

1 Introduction

Australian Hospital Statistics 2001–02 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 reports for the financial years 1993–94 to 2000–01 (AIHW 1997a, 1997b, 1998, 1999, 2000a, 2001a and 2002a).

This series of reports has been based on data supplied to the Institute by the state and territory health authorities. 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. Data are also provided for public hospitals for the National Elective Surgery Waiting Times Data Collection and on emergency department waiting times. Patient-level data are provided for both public and private hospitals for the Institute's National Hospital Morbidity Database. Included are data on the diagnoses and other characteristics of admitted patients, and on the care they receive.

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 2001–02 in the *National Health Data Dictionary* version 10.0 (NHDC 2001) and are detailed in the glossary.

This report

This chapter describes the major data sources 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; and separations, length of stay and other statistics for admitted patients, based on the state or territory of the hospital, the type of hospital, and whether it was in the public or private sector.

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 Framework (NHPC 2001). Information on emergency department waiting times is included.

Chapter 5 presents summary data on elective surgery waiting times reported to the National Elective Surgery Waiting Times Data Collection.

Chapter 6 presents patient-based administrative data from the National Hospital Morbidity Database involving Medicare eligibility, patient election status and funding source; area of

usual residence; type of care received; urgency of admission and modes of admission and separation. Summary data are also presented on hospital in the home care.

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, country of birth and area of usual residence.

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).

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 the population estimates used for population rate calculations, and notes on major aspects of the quality and comparability of the hospital morbidity data. Appendix 4 provides information on the hospitals covered by each of the data sources.

Information from the National Hospital Morbidity Database is presented using Service related groups in Appendix 5. Summary information from the Department of Health and Ageing's 2000–01 National Hospital Cost Data Collection is provided in Appendix 7. 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.

Throughout the report, 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.

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.

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. Corrections Health in New South Wales was not included for 2001–02 although it had been included for earlier years. Further information about the hospitals included in the database for 2001–02 (including a list of the hospitals) is provided in Appendix 4.

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

Validation processes for 2001–02 data involved detailed consultation by the Institute with data providers in each State and Territory. Nevertheless, the collection does have some missing values and limitations; summary information on data quality and comparability is presented in Chapter 3.

The National Hospital Morbidity Database

The National Hospital Morbidity Database is a compilation of 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 public hospitals were included for 2001–02. The great majority of private hospitals were also included, although there were a few not included, mainly free-standing day hospital facilities. Counts of private hospital separations presented in this report are therefore likely to be underestimates of the actual counts. In 2000–01, the National Hospital Morbidity Database reported approximately 81,758 (3.5%) fewer separations than the Australian Bureau of Statistics' Private Health Establishments Collection (ABS 2002), which has wider coverage. Further information about the public and private hospitals included for 2001–02 and previous years is included in Appendix 4, including lists of all the hospitals contributing to the database for 2001–02.

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 Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification*, (ICD-10-AM) (NCCH 2000), is included in Appendix 3.

A process of validation of the morbidity database was jointly undertaken by the Institute and the data providers. Information on major aspects of the quality and comparability of the data is presented in Appendix 3. The following notes should also be used to guide interpretation of the data.

- Records for 2001–02 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2001 to 30 June 2002. Data on patients who were admitted on any date before 1 July 2000 are included, provided that they also separated between 1 July 2001 and 30 June 2002. 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.

- Patient day statistics can be used to provide information on hospital activity that, unlike separation statistics, account for differences in length of stay. As the database contains records for patients separating from hospital during the year, this means that not all patient days reported will have occurred in the reporting period (1 July 2001 to 30 June 2002). It is expected, however, that patient days for patients who separated in 2001–02, but who were admitted before 1 July 2001, would be counterbalanced overall by the patient days for patients in hospital on 30 June 2002 who will separate in future reporting periods. The numbers of separations and patient days can be a less accurate measure of the activity for establishments such as public psychiatric hospitals, and for patients receiving care other than acute care, for which more variable lengths of stay are reported.
- There is variation among the states and territories in features such as the demographic structure of the population. Factors such as age, geographical location and Indigenous 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 severity 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.

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. The data presented in this report are for patients admitted for their elective surgery between July 2001 and June 2002. 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 2000–01 (AIHW 2000c, 2001b, 2002a, 2002b).

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. 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 2001–02 is included in Appendix 4.

The Institute works with the states and territories to validate the data. Summary information on the quality and comparability of the data is included in Chapter 5.

Emergency department waiting times data

State and territory health authorities have provided establishment-level data to the Institute on emergency department waiting times based on the National Minimum Data Set for

Emergency Department Waiting Times, described in the *National Health Data Dictionary*. Earlier data on emergency department waiting times data have been reported for 2001–02 (AIHW 2002a).

The data relate to public acute care hospitals. Private hospitals are not included, except for one private hospital in Tasmania that provides services to public patients under contract arrangements. In the Australian Capital Territory and the Northern Territory all public acute care hospitals were included in the data collection. In other states and territories, most principal referral hospitals and large public hospitals were included, although data were not collected for some medium and smaller public hospitals. A list of hospitals included in the data collection for 2001–02 is included in Appendix 4. The Institute works with the states and territories to validate the data. Summary information on the quality and comparability of the data is included in Chapter 4.

This report and additional data on the Internet

This report is available on the Internet at <http://www.aihw.gov.au/>. The text of the report is presented in PDF format and the tables as downloadable Excel spreadsheets. This site also includes additional data, in Excel spreadsheets, from the National Hospital Morbidity Database on diagnoses, procedures and AR-DRGs for admitted patients, and the data used to generate graphs in this report. Some of the report's tables are also presented with more detail, such as using 5-year age groups rather 10-year age groups (see Chapter 7), and all the funding source categories (see Chapter 6). More information on the Internet tables is in Chapters 7, 8, 9 and 11 and in Appendixes 1, 3 and 4.

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, 2001–02 cost weights and average costs were not available, so 2000–01 data were used in this report instead. Updates will also be provided for the tables in Chapters 2 and 4 and in Appendix 4, 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.

Interactive data cubes

Also included on the site are interactive cubes of data from the National Hospital Morbidity Database 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 2001–02 (using ICD-10-AM to classify diagnoses)
- Australian Refined Diagnosis Related Groups version 4.1/4.2 for 1997–98 to 2001–02
- Principal diagnoses for separations that include specialised psychiatric care for 1998–99 to 2000–01 (using ICD-10-AM to classify diagnoses)

Later in 2003, data cubes covering procedure and external cause information will be added and the cube relating to specialised psychiatric care will be updated to include 2001–02 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.