

# 1 Introduction

*Australian Hospital Statistics 2000–01* continues the Australian Institute of Health and Welfare's series of summary reports describing the characteristics and activity of Australia's hospitals. This report follows previous annual information for the years 1993–94 to 1999–00 (AIHW 1997a, 1997b, 1998, 1999a, 2000a and 2001a).

This series of reports has been based on data for the financial years 1993–94 to 2000–01 supplied to the Institute by the State and Territory health authorities. Hospital-level data are provided for the Institute's National Public Hospital Establishments Database, and cover resources, expenditure and revenue for public hospitals, and a summary of the services they provided to non-admitted patients. Patient-level data are provided for the Institute's National Hospital Morbidity Database for both public and private hospitals. Included are data on the diagnoses and other characteristics of admitted patients, and on the hospital care they receive. Patient-level data are also provided for the National Elective Surgery Waiting Times Data Collection for public hospitals and jurisdiction-level data have been provided on public hospital emergency department waiting times.

The collection and reporting of the data in this report were undertaken by the Institute under the auspices of the Australian Health Ministers' Advisory Council through the National Health Information Agreement. Most of the data collected were as specified in the National Minimum Data Sets for Admitted Patient Care, Public Hospital Establishments, Elective Surgery Waiting Times and Emergency Department Waiting Times. The data element definitions were as specified for 2000–01 in the *National Health Data Dictionary* version 9.0 (NHDC 2000).

## This report

This chapter describes the National Public Hospital Establishments Database, the National Hospital Morbidity Database and the National Elective Surgery Waiting Times Data Collection and briefly discusses their overall limitations.

Chapter 2 uses the National Public Hospital Establishments Database and the National Hospital Morbidity Database and data from the Australian Bureau of Statistics' Private Health Establishments Collection to provide an overview of hospitals and hospital activity in Australia. It presents a summary of number of hospitals and beds, separations, length of stay and other statistics for admitted patients, based on the establishment characteristics of sector, hospital type and State or Territory.

Chapter 3 presents further data on public hospitals from the National Public Hospital Establishments Database. Data are presented on the number and type of hospitals, available beds, staff employed, specialised services, expenditure and revenue.

Chapter 4 presents hospital performance indicator data, drawn from the National Public Hospital Establishments Database, National Hospital Morbidity Database and other sources. The indicators have been presented as they relate to the National Health Performance Committee Framework (NHPC 2001). Information on emergency department waiting times is also included.

Chapter 5 presents summary data on elective surgery waiting times reported to the National Elective Surgery Waiting Times Data Collection. These data have been included in this report for the first time. They have previously been published separately, most recently as *Waiting Times for Elective Surgery in Australia 1999–00* (AIHW 2002a).

Chapter 6 presents patient-based administrative data from the National Hospital Morbidity Database involving Medicare eligibility and funding source, area of usual residence, type of care received, urgency of admission and modes of admission and separation.

Chapter 7 presents patient-level demographic information from the National Hospital Morbidity Database, including tables of number of separations and patient days by age group, sex, Indigenous status and country of birth.

Chapters 8 to 11 present a range of patient-based information from the National Hospital Morbidity Database, including information on the principal diagnoses of the patients (Chapter 8), the procedures they underwent (Chapter 9), external causes of injury and poisoning (Chapter 10) and the Australian Refined Diagnosis Related Groups for the hospital separations (Chapter 11).

In all chapters, unless otherwise specified:

- public acute hospitals and public psychiatric hospitals are included in the public hospital (public sector) category.
- all public hospitals other than public psychiatric hospitals are included in the public acute hospital category.
- private psychiatric hospitals, private free-standing day hospital facilities and other private hospitals are included in the private hospital (private sector) category.
- all private hospitals other than private free-standing day hospital facilities are included in the other private hospitals category.

The appendixes provide more detailed technical notes on the data and analyses than are included in the chapters. In particular, Appendix 3 includes notes on the presentation of data in the tables and Appendix 6 includes the population estimates used for population rate calculations.

Summary information from the Department of Health and Ageing's 1999–00 National Hospital Cost Data Collection is provided in Appendix 8. This collection is the source of Australian Refined Diagnosis Related Group (AR-DRG) cost weight and average cost information used in Chapters 2, 4, 6 and 11.

## **The National Public Hospital Establishments Database**

The National Public Hospital Establishments Database holds a record for each public hospital in Australia. It is collated from the routine administrative collections of public acute hospitals, psychiatric hospitals, drug and alcohol hospitals and dental hospitals in all States and Territories.

The collection only covers hospitals within the jurisdiction of the State and Territory health authorities. Hence, public hospitals not administered by the State and Territory health authorities (for example, some hospitals run by correctional authorities in some jurisdictions and those in offshore territories) are not included. Further information about the hospitals

included in the database for 2000–01 (including a list of the hospitals) is provided in Appendix 5.

Information is included on hospital resources (beds, staff and specialised services), recurrent expenditure, non-appropriation revenue and services to admitted and non-admitted patients. Data on capital expenditure and depreciation are also collected. The collection is based on the activity, resource and system-level data elements of the National Minimum Data Set for Public Hospital Establishments.

Validation processes for 2000–01 data involved detailed consultation by the Institute with data providers in each State and Territory, to ensure data quality. Nevertheless, the collection does have some limitations and missing values.

## The National Hospital Morbidity Database

The National Hospital Morbidity Database is a compilation of electronic summary records from admitted patient morbidity data collection systems in Australian hospitals. Data relating to admitted patients in almost all hospitals are included: public acute hospitals, public psychiatric hospitals, private acute hospitals, private psychiatric hospitals and private free-standing day hospital facilities.

Essentially all other public hospitals were included for 2000–01. The great majority of private hospitals were also included, although there were a few not included, mainly free-standing day hospital facilities. Further information about the public and private hospitals included for 2000–01 and previous years is included in Appendix 5, including lists of all the hospitals in the database for 2000–01.

The data supplied for the National Hospital Morbidity Database were based on the National Minimum Data Set for Admitted Patient Care. They include demographic, administrative and length of stay data, and data on the diagnoses of the patients, the procedures they underwent in hospital and external causes of injury and poisoning. Information on the quality of the diagnosis, procedure and external cause data, coded using the second edition of the *International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification*, (ICD-10-AM) (NCCH 2000), is included in Appendix 3.

Records for 2000–01 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2000 to 30 June 2001. Data on patients who were admitted on any date before 1 July 2000 are included, provided that they also separated between 1 July 2000 and 30 June 2001. A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than one record in the database.

Most data providers were able to supply records for separations of patients aged 9 days or less on admission (*Newborn care type*) with no ‘qualified days’ (see Glossary). These patients do not meet admission criteria for all purposes, so they have been excluded from this report, except as specified in Chapter 6. Records for *Hospital boarders* were excluded, as they are not admitted patients. Posthumous organ procurement activity can also be recorded by hospitals and included with other hospital morbidity data. These records are also excluded from this report, except as specified in Chapter 6.

A process of validation of the morbidity database was jointly undertaken by the Institute and the data providers to ensure data quality. When data were supplied using non-standard definitions or classifications, the Institute mapped them to the *National Health Data Dictionary* definitions, where possible, in collaboration with the data providers. Further

information on the data quality and comparability is presented in Appendix 3, which also includes a description of variation among the States and Territories in the reporting of hospital in the home care.

## The National Elective Surgery Waiting Times Data Collection

The State and Territory health authorities have provided patient-level data on elective surgery waiting times to the Institute's National Elective Surgery Waiting Times Data Collection, based on the National Minimum Data Set for Elective Surgery Waiting Times. Earlier data on elective surgery waiting times have been reported for January to June 1995 (AIHW: Moon 1996), for the two years 1995–96 and 1996–97 (AIHW 2000b) and annually for 1997–98 to 1999–00 (AIHW 2000c, 2001b, 2002a).

The waiting times data presented in this report are for patients admitted for their elective surgery between July 2000 and June 2001.

The National Elective Surgery Waiting Times Data Collection relates to public acute care hospitals. Private hospitals are not included, except for two hospitals in New South Wales that were funded by the New South Wales Health Department to provide services for public patients. Some public patients treated under contract in private hospitals in Victoria and Tasmania were also included. In the Northern Territory all public acute care hospitals were included in the data collection. In other States all public hospitals that undertake elective surgery were generally included, although data were not collected for some smaller public hospitals. A list of hospitals included in the data collection for 2000–01 is included in Appendix 5.

The Institute works with the States and Territories to validate the data. Detailed checking of the data is undertaken, including ensuring that the data provided are internally consistent. Any apparently anomalous data are queried with the providing State or Territory and are not considered final until all anomalies are resolved.

## Emergency department waiting times data

State and Territory health authorities have provided jurisdiction-level data to the Institute on emergency department waiting times for the period July 2000 to June 2001. The data are based on the National Minimum Data Set for Emergency Department Waiting Times, described in the *National Health Data Dictionary*.

## Limitations of the data

The major variations from the *National Health Data Dictionary* definitions, substantial differences in scope, the effects of different populations and other major impacts on data quality have been noted within appropriate sections of this report. These general notes should also be used to guide interpretation of the data.

- Although the *National Health Data Dictionary* definitions form the basis of the databases, the actual definitions used may have varied among the data providers and from one year to another. In addition, admission practices and the detail of the scope of the data collections may vary among the jurisdictions and from year to year. Comparisons

between the States and Territories, reporting years and hospital sectors should therefore be made with reference to the accompanying notes.

- Not all private hospital separations are included in the National Hospital Morbidity Database, so the counts of private hospital separations presented in this report are likely to be underestimates of the actual counts. In 1999–00, the National Hospital Morbidity Database reported approximately 122,154 (5.7%) fewer separations than the Australian Bureau of Statistics' Private Health Establishments Collection (ABS 2001), which has wider coverage (see Appendix 3). At the time of publication of this report, the Australian Bureau of Statistics' Private Health Establishments Collection data for 2000–01 were not available. When they become available shortly after the publication of this report, an estimate will be made of under-enumeration of separations in the National Hospital Morbidity Database for 2000–01, by comparing it with the 2000–01 Private Health Establishments Collection data. This estimate will be included with *Australian Hospital Statistics 2000–01* on the Internet. See Appendix 5 for further information.
- Each State and Territory has a demographic structure and other features that differ from other jurisdictions, and factors such as age, geographical distribution and Aboriginal and Torres Strait Islander status can have an effect on the nature of health care delivery and thus on the statistics presented in this report.
- Although data on separations from the National Hospital Morbidity Database can reflect an aspect of the burden of disease in the community, they do not usually provide measures of the incidence or prevalence of conditions. This is because not all persons with a type or degree of illness are treated in hospital and the number and pattern of hospitalisations can be affected by differing admission practices, differing levels and patterns of service provision, and multiple admissions for some chronic conditions, in addition to the differing patterns of morbidity in the population.

## **This report and additional data on the Internet**

This report is available on the Internet at

**<http://www.aihw.gov.au/publications/hse/ahs00-01/index.html>**

The text of the report is presented in PDF format and the tables as downloadable Excel spreadsheets. Tables using 10-year age groups in this report are presented using 5-year age groups in the Internet version.

This site also includes lists of hospitals that contributed to the databases for 2000–01 (see Appendix 5) and additional data from the National Hospital Morbidity Database, in Excel spreadsheets. The spreadsheets provide tables that present further detail on diagnoses, procedures and AR-DRGs for admitted patients.

A couple of months after this report is published, the Internet site will also include updates for the tables in Chapters 2, 4, 6 and 11 that use AR-DRG cost weight and average cost information. At the time of publication, 2000–01 cost weights and average costs were not available, so 1999–00 data were used in this report instead. Updates will also be provided for the tables in Chapters 2 and 4 and in Appendix 5, which use data on private hospitals, collated in the Australian Bureau of Statistics' Private Health Establishments Collection. These data were also not available at the time of publication of this report.

More information about the Internet tables is in Chapters 7, 8, 9 and 11 and in Appendixes 1 and 5.

## **Interactive data cubes**

Also included on the site are interactive cubes of data from the National Hospital Morbidity Database (<http://www.aihw.gov.au/hospitaldata/datacubes/index.html>) which allow users to specify tables and graphs as required. There are four data cubes currently available:

- Principal diagnoses for 1993-94 to 1997-98 (using ICD-9-CM to classify diagnoses)
- Principal diagnoses for 1998-99 to 2000-01 (using ICD-10-AM to classify diagnoses)
- Australian Refined Diagnosis Related Groups version 4.1 for 1997-98 to 2000-01
- Principal diagnoses for separations that include specialised psychiatric care for 1998-99 to 1999-00 (using ICD-10-AM to classify diagnoses)

Later in 2002, data cubes covering procedure and external cause information will be added and the cube relating to specialised psychiatric care will be updated to include 2000-01 data.

Each cube includes information on the number of separations (same day and overnight), patient days and average length of stay, by age group and sex and year of separation, for each diagnosis or AR-DRG. The cube on specialised psychiatric care also includes data on the mental health legal status of the patient for each separation.