

# 1 Introduction

*Australian hospital statistics 2009–10* continues the Australian Institute of Health and Welfare's (AIHW) series of summary reports describing the characteristics and activity of Australia's hospitals. The AIHW has previously published comprehensive reports for the financial years 1993–94 to 2008–09 (AIHW 2010a, 2009 and earlier). Previous reports include *Australia's hospitals 2008–09 at a glance* (AIHW 2010b) and *Australian hospital statistics 2009–2010 Emergency department care and elective surgery waiting times* (AIHW 2010c). This report is accompanied by *Australia's hospitals 2009–10 at a glance* (AIHW 2011), which presents a summary of the information in this report.

## Data sources for this report

The AIHW has undertaken the collection and reporting of the data in this report 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 relating to hospitals.

The data supplied by state and territory health authorities are used by the AIHW to assemble five databases which form the foundation for the Institute's statistical reporting on hospitals:

- the National Public Hospital Establishments Database, covering resources, expenditure and revenue for public hospitals
- the National Hospital Morbidity Database, covering the diagnoses and other characteristics of admitted patients, and the care they receive in public and private hospitals
- the National Non-admitted Patient Emergency Department Care Database, covering emergency department care and waiting times for selected public hospitals
- the National Elective Surgery Waiting Times Data Collection, covering waiting times and other characteristics of elective surgery in public hospitals
- the National Outpatient Care Database, covering services provided to non-admitted, non-emergency department patients in outpatient clinics of selected public hospitals.

Detailed information about the AIHW's hospital databases is provided in *Appendix 2*.

### Box 1.1: Data limitations

- States and territories are primarily responsible for the quality of the data they provide. However, the AIHW undertakes extensive validations on receipt of data, checking for valid values, logical consistency and historical consistency. Where possible, data in individual data sets are checked with data from other data sets. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these edit queries. Except as noted, the AIHW does not adjust data to account for possible data errors or missing or incorrect values.
- Statistics may be affected by variations in reporting practices across states and territories and over time. Where possible, these variations have been noted in the text. Comparisons between states and territories and reporting years should be made with reference to the accompanying notes in the chapters and in the appendixes. The AIHW takes active steps to improve the consistency of these data over time.

## Structure of this report

As in *Australian hospital statistics 2008–09*, the broad topics addressed in the report are:

- hospital resources (including the number of hospitals, hospital beds, expenditure, resources and staffing)
- emergency department services
- outpatient services (outpatient clinics and other non-admitted services provided by hospitals)
- admitted patient care, with separate chapters for same-day acute care, overnight acute care, elective surgery and sub- and non-acute care.

*Chapter 2* presents an overview of hospitals and hospital activity in Australia. This includes time series information on hospital resources, accident and emergency services, outpatient services and admitted patient care.

*Chapter 3* presents hospital performance indicator data. These indicators are presented according to the National Health Performance Framework, revised as agreed by the National Health Information Standards and Statistics Committee (NHISSC) in 2008. It includes performance indicators reported under the National Healthcare Agreement (NHA).

*Chapter 4* presents data on the characteristics and resources of Australian hospitals. Most of this information is for public hospitals, derived from the National Public Hospital Establishments Database (NPHEd).

*Chapter 5* presents information on non-admitted patient care provided in public hospital emergency departments and other accident and emergency services.

*Chapter 6* presents information on non-admitted patient care provided in outpatient clinics and other non-admitted patient services.

*Chapter 7* presents an overview of admitted patient care services. The chapter presents administrative, demographic and clinical information on all admitted patient care services.

*Chapter 8* presents information on same-day acute admitted patient care.

*Chapter 9* presents data on overnight acute admitted patient care.

*Chapter 10* presents information on elective surgery.

*Chapter 11* presents information on sub- and non-acute admitted patient care.

*Appendix 1* includes notes on the presentation of data, the population estimates used to calculate population rates, analysis methods and the quality and comparability of the data.

*Appendix 2* provides information on the AIHW's hospitals databases, the hospitals covered by each of the data sources and the categorisation of hospitals as public or private.

*Appendix 3* provides summary information on the Department of Health and Ageing's 2009–10 National Hospital Cost Data Collection (NHCDC). The NHCDC is the source of Australian Refined Diagnosis Related Groups (AR-DRG) cost weight and average cost information.

*Appendix 4* presents information on episodes of admitted patient care using the Service Related Group (SRG) classification.

*Appendix 5* presents information on potentially preventable hospitalisations.

*Appendix 6* presents information on national performance indicators not presented elsewhere in this report.

## Improvements to the report this year

The overall changes to this year's report, as compared with *Australian hospital statistics 2008–09*, were introduced to:

- Improve the alignment of information with that presented on the *MyHospitals* website
  - Since *Australian hospital statistics 2008–09* was published, the *MyHospitals* website has been developed and released. *MyHospitals* includes hospital-level summaries of admitted patient care in 'broad categories of service' according to the urgency of admission and the type of care provided (including childbirth and mental health). National and jurisdiction-level summaries of these 'broad categories of service' are included in *chapters 2, 7, 8 and 9*.
- Improve coverage of National Healthcare Agreement (NHA) hospital performance indicators
  - For *Australian hospital statistics 2008–09*, most of the NHA hospitals performance indicators were incorporated into *Chapter 3*. However, *Australian hospital statistics 2008–09* did not include breakdowns by Indigenous status, remoteness area and socioeconomic status for many of these indicators, as published by the COAG Reform Council. These additional breakdowns are presented in *Chapter 3*, or in additional tables that accompany this report online.
  - In addition, some indicators not included in *Australian hospital statistics 2008–09* are presented in *Appendix 6*.
- Reduce content relating to the emergency department care and elective surgery waiting times
  - In 2010, the AIHW released *Australian hospital statistics 2009–10: emergency department care and elective surgery waiting times* (AIHW 2010c). Some data already published in that report have been excluded from this report to minimise duplication. The emergency department care chapter (*Chapter 5*) and elective surgery chapter (*Chapter 10*) retain 'headline' statistics and include data not presented in the earlier report. All tables previously included the earlier report have been updated on the AIHW's website to ensure that they are consistent with the data in this report.

## Chapter structure

In this report, chapters are structured to address a common set of questions concerning the source data for each chapter, with section titles that include:

- *What data are reported?* – which discusses the data sets used to inform the chapter
- *What are the limitations of the data?* – which provides caveats that should be considered when interpreting the data presented
- *What methods were used?* – which outlines issues such as inclusions and exclusions of records and calculation methods, with references to more detailed information in the technical appendix.

The data presentations that follow these sections address, where possible, the following questions:

- *How has activity changed over time?*
- *How much activity was there in 2009–10?*
- *Who used these services?*

- How did people access these services?
- How urgent was the care?
- How long did people wait for care?
- Why did people receive the care?
- What care was provided?
- What was the safety and quality of the care?
- How long did patients stay?
- What was the cost of the care?
- Who paid for the care?
- How was the care completed?

Generally, discussions of what the data show refer to summary tables and figures that are placed immediately below the related text. Where appropriate, tables and figures within the chapter are accompanied by footnotes referring readers to the more detailed statistical tables at the end of the chapter.

## Additional online data

This report is available on the AIHW website at <[www.aihw.gov.au/hospitals/](http://www.aihw.gov.au/hospitals/)>. The report and the companion *Australia's hospitals 2009–10 at a glance* are presented in PDF format and all tables are available as downloadable Excel spreadsheets. The website also includes additional data in Excel spreadsheets on diagnoses, procedures and AR-DRGs for admitted patients. Some of the report's tables are presented with more detail online. For example, some tables present separations in 5-year age groups rather than 10-year age groups.

To maintain time series information, selected tables that accompanied *Australian hospital statistics 2007–08* and earlier reports are also provided using 2009–10 data.

## Interactive data cubes

The website also has interactive cubes of data from the National Hospital Morbidity Database, which allow users to specify tables and graphs as required. These include:

- Principal diagnoses:
  - 1993–94 to 1997–98 (using ICD-9-CM to classify diagnoses)
  - 1998–99 to 2009–10 (using ICD-10-AM to classify diagnoses)
  - mental health-related separations for 2001–02 to 2008–09 (using ICD-10-AM to classify diagnoses)
- AR-DRGs:
  - version 4.0/4.1/4.2 for 1997–98 to 2004–05
  - version 5.0/5.1/5.2 for 1998–99 to 2009–10
- Procedures:
  - 2000–01 and 2001–02 (using ACHI 2nd edition to classify procedures)
  - 2002–03 and 2003–04 (using ACHI 3rd edition to classify procedures)
  - 2004–05 and 2005–06 (using ACHI 4th edition to classify procedures)
  - 2006–07 and 2007–08 (using ACHI 5th edition to classify procedures)
  - 2008–09 and 2009–10 (using ACHI 6th edition to classify procedures).

Each principal diagnosis and AR-DRG cube includes information on the number of separations (same-day and overnight), patient days and average length of stay, by age group, sex and year of separation for each principal diagnosis or AR-DRG. The cube on mental health-related care also includes data on the mental health legal status of the patient and hospital sector for each separation. The procedures cubes include information on numbers of procedures by age group, sex, year of separation and whether the procedure was undertaken on a same-day basis.

Online interactive data are also available for:

- public hospital establishments with beds, financial and staffing measures for 2003–04 to 2009–10
- elective surgery waiting times summary statistics for:
  - reason for removal from waiting lists (2002–03 to 2009–10)
  - surgical specialty (2001–02 to 2009–10)
  - indicator procedure (2001–02 to 2009–10).

## Updates

After this report is published, the website will include updates for the tables that use AR-DRG cost weight and/or average cost information. At the time of writing, 2009–10 cost weights and average costs were not available. Therefore, 2008–09 public and private sector cost weights based on AR-DRG version 5.2 were used for the public and private sectors in most analyses requiring the application of cost weights.

Online tables and interactive data cubes are also updated in the event of errors being found in the report after publication, or if data are resupplied by states and territories after release of the publication.