collections such as the ABS National Health Survey.

Further information on ICPC-2 is available from the WHO website <[www.who.int/en/](http://www.who.int/en/)> and information on ICPC-2 PLUS is available from the BEACH website: <<http://www.fmrc.org.au/icpc2plus/>>.

# Appendix 4: Codes used to define mental health-related general practice encounters and mental health-related hospital separations

This Appendix provides a list of codes used to define 'mental health-related' general practice encounters from the BEACH database (as used in Chapter 2) and 'mental health-related' hospital separations from the National Hospital Morbidity Database (as used in Chapters 5 and 7).

## BEACH survey of general practice activity data

For the purpose of this report, 'mental health-related' general practice encounters are defined as those encounters where a mental health-related problem was managed. Mental health-related problems are those that are classified in the psychological chapter (that is, the 'P' chapter) of the *International Classification of Primary Care, version 2* (ICPC-2). In addition, codes that are classified in the psychological chapter of the ICPC-2 (note that ICPC-2 PLUS codes have been used as these enable greater specificity in coding) for clinical treatments and referrals, and medications prescribed, recommended or supplied that are classed in the psychological chapter of the Coding Atlas for Pharmaceutical Substances (CAPS) were used in additional analysis of general practice activity.

Table A4.1 presents a list of the ICPC-2, ICPC-2 PLUS and CAPS codes classed as 'psychological' for problems managed, clinical treatments, referrals and medications. (CAPS codes can be grouped into Anatomical Therapeutical Chemical (ATC) groups and these have also been listed.)

**Table A4.1: ICPC-2, ICPC-2 PLUS and CAPS codes classified as psychological for problems managed, treatments, referrals and medications in the BEACH database, 2003–04**

ICPC-2 code	ICPC-2 PLUS code	CAPS code	ICPC-2/ICPC-2 PLUS/CAPS label
<b>PROBLEMS MANAGED</b>			
P01			Feeling anxious/nervous/tense
P02			Acute stress reaction
P03			Feeling depressed
P04			Feeling/behaving irritable/angry
P05			Senility, feeling/behaving old
P06			Sleep disturbance
P07			Sexual desire reduced
P08			Sexual fulfilment reduced
P09			Concern about sexual preference
P10			Stammering, stuttering, tics
P11			Eating problems in children
P12			Bed-wetting, enuresis
P13			Encopresis/bowel training problem
P15			Chronic alcohol abuse
P16			Acute alcohol abuse
P17			Tobacco abuse
P18			Medication abuse
P19			Drug abuse
P20			Memory disturbance
P22			Child behaviour symptom/complaint
P23			Adolescent symptom/complaint
P24			Specific learning problem
P25			Phase of life problem in adult
P27			Fear of mental disorder
P28			Limited function/disability psychological
P29			Psychological symptom/complaint, other
P70			Dementia (including senile, Alzheimer's)
P71			Organic psychoses, other
P72			Schizophrenia
P73			Affective psychoses
P74			Anxiety disorder/anxiety state
P75			Somatisation disorder
P76			Depressive disorder
P77			Suicide/suicide attempt
P78			Neurasthenia
P79			Phobia, compulsive disorder
P80			Personality disorder

*(continued)*

**Table A4.1 (continued): ICPC-2, ICPC-2 PLUS and CAPS codes classified as psychological for problems managed, treatments, referrals and medications in the BEACH database, 2003-04**

ICPC-2 code	ICPC-2 PLUS code	CAPS code	ICPC-2/ICPC-2 PLUS/CAPS label
<b>PROBLEMS MANAGED (continued)</b>			
P81			Hyperkinetic disorder
P82			Post-traumatic stress disorder
P85			Mental retardation
P86			Anorexia nervosa, bulimia
P98			Psychoses not otherwise specified, other
P99			Psychological disorders, other
<b>CLINICAL TREATMENTS</b>			
	P43001		Test; psychological
	P43003		Procedures; diagnostic; psychological
	P45001		Advice/education; psychological
	P45002		Observe/wait; psychological
	P45004		Advice/education; smoking
	P45005		Advice/education; alcohol
	P45006		Advice/education; illicit drugs
	P45007		Advice/education; relaxation
	P45008		Advice/education; lifestyle
	P45009		Advice/education; sexuality
	P45010		Advice/education; life stage
	P46001		Consultation; other general practitioner/allied health professional; psychological
	P46002		Consultation; primary care provided; psychological
	P46003		Consultation; psychiatrist
	P47003		Consultation; psychiatrist
	P58001		Counselling; psychiatric
	P58002		Psychotherapy
	P58004		Counselling; psychological
	P58005		Counselling; sexual; psychological
	P58006		Counselling; individual; psychological
	P58007		Counselling; bereavement
	P58008		Counselling; smoking
	P58009		Counselling; alcohol
	P58010		Counselling; drug abuse
	P58011		Counselling; relaxation
	P58012		Counselling; life style
	P58013		Counselling; anger
	P58014		Counselling; self-esteem
	P58015		Counselling; assertiveness
	P58016		Counselling; life stage

(continued)

**Table A4.1 (continued): ICPC-2, ICPC-2 PLUS and CAPS codes classified as psychological for problems managed, treatments, referrals and medications in the BEACH database, 2003–04**

ICPC-2 code	ICPC-2 PLUS code	CAPS code	ICPC-2/ICPC-2 PLUS/CAPS label
<b>CLINICAL TREATMENTS (continued)</b>			
	P58017		Counselling; stress management
	P58018		Therapy; group
	P59001		Therapeutic procedure; psychological
	P59002		Therapy; electroconvulsive
	P59003		Hypnosis/hypnotherapy
	P59005		Therapy; relaxation
	P60001		Test; result(s); psychological
	P60002		Results; procedures; psychological
	P62001		Administrative; psychological
<b>REFERRALS</b>			
	P66003		Referral; psychologist
	P66004		Referral; counsellor
	P66005		Referral; mental health team
	P66006		Referral; drug & alcohol
	P66007		Referral; hypnotherapy
	P67002		Referral; psychiatrist
	P67004		Referral; clinic; psychiatrist
	P67005		Referral; hospital; psychiatrist
	P68003		Referral; needle/syringe exchange
<b>MEDICATIONS</b>			
		P10–P12	Sedative hypnotics (ATC code: N05C)
		P20–P21	Anti-anxiety (ATC code: N05B)
		P30–P32	Antipsychotic (ATC code: N05A)
		P40–P42	Antidepressants (ATC code: N06A)

## National Hospital Morbidity Database data

During the preparation of *Mental health services in Australia 1999–00*, attention was given to ensuring that for data on hospital separations from the National Hospital Morbidity Database (NHMD) the definition of a ‘mental health-related diagnosis’ included all codes which were either clinically or statistically relevant to mental health. This definition was revised for *Mental health services in Australia 2000–01* to increase the accuracy of the data. More specifically, for the analyses of the 2000–01 National Hospital Morbidity data, a diagnosis was considered clinically relevant to mental health if:

- it was included as a principal diagnosis defining AR-DRG Version 4.2 Major Diagnostic Categories 19 (*Mental diseases and disorders*) and 20 (*Alcohol/drug use and alcohol/drug induced organic mental disorders*); or
- it appeared to be specific for a mental health-related condition based on expert advice.

A diagnosis was defined as being statistically relevant to mental health if:

- during 2000–01 there were more than 20 separations with specialised psychiatric care for that principal diagnosis at the 3-character level of ICD-10-AM or more than 10 at the 4-character level; or
- over 50% of separations with that principal diagnosis included specialised psychiatric care.

This method was developed in consultation with the National Mental Health Working Group Information Strategy Committee (which is now called the Mental Health Information Strategy Subcommittee) and the Clinical Casemix Committee of Australia.

Certain codes were statistically relevant during 1999–00 but not in 2000–01; these were examined and included if over 50% of total separations over the 2 years included specialised psychiatric care.

For this edition of *Mental health services of Australia*, the same codes as used for the analysis of the 2000–01 data have been used to define ‘mental health-related’ hospital separations in Chapters 5 and 7. However, updates have been made to incorporate changes in codes that have occurred as new editions of ICD-10-AM have been released.

Thus, the full list of codes used to define mental health-related hospital separations is shown in Table A4.2.

**Table A4.2: ICD-10-AM diagnosis codes used to define mental health-related hospital separations**

ICD-10-AM codes	Diagnosis	MDC 19	MDC 20	Statistically relevant	Apparently otherwise relevant
F00	Dementia in Alzheimer's disease				✓
F01	Vascular dementia				✓
F02	Dementia in other diseases classified elsewhere			✓	
F03	Unspecified dementia				✓
F04	Organic amnesic syndrome, not induced by alcohol and other psychoactive substances				✓
F05	Delirium, not induced by alcohol and other psychoactive substances				✓
F06	Other mental disorders due to brain damage and dysfunction and to physical disease			✓	✓
F07	Personality and behavioural disorders due to brain disease, damage and dysfunction			✓	✓
F09	Unspecified organic or symptomatic mental disorder			✓	
F10	Mental and behavioural disorders due to use of alcohol		✓		
F11	Mental and behavioural disorders due to use of opioids		✓		
F12	Mental and behavioural disorders due to use of cannabinoids		✓	✓	
F13	Mental and behavioural disorders due to use of sedatives or hypnotics		✓		
F14	Mental and behavioural disorders due to use of cocaine		✓		
F15	Mental and behavioural disorders due to use of other stimulants, including caffeine		✓	✓	
F16	Mental and behavioural disorders due to use of hallucinogens		✓		
F17	Mental and behavioural disorders due to use of tobacco		✓		
F18	Mental and behavioural disorders due to use of volatile solvents		✓		
F19	Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances		✓	✓	
F20	Schizophrenia	✓		✓	
F21	Schizotypal disorder	✓		✓	
F22	Persistent delusional disorders	✓		✓	
F24	Induced delusional disorder	✓		✓	
F25	Schizoaffective disorders	✓		✓	
F28	Other non-organic psychotic disorders	✓		✓	
F29	Unspecified non-organic psychosis	✓		✓	
F30	Manic episode	✓		✓	
F31	Bipolar affective disorder	✓		✓	
F32	Depressive episode	✓		✓	
F33	Recurrent depressive disorder	✓		✓	
F34	Persistent mood (affective) disorders	✓		✓	
F38	Other mood (affective) disorders	✓		✓	
F39	Unspecified mood (affective) disorder	✓		✓	
F40	Phobic anxiety disorders	✓		✓	
F41	Other anxiety disorders	✓			
F42	Obsessive-compulsive disorder	✓		✓	
F43	Reaction to severe stress, and adjustment disorders	✓		✓	
F44	Dissociative (conversion) disorders	✓			
F45	Somatoform disorders	✓			
F48	Other neurotic disorders	✓			

(continued)

**Table A4.2 (continued): ICD-10-AM diagnosis codes used to define mental health-related hospital separations**

ICD-10-AM codes	Diagnosis	MDC 19	MDC 20	Statistically relevant	Apparently otherwise relevant
F50	Eating disorders	✓		✓	
F51	Non-organic sleep disorders	✓			
F52	Sexual dysfunction, not caused by organic disorder or disease	✓ <sup>(a)</sup>		✓	✓
F53	Mental and behavioural disorders associated with the puerperium, not elsewhere classified				✓
F54	Psychological and behavioural factors associated with disorders or diseases classified elsewhere	✓			
F55	Harmful use of non-dependence-producing substances		✓		✓
F59	Unspecified behavioural syndromes associated with physiological disturbances and physical factors	✓			
F60	Specific personality disorders	✓		✓	
F61	Mixed and other personality disorders	✓		✓	
F62	Enduring personality changes, not attributable to brain damage and disease	✓		✓	
F63	Habit and impulse disorders	✓		✓	
F64	Gender identity disorders	✓			
F65	Disorders of sexual preference	✓		✓	
F66	Psychological and behavioural disorders associated with sexual development and orientation	✓		✓	
F68	Other disorders of adult personality and behaviour	✓		✓	
F69	Unspecified disorder of adult personality and behaviour	✓			
F70	Mild mental retardation			✓	
F71	Moderate mental retardation				✓
F72	Severe mental retardation				✓
F73	Profound mental retardation				✓
F78	Other mental retardation				✓
F79	Unspecified mental retardation			✓	
F80	Specific developmental disorders of speech and language	✓			
F81	Specific developmental disorders of scholastic skills	✓			
F82	Specific developmental disorder of motor function	✓			
F83	Mixed specific developmental disorders	✓			
F84	Pervasive developmental disorders	✓ <sup>(b)</sup>		✓	
F88	Other disorders of psychological development	✓			
F89	Unspecified disorder of psychological development	✓			
F90	Hyperkinetic disorders	✓		✓	
F91	Conduct disorders	✓		✓	
F92	Mixed disorders of conduct and emotions	✓		✓	
F93	Emotional disorders with onset specific to childhood	✓		✓	
F94	Disorders of social functioning with onset specific to childhood and adolescence	✓			
F95	Tic disorders	✓		✓	
F98	Other behavioural and emotional disorders with onset usually occurring in childhood and adolescence	✓ <sup>(c)</sup>		✓	
F99	Mental disorder, not otherwise specified	✓			
G30.0	Alzheimer's disease with early onset			✓	
G30.1	Alzheimer's disease with late onset			✓	
G30.8	Other Alzheimer's disease				✓
G30.9	Alzheimer's disease, unspecified				✓

(continued)

**Table A4.2 (continued): ICD-10-AM diagnosis codes used to define mental health-related hospital separations**

ICD-10-AM codes	Diagnosis	MDC 19	MDC 20	Statistically relevant	Apparently otherwise relevant
G47.0	Disorders initiating and maintaining sleep	✓			
G47.1	Disorders excessive somnolence	✓			
G47.2	Disorders of the sleep–wake schedule	✓			
G47.8	Other sleep disorders	✓			
G47.9	Sleep disorder, unspecified	✓			
O99.3	Mental disorder nervous system pregnancy and birth				✓
R44.0	Auditory hallucinations	✓			
R44.1	Visual hallucinations				✓
R44.2	Other hallucination	✓			
R44.3	Hallucinations, unspecified	✓			
R44.8	Other/not otherwise specified symptom involving general sensation perception	✓			
R45.0	Nervousness	✓			
R45.1	Restlessness and agitation	✓			
R45.4	Irritability and anger	✓			
R48.0	Dyslexia and alexia	✓			
R48.1	Agnosia	✓			
R48.2	Apraxia	✓			
R48.8	Other and unspecified symbolic dysfunctions	✓			
Z00.4	General psychiatric examination, not elsewhere classified			✓	
Z03.2	Observation for suspected mental and behavioural disorder	✓		✓	
Z04.6	General psychiatric examination, requested by authority			✓	
Z09.3	Follow-up examination after psychotherapy				✓
Z13.3	Special screening examination for mental and behavioural disorders				✓
Z50.2	Alcohol rehabilitation				✓
Z50.3	Drug rehabilitation				✓
Z54.3	Convalescence following psychotherapy				✓
Z61.9	Negative life event in childhood, unspecified			✓	
Z63.1	Problems relationship w parents & in-laws			✓	
Z63.8	Other spec problems related to prim support group			✓	
Z63.9	Problem related to primary support group, unspecified			✓	
Z65.8	Other specified problems related to psychosocial circumstances			✓	
Z65.9	Problem related to unspecified psychosocial circumstances				✓
Z71.4	Counselling and surveillance for alcohol use disorder				✓
Z71.5	Counselling and surveillance for drug use disorder				✓
Z76.0	Issue of repeat prescription			✓	

(a) Excluding F52.5.

(b) Excluding F84.2.

(c) Excluding F98.5 and F98.6.

# Abbreviations

ABS	Australian Bureau of Statistics
ACHI	Australian Classification of Health Interventions
AIHW	Australian Institute of Health and Welfare
AR-DRG	Australian Refined Diagnosis Related Group
ASA	American Society of Anesthesiologists
ASGC	Australian Standard Geographical Classification
ATC	Anatomical Therapeutic Chemical classification
BEACH	Bettering the Evaluation and Care of Health
CAPS	Coding Atlas for Pharmaceutical Substances
CNS	Central Nervous System
COAG	Council of Australian Governments
CSTDA	Commonwealth State/Territory Disability Agreement
DoHA	Department of Health and Ageing
ED	Emergency Department
ECT	electroconvulsive therapy
ERP	Estimated resident population
FaCSIA	Department of Families, Community Services and Indigenous Affairs
FTE	full-time-equivalent
GP	general practitioner
ICD	International Classification of Diseases
ICD-9-CM	International Statistical Classification of Diseases, 9th Revision, Clinical Modification
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
ICD-10 PC	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Primary Care
ICPC-2	International Classification of Primary Care, 2nd edition
K10	Kessler 10 Scale of Psychological Distress
LCL	lower confidence limit
NAPEDCD	National Non-admitted Patient Emergency Department Care Database
MBS	Medicare Benefits Schedule
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NCCH	National Centre for Classification in Health
NCMHCD	National Community Mental Health Care Database
NCMHED	National Community Mental Health Establishments Database

NDC	National Data Collection
NDSHS	National Drug Strategy Household Survey
NHMD	National Hospital Morbidity Database
NHS	National Health Survey
NMDS	National Minimum Data Set
NPHEd	National Public Hospital Establishments Database
NRMHCD	National Residential Mental Health Care Database
NSMHW	National Survey of Mental Health and Wellbeing
PBS	Pharmaceutical Benefits Scheme
PHEC	Private Health Establishments Collection
RPBS	Repatriation Pharmaceutical Benefits Scheme
SAAP	Supported Accommodation Assistance Program
UCL	upper confidence limit
WHO	World Health Organization

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