

Better information and statistics for better health and wellbeing

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# The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is better information and statistics for better health and wellbeing.

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Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

### **Foreword**

I am pleased to present *Australian hospital statistics* 2008–09, an authoritative annual report that provides a comprehensive range of performance information and other statistics about public and private hospitals.

The publication was produced with the cooperation and advice of state and territory health authorities, the Australian Government Department of Health and Ageing, and other stakeholders. The Institute collates state and territory data into its comprehensive set of hospital databases, and summarises and analyses them in an impartial manner to produce information and analysis that informs the community and policy makers.

The Institute's goal is to produce information in a variety of formats to reflect the various needs of policy makers and the community. In keeping with that goal, this year, the report is accompanied by a shorter companion report — *Australia's hospitals* 2008–09 at a glance. It provides a summary of the detailed information presented here, in a form accessible to a general readership.

This year's report is substantially different from previous versions. Regular readers will note that the overall structure of the report has changed, as has the structure of individual chapters within the report.

The structure has moved from one largely centred on databases to one that focuses on the services provided by hospitals (such as emergency department services, outpatient services and admitted patient care). The report also presents different views of admitted patient care with separate chapters on same-day acute, overnight acute, elective surgery and sub- and non-acute care. More information is presented in accessible summary tables and graphs.

Another innovation this year has been the inclusion of a Compact Disc (CD) with the hardcopy of this report. The CD includes all tables in this publication, and also the 2008–09 data in tables in the format published in previous reports. The data in the hardcopy report and the CD are also published on the AIHW website, where additional, detailed data are available in data cubes.

Hospital performance indicators continue to be reported in this publication. Included are 2008–09 data for a number of indicators that the COAG Reform Council (CRC) has recently published (for 2007–08) in its report on the National Healthcare Agreement (NHA). The Institute is pleased to support the CRC's work and ensures that the indicators in *Australian hospital statistics* align with the NHA hospital performance indicators.

The Institute will continue to develop its suite of *Australian hospital statistics* products, and work with stakeholders to improve timeliness. Comments are always welcome.

Penny Allbon Director June 2010

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## **Abbreviations**

A DC	A aturaliana Dannassa of Chatiatian	NILICDC	National Hamital Cost Data
ABS ACT	Australian Bureau of Statistics	NHCDC	National Hospital Cost Data Collection
	Australian Capital Territory	NHDC	National Health Data Committee
ACHI	Australian Classification of Health Interventions	NHMBWG	National Health Ministers' Benchmarking Working Group
AIHW	Australian Institute of Health and Welfare	NHMD	National Hospital Morbidity Database
ALOS	Average length of stay	NILIDA	
AR-DRG	Australian Refined Diagnosis	NHPA	National Health Priority Area
av.o	Related Group	NHPC	National Health Performance Committee
ave	Average	NMDS	National minimum data set
Cat.	Catastrophic	NOCD	National Outpatient Care
CC	Complication and/or comorbidity		Database
DoHA	Department of Health and Ageing	NPHED	National Public Hospital
DRG	Diagnosis Related Group		Establishments Database
exp.	Expense	n.p.	Not published
FTE	Full-time equivalent	NSW	New South Wales
HASAC	Health and Allied Services	NT	Northern Territory
HDSC	Advisory Council Health Data Standards	OECD	Organisation for Economic Co- operation and Development
	Committee	PICQ	Performance Indicators for
ICD-9-CM	International classification of		Coding Quality
	diseases, 9th Revision, Clinical modification	PPH	Potentially preventable hospitalisation
ICD-10-AM	International statistical classification of diseases and	Qld	Queensland
	related health problems, 10th revision, Australian modification	RRMA	Rural, Remote and Metropolitan Area
IFRAC	Admitted patient fraction	RSI	Relative stay index
MDC	Major Diagnostic Category	SA	South Australia
n.a.	Not available	SCRGSP	Steering Committee for the
NAPEDC	Non-admitted patient emergency		Review of Government Service Provision
	department care	CEC	
NCCH	National Centre for Classification	SES	Socioeconomic status
	in Health	SEIFA	Socio-Economic Indexes for Areas
NAPEDCD	National Non-admitted Patient Emergency Department Care	SLA	Statistical local area
	Database	SRG	Service related group
NESWTDC	National Elective Surgery Waiting	SRR	Standardised separation rate ratio
	Times Data Collection	Tas	Tasmania
n.e.c.	Not elsewhere classified	Vic	Victoria
	Not applicable	VMO	Visiting medical officer
		WA	Western Australia

## **Acknowledgments**

This report would not have been possible without the valued cooperation and efforts of the data providers, the health authorities of the states and territories, and individual public and private hospitals (see *Appendix* 2). The Australian Institute of Health and Welfare (AIHW) thanks them for their timely supply of the data, assistance with data validation and assistance in the preparation of this report.

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- Jenny Hargreaves (AIHW) (Chair)
- John Agland (New South Wales Health Department)
- Paul Basso (South Australian Department of Health)
- Josephine Beer (Victorian Department of Health)
- Eui-Soo Choi (New South Wales Health Department)
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- George Neale (Australian Private Hospitals Association Limited)
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- Anneke Schmider (Australian Bureau of Statistics)
- Elisabeth Sallur (Western Australian Department of Health)
- Paul Tridgell (Australian Healthcare and Hospitals Association)
- Marla Tun (National Centre for Classification in Health)

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## **Summary**

Australia's hospitals are the subject of continuing public discussion that can be informed by the comprehensive information in *Australian hospital statistics* 2008–09.

Australia had 1,317 hospitals in 2008–09. The 756 public hospitals accounted for 67% of beds (56,500) and the 561 private hospitals accounted for 33% (27,500).

#### Accident and emergency services

There were 7.2 million accident and emergency services provided in public hospitals in 2008–09, with an increase of 4.6% on average each year between 2004–05 and 2008–09. Overall, 70% of patients were seen on time in emergency departments, as were 100% of resuscitation patients (those requiring treatment immediately). The overall proportion seen on time was either 69% or 70% each year since 2004–05.

#### Admitted patient care

There were 8.1 million separations for admitted patients in 2008–09, 4.9 million in public hospitals and over 3.2 million in private hospitals. There was an increase of 3.4% on average each year between 2004–05 and 2008–09 for public hospitals, and 4.4% for private hospitals.

Same-day separations were 57% of the total, having increased by an average of 4.8% each year between 2004–05 and 2008–09. The average length of stay for overnight admissions was 6.0 days in 2008–09, after having been 6.2 days since 2005–06.

About 3.6% of separations were for non-acute care. Between 2004–05 and 2008–09, there were increases in rehabilitation care in private hospitals (19% on average each year) and maintenance care (provided to patients who require care over an indefinite period) in public hospitals (9%).

Separation rates were higher than average for Indigenous Australians, for people in remote areas and in areas of lower socioeconomic status, overall and for public hospitals. For private hospitals, rates were higher for people in major cities and in areas of higher socioeconomic status.

#### **Elective surgery**

There were 1.8 million episodes of elective surgery in 2008–09. Public elective surgery increased by 3.1% over 2007–08, faster than the 1.7% average rate of increase between 2004–05 and 2008–09. Other elective surgery increased by 2.9%, slower than the average of 4.1% since 2004–05. The median waiting time for public elective surgery was 34 days, the same as in 2007–08.

#### **Expenditure and funding**

Public hospital recurrent expenditure totalled \$31.3 billion in 2008–09. Adjusted for inflation, it increased by an average of 5.9% each year between 2004–05 and 2008–09.

About 70% of expenditure was for admitted patient services. Private health insurance was the main funding source for 37% of separations, and 53% were for public patients (mainly those funded through the Australian Health Care Agreements). Between 2004–05 and 2008–09, public patient separations increased by 3.1% on average each year, those funded by private health insurance increased by 5.6%, while those funded by the Department of Veterans' Affairs decreased by 1.4%.

### 1 Introduction

Australian hospital statistics 2008–09 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 reports for the financial years 1993–94 to 2007–08 (AIHW 1997a, 1997b, 1998, 1999, 2000, 2001, 2002, 2003, 2004a, 2005a, 2006a, 2007a, 2008a, 2009a). This year, the AIHW has also produced a companion report, Australia's hospitals 2008–09 at a glance (AIHW 2010a), which presents a summary of information in this report.

### Data sources for this report

The AIHW has undertaken the collection and reporting of the data in this report and its companion report under the auspice 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 that are the foundation for the Institute's statistical reporting on hospitals:

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

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

### Structure of this report

Australian hospital statistics 2008–09 is substantially different from previous versions of the report. Consequently, regular readers will note that the overall structure of the report has changed, as has the structure of individual chapters within the report.

In previous years, most report chapters presented information from individual databases (such as the National Public Hospital Establishments Database or the National Non-admitted Patient Emergency Department Care Database), or individual data elements within databases (such as Principal diagnoses, Procedures, or External causes of injury and poisoning). This structure supported provision of technical information on each hospital database. However, when more than one database provided information on a service, information on that service tended to be spread across several chapters. This created difficulties in drawing together related information on hospital services.

For this report, the focus of chapters has moved from databases and data elements, to hospital services. In this approach, data from different databases that relate to a particular service are presented within the same chapter.

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 (including non-admitted care in 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 between 2004-05 and 2008-09. 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 and Statistics Committee (NHISSC) in 2008. Performance indicators reported under the National Healthcare Agreement are also introduced.

*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 information 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, on the hospitals covered by each of the data sources and on the categorisation of hospitals as public or private.

Appendix 3 provides summary information on the Department of Health and Ageing's 2007–08 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 is a discussion of the Department of Health and Ageing's *State of our public hospital, June 2010 report*. It notes the major differences between the analysis methods used for that report and for *Australian hospital statistics* 2008–09.

### How this report compares to previous reports

Table 1.1 summarises how the structure of *Australian hospital statistics* 2007–08 has been transferred into the 2008–09 report.

Table 1.1: Report structure, summary of content by chapter, *Australian hospital statistics* 2007–08 and *Australian hospital statistics* 2008–09

Australian hospi	tal statistics 2007–08	Australian hospital statistics 2008–09
Chapter number	Chapter title	Chapter number
Chapter 1	Introduction	Chapter 1
Chapter 2	Overview of Australian hospitals	Chapter 2
Chapter 3	Public hospital establishments	Chapter 4
Chapter 4	Hospital performance indicators	Chapter 3
Chapter 5	Non-admitted patient care (in emergency departments)	Chapter 5
Chapter 5	Non-admitted patient care (in outpatient clinics)	Chapter 6
Chapter 6	Access to elective surgery	Chapter 10
Chapter 7	Administrative data for admitted patients	Relevant sections of chapters 7, 8, 9, 10 and 11
Chapter 8	Demographic data for admitted patients	Relevant sections of chapters 7, 8,9,10 and 11
Chapter 9	Principal diagnoses for admitted patients	Relevant sections of chapters 7, 8, 9, 10 and 11
Chapter 10	Procedures for admitted patients	Relevant sections of chapters 7, 8, 9, 10 and 11
Chapter 11	External causes for admitted patients	Chapter 7
Appendix 1	Technical appendix	Appendix 1
Appendix 2	Hospital databases: characteristics and coverage	Appendix 2
Appendix 3	National Hospital Cost Data Collection	Appendix 3
Appendix 4	Service related groups	Appendix 4
Appendix 5	Potentially preventable hospitalisations	Appendix 5
Appendix 6	The state of our public hospitals, June 2010 report	Appendix 6

### Chapter structure

In previous years, most chapter titles and chapter section titles of *Australian hospital statistics* described databases and data elements within databases. The text of most chapters addressed full-page tables at the end of each chapter, with substantial technical and caveat information provided with comments on the tables.

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? This section discusses the data sets used to inform the chapter.
- What are the limitations of the data? This section provides caveats that should be considered when interpreting the data presented.
- What methods were used? This section 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 discussion of the data sources address, where possible, the following questions:

- How has activity changed over time?
- How much activity was there in 2008–09?
- 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 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. All tables presented in the hardcopy publication are also placed on a Compact Disc (CD) provided with the hardcopy.

#### Additional data on the Internet and CD

This report is available on the Internet at <www.aihw.gov.au> and on the accompanying CD. The report and the companion *Australia's hospitals* 2008–09 at a glance is presented in PDF format and all tables are presented in downloadable Excel spreadsheets. This site and CD also include 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. For example, some tables present separations in 5-year age groups rather than 10-year age groups.

To maintain time series information selected tables provided to accompany *Australian hospital statistics* 2007–08, are also provided using 2008–09 data.

#### 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:

- Principal diagnoses for:
  - 1993-94 to 1997-98 (using ICD-9-CM to classify diagnoses)
  - 1998-99 to 2008-09 (using ICD-10-AM to classify diagnoses)
  - mental health-related separations for 2001–02 to 2006–07 (using ICD-10-AM to classify diagnoses).
- AR-DRGs for:
  - version 4.0/4.1/4.2 for 1997–98 to 2004–05
  - version 5.0/5.1/5.2 for 1998–99 to 2008–09.
- Procedures for:
  - 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 (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 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 2008–09
- elective surgery waiting times summary statistics for:
  - Reason for removal from waiting lists (2002–03 to 2008–09)
  - Surgical specialty (2001–02 to 2008–09)
  - Indicator procedure (2001–02 to 2008–09).

### **Updates**

After this report is published, the internet site will also include updates for the tables that use AR-DRG cost weight and/or average cost information. At the time of writing, 2008–09 cost weights and average costs were not available. Therefore, 2007–08 public and private sector cost weights based on AR-DRG version 5.1 were used for the public and private sectors in most analyses requiring the application of cost weights.

Internet 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 after release of the publication.

### 2 Overview: 2004–05 to 2008–09

This chapter presents an overview of hospital resources and hospital activity between 2004–05 and 2008–09.

### What data are reported?

### Data on hospital resources

Data on hospital resources include the number of public and private hospitals, the number of public and private hospital beds, public hospital expenditure, public hospital revenue and public hospital staffing.

Information on public hospital resources was sourced from the National Public Hospital Establishments Database (NPHED) (see *Appendix 1*). Information on private hospital resources was sourced from the Australian Bureau of Statistics' (ABS) Private Health Establishments Collection (PHEC) to 2006–07. For 2008–09, information on the number of private hospitals and private hospital beds was mainly provided by states and territories. Information on the number of *Private free-standing day hospital facilities* and beds for New South Wales, South Australia and the Northern Territory was sourced from the Department of Health and Ageing (DoHA 2010, unpublished data) as data were not available from states and territories (see *Appendix 1*). Private hospital expenditure and revenue information for 2008–09 was sourced from *Private hospitals Australia 2008–09* (ABS 2010).

### Data on hospital activity

Data on hospital activity include summary information on non-admitted and admitted patient activity in public and private hospitals.

Information on non-admitted patient services in public hospitals was sourced from the NPHED. Information on non-admitted patient services in private hospitals was from the *Private hospitals Australia* reports published by the ABS (ABS 2010, 2008, 2007 etc). Information on admitted patient services was derived from the National Hospital Morbidity Database (NHMD) for both public and private hospitals.

#### Box 2.1 What are the limitations of the data?

Data on hospital resources and activity are affected by changes in coverage and administrative and reporting arrangements (see *Appendix* 2). When interpreting the data presented, readers should note the following:

- Coverage of the databases may vary between reporting years. Detailed information on the coverage of each database is provided in *Appendix* 2.
- Reporting arrangements may vary between jurisdictions for hospitals that are privately or publicly owned and/or operated and predominantly provide public hospital services. Most of these are reported as public hospitals, but some are reported as private hospitals (see *Appendix 1*).
- Hospitals may be re-categorised as public or private between or within years. For
  example, there have been changes in reporting arrangements for the Mersey
  Community Hospital in Tasmania between years. *Appendix 2* presents detailed
  information on re-categorisation of hospitals and hospital amalgamations.
- Changes in accounting practices can affect the comparability of financial data over time. For example in 2007–08, South Australia changed from cash accounting to accrual accounting and Tasmania changed accrual accounting policy. Tasmania also included corporate overheads in expenditure, which may or may not be fully included by other states or territories.
- Capital formation expenditure is not reported in this publication. Not all jurisdictions were able to report using the *National health data dictionary* (HDSC 2006) categories and the comparability of the data may not be adequate for reporting.
- Reporting arrangement for non-admitted patient activity varied significantly across
  years. States and territories may also differ in the extent to which outpatient and
  other non-admitted services are provided in non-hospital settings (such as
  community health centres), which are beyond the scope of the AIHW hospital
  databases.
- Admission practices varied between public and private sectors, states and territories, and over time (see *Appendix 1*). For example, there was variation in admission practices for services such as chemotherapy and endoscopy. As a result, people receiving the same type of service may be counted as same-day admitted patients in some hospitals, and as non-admitted patients in other hospitals.
- Statistics on separations for admitted patients may be affected by variations in statistical admission and statistical separation practices across states and territories, and the way in which hospital stays for *Newborns* were reported (see *Appendix* 1).
- In 2008–09, Western Australia did not provide data for approximately 3,000 admitted patient separations. Approximately 2,700 of those separations were from public hospitals.
- In 2004–05, there was a 21% shortfall in admitted patient separations reported for Tasmanian private hospitals. In addition, the hospital type was not specified for Tasmanian private hospitals reporting to the NHMD. Data for that year for Tasmania, the Northern Territory and the Australian Capital Territory (ACT) are included in the total for private hospitals but not the private hospital subcategories.
- Admitted patient data for a small number of private hospitals were missing for short periods in 2004–05 in Victoria and in the ACT across all years.

#### Box 2.2 What methods were used?

The following methods have been applied for presentations in this chapter.

- Time series data are presented in this chapter showing average annual changes from 2004–05 to 2008–09 or the latest available year of data, and annual change between 2007–08 and 2008–09 or the change between the two latest available years of data if the 2008–09 data are unavailable. Annual change rates are not adjusted for any changes in data coverage and/or change in categorisation of hospitals as public or private.
- Expenditure and Revenue are presented in both current price and constant price terms. Current prices refer to amounts as reported, unadjusted for inflation. Current price amounts are less comparable between years than constant price amounts. Constant price values are adjusted for inflation and are expressed in terms of prices in reference year. The ABS Government Final Consumption Expenditure, State and Local - Hospitals & Nursing Homes deflator was used for public hospitals. The ABS Household Final Consumption Expenditure Hospital Services deflator was used for private hospitals.
- The Mersey Community Hospital data was included with private hospitals in presentations of hospital resources, and of admitted patient activity.
- The Mersey Community Hospital data was included with public hospitals in presentations of non-admitted patient activity and for elective surgery waiting times data.
- Separations for which the care type was reported as *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded from statistics on separations.
- Separations per 1,000 population and Patient days per 1,000 population are reported as directly age-standardised rates based on Australian population as at 30 June of the year of interest. The Australian population as at 30 June 2001 is used as the reference population. Age-standardisation of rates enables valid comparison across years and/or jurisdictions without being skewed by the difference in age distributions. Further information about age-standardisation is presented in *Appendix 1*.
- Average cost weights comparisons are based on the latest available public and private cost weights and the relevant Australian Refined Diagnosis Related Group (AR-DRG) versions applying to each year. In Table 2.9, public sector cost weights have also been used for private hospitals to enable comparison with public hospitals. Further information about the AR-DRG classification and cost weights is included in *Appendix 1*.
- The Relative stay index (RSI) is calculated as the actual number of patient days for separations in selected AR-DRGs (version 5.2) divided by the expected number of patient days (based on national figures for the years 2004–05 to 2008–09 combined) and standardised for casemix. Further information on the calculation of the RSI is presented in *Appendix 1*.
- For reasons of confidentiality, data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory have not been published.

### Hospital resources 2004-05 to 2008-09

The hospital types reported in this chapter are:

- public acute hospitals and public psychiatric hospitals (public hospitals)
- private free-standing day hospital facilities and other private hospitals (private hospitals).

### How many hospitals?

In 2008–09, there were 756 public hospitals and 561 private hospitals, compared with 762 public hospitals and 552 private hospitals in 2007–08 (Table 2.1).

More information on the types of hospitals, and their distribution by state and territory in 2008–09 is provided in *Chapter 4*.

Table 2.1: Public and private hospitals(a), 2004-05 to 2008-09

						Change (	per cent)
	2004-05 <sup>(b)</sup>	2005–06 <sup>(c)</sup>	2006-07 <sup>(d)</sup>	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	739	736	739	742	737	-0.1	-0.7
Public psychiatric hospitals	20	19	19	20	19	-1.3	-5.0
Total	759	755	758	762	756	-0.1	-0.8
Private hospitals							
Private free-standing day hospital facilities	247	256	268	272	285	3.6	4.8
Other private hospitals	285	291	289	280	276	-0.8	-1.4
Total	532	547	557	552	561	1.3	1.6
All hospitals	1,291	1,302	1,315	1,314	1,317	0.5	0.2

 $\it Notes: See Boxes 2.1 \ and 2.2 \ for notes on data limitations and methods.$ 

Abbreviations: Ave-average.

### How many beds?

Between 2004–05 and 2008–09, hospital bed numbers rose overall, but there was variation in the size and direction of the changes in bed numbers for public and private hospitals (Table 2.2). The number of average available beds per 1,000 population declined for both public and private hospitals over that period.

<sup>(</sup>a) The number of hospitals reported can be affected by administrative and/or reporting arrangements and is not necessarily a measure of the number of physical hospital buildings or campuses (see *Appendix 1*).

<sup>(</sup>b) In 2004–05, the Western Australian Department of Health purchased two private hospitals and they were amalgamated with existing public hospitals.

<sup>(</sup>c) In 2005-06, two hospitals in Melbourne were amalgamated.

<sup>(</sup>d) In 2006–07, there were two new public hospitals created in Western Australia, which covered contracted public hospital services previously provided by two private hospitals.

Table 2.2: Public and private hospital average available beds<sup>(a)</sup> and number of average available beds per 1,000 population<sup>(b)</sup>, 2004–05 to 2008–09

						Change (p	per cent)
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004-05	Since 2007-08
Public hospitals							
Public acute hospitals	52,806	52,236	53,563	54,137	54,338	0.7	0.4
Public psychiatric hospitals	2,487	2,366	2,341	2,330	2,140	-3.7	-8.2
Total	55,293	54,601	55,904	56,467	56,478	0.5	0.0
Average available beds per 1,000 population <sup>(b)</sup>	2.73	2.66	2.68	2.66	2.61	-1.1	-1.9
Private hospitals <sup>(c)</sup>							
Private free-standing day hospital facilities	2,078	2,114	2,251	2,151	2,168	1.1	0.8
Other private hospitals	24,346	24,113	24,427	25,617	25,298	1.0	-1.2
Total	26,424	26,227	26,678	27,768	27,466	1.0	-1.1
Average available beds per 1,000 population <sup>(b)</sup>	1.30	1.28	1.28	1.31	1.27	-0.7	-2.9
All hospitals	81,717	80,828	82,582	84,235	83,944	0.7	-0.3
Average available beds per 1,000 population <sup>(b)</sup>	4.03	3.93	3.96	3.97	3.88	-1.0	-2.2

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### Did hospital expenditure and revenue change?

Recurrent expenditure for public hospitals in 2008–09 was \$31.3 billion in current price terms (unadjusted for inflation), an increase of 8.4% from 2007–08 (Table 2.3). In constant price terms (adjusted for inflation) the increase in recurrent expenditure for public hospitals was 5.0% between 2007–08 and 2008–09 (Table 2.3). Total revenue for public hospitals increased in constant price terms by an average of 7.7% annually between 2004–05 and 2008–09 (Table 2.3).

<sup>(</sup>a) Comparability of bed numbers can be affected by the range and types of patients treated by a hospital (casemix) with, for example, different proportions of beds being available for special and more general purposes. Public and private hospital bed numbers presented are based on different definitions (see *Appendix 1*). Bed numbers may not be comparable with previous editions of *Australian hospital statistics* due to revision of historic bed counts. The Australian Bureau of Statistics' *Private hospitals Australia* reported 27,180 private hospital beds/chairs (ABS 2010).

<sup>(</sup>b) Average available beds per 1,000 population is a crude rate based on Australian population as at the 31 December of the year in question.

<sup>(</sup>c) In 2007–08, Victorian private hospital changed the basis of counting beds from average available beds to licensed (registered) beds. This resulted in an increase of 783 beds in 2007–08 compared to 2006–07 for Victorian private hospitals.

Table 2.3: Recurrent expenditure and revenue (\$ million), public and private hospitals, 2004–05 to 2008–09

						Change (	per cent)
	2004–05	2005–06	2006-07	2007-08	2008-09	Ave since 2004–05	Since 2007-08
Total recurrent expenditure, constant	orices <sup>(a)</sup>						
Public hospitals <sup>(b)</sup>	24,167	25,685	27,075	28,908	30,352	5.9	5.0
Private hospitals <sup>(c)</sup>	6,974	7,133	7,182	n.a.	7,669	2.4	n.a.
All hospitals	31,141	32,818	34,257	n.a.	38,021	5.1	n.a.
Total recurrent expenditure, current pr	ices						
Public hospitals <sup>(b)</sup>	21,557	23,964	26,290	28,908	31,323	9.8	8.4
Private hospitals <sup>(c)</sup>	6,144	6,498	6,967	n.a.	8,137	7.3	n.a.
All hospitals	27,701	30,462	33,256	n.a.	39,460	9.2	n.a.
Total revenue, constant prices <sup>(a)</sup>							
Public hospitals	2,143	2,313	2,488	2,691	2,883	7.7	7.1
Private hospitals	7,519	7,685	7,773	n.a.	8,466	3.0	n.a.
All hospitals	9,661	9,998	10,260	n.a.	11,348	4.1	n.a.
Total revenue, current prices							
Public hospitals	1,911	2,158	2,415	2,691	2,975	11.7	10.5
Private hospitals	6,624	7,001	7,539	n.a.	8,982	7.9	n.a.
All hospitals	8,535	9,159	9,955	n.a.	11,957	8.8	n.a.

Private hospitals expenditure and revenue data were sourced from Private hospitals Australia, 2008–09 (ABS 2010).

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### How many people were employed in public hospitals?

Between 2004–05 and 2008–09, the numbers of full-time equivalent staff employed in public hospitals in Australia increased by an average of 3.9% per annum. There was variation in the relative size and direction of change across staff categories during this period (Table 2.4).

<sup>(</sup>a) Expressed in terms of prices in the reference year 2007–08. The ABS Government Final Consumption Expenditure, State and Local – Hospitals & Nursing Homes deflator was used for public hospitals. The ABS Household Final Consumption Expenditure Hospital Services deflator was used for private hospitals.

<sup>(</sup>b) Excludes depreciation.

<sup>(</sup>c) Includes depreciation.

Table 2.4: Full-time equivalent staff(a), public hospitals, 2004-05 to 2008-09

						Change (	per cent)
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Salaried medical officers	21,394	22,858	24,526	26,996	29,166	8.1	8.0
Total nurses	93,992	99,008	103,960	107,089	111,870	4.4	4.5
Diagnostic and allied health professionals	30,502	32,232	34,241	36,013	35,506	3.9	-1.4
Administrative and clerical staff	32,895	33,704	36,843	36,909	37,640	3.4	2.0
Other personal care staff, Domestic and other staff <sup>(b)</sup>	32,862	33,577	35,147	33,337	32,713	-0.1	-1.9
Total staff <sup>(a)</sup>	211,645	221,379	234,717	240,344	246,895	3.9	2.7

Private hospitals expenditure and revenue data were sourced from Private hospitals Australia, 2008-09 (ABS 2010).

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### Hospital activity 2004-05 to 2008-09

### How much non-admitted patient activity?

Hospitals provide services to non-admitted patients through accident and emergency departments, outpatient clinics and a range of other services. Overall, the number of non-admitted patient occasions of service provided by *Public acute hospitals* increased by 3.5% per annum between 2004–05 and 2008–09 (Table 2.5).

Table 2.5: Non-admitted patient occasions of service ('000)(a), public(b)(c) and private hospitals, 2004–05 to 2008–09

						Change (p	per cent)
						Ave since	Since
	2004–05	2005–06	2006–07	2007–08	2008–09	2004–05	2007–08
Public acute hospitals <sup>(c)</sup>	42,759	44,750	46,141	48,355	49,161	3.5	1.7
Other private hospitals	1,780	1,734	1,743	n.a.	2,026	3.3	n.a.
Total	44,539	46,484	47,884	n.a.	51,186	3.5	n.a.

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

<sup>(</sup>a) The number of Visiting medical officers (VMOs), who are contracted by hospitals to provide services to public patients and paid on a sessional or fee-for-service basis in public hospitals, is not available and hence not included in Total staff.

<sup>(</sup>b) Other personal care staff FTE numbers were not supplied for some jurisdictions and these amounts may be included in other staffing categories.

<sup>(</sup>a) Excludes group occasions of service.

<sup>(</sup>b) Excludes Public psychiatric hospitals.

<sup>(</sup>c) Includes data for the Mersey Community Hospital for 2007–08 and 2008–09.

### How much admitted patient activity?

Admission to hospital is a formal process, and follows a decision made by a medical officer that a patient needs to be admitted for appropriate management or treatment of their condition, or for appropriate care or assessment of needs.

**Separation** is the term used to refer to the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). **'Separation'** also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferred to another hospital or by a change of care type.

Between 2004–05 and 2008–09, the overall number of hospital separations rose from 7.0 million to 8.1 million separations. The rate of growth in separations was higher for private hospitals than for public hospitals. In 2008–09, private hospitals accounted for 40% of separations, compared to 39.1% in 2004–05 (Table 2.6). Over the same period, there was a fall in separations from *Public psychiatric hospitals*. In part, this reflects a change of service delivery arrangements such as a shift from *Public psychiatric hospitals* to *Public acute hospitals* and to residential care.

Between 2007–08 and 2008–09, separations increased by 3.2% for public acute hospitals and by 4.1% for private hospitals. Adjusting for the shortfall of 3,000 separations for Western Australia did not affect the estimated change in separations between 2007–08 and 2008–09.

Table 2.6: Separations ('000), public and private hospitals, 2004-05 to 2008-09

						Change (	per cent)
-	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	4,261	4,451	4,646	4,729	4,880	3.5	3.2
Public psychiatric hospitals	16	16	15	15	11	-8.5	-24.6
Total	4,276	4,466	4,661	4,744	4,891	3.4	3.1
Private hospitals							
Private free-standing day hospital							
facilities	520	547	570	668	729	8.8	9.2
Other private hospitals	2,222	2,298	2,371	2,462	2,528	3.3	2.7
Total	2,742	2,846	2,942	3,130	3,257	4.4	4.1
All hospitals	7,019	7,312	7,603	7,874	8,148	3.8	3.5

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

Between 2004–05 and 2008–09, the number of separations per 1,000 population rose by 1.6% per year overall, with growth observed in all types of hospitals apart from *Public psychiatric hospitals* (Table 2.7). The separation rate for *Public psychiatric hospitals* declined by 26.5% between 2007–08 and 2008–09 and on average declined by 10.0% per year between 2004–05

and 2008–09. The highest growth in separation rate was observed in *Private free-standing day hospital facilities*.

Table 2.7: Separations per 1,000 population(a), public and private hospitals, 2004-05 to 2008-09

						Change (p	per cent)
	2004–05	2005–06	2006–07	2007–08	2008-09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	207.6	212.9	217.8	216.9	218.8	1.3	0.9
Public psychiatric hospitals	0.8	0.8	0.7	0.7	0.5	-10.0	-26.5
Total	208.4	213.6	218.5	217.6	219.3	1.3	0.8
Private hospitals							
Private free-standing day hospital facilities	25.2	26.0	26.5	30.3	32.4	6.5	6.8
Other private hospitals	107.2	108.6	109.6	111.4	111.9	1.1	0.5
Total	132.4	134.6	136.2	141.7	144.3	2.2	1.8
All hospitals	340.7	348.2	354.7	359.3	363.6	1.6	1.2

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### Same-day and overnight separations

A **same-day separation** occurs when a patient is admitted and separated from hospital on the same date.

An **overnight separation** occurs when a patient is admitted and separates from hospital on different dates.

Between 2004–05 and 2008–09, the number of same-day separations rose at a greater rate than that for all separations (Table 2.8), with the rate of increase being higher in private hospitals. In 2008–09, same-day separations made up 57.0% of all separations, compared with the 54.8% of all separations in 2004–05 (Table 2.8).

There was an increase in overnight separations between 2004–05 and 2008–09 (Table 2.8), with the rate of increase being higher for public hospitals than private hospitals. In 2008–09, overnight separations made up 49.7% of separations in public hospitals, and 33.0% of separations in private hospitals.

<sup>(</sup>a) Separation rates are directly age-standardised to the Australian population as at 30 June of each year. The Australian population as at 30 June 2001 is used as the reference population.

Table 2.8: Same-day and overnight separations ('000), public and private hospitals, 2004-05 to 2008-09

						Change (p	er cent)
						Ave since	Since
	2004–05	2005–06	2006–07	2007–08	2008–09	2004–05	2007–08
Same-day separations							
Public hospitals							
Public acute hospitals	2,097	2,214	2,331	2,362	2,460	4.1	4.2
Public psychiatric hospitals	2	2	2	2	1	-28.0	-64.9
Total	2,099	2,216	2,333	2,364	2,461	4.1	4.1
Proportion of total separations (%)	49.1	49.6	50.0	49.8	50.3	0.6	1.0
Private hospitals							
Private free-standing day hospital							
facilities	517	545	568	666	728	8.9	9.3
Other private hospitals	1,230	1,282	1,341	1,399	1,456	4.3	4.0
Total	1,748	1,827	1,909	2,065	2,184	5.7	5.7
Proportion of total separations (%)	63.7	64.2	64.9	66.0	67.0	1.3	1.6
All hospitals	3,847	4,043	4,242	4,429	4,645	4.8	4.9
Proportion of total separations (%)	54.8	55.3	55.8	56.2	57.0	1.0	1.3
Overnight separations							
Public hospitals							
Public acute hospitals	2,164	2,237	2,315	2,368	2,420	2.8	2.2
Public psychiatric hospitals	13	14	13	13	10	-6.1	-19.0
Total	2,177	2,250	2,328	2,380	2,430	2.8	2.1
Private hospitals							
Private free-standing day hospital							
facilities	3	2	2	2	1	-17.2	-46.7
Other private hospitals	992	1,016	1,031	1,062	1,073	2.0	0.9
Total	995	1,018	1,033	1,065	1,074	1.9	0.8
All hospitals	3,172	3,269	3,361	3,445	3,504	2.5	1.7

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### Average cost weight

Average cost weight information provides a guide to the expected resource use for separations, with a value of 1.00 representing the theoretical average for all separations. The validity of comparisons of average cost weights across jurisdictions is limited by differences in the extent to which each jurisdiction's acute care psychiatric services are integrated into its public hospital system. Cost weights are of less use as a measure of resource requirements for acute psychiatric services because the relevant AR-DRGs are less homogenous than for other acute services.

In the first part of Table 2.9, public sector cost weights have been used for both public and private hospitals to enable comparison between sectors, because public and private sector cost weights are not comparable.

Using public cost weights for both public and private hospitals shows that between 2004–05 and 2008–09, average cost weights for public and private hospitals declined slightly overall

(Table 2.9). Over that period there was an increase in the average cost weight for *Public psychiatric hospitals*. Applying private hospital cost weights to separations for private hospitals confirms that the overall average cost weight for private hospitals declined slightly between 2004–05 and 2008–09, with a slight increase observed for *Other private hospitals*.

Table 2.9: Average cost weight of separations, public and private hospitals, 2004-05 to 2008-09

						Change (per cent			
	2004–05	2005–06	2006-07	2007–08	2008-09	Ave since 2004–05	Since 2007–08		
Average public cost weight of separation	าร <sup>(a)</sup>								
Public hospitals									
Public acute hospitals	1.03	1.02	1.01	1.02	1.01	-0.5	-0.5		
Public psychiatric hospitals	2.54	2.57	2.53	2.64	2.91	3.5	10.4		
Total	1.04	1.02	1.02	1.02	1.01	-0.5	-0.6		
Private hospitals									
Private free-standing day hospital facilities	0.48	0.47	0.48	0.47	0.47	-0.4	0.3		
Other private hospitals	1.02	1.02	1.03	1.04	1.03	0.3	-0.5		
Total	0.91	0.91	0.92	0.91	0.90	-0.4	-1.4		
All hospitals	0.99	0.98	0.98	0.98	0.97	-0.5	-0.9		
Average private cost weight of separatio	ns <sup>(b)</sup>								
Private hospitals									
Private free-standing day hospital									
facilities	0.36	0.35	0.36	0.35	0.35	-0.7	-1.6		
Other private hospitals	0.95	0.95	0.96	0.97	0.97	0.4	-0.2		
Total	0.83	0.83	0.84	0.83	0.82	-0.4	-1.3		

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### How long did patients stay?

Between 2004–05 and 2008–09, total patient days rose for both public and private hospitals. In 2008–09, 69% of patient days were in public hospitals. Patient days for *Public psychiatric hospitals* declined between 2004–05 and 2008–09 (Table 2.10). In part, this reflects a change in service delivery arrangements, such as a shift from *Public psychiatric hospitals* to *Public acute hospitals* and to residential care.

Between 2004–05 and 2008–09, average length of stay for public acute and private hospitals fell slightly, but rose for *Public psychiatric hospitals*.

The length of stay for overnight separations is comparable with the length of stays reported by the Organisation for Economic Co-operation and Development (OECD) (which do not include same-day activity). With same-day separations excluded, average length of stay in all hospitals combined decreased by 1.1% between 2004–05 and 2008–09. The average length

<sup>(</sup>a) AR-DRG version 5.1 public cost weights 2007-08 were used for all rows in Average public cost weight of separations.

<sup>(</sup>b) AR-DRG version 5.1 private cost weights 2007-08 were used for all rows in Average private cost weight of separations.

of stay for overnight separations was within the range of those reported from 2001 to 2003 for acute care for other OECD countries (OECD 2009).

Table 2.10: Patient days and average length of stay, public and private hospitals, 2004-05 to 2008-09

						Change (	per cent)
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007-08
Patient days ('000)							
Public hospitals							
Public acute hospitals	15,880	16,332	16,781	17,122	17,302	2.2	1.0
Public psychiatric hospitals <sup>(a)</sup>	782	661	658	714	587	-6.9	-17.7
Total	16,662	16,993	17,439	17,836	17,889	1.8	0.3
Private hospitals							
Private free-standing day hospital facilities	520	548	570	668	729	8.8	9.2
Other private hospitals	6,646	6,790	6,915	7,139	7,164	1.9	0.4
Total	7,166	7,338	7,485	7,807	7,893	2.4	1.1
All hospitals	23,829	24,331	24,925	25,643	25,782	2.0	0.5
Average length of stay (days)							
Public hospitals							
Public acute hospitals	3.7	3.7	3.6	3.6	3.5	-1.2	-2.1
Public psychiatric hospitals	49.4	42.5	43.3	48.4	52.8	1.7	9.2
Total	3.9	3.8	3.7	3.8	3.7	-1.6	-2.7
Private hospitals							
Private free-standing day hospital							
facilities	1.0	1.0	1.0	1.0	1.0	-0.0	0.0
Other private hospitals	3.0	3.0	2.9	2.9	2.8	-1.3	-2.3
Total	2.6	2.6	2.5	2.5	2.4	-1.9	-2.9
All hospitals	3.4	3.3	3.3	3.3	3.2	-1.7	-2.8
Average length of stay, excluding same	e-day separat	tions (days)					
Public hospitals							
Public acute hospitals	6.4	6.3	6.2	6.2	6.1	J –0.9	-1.6
Public psychiatric hospitals	57.8	48.2	50.3	55.0	56.0	-0.8	1.8
Total	6.7	6.6	6.5	6.5	6.3	3 –1.3	-2.3
Private hospitals							
Private free-standing day hospital facilities	1.0	1.0	1.0	1.0	1.0	0.3	4.9
Other private hospitals	5.5	5.4	5.4	5.4	5.3		-1.5
Total	5.4	5.4	5.4	5.4	5.3		-1.4
All hospitals	6.3	6.2	6.2	6.2	6.0	) –1.1	-2.0

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

<sup>(</sup>a) In 2004–05, all long-stay patients in one public psychiatric hospital in New South Wales were statistically discharged and readmitted. This would have had the effect of increasing the number of patient days reported in 2004–05.

Between 2004–05 and 2008–09, patient days per 1,000 population declined slightly in public hospitals and Other private hospitals. (Table 2.11). The rate of decline was highest for Public psychiatric hospitals.

Table 2.11: Patient days per 1,000 population(a), public and private hospitals, 2004-05 to 2008-09

						Change (p	per cent)
	2004–05	2005–06	2006–07	2007–08	2008-09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	766.7	772.0	775.7	772.6	762.4	-0.1	-1.3
Public psychiatric hospitals	38.6	32.0	31.5	33.2	27.0	-8.6	-18.9
Total	805.3	804.0	807.2	805.8	789.3	-0.5	-2.0
Private hospitals							
Private free-standing day hospital							
facilities	25.2	26.0	26.5	30.3	32.4	6.5	6.9
Other private hospitals	318.2	317.7	315.9	318.3	311.9	-0.5	-2.0
Total	343.4	343.6	342.5	348.6	344.3	0.1	-1.2
All hospitals	1148.7	1147.6	1149.7	1154.4	1133.7	-0.3	-1.8

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

### Relative stay index

Table 2.12 presents Relative stay index (RSI) information for 2004–05 to 2008–09. Over that period there was some variation within hospital sectors in the RSI. The directly standardised RSI for public hospitals was consistently lower than that for private hospitals between 2004–05 and 2008–09.

<sup>(</sup>a) Rates are directly age-standardised to the Australian population as at 30 June of the year of interest. The Australian population as at 30 June 2001 is used as the reference population.

Table 2.12: Relative stay index, public and private hospitals, 2004-05 to 2008-09

				Change (p	er cent)		
	2004-05	2005–06	2006-07	2007-08	2008-09	Ave since 2004–05	Since 2007-08
Indirectly standardised relative stay ind	lex <sup>(a)</sup>						
Public hospitals							
Public acute hospitals	0.99	0.99	0.98	0.98	0.97		
Public psychiatric hospitals	1.24	1.25	1.23	1.22	1.27		
Total	1.00	1.00	0.99	0.98	0.97		
Private hospitals							
Private free-standing day hospital facilities	0.77	0.77	0.76	0.74	0.76		
Other private hospitals	1.08	1.06	1.05	1.04	1.03		
Total	1.06	1.04	1.03	1.02	1.01		
All hospitals	1.02	1.01	1.00	0.99	0.98		
Directly standardised relative stay inde	<b>x</b> <sup>(b)</sup>						
Public hospitals							
Public acute hospitals	1.01	1.01	1.00	0.99	0.98	-0.7	-1.0
Public psychiatric hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	1.01	1.01	1.00	0.99	0.98	-0.7	-1.0
Private hospitals							
Private free-standing day hospital							
facilities	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Other private hospitals	1.12	1.10	1.10	1.08	1.09	-0.5	0.9
Total	1.11	1.09	1.08	1.07	1.08	-0.6	1.0
All hospitals	1.06	1.05	1.04	1.03	1.03	-0.6	0.1

Notes: See Boxes 2.1 and 2.2 for notes on data limitations and methods.

Abbreviations: Ave-average.

<sup>(</sup>a) Relative stay index based on all hospitals combined for the 5-year period using the indirect method. The *indirectly standardised relative stay index* is not technically comparable between cells but is a comparison of the hospital group with the 5-year average based on the casemix of that group. See *Appendix 1* for details on the methodology.

<sup>(</sup>b) Relative stay index based on all hospitals combined for the 5-year period using the direct method. The *directly standardised relative stay index* is comparable between cells. See *Appendix 1* for details on the methodology.

## 3 Hospital performance indicators

Performance indicators are defined as statistics or other units of information that reflect, directly or indirectly, the extent to which an anticipated outcome is achieved or the quality of the processes leading to that outcome (NHPC 2001).

This chapter presents hospital performance indicators within the context of the National Health Performance Framework (NHPF).

### The National Health Performance Framework

In 2001, the National Health Performance Committee (NHPC) developed a framework to report on the performance of the Australian health system, which was adopted by health ministers. In late 2006, the NHPC identified the need to review the framework and in 2008, AHMAC's National Health Information Standards and Statistics Committee (NHISSC) endorsed a revised framework, termed the National Health Performance Framework 2009.

The NHPC describes the framework as a structure to guide the understanding and evaluation of the health system, facilitating consideration of how well the health system or program is performing. The framework has three domains: 'Health Status', 'Determinants of Health' and 'Health System Performance'. Questions are posed for each domain and a number of dimensions have been identified within each domain. The dimensions guide the development and selection of performance indicators that can be used together to answer that domain's questions. Sometimes, single indicators can provide information relevant to several dimensions of the framework.

The Health System Performance domain is most directly relevant to assessment of the provision of hospital and other health-care services. The six dimensions are: Effectiveness, Safety, Responsiveness, Continuity of care, Accessibility and Efficiency & sustainability (Table 3.1).

The questions asked for the Health System Performance domain in the National Health Performance Framework 2009 are:

- How does the health system perform?
- What is the level of quality of care across the range of patient care needs?
- Does the system deliver value for money and is it sustainable?
- Is it the same for everyone?

### What data are reported?

Eleven hospital performance indicators have been presented in this chapter and are listed in Table 3.2 against the dimensions of the NHPF. Some indicators can be related to more than one dimension of the NHPF, even though they are presented here against only one dimension. For example, hospital accreditation could be related to *Safety* and *Responsiveness*, as well as *Effectiveness*.

Table 3.2 also indicates whether the indicator is included in a nationally agreed set of performance indicators, such as:

- the NHPF set as endorsed by health ministers for reporting in *Australia's health* 2010 (AIHW 2010b, forthcoming)
- the National Healthcare Agreement (NHA) (CRC 2010)
- the Australian Commission on Safety and Quality in Health Care's National core hospital-based outcome indicators of safety and quality (ACSQHC).

Most of the performance indicators presented in this report align with the NHA performance indicators for the outcome area of hospital and related care (CRC 2010). The NHA includes 70 performance indicators and nine performance benchmarks (including a number for hospital and related care) that are to be reported regularly under the Intergovernmental Agreement on Federal Financial Relations. The NHA performance indicators based on 2007–08 hospital data have been published by the COAG Reform Council (CRC 2010). The performance indicators presented here are based on data for the 2008–09 financial year.

Five indicators are also in the indicator set to be reported for the NHPF in *Australia's health* 2010. Seven indicators have been previously reported in *Australian hospital statistics*, including the Relative stay index, and the Average length of stay for selected AR-DRGs.

Indicators that are new or newly specified for this report are Unplanned/unexpected readmissions within 28 days of selected surgical admissions, Rates of services: overnight separations, Rates of services: hospital procedures and Rates of services: non-acute care separations.

Additional data for some hospital performance indicators are presented elsewhere in this report. For example, summary information on waiting times in public hospital emergency departments is presented in this chapter, with more detailed information in *Chapter 5*.

Table 3.1: The National Health Performance Framework – Health System Performance domain

Effectiveness	Safety	Responsiveness
Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome.	healthcare management or the	Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.
Continuity of care	Accessibility	Efficiency & sustainability
Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.	People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.	Achieving desired results with most cost- effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs.

#### Box 3.1 What are the limitations of the data?

The performance indicators presented should be interpreted taking into consideration the limitations of the data from which they are derived. Information on variation in data recording practices, data quality and database coverage, are presented in appendixes 1 and 2.

While the rates could be interpreted as reflecting hospital system performance, they may also reflect variation in underlying needs for hospitalisation, admission and data recording practices, and availability of non-hospital services.

Table 3.2: Hospital performance indicators in this chapter, by National Health Performance Framework dimension

		Related	l national i	ndicator set
Table(s)	Indicator	NHA	NHPF	ACSQHC
	Effectiveness			
Table 3.4	Accreditation of hospitals and beds		✓	
	Safety			
Table 3.5	Adverse events treated in hospitals		✓	
Table 3.6	Unplanned/unexpected readmissions within 28 days of selected surgical admissions	✓		✓
	Responsiveness			
No indicators availa	able			
	Continuity of care			
No indicators availa	able			
	Accessibility			
Table 3.7, and Figure 3.1	Waiting times for emergency department care	✓	✓	
Table 3.8	Waiting times for elective surgery	$\checkmark$	✓	
Table 3.9, and Figures 3.2 to 3.4	Rates of services: overnight separations	✓		
Tables 3.10, S3.9	Rates of services: hospital procedures	✓		
Table 3.11	Rates of services: non-acute care separations	$\checkmark$		
	Efficiency & sustainability			
Tables 3.12, 3.13, S3.1 to S3.7	Cost per case mix-adjusted separation for acute care episodes	✓	✓	
Tables 3.14, S3.3	Relative stay index			
Figure 3.5, Table S3.10	Average length of stay for selected AR-DRGs			

Abbreviations: NHA—National Healthcare Agreement; NHPF—National Health Performance Framework; ACSQHC—Australian Commission on Safety and Quality in Health Care; AR-DRG—Australian Refined-Diagnosis Related Group.

Table 3.3 lists three other NHA performance indicators, presented elsewhere in this report. These indicators are not presented in this chapter as they are not indicators of hospital performance.

Table 3.3: Other performance indicators in this report

Indicator	NHA	NHPF	ACSQHC	Chapter
Selected potentially preventable hospitalisations	✓	✓	<b>√</b>	Chapter 7. Related to the NHA outcome area of primary and community health.
People aged 65 years or over receiving sub-acute services	✓			Chapter 11. Related to the NHA outcome area of aged care.
Hospitalisation for injury and poisoning	✓			Chapter 7. Related to the NHA outcome area of social inclusion and Indigenous health.

Abbreviations: NHA—National Healthcare Agreement; NHPF—National Health Performance Framework; ACSQHC—Australian Commission on Safety and Quality in Health Care.

#### Box 3.2 What methods were used?

Readers should note the following:

- Unless otherwise indicated in footnotes, separations with a care type of *Newborn* with no qualified days, and records for *Hospital boarders* and *Posthumous organ* procurement have been excluded.
- separation rates are age-standardised
- public hospitals includes *Public acute* and *Public psychiatric hospitals*
- private hospitals includes *Private freestanding day facilities* and *Other private hospitals*.

Details of methods, including the selection of AR-DRGs, diagnoses and procedures used are presented in *Appendix 1* for:

- adverse events treated in hospitals
- rates of service: hospital procedures
- cost per casemix-adjusted separation
- relative stay index
- average length of stay for selected AR-DRGs

#### **Effectiveness**

Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome.

#### Performance indicator: Hospital accreditation

Accreditation is recognised through a variety of bodies including the Australian Council on Healthcare Standards EQuIP, Business Excellence Australia the Quality Improvement Council, and hospitals certified as compliant with the International Organization for Standardization's (ISO) 9000 quality family.

Accreditation at any point in time does not assume a fixed or continuing status as accredited.

For Australia as a whole, 654 public hospitals were accredited at 30 June 2009, with 54,953 public hospital beds (87% of public hospitals and 97% of public hospital beds) (Table 3.4). These hospitals delivered 99% of separations and 98% of patient days in public hospitals. The proportion of public hospitals that were accredited ranged from 11% in Tasmania to 100% in Victoria, Western Australia and the Australian Capital Territory.

A total of 371 private hospitals were accredited in 2006–07 with 23,917 private hospital beds (70% of hospitals, accounting for 90% of the beds).

The proportion of public hospital beds in accredited hospitals ranged from 80% in Tasmania to 100% in Victoria and the Australian Capital Territory. The proportion of separations in accredited public hospitals ranged from 94% in Tasmania to 100% in Victoria, Western Australia, the Australian Capital Territory and the Northern Territory.

The comparability of accreditation data among states and territories is limited because of the voluntary nature of participation in award schemes for hospitals in some jurisdictions. As accreditation for public hospitals was counted as at 30 June 2009, some hospitals that were accredited for the majority of the financial year, but had their accreditation status lapse shortly before this date were counted as non-accredited.

Table 3.4: Selected statistics by accreditation status and states and territories, public hospitals 2008–09, private hospitals, 2006–07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Total hospitals	227	149	170	94	80	28	3	5	756
Accredited hospitals	182	149	146	92	74	3	3	5	654
Accredited (%)	80	100	86	98	93	11	100	100	87
Total average available beds <sup>(a)</sup>	19,805	12,869	10,805	5,369	4,874	1,275	875	606	56,478
Beds in accredited hospitals	18,878	12,869	10,582	5,355	4,761	1,026	875	606	54,953
Beds in accredited hospitals as % of total	95	100	98	100	98	80	100	100	97
Separations in accredited hospitals (%)	98	100	99	100	99	94	100	100	99
Patient days in accredited hospitals (%)	97	100	99	100	99	84	100	100	98
Private hospitals (2006–07) <sup>(a)</sup>									
Total hospitals <sup>(b)</sup>	175	155	109	40	54	n.p.	n.p.	n.p.	533
Accredited hospitals	107	95	83	28	41	n.p.	n.p.	n.p.	371
Accredited (%)	61	61	76	70	76	n.p.	n.p.	n.p.	70
Total average available beds <sup>(b)</sup>	7,118	7,184	6,240	2,988	2,008	n.p.	n.p.	n.p.	26,677
Beds in accredited hospitals	5,778	6,350	5,973	2,850	1,865	n.p.	n.p.	n.p.	23,917
Beds in accredited hospitals as % of total	81	88	96	95	93	n.p.	n.p.	n.p.	90

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

<sup>(</sup>a) The number of average available beds presented here may differ form the counts published elsewhere. For example, counts based on bed numbers at a specified date such as 30 June may differ from the average available beds over the reporting period.

<sup>(</sup>b) Accreditation statistics for private hospitals were sourced from the Australian Bureau of Statistics *Private hospitals Australia* (ABS 2008), and relate to accreditation by any body. As these data are for 2006–07, the numbers of private hospitals and private hospital beds presented here do not match the numbers presented in *Chapters 2* and *4*.

### Safety

The avoidance or reduction to acceptable limits of actual or potential harm from health-care management or the environment in which health care is delivered.

#### Performance indicator: Adverse events treated in hospitals

Adverse events are defined as incidents in which harm resulted to a person receiving health care. They include infections, falls resulting in injuries, and medication and medical device problems. Some of these adverse events may be preventable.

Hospital separations data include information on diagnoses, places of occurrence and external causes of injury and poisoning that can indicate that an adverse event was treated and/or occurred during the hospitalisation. However, other diagnosis codes may also suggest that an adverse event has occurred, and some adverse events are not identifiable using these codes.

In 2008–09, 4.8% of separations reported an ICD-10-AM code for an adverse event. The proportion of separations with an adverse event was 5.6% in the public sector and 3.6% in the private sector (Table 3.5).

Table 3.5: Separations with an adverse event<sup>(a)</sup>, public and private hospitals, 2008–09

	Public hospitals		Private hos	spitals	Total	_
Adverse event	Separations	Per 100	Separations	Per 100	Separations	Per 100
External cause of injury and poisoning						
Adverse effects of drugs, medicaments and biological substances	92,630	1.9	21,361	0.7	113,991	1.4
Misadventures to patients during surgical and medical care	10,493	0.2	4,149	0.1	14,642	0.2
Procedures causing abnormal reactions/complications	150,644	3.1	84,369	2.6	235,013	2.9
Other external causes of adverse events	4,961	0.1	1,068	0.0	6,029	0.1
Place of occurrence of injury and poisoning						
Place of occurrence: Health service area	260,322	5.3	113,299	3.5	373,621	4.6
Diagnoses						
Selected post-procedural disorders	35,103	0.7	22,032	0.7	57,135	0.7
Haemorrhage and haematoma complicating a procedure	22,983	0.5	13,452	0.4	36,435	0.4
Infection following a procedure	21,764	0.4	10,421	0.3	32,185	0.4
Complications of internal prosthetic devices	53,618	1.1	30,080	0.9	83,698	1.0
Other diagnoses of complications of medical and surgical care	40,147	0.8	17,449	0.5	57,596	0.7
Total (any of the above) <sup>(b)</sup>	272,359	5.6	117,255	3.6	389,614	4.8

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

<sup>(</sup>a) Separations that included ICD-10-AM diagnosis and/or external cause codes that indicated an adverse event was treated and/or occurred during the hospitalisation.

<sup>(</sup>b) Categories do not sum to the totals because multiple diagnoses and external causes can be recorded for each separation and external cause codes and diagnosis codes can be used together to describe adverse events.

The data for public hospitals are not comparable with the data for private hospitals because their casemixes differ and recording practices may be different.

In the public sector, about 55% of separations with an adverse event reported *Procedures* causing abnormal reactions/complications, 34% reported *Adverse effects of drugs, medicaments and* biological substances and 20% reported *Complications of internal prosthetic devices, implants and* grafts. In the private sector, about 72% of separations with an adverse event reported *Procedures causing abnormal reactions/complications*, 18% reported *Adverse effects of drugs,* medicaments and biological substances and 26% reported *Complications of internal prosthetic devices, implants and grafts*.

The data presented in Table 3.5 can be interpreted as representing selected adverse events in health care that have resulted in, or have affected, hospital admissions, rather than all adverse events that occurred in hospitals. Some of the adverse events included in this table may represent events that occurred before admission. Condition onset flag information (see *Appendix 1*) could be used in the future to exclude conditions that arose before admission and to include conditions not currently used to indicate adverse events, to provide more accurate estimates of adverse events occurring and treated within single episodes of care.

# Performance indicator: Unplanned/unexpected readmissions within 28 days of selected surgical admissions

'Unplanned or unexpected readmissions after surgery' is defined as the number of separations involving selected procedures where readmission occurred within 28 days of the previous separation, and was considered to be 'unexpected or unplanned', because the principal diagnosis related to an adverse event (see above). The measure is regarded as an indicator of the safety of care. It could also be regarded as an indicator of effectiveness of care; however, the specifications identify adverse events of care as causes of readmission, rather than reasons that could indicate effectiveness.

Rates of unplanned or unexpected readmissions were about 3 per 100 separations for *Knee replacement*, *Tonsillectomy and adenoidectomy*, *Hysterectomy* and *Prostatectomy* (Table 3.6).

For Cataract extraction, fewer than 1 in 100 separations had a readmission within 28 days.

Table 3.6: Number and rate of unplanned/unexpected readmissions<sup>(a)(b)</sup> within 28 days, selected surgical procedures, public hospitals, 2008–09

	Separations	Readmissions	Per 100 separations
Knee replacement	9,856	232	2.4
Hip replacement	7,618	138	1.8
Tonsillectomy & adenoidectomy	22,129	560	2.5
Hysterectomy	7,234	206	2.8
Prostatectomy	8,339	238	2.9
Cataract extraction	51,513	248	0.5
Appendicectomy	22,427	499	2.2

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

<sup>(</sup>a) Includes readmissions to the same hospital only, for public hospitals.

<sup>(</sup>b) Excludes data for Western Australia.

This indicator was prepared using public hospital data only, where the readmission occurred in the same hospital. Data for Western Australia were not available.

### Responsiveness

Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.

There are no indicators of responsiveness available for hospitals.

### **Continuity of care**

Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.

There are no indicators of continuity of care available for hospitals.

### **Accessibility**

People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.

#### Performance indicator: Waiting times for emergency department care

Emergency department waiting time to service delivery is 'The time elapsed for each patient from presentation in the emergency department to commencement of service by a treating medical officer or nurse'. The National Triage Scale has five categories that incorporate the time by which the patient should receive care.

Emergency department waiting times information is summarised as the proportions of presentations in which patients were treated within an appropriate time (for the urgency of their condition), and is presented for emergency departments in hospitals classified as *Principal referral and specialist women's and children's hospitals* and *Large hospitals*.

For 2008–09, for all triage categories overall, the proportion of presentations in which patients received emergency department care within the required time was 68%, ranging from 44% in the Northern Territory to 73% in Victoria.

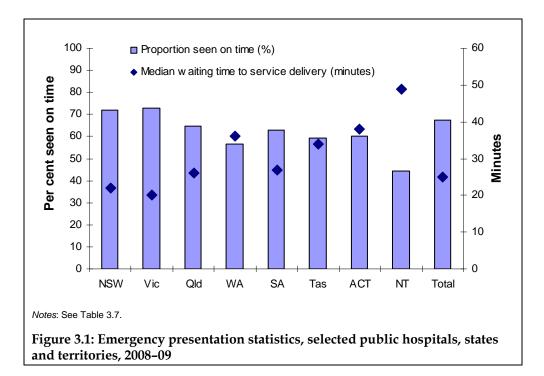
There was marked variation between states and territories in the median waiting times to service delivery for *Principal referral and specialist women's and children's hospitals* and *Large hospitals*. For Victoria, 50% of presentations were treated by a medical officer or nurse within 20 minutes and, for the Northern Territory, 50% of presentations were treated within 49 minutes (Table 3.8 and Figure 3.1).

Table 3.7: Proportion<sup>(a)</sup> of emergency presentations<sup>(b)</sup> seen on time, by triage category, selected public hospitals<sup>(c)</sup>, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation	100	100	99	99	100	99	100	100	100
Emergency	80	82	72	66	74	75	85	61	76
Urgent	66	74	59	47	57	50	53	45	63
Semi-urgent	70	67	64	56	60	58	53	39	65
Non-urgent	87	85	88	85	83	86	78	76	86
Total	72	73	65	57	63	59	60	44	68

#### Notes:

- (a) The proportion of presentations for which the waiting time to service delivery was within the time specified in the definition of the triage category.
- (b) Records with a Type of visit of Emergency presentation.
- (c) For emergency department presentations reported for hospitals classified as Principal referral and specialist women's and children's hospitals and Large hospitals for which episode-level data were available. For more information, see the text of Chapter 5 and Appendix 1.



More information on triage categories and emergency department waiting times for all public hospitals for which data were available (including hospitals that are not *Principal referral and specialist women's and children's hospitals* and *Large hospitals*) is available in *Chapter 5*.

#### Performance indicator: Waiting times for elective surgery

Elective surgery waiting times data provide information on patients removed from public hospital elective surgery waiting lists.

Waiting times for elective surgery are an indicator of the provision of timely care. The median waiting time indicates the time within which 50% of patients were admitted for the

awaited procedure. The 90th percentile waiting time indicates the amount of time within which 90% of patients were admitted for the awaited procedure.

In 2008–09, the overall median waiting time for patients who were admitted from waiting lists was 34 days. It ranged from 27 days in Queensland to 75 days in the Australian Capital Territory. The 90th percentile for waiting time ranged from 133 days in Queensland to 448 days in Tasmania, with an overall value of 220 days (Table 3.8). In 2008–09, 2.9% of patients admitted from public hospital waiting lists waited over a year for their elective surgery.

Table 3.8: Waiting time statistics for patients admitted from public hospital waiting lists for elective surgery<sup>(a)</sup>, by state and territory, 2008–09

	NSW	Vic	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Number of admissions	199,384	147,690	109,940	60,398	44,152	16,931	10,104	6,410	595,009
Days waited at 50 <sup>th</sup> percentile	39	31	27	31	36	44	75	40	34
Days waited at 90 <sup>th</sup> percentile	283	194	133	174	207	448	378	256	220
% waited more than 365 days	2.5	2.9	1.8	2.0	2.7	13.1	10.6	5.6	2.9

Notes

For more information on elective surgery waiting times, see *Chapter 10*.

## Performance indicator: Rates of service—overnight separations

The number of overnight separations per 1,000 population is regarded as an indicator of the accessibility of hospital services. The number of overnight separations is considered to be more comparable among the states and territories and between the public and private sectors, than the total number of separations. This is due to variations in admission practices, which lead to variation, in particular, in the number of same-day admissions.

Rates of overnight separations in public hospitals ranged from 87 per 1,000 in Tasmania to 186 per 1,000 in the Northern Territory (Table 3.9).

Table 3.9: Overnight separations per 1,000 population, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	115.6	106.8	102.3	105.3	119.6	87.1	126.6	185.9	110.3
Private hospitals	37.8	48.7	60.9	54.7	51.8	n.p.	n.p.	n.p.	48.0
Total	153.4	155.5	163.3	160.0	171.4	n.p.	n.p.	n.p.	158.3

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

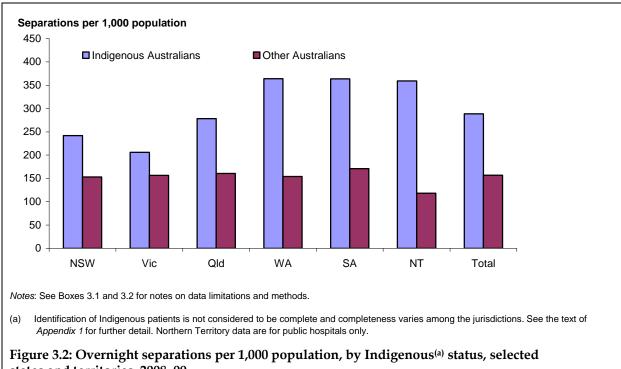
Separation rates presented by the state or territory of hospitalisation will include separations for patients not usually resident in that state or territory. For the Australian Capital Territory, about 77% of separations were for Australian Capital Territory residents, with most of the remainder being residents of New South Wales.

Overnight separation rates by Indigenous status are presented for the six jurisdictions with data of sufficient quality for analytical purposes (see *Appendix 1*). The rate of overnight separations for *Indigenous Australians* was almost twice the rate for *Other Australians* (289 per 1,000 and 157 per 1,000, respectively) (Figure 3.2).

<sup>(</sup>a) Records with a Reason for removal of Admitted as an elective/emergency patient for awaited procedure in this hospital or another hospital.

<sup>(</sup>b) Includes data for the Mersey Community Hospital.

More information on the number of separations, separations per 1,000 population, the standardised separation rate ratio (SRR) and the 95% confidence interval of the SRR by Indigenous status is available in *chapters 7*, 8, 9, 10 and 11.



states and territories, 2008–09

For public hospitals, rates of overnight separations increased with remoteness of the patient's area of usual residence, ranging from 97 per 1,000 population in *Major cities* to 239 per 1,000 in *Very remote* areas (Figure 3.3). For private hospitals, rates of overnight separations decreased with remoteness, ranging from 22 per 1,000 in *Very remote* areas to 50 per 1,000 in *Major cities*.

Rates of overnight separations in public hospitals increased with socioeconomic disadvantage, and for private hospitals decreased with socioeconomic disadvantage (Figure 3.4).

More information on overnight separations, including demographic and clinical data is available in *Chapter 9*. Similar information for same-day separations is available in *Chapter 8*.

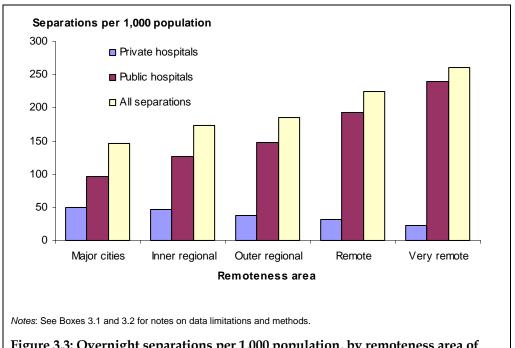


Figure 3.3: Overnight separations per 1,000 population, by remoteness area of usual residence, public and private hospitals, 2008–09

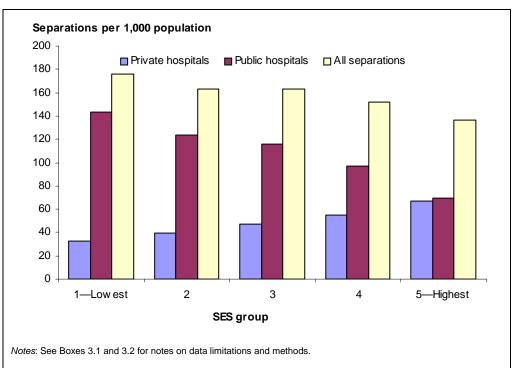


Figure 3.4: Overnight separations per 1,000 population, by socioeconomic status group, public and private hospitals, 2008–09

# Performance indicator: Rates of services—hospital procedures

This indicator relates to accessibility of hospitals services and may also relate to the appropriateness of hospital care. The procedures presented here are those used in the NHA performance indicator — Rates of services: hospital procedures. Most of these procedures were originally in a similar indicator for the Health Ministers' Benchmarking Working Group (NHMBWG). These procedures were selected because of the frequency with which they are undertaken, because they are often elective and discretionary, and because there are sometimes treatment alternatives available (NHMBWG 1998).

Table 3.10 presents separations per 1,000 population for the procedures, by state or territory of residence. There was some variation among states and territories for the selected procedures. For example, separations for *Cataract extraction* ranged from 6.8 per 1,000 population in the Australian Capital Territory to 9.8 per 1,000 population in Western Australia.

Table 3.10: Separations per 1,000 population for hospital procedures<sup>(a)</sup>, all hospitals, states and territories, 2008–09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Cataract extraction	8.5	8.1	9.8	9.8	7.8	8.1	6.8	9.1	8.7
Cholecystectomy	2.1	2.2	2.3	2.0	2.3	1.9	2.3	1.7	2.2
Coronary artery bypass graft	0.6	0.6	0.7	0.3	0.7	0.4	0.7		0.6
Coronary angioplasty	1.5	1.6	1.4	1.5	1.5	1.4	2.9		1.5
Cystoscopy	4.0	5.0	5.1	6.3	5.5	4.3	5.3	3.0	4.8
Haemorrhoidectomy	2.5	1.5	1.3	1.0	1.3	1.3	1.0	2.0	1.7
Hip replacement	1.3	1.4	1.2	1.5	1.5	1.5	2.4	8.0	1.4
Hysterectomy, females aged 15–69 <sup>(b)</sup>	2.2	2.2	2.7	2.4	2.8	2.6	2.8	1.7	2.4
Inguinal herniorrhaphy	2.2	2.2	2.4	2.3	2.1	1.9	2.3	1.9	2.2
Knee replacement	1.7	1.4	1.7	1.7	1.8	1.2	2.6	0.9	1.6
Myringotomy	1.5	1.8	1.7	2.3	3.2	1.2	2.7	1.1	1.8
Prostatectomy <sup>(c)</sup>	3.0	3.4	2.7	2.6	2.9	2.4	4.3	1.7	3.0
Septoplasty	1.0	1.3	0.9	0.9	1.5	0.5	1.4	0.5	1.1
Tonsillectomy	2.2	2.1	2.4	2.7	2.8	1.4	3.2	0.9	2.3
Varicose veins stripping and ligation	0.6	0.8	0.5	0.5	0.7	0.4	1.2	0.5	0.6

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

Additional information is available in Table S3.9 at the end of this chapter.

Similar information on these procedures by remoteness area of usual residence and socioeconomic status is available in additional tables accompanying this report on the CD and internet. The additional tables include the numbers of separations, the separation rates, separation rate ratios (SRRs) and confidence intervals (of the SRR).

<sup>(</sup>a) The procedures are defined using ACHI codes in Appendix 1.

<sup>(</sup>b) For Hysterectomy, the rate per 1,000 population was calculated for the estimated resident female population aged 15 to 69 years.

<sup>(</sup>c) For Prostatectomy, the rate per 1,000 population was calculated for the estimated resident male population.

## Performance indicator: Rates of service—non-acute care separations

Table 3.11 presents rates of separations for non-acute care by state and territory. Caution should be used in interpreting these data as there are variations in the assignment of care type categories between jurisdictions.

Table 3.11: Separations for non-acute care per 1,000 population, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Rehabilitation	13.9	4.7	9.9	4.8	10.0	3.3	16.7	2.3	9.4
Palliative care	1.3	1.0	1.7	1.6	0.8	0.5	2.0	3.3	1.3
Geriatric evaluation and management	0.3	2.0	0.3	0.3	0.2	0.1	4.2	n.a.	0.8
Psychogeriatric care	0.1	1.5	0.1	0.4	0.1	0.2	0.2	n.a.	0.5
Maintenance care	0.8	0.1	1.6	1.0	1.3	0.8	4.3	3.9	0.9
Total non-acute care	16.3	9.3	13.6	8.2	12.3	5.0	27.4	9.6	12.8

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

More information on sub- and non-acute admitted patient care, including demographic and clinical data is available in *Chapter 11*.

# Efficiency & sustainability

Achieving desired results with most cost-effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs.

## Performance indicator: Cost per casemix-adjusted separation

### Box 3.3 Cost per casemix adjusted separation – method

Details of the methods used in this analysis are presented in *Appendix 1* of this report and in more detail in *Australian hospital statistics 1999–00* (AIHW 2001).

The scope of the analysis includes public hospitals that provide mainly acute care. These are the hospitals in the public hospital peer groups of *Principal referral and Specialist women's and children's hospitals*, *Large hospitals*, *Medium hospitals* and *Small acute hospitals* (see *Appendix 1*). Hospitals included in this analysis accounted for 95% of separations in public acute and psychiatric hospitals in 2008–09, and 92% of recurrent expenditure on public hospitals (excluding depreciation).

Casemix-adjusted separations is calculated as the product of Total separations and Average cost weight.

The Average cost weight is sourced from the National Hospital Morbidity Database, using the 2007–08 AR-DRG version 5.1 cost weights (DoHA 2009) for separations for which the care type was reported as *Acute*, *Newborn* with at least one qualified day or was *Not reported*.

The cost per casemix-adjusted separation is a measure of the average cost of providing care for each admitted patient separation, accounting for the relative complexity of the patients' conditions. It is calculated for selected public acute hospitals as the average recurrent expenditure for each separation, adjusted using AR-DRG cost weights for the resources expected to be used for the separation. As such it can be taken as a measure of the relative technical efficiency of hospitals.

Nationally, the average cost per casemix-adjusted separation was \$4,471 (excluding depreciation). There was some variation in the average cost per casemix-adjusted separation by state and territory (Table 3.12).

A large portion of the costs was attributed to *Non-medical labour* and *Medical labour* costs (Table 3.12). Nationally these costs were \$2,281 and \$974, respectively, per casemix-adjusted separation. Depreciation added an average of 3.5% (\$157) to the cost of each separation. More detailed information is available in Table S3.1, at the end of this chapter.

Table 3.12: Cost (\$) per casemix-adjusted separation (excluding depreciation), selected public hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Medical labour costs (\$)	1,035	807	966	1,190	1,030	972	1,118	964	974
Non-medical labour costs (\$)	2,253	2,310	2,318	2,440	1,920	2,328	2,322	2,854	2,281
Nursing (\$)	1,184	1,200	1,154	1,164	1,094	1,194	1,238	1,541	1,180
Other staff (includes superannuation) (\$)	1,068	1,110	1,164	1,276	826	1,134	1,084	1,313	1,101
Other recurrent costs (excludes depreciation) (\$)	1,166	1,263	1,222	1,212	1,124	1,516	1,184	1,544	1,215
Depreciation (\$)	159	170	183	118	124	124	129	44	157
Total (excludes depreciation) (\$)	4,454	4,380	4,507	4,842	4,074	4,817	4,624	5,361	4,471

Notes: See Boxes 3.1 and 3.2 for notes on data limitations and methods.

Additional information is available in tables S3.2 to S3.7 at the end of this chapter.

Interpretation of the cost per casemix-adjusted separation data should take into consideration factors such as costs incurred that are beyond the control of a jurisdiction. For example, the Northern Territory has high staffing and transport costs, and treats a greater proportion of Aboriginal and Torres Strait Islander patients than other jurisdictions. The cost disabilities associated with providing hospital services in the Northern Territory have been recognised by the Commonwealth Grants Commission.

Table 3.13 presents costs per casemix-adjusted separation data for selected public hospital peer groups. Public hospitals can be classified into peer groups that allow a more meaningful comparison of cost data. The peer group classification allocates hospitals into broadly similar groups in terms of their level of admitted patient activity and their geographical location (see *Appendix* 1).

Table 3.13: Cost (\$) per casemix-adjusted separation (excluding depreciation), by public hospital peer group, selected public hospitals(b), states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					ix adjuste				
Principal referral and specialist women's									
and children's hospitals	4,465	4,426	4,579	4,852	4,124	4,713	4,624	5,287	4,501
Large hospitals	4,283	3,946	3,693	4,248	3,903	5,640			4,156
Medium hospitals	4,434	4,098	4,003	5,138	3,696				4,315
Small acute hospitals	4,991	5,277	4,883	5,784	4,531	4,355		5,912	5,162
Total (selected hospitals)	4,454	4,380	4,507	4,842	4,074	4,817	4,624	5,361	4,471

Notes: See Boxes 3.1, 3.2 and 3.3 for notes on data limitations and methods.

Additional information is available in tables S3.1 to S3.7 at the end of this chapter.

For more information on the characteristics of public hospitals, see *Chapter 4*.

### Performance indicator: Relative stay indexes

Relative stay indexes (RSIs) are calculated as the observed number of patient days for separations in selected AR-DRGs, divided by the expected number of patient days (based on national figures), standardised for casemix. The adjustment for casemix allows variation in types of services provided to be taken into account.

An RSI greater than 1 indicates that an average patient's length of stay is higher than would be expected given the casemix for the category of interest (for example, hospital sector or jurisdiction). An RSI of less than 1 indicates that the length of stay was less than would have been expected. More detail on these methods is included in *Appendix 1*.

The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average based on the casemix of that group. The directly standardised relative stay index is re-scaled so each group represents the national casemix and allows comparison of RSI values across groups of hospitals.

Table 3.14 presents both indirectly and directly standardised RSIs for all hospitals for 2008–09. For the hospitals included in the cost per casemix-adjusted separation analysis (see above), the RSI was 1.00 overall.

Overall, the RSI for private hospitals was 1.10 directly standardised compared to 1.00 for public hospitals, indicating relatively shorter lengths of stay in the public sector compared with the private sector.

Table 3.14 also presents RSI information for the *Medical, Surgical* and *Other* categories of AR-DRGs (DoHA 2006). These figures indicate relatively shorter lengths of stay for *Medical* separations in public hospitals, and for *Surgical* and *Other* separations in private hospitals.

RSIs for selected acute and non-acute public hospitals are presented in Tables S3.1 to S3.7 with a range of other information on these hospitals at the end of this chapter.

Table 3.14: Relative stay index by medical/surgical/other type of AR-DRG, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indirectly standardise	ed relative sta	y index							
Public hospitals	1.04	0.92	0.95	1.01	1.01	1.01	0.89	1.18	0.99
Medical	1.03	0.89	0.92	0.99	0.99	1.01	0.90	1.11	0.96
Surgical	1.08	0.98	1.02	1.06	1.04	1.02	0.88	1.39	1.04
Other	1.15	0.96	1.05	0.98	1.06	1.00	0.89	1.16	1.05
Private hospitals	1.03	1.04	1.04	1.05	0.98	n.p.	n.p.	n.p.	1.03
Medical	1.21	1.12	1.15	1.10	1.05	n.p.	n.p.	n.p.	1.14
Surgical	0.93	0.98	0.94	1.03	0.94	n.p.	n.p.	n.p.	0.95
Other	0.90	0.94	0.98	0.96	0.92	n.p.	n.p.	n.p.	0.94
All hospitals	1.04	0.95	0.98	1.02	1.00	n.p.	n.p.	n.p.	1.00
Medical	1.05	0.94	0.99	1.01	1.00	n.p.	n.p.	n.p.	1.00
Surgical	1.02	0.98	0.98	1.05	1.00	n.p.	n.p.	n.p.	1.00
Other	1.05	0.95	1.01	0.97	1.00	n.p.	n.p.	n.p.	1.00
Directly standardised	relative stay	index							
Public hospitals	1.06	0.93	0.97	1.02	1.02	1.03	0.92	1.28	1.00
Medical	1.03	0.89	0.92	0.99	0.99	1.03	0.91	1.13	0.96
Surgical	1.10	1.00	1.04	1.09	1.06	1.04	0.93	1.55	1.05
Other	1.17	0.99	1.06	0.99	1.09	1.02	0.98	1.32	1.06
Private hospitals	1.11	1.09	1.11	1.14	1.04	n.p.	n.p.	n.p.	1.10
Medical	1.23	1.16	1.21	1.21	1.09	n.p.	n.p.	n.p.	1.19
Surgical	0.92	0.99	0.95	1.03	0.95	n.p.	n.p.	n.p.	0.95
Other	0.93	0.94	1.03	1.01	0.93	n.p.	n.p.	n.p.	0.96
All hospitals	1.04	0.96	0.99	1.03	1.00	n.p.	n.p.	n.p.	1.00
Medical	1.05	0.94	0.99	1.02	1.00	n.p.	n.p.	n.p.	1.00
Surgical	1.02	0.98	0.98	1.05	1.00	n.p.	n.p.	n.p.	1.00
Other	1.05	0.95	1.01	0.97	1.01	n.p.	n.p.	n.p.	1.00

 $\it Notes$ : See Boxes 3.1 and 3.2 for notes on data limitations and methods.

Additional information on RSI by funding source is available in Table S3.8.

n.p. Private hospital data not published for confidentiality.

## Performance indicator: Average lengths of stay for 20 selected AR-DRGs

The selected AR-DRGs (Figure 3.5 and Table S3.9) were chosen on the basis of:

- homogeneity, where variation is more likely to be attributable to the hospital's performance rather than variations in the patients themselves
- representativeness across clinical groups (major diagnostic categories, MDCs) and surgical and medical AR-DRGs
- differences between jurisdictions and/or sectors
- policy interest as evidenced by:
  - inclusion of similar groups in other tables in *Australian hospital statistics*, such as indicator procedures for elective surgery waiting times
  - high volume and/or cost
  - changes in volume over years.

More information on the basis of selection for the AR-DRGs is included in *Appendix* 1.

Figure 3.5 presents the average lengths of stay for selected AR-DRGs in public and private hospitals. There were notable differences (more than 1 day) in the average length of stay between public and private hospitals for 7 of the 20 selected AR-DRGs. The average length of stay for U63B *Major affective disorders age*<70 *W/O catastrophic or severe CC* was 13.6 days for public hospitals and 18.6 days for private hospitals.

Public hospitals accounted for more than 70% of separations for 8 of the 20 selected AR-DRGs and private hospitals accounted for more than 80% of separations for I16Z *Other shoulder procedures*.

Additional information on the average length of stay for selected AR-DRGs is available by state and territory on the CD and internet.

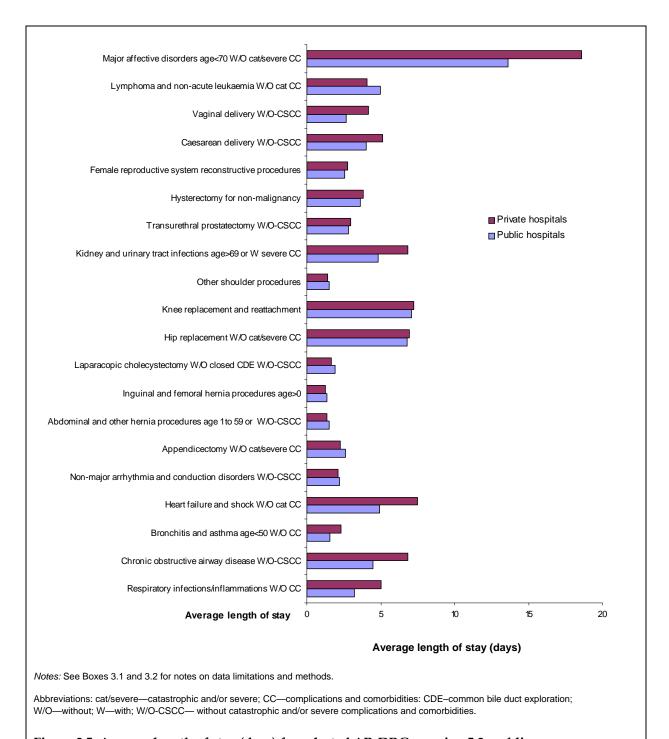


Figure 3.5: Average length of stay (days) for selected AR-DRGs version 5.2, public and private hospitals, 2008-09

# Supplementary tables

### Box 3.4: Notes for Chapter 3 supplementary tables

### **Table S3.1 to S3.7:**

- (a) Excludes separations for which the care type was reported as *Newborn with no qualified days*, and records for *Hospital boarders* and *Posthumous organ procurement*.
- (b) For Victoria, the cost per casemix-adjusted separation could be calculated for only 5 of the 16 teaching hospitals, and may not be representative of Victorian teaching hospitals as a whole. See *Appendix 1* for more information.
- (c) Queensland pathology services are purchased from the statewide pathology service rather than being provided by each hospital's employees, resulting in higher medical supplies costs and lower diagnostic staff costs.
- (d) Depreciation was reported for a subset of South Australian and Tasmanian hospitals.
- (e) Estimated private patient medical costs calculated as the sum of *Salary/sessional* and *Visiting medical officer* payments multiplied by the proportion of patient days that were for private patients. This is a notional estimate of the medical costs for all non-public patients, including those *Self-funded* and those funded by *Private health insurance*, *Compensation* and the *Department of Veterans' Affairs*.

### Table S3.2 to S3.7:

- (a) See footnote (a) for Table S3.1.
- (b) Psychiatric hospitals, Drug and alcohol services, Mothercraft hospitals, Unpeered and other, Hospices, Rehabilitation facilities, Small non-acute hospitals and Multi-purpose services are excluded from this table. The data are based on hospital establishments for which expenditure data were provided, including networks of hospitals in some jurisdictions. Some small hospitals with incomplete expenditure data were not included. See *Appendix 1* for further information.
- (c) Separations for which the care type was reported as *Acute*, *Newborn* with at least one qualified day, or was *Not reported*.
- (d) Casemix-adjusted separations is calculated as the product of Total separations and Average cost weight.
- (e) Average cost weight, using the 2007–08 AR-DRG version 5.1 cost weights (DoHA 2008) for acute separations (see footnote (c)).
- (f) The indirectly standardised relative stay index is not technically comparable between cells but is a comparison of the hospital group with the national average of public hospitals based on the casemix of that group. See *Appendix 1* for details on the methodology.
- (g) Average cost per casemix-adjusted separation excluding depreciation.
- (h) Average cost per casemix-adjusted separation including depreciation.
- (i) Definitions of the peer groups can be found in *Appendix* 1.
- (j) For the Australian Capital Territory, the information presented for RSI, average cost weight, and Cost per casemix-adjusted separation data are only presented for hospitals reporting admitted patient activity (excludes a mothercraft hospital).

Table S3.1: Cost per case mix-adjusted separation  $^{(a)}$  and average cost data for selected public acute hospitals, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Non-medical labour costs per case	mix-adjus	sted sepa	ration (\$)	)					
Nursing	1,184	1,200	1,154	1,164	1,094	1,194	1,238	1,541	1,180
Diagnostic/allied health <sup>(b) (c)</sup>	317	370	294	338	222	308	299	334	321
Administrative	314	291	296	381	253	271	320	335	305
Other staff	206	218	304	312	135	275	139	398	233
Superannuation	232	232	270	244	215	280	327	245	242
Total non-medical labour costs	2,253	2,310	2,318	2,440	1,920	2,328	2,322	2,854	2,281
Other recurrent costs per casemix-	adjusted	separatio	on (\$)						
Domestic services	125	101	115	110	97	95	169	138	114
Repairs/maintenance	86	81	98	118	90	89	56	133	90
Medical supplies <sup>(b) (c)</sup>	409	387	478	336	308	571	395	363	403
Drug supplies	221	237	232	262	199	270	129	236	229
Food supplies	43	47	33	33	27	47	17	43	40
Administration	206	256	240	197	52	228	273	244	214
Other	77	154	26	156	351	215	145	386	126
Total other recurrent costs excluding									
depreciation	1,166	1,263	1,222	1,212	1,124	1,516	1,184	1,544	1,215
Depreciation <sup>(d)</sup>	159	170	183	118	124	124	129	44	157
Total excluding medical labour costs									
and depreciation	3,419	3,573	3,540	3,652	3,044	3,844	3,506	4,398	3,496
Medical labour costs per casemix-a	djusted	separatio	n (\$)						
Public patients									
Salaried/sessional staff	546	616	806	847	664	634	698	848	658
Visiting medical officer payments	228	66	79	161	196	146	247	62	146
Private patients (estimated) <sup>(e)</sup>	260	124	81	182	170	192	173	54	171
Total medical labour costs	1,035	807	966	1,190	1,030	972	1,118	964	974
Total cost per casemix-adjusted									
separation excluding depreciation	4,454	4,380	4,507	4,842	4,074	4,817	4,624	5,361	4,471
Total cost per casemix-adjusted									
separation including depreciation	4,613	4,550	4,689	4,960	4,197	4,940	4,753	5,406	4,628

Notes: See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.2: Cost per casemix-adjusted separation<sup>(a)</sup> and other statistics, acute, non-acute and total selected public hospitals<sup>(b)</sup>, states and territories, 2008–09

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d) (e)</sup>	Relative stay index <sup>(f)</sup>	Cost/casemix- adjusted sep excl dep <sup>(g)</sup>	Cost/casemix- adjusted sep inc dep <sup>(h)</sup>
Total be	nchmarking hos	spitals in cost per	casemix-adju			<del>-</del>	-
NSW	127	11,430	226	1.07	1.08	4,454	4,613
Vic	67	19,658	173	0.98	0.92	4,380	4,550
Qld	73	11,702	209	1.01	0.96	4,507	4,689
WA	34	13,082	227	0.97	1.01	4,842	4,960
SA	35	10,042	241	1.11	1.03	4,074	4,197
Tas	9	10,236	256	1.04	1.04	4,817	4,940
ACT	2	44,935	447	1.00	0.86	4,624	4,753
NT	5	19,071	250	0.70	1.19	5,361	5,406
Total	352	13,342	209	1.02	1.00	4,471	4,628
Non-acu	te hospitals in o	cost per casemix-	adjusted sepa	ration analysis	s <sup>(b)</sup>		
NSW	59	630	20	0.90	0.98	9,898	10,198
Vic	15	892	16	0.83	1.34	5,039	5,358
Qld	28	871	36	0.79	0.95	4,751	5,017
WA	43	419	14	0.97	1.05	7,863	8,139
SA	25	588	23	0.81	1.06	8,756	9,095
Tas	5	244	12	0.97	1.56	7,689	7,908
ACT	1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NT	0						
Total	176	618	21	0.86	1.04	7,763	8,061
Public h	ospitals (includ	ing Psychiatric ar	nd unpeered) ii	n cost per cas	emix-adjusted	I separation anal	ysis <sup>(b)</sup>
NSW	227	6,634	155	1.07	1.07	4,637	4,802
Vic	95	14,177	104	0.97	0.92	4,468	4,643
Qld	170	5,196	146	1.00	0.96	4,595	4,787
WA	94	4,973	155	0.98	1.02	5,155	5,283
SA	80	4,682	149	1.10	1.04	4,455	4,591
Tas	28	3,389	157	1.05	1.07	4,887	5,012
ACT <sup>(j)</sup>	2	n.a.	447	1.00	0.86	4,623	4,752
NT	5	19,071	250	0.70	1.19	5,361	5,406
Total	702	6,920	126	1.02	1.00	4,634	4,798

 $\it Notes:$  See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.3: Principal referral and specialist women's & children's hospitals—cost per casemix-adjusted separation  $^{(a)}$  and selected other statistics, 2008–09

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d) (e)</sup>	Relative stay index <sup>(f)</sup>	Cost/casemix- adjusted sep excl dep <sup>(g)</sup>	Cost/casemix- adjusted sep inc dep <sup>(h)</sup>
Principa	l referral hospit	als: Major cities a	nd Regional <sup>(i)</sup>				
NSW	26	37,129	434	1.11	1.10	4,432	4,590
Vic	18	56,360	396	1.01	0.90	4,374	4,520
Qld	16	40,489	381	1.05	0.98	4,519	4,693
WA	4	54,613	443	1.08	1.06	4,836	4,944
SA	4	50,887	495	1.20	1.06	4,023	4,151
Tas	2	40,163	485	1.02	1.01	4,713	4,852
ACT	2	44,935	447	1.00	0.86	4,624	4,753
NT	2	40,051	396	0.74	1.22	5,287	5,329
Total	74	44,594	398	1.06	1.01	4,455	4,604
Specialis	st women's & cl	hildren's hospitals	s <sup>(i)</sup>				
NSW	3	17,779	235	1.27	1.14	5,082	5,313
Vic	2	28,624	238	1.30	0.97	5,166	5,654
Qld	3	15,211	203	1.24	0.97	5,339	5,564
WA	2	20,295	198	1.23	1.06	4,932	5,045
SA	1	30,164	313	1.15	n.p.	n.p.	n.p.
Tas	0						
ACT	0						
NT	0						
Total	11	20,634	227	1.25	1.05	5,087	5,331
Total Pri	ncipal referral a	and specialist wor	nen's & childre	en's hospitals	(i)		
NSW	29	35,127	423	1.12	1.10	4,465	4,627
Vic	20	53,586	314	1.02	0.91	4,426	4,594
Qld	19	36,498	386	1.07	0.98	4,579	4,758
WA	6	43,174	387	1.10	1.06	4,852	4,962
SA	5	46,742	459	1.19	1.07	4,124	4,241
Tas	2	40,163	485	1.02	1.01	4,713	4,852
ACT	2	44,935	447	1.00	0.86	4,624	4,753
NT	2	40,051	396	0.74	1.22	5,287	5,329
Total	85	41,493	380	1.07	1.01	4,501	4,657

Notes: See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.4: Large hospitals — cost per case mix-adjusted separation  $^{\rm (a)}$  and selected other statistics, 2008–09

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d) (e)</sup>	Relative stay index <sup>(f)</sup>	Cost/casemix- adjusted sep excl dep <sup>(g)</sup>	Cost/casemix- adjusted sep inc dep <sup>(h)</sup>
Large ho	ospitals: Major o		-				
NSW	9	14,044	286	1.12	1.01	3,969	4,085
Vic	2	16,595	117	0.87	0.90	4,198	4,399
Qld	2	19,539	274	0.83	0.85	3,316	3,424
WA	2	20,196	284	0.76	0.93	4,396	4,483
SA	2	16,412	299	1.24	0.99	3,903	4,069
Tas	0						
ACT	0						
NT	0						
Total	17	15,993	253	1.00	0.97	3,968	4,100
Large ho	ospitals: Region	nal and Remote <sup>(i)</sup>					
NSW	5	12,754	279	0.90	0.98	5,046	5,221
Vic	7	14,576	228	0.84	0.95	3,909	4,027
Qld	2	12,068	252	0.81	0.90	4,324	4,478
WA	3	15,979	283	0.78	0.92	4,126	4,226
SA	0						
Tas	1	9,061	262	1.28	n.p.	n.p.	n.p.
ACT	0						
NT	0						
Total	18	13,719	243	0.86	0.95	4,383	4,510
Total La	rge hospitals <sup>(i)</sup>						
NSW	14	13,583	283	1.04	1.00	4,283	4,415
Vic	9	15,025	208	0.85	0.94	3,946	4,091
Qld	4	15,803	263	0.82	0.87	3,693	3,818
WA	5	17,665	283	0.77	0.93	4,248	4,342
SA	2	16,412	299	1.24	0.99	3,903	4,069
Tas	1	9,061	262	1.28	n.p.	n.p.	n.p.
ACT	0						
NT	0						
Total	35	14,823	259	0.93	0.97	4,156	4,286

Notes: See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.5: Medium hospitals — cost per casemix-adjusted separation  $^{(a)}$  and selected other statistics, states and territories, 2008-09

	Number of	Separations	AR-DRGs (5+) per	Average cost	Relative	Cost/casemix- adjusted sep	Cost/casemix- adjusted sep
Medium	hospitals: Maio	per hospital <sup>(a)</sup> r cities (<10,000) a	hospital <sup>(c)</sup>	weight <sup>(d) (e)</sup>	stay index <sup>(f)</sup>	excl dep <sup>(g)</sup>	inc dep <sup>(h)</sup>
NSW	13	8,149	166	0.95	0.98	4,150	4,301
Vic	4	9,000	206	0.72	0.93	3,979	4,166
Qld	3	8,875	201	0.69	0.66	3,455	3,586
WA	6	10,059	173	0.81	0.93	5,114	5,243
SA	4	8,958	199	0.83	0.92	3,951	4,056
Tas	0						
ACT	0						
NT	0						
Total	30	8,825	172	0.85	0.93	4,260	4,405
Medium	hospitals: Majo	r cities and Regio	nal (<5,000 ac	ute weighted	separations) <sup>(i)</sup>		
NSW	23	3,675	123	0.80	1.13	4,820	4,961
Vic	13	4,097	111	0.69	1.04	4,193	4,379
Qld	9	3,769	127	0.79	0.87	4,381	4,650
WA	2	3,365	121	0.80	0.91	5,354	5,544
SA	9	3,477	131	0.87	0.90	3,398	3,511
Tas	0						
ACT	0						
NT	0						
Total	56	3,745	122	0.78	1.02	4,362	4,530
Total Me	edium hospitals <sup>(</sup>	i)					
NSW	36	5,291	150	0.88	1.05	4,434	4,580
Vic	17	5,250	133	0.70	0.99	4,098	4,282
Qld	12	5,046	145	0.74	0.79	4,003	4,214
WA	8	8,386	160	0.81	0.93	5,138	5,273
SA	13	5,163	154	0.85	0.91	3,696	3,804
Tas	0						
ACT	0						
NT	0						
Total	86	5,517	148	0.82	0.97	4,315	4,471

 $\it Notes$ : See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.6: Small hospitals — cost per casemix-adjusted separation  $^{(a)}$  and selected other statistics, 2008–09

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d) (e)</sup>	Relative stay index <sup>(f)</sup>	Cost/casemix- adjusted sep excl dep <sup>(g)</sup>	Cost/casemix- adjusted sep inc dep <sup>(h)</sup>
Small reg	ional acute ho						
NSW	43	1,120	48	0.79	1.07	4,787	5,015
Vic	21	993	37	0.77	1.25	5,277	5,678
Qld	21	1,167	53	0.74	0.88	3,850	4,082
WA	4	1,363	63	0.80	1.14	5,640	5,951
SA	12	1,037	50	0.84	1.01	5,067	5,254
Tas	5	468	20	0.89	1.67	4,481	4,624
ACT	0						
NT	0						
Total Remote a	106 cute hospitals	1,073	46	0.78	1.08	4,754	5,014
NSW	5	826	36	0.67	0.96	7,686	8,062
Vic	0						
Qld	17	736	43	0.77	1.05	6,815	7,339
WA	11	2,263	85	0.79	0.88	5,804	6,030
SA	3	1,786	67	0.85	0.92	3,309	3,483
Tas	1	397	22	0.78	n.p.	n.p.	n.p.
ACT	0						
NT	3	5,085	104	0.52	1.01	5,912	5,977
Total Total Sma	40 all acute hospi	1,564 tals <sup>(i)</sup>	54	0.72	0.95	5,897	6,172
NSW	48	1,089	47	0.78	1.07	4,991	5,228
Vic	21	993	37	0.77	1.25	5,277	5,678
Qld	38	974	44	0.75	0.94	4,883	5,218
WA	15	2,023	79	0.79	0.93	5,784	6,020
SA	15	1,187	53	0.84	0.98	4,531	4,716
Tas	6	456	21	0.88	1.59	4,355	4,517
ACT	0						
NT	3	5,085	104	0.52	1.01	5,912	5,977
Total	146	1,208	49	0.76	1.04	5,162	5,426

Notes: See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

Table S3.7: Teaching hospitals—cost per casemix-adjusted separation<sup>(a)</sup> and selected other statistics, states and territories, 2008–09

	Number of hospitals <sup>(b)</sup>	Separations per hospital <sup>(a)</sup>	AR-DRGs (5+) per hospital <sup>(c)</sup>	Average cost weight <sup>(d) (e)</sup>	Relative stay index <sup>(f)</sup>	Cost/casemix- adjusted sep excl dep <sup>(g)</sup>	Cost/casemix- adjusted sep inc dep <sup>(h)</sup>
NSW	20	39,769	421	1.15	1.12	4,475	4,644
Vic	5	27,963	237	1.15	0.99	4,972	5,267
Qld	22	31,564	358	1.07	0.98	4,636	4,817
WA	6	38,739	335	1.15	1.07	5,107	5,223
SA	8	35,003	385	1.17	1.05	4,108	4,229
Tas	3	29,796	410	1.04	1.02	4,830	4,952
ACT	2	44,935	447	1.00	0.86	4,624	4,753
NT	2	40,051	396	0.74	1.22	5,287	5,329
Total	68	35,315	375	1.11	1.05	4,600	4,763

Notes: See Boxes 3.1 to 3.4 for notes on limitations of the data and methods.

# Box 3.5: Notes for Chapter 3 supplementary tables S3.8 to S3.10

#### Table S3.8:

- (a) 'Public patients' includes separations with a funding source of *Australian Health Care Agreements*, *Reciprocal health care agreements*, *Other hospital or public authority* (with a public patient election status) and *No charge raised* (in public hospitals).
- (b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.
- (c) 'Other' includes separations with a funding source of *Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority* (without a public patient election status), *Other, No charge raised* (in private hospitals) and *Not reported*.

### Table S3.9

- (a) Separations for which the care type was reported as *Newborn with no qualified days*, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
- (b) The procedures are defined using ACHI codes as detailed in *Appendix* 1.
- (c) Rate per 1,000 population was directly age-standardised as detailed in *Appendix* 1.

### **Table S3.10:**

- (a) Separations for which the care type was reported as *Acute* or *Newborn with qualified days*, or was *Not reported*. Excludes separations where the length of stay was greater than 120 days.
- (b) Average length of stay has been suppressed for AR-DRGs for which less than 50 separations were reported.

Table S3.8: Relative stay index (directly standardised), by funding source, public and private hospitals, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public patients <sup>(a)</sup>	1.03	0.91	0.94	0.99	0.99	1.00	0.90	1.18	0.97
Private health insurance	1.08	0.96	1.02	1.12	1.08	1.06	0.93	0.96	1.05
Self-funded <sup>(b)</sup>	1.02	0.88	0.83	0.81	0.90	0.00	0.95	1.17	0.95
Workers compensation	1.14	1.03	1.17	1.20	1.09	1.01	0.88	1.64	1.12
Motor vehicle third party personal claim	1.27	0.90	1.22	1.19	1.15	1.13	0.84	1.53	1.09
Department of Veterans' Affairs	1.01	0.92	0.95	1.01	1.02	1.13	0.68	0.98	0.98
Other <sup>(c)</sup>	1.55	1.13	1.11	1.10	1.04	1.76	1.00	1.16	1.28
Total	1.04	0.92	0.95	1.01	1.01	1.01	0.89	1.18	0.99
Private hospitals									
Public patients <sup>(a)</sup>	0.78	0.79	0.00	1.11	1.08	n.p.	n.p.	n.p.	1.39
Private health insurance	1.03	1.05	1.04	1.04	0.98	n.p.	n.p.	n.p.	1.03
Self-funded <sup>(b)</sup>	0.94	0.87	0.83	0.84	0.77	n.p.	n.p.	n.p.	0.88
Workers compensation	0.95	1.04	0.93	0.88	0.95	n.p.	n.p.	n.p.	0.96
Motor vehicle third party personal claim	0.96	1.05	1.04	0.92	1.15	n.p.	n.p.	n.p.	1.04
Department of Veterans' Affairs	1.15	1.06	1.18	1.31	1.03	n.p.	n.p.	n.p.	1.15
Other <sup>(c)</sup>	0.72	0.88	0.87	1.04	1.47	n.p.	n.p.	n.p.	0.95
Total	1.03	1.04	1.04	1.05	0.98	n.p.	n.p.	n.p.	1.03
All hospitals									
Public patients <sup>(a)</sup>	1.03	0.91	0.94	0.99	0.99	n.p.	n.p.	n.p.	0.97
Private health insurance	1.05	1.03	1.03	1.05	1.00	n.p.	n.p.	n.p.	1.03
Self-funded <sup>(b)</sup>	0.97	0.87	0.83	0.84	0.79	n.p.	n.p.	n.p.	0.90
Workers compensation	1.02	1.03	1.02	0.98	0.99	n.p.	n.p.	n.p.	1.02
Motor vehicle third party personal claim	1.25	0.92	1.21	1.17	1.15	n.p.	n.p.	n.p.	1.08
Department of Veterans' Affairs	1.06	0.99	1.14	1.21	1.03	n.p.	n.p.	n.p.	1.07
Other <sup>(c)</sup>	1.47	1.10	0.93	1.09	1.19	n.p.	n.p.	n.p.	1.13
Total	1.04	0.95	0.98	1.02	1.00	n.p.	n.p.	n.p.	1.00

Notes: See Box 3.5.

Table S3.9: Separation statistics<sup>(a)</sup> for selected hospital procedures<sup>(b)</sup>, all hospitals, states and territories, 2008–09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Cataract extraction									
Separations <sup>(a)</sup>	65,701	47,067	41,562	20,465	15,412	4,810	1,928	917	197,862
Separations not within state of residence (%)	2	2	2	<1	2	40	19	1	3
Proportion of separations public patients (%)	28	28	16	42	30	23	55	52	27
Separation rate <sup>(c)</sup>	8.5	8.1	9.8	9.8	7.8	8.1	6.8	9.1	8.7
Standardised separation rate ratio (SRR)	0.98	0.94	1.13	1.13	0.90	0.93	0.79	1.04	
95% confidence interval of SRR	0.97-0.99	0.93-0.94	1.12-1.14	1.11-1.14	0.88-0.91	0.91-0.96	0.75-0.82	0.98-1.11	
Cholecystectomy									
Separations <sup>(a)</sup>	15,293	11,974	10,023	4,442	3,944	964	793	330	47,763
Separations not within state of residence (%)	2	1	2	<1	2	1	21	4	2
Proportion of separations public patients (%)	59	62	49	54	60	53	50	70	57
Separation rate <sup>(c)</sup>	2.1	2.2	2.3	2.0	2.3	1.9	2.3	1.7	2.2
Standardised separation rate ratio (SRR)	0.97	1.01	1.07	0.93	1.06	0.85	1.07	0.76	
95% confidence interval of SRR	0.96-0.99	0.99-1.03	1.04-1.09	0.91-0.96	1.03-1.10	0.80-0.91	0.99-1.14	0.68-0.84	
Coronary angioplasty									
Separations <sup>(a)</sup>	11,570	9,271	6,326	3,348	2,775	845	912		35,047
Separations not within state of residence (%)	2	3	9	1	9	2	48		5
Proportion of separations public patients (%)	48	46	47	43	53	59	55		48
Separation rate <sup>(c)</sup>	1.5	1.6	1.4	1.5	1.5	1.4	2.9		1.5
Standardised separation rate ratio (SRR)	0.99	1.06	0.94	1.00	0.97	0.94	1.89		
95% confidence interval of SRR	0.97-1.01	1.04-1.08	0.91-0.96	0.96-1.03	0.93-1.01	0.88-1.00	1.77-2.01		

Table S3.9 (continued): Separation statistics(a) for selected hospital procedures(b), all hospitals, states and territories, 2008-09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Coronary artery bypass graft									
Separations <sup>(a)</sup>	4,388	3,512	3,086	752	1,240	241	203		13,422
Separations not within state of residence (%)	5	4	7	1	12	<1	47		6
Proportion of separations public patients (%)	51	50	50	47	53	56	58		51
Separation rate <sup>(c)</sup>	0.6	0.6	0.7	0.3	0.7	0.4	0.7		0.6
Standardised separation rate ratio (SRR)	0.98	1.05	1.21	0.59	1.11	0.70	1.13		
95% confidence interval of SRR	0.95-1.01	1.01-1.08	1.16–1.25	0.54-0.63	1.05-1.17	0.61-0.78	0.98-1.29		
Cystoscopy									
Separations <sup>(a)</sup>	30,366	28,144	22,094	13,760	10,205	2,499	1,610	428	109,106
Separations not within state of residence (%)	2	2	4	<1	2	<1	29	5	3
Proportion of separations public patients (%)	36	48	31	42	44	41	37	50	40
Separation rate <sup>(c)</sup>	4.0	5.0	5.1	6.3	5.5	4.3	5.3	3.0	4.8
Standardised separation rate ratio (SRR)	0.83	1.03	1.05	1.32	1.14	0.89	1.09	0.63	
95% confidence interval of SRR	0.82-0.84	1.02-1.04	1.04-1.07	1.30-1.34	1.12–1.17	0.86-0.93	1.04–1.15	0.57-0.69	
Haemorrhoidectomy									
Separations <sup>(a)</sup>	18,072	7,999	5,739	2,319	2,181	692	333	385	37,720
Separations not within state of residence (%)	1	2	2	<1	1	<1	17	2	1
Proportion of separations public patients (%)	29	40	24	43	35	51	34	30	32
Separation rate <sup>(c)</sup>	2.5	1.5	1.3	1.0	1.3	1.3	1.0	2.0	1.7
Standardised separation rate ratio (SRR)	1.46	0.86	0.77	0.61	0.74	0.76	0.57	1.16	
95% confidence interval of SRR	1.44-1.48	0.84-0.87	0.75-0.79	0.59-0.64	0.71-0.77	0.70-0.82	0.51-0.63	1.04-1.28	

Table S3.9 (continued): Separation statistics(a) for selected hospital procedures(b), all hospitals, states and territories, 2008-09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Hip replacement									
Separations <sup>(a)</sup>	9,747	8,307	5,224	3,232	3,041	891	703	84	31,229
Separations not within state of residence (%)	2	2	5	1	3	1	35	6	3
Proportion of separations public patients (%)	39	40	36	37	39	46	44	68	39
Separation rate <sup>(c)</sup>	1.3	1.4	1.2	1.5	1.5	1.5	2.4	0.8	1.4
Standardised separation rate ratio (SRR)	0.93	1.06	0.89	1.11	1.14	1.10	1.75	0.57	
95% confidence interval of SRR	0.91-0.94	1.04-1.08	0.86-0.91	1.07-1.14	1.10-1.18	1.02-1.17	1.62-1.88	0.45-0.69	
Hysterectomy, females aged 15-69									
Separations <sup>(a)</sup>	8,025	6,018	5,821	2,627	2,371	667	510	184	26,223
Separations not within state of residence (%)	2	3	3	<1	2	<1	21	2	2
Proportion of separations public patients (%)	39	51	35	35	44	48	27	33	41
Separation rate <sup>(c)</sup>	2.2	2.2	2.7	2.4	2.8	2.6	2.8	1.7	2.4
Standardised separation rate ratio (SRR)	0.94	0.92	1.12	1.00	1.19	1.10	1.19	0.73	
95% confidence interval of SRR	0.92-0.96	0.90-0.94	1.09-1.14	0.96-1.04	1.14–1.24	1.01-1.18	1.09-1.29	0.62-0.83	
Inguinal herniorrhaphy									
Separations <sup>(a)</sup>	15,897	12,266	10,259	4,946	3,745	1,018	758	333	49,222
Separations not within state of residence (%)	2	1	2	<1	2	<1	20	3	2
Proportion of separations public patients (%)	39	45	35	39	45	52	35	40	40
Separation rate <sup>(c)</sup>	2.2	2.2	2.4	2.3	2.1	1.9	2.3	1.9	2.2
Standardised separation rate ratio (SRR)	0.98	1.00	1.06	1.02	0.96	0.85	1.04	0.86	
95% confidence interval of SRR	0.97-1.00	0.98-1.02	1.04-1.08	0.99-1.05	0.93-0.99	0.79-0.90	0.97-1.11	0.77-0.95	

Table S3.9 (continued): Separation statistics(a) for selected hospital procedures(b), all hospitals, states and territories, 2008-09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Knee replacement									
Separations <sup>(a)</sup>	12,795	7,853	7,509	3,802	3,534	706	806	112	37,117
Separations not within state of residence (%)	2	3	6	<1	5	<1	37	<1	4
Proportion of separations public patients (%)	34	34	26	32	30	43	29	50	32
Separation rate <sup>(c)</sup>	1.7	1.4	1.7	1.7	1.8	1.2	2.6	0.9	1.6
Standardised separation rate ratio (SRR)	1.03	0.85	1.06	1.08	1.14	0.73	1.61	0.56	
95% confidence interval of SRR	1.01-1.05	0.83-0.87	1.04-1.09	1.05-1.12	1.11–1.18	0.67-0.78	1.50-1.72	0.46-0.67	
Myringotomy (with insertion of tube)									
Separations <sup>(a)</sup>	9,964	9,218	7,405	4,802	4,570	559	867	279	37,664
Separations not within state of residence (%)	2	2	3	<1	1	17	25	<1	3
Proportion of separations public patients (%)	30	41	27	36	35	45	29	71	34
Separation rate <sup>(c)</sup>	1.5	1.8	1.7	2.3	3.2	1.2	2.7	1.1	1.8
Standardised separation rate ratio (SRR)	0.82	1.00	0.95	1.24	1.72	0.63	1.46	0.60	
95% confidence interval of SRR	0.80-0.83	0.98-1.02	0.93-0.97	1.20-1.27	1.67-1.77	0.58-0.68	1.36–1.55	0.53-0.67	
Prostatectomy									
Separations <sup>(a)</sup>	10,893	9,255	5,722	2,721	2,611	668	620	96	32,586
Separations not within state of residence (%)	3	2	5	<1	2	1	38	2	4
Proportion of separations public patients (%)	32	35	25	33	34	42	24	28	32
Separation rate <sup>(c)</sup>	3.0	3.4	2.7	2.6	2.9	2.4	4.3	1.7	3.0
Standardised separation rate ratio (SRR)	1.00	1.15	0.90	0.87	0.97	0.79	1.43	0.57	
95% confidence interval of SRR	0.98-1.02	1.12-1.17	0.88-0.92	0.83-0.90	0.93-1.01	0.73-0.85	1.32-1.54	0.46-0.68	

Table S3.9 (continued): Separation statistics(a) for selected hospital procedures(b), all hospitals, states and territories, 2008-09

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Septoplasty									
Separations <sup>(a)</sup>	7,014	7,167	3,755	1,924	2,364	235	490	107	23,056
Separations not within state of residence (%)	3	2	4	1	3	<1	30	1	3
Proportion of separations public patients (%)	22	34	18	29	33	29	43	22	27
Separation rate <sup>(c)</sup>	1.0	1.3	0.9	0.9	1.5	0.5	1.4	0.5	1.1
Standardised separation rate ratio (SRR)	0.94	1.25	0.81	0.82	1.37	0.44	1.28	0.43	
95% confidence interval of SRR	0.91-0.96	1.22-1.28	0.79-0.84	0.78-0.86	1.32-1.43	0.38-0.50	1.17–1.39	0.35-0.51	
Tonsillectomy									
Separations <sup>(a)</sup>	14,241	10,685	10,023	5,679	4,092	640	1,069	231	46,660
Separations not within state of residence (%)	2	2	2	<1	1	<1	26	1	2
Proportion of separations public patients (%)	35	50	26	42	39	52	32	44	38
Separation rate <sup>(c)</sup>	2.2	2.1	2.4	2.7	2.8	1.4	3.2	0.9	2.3
Standardised separation rate ratio (SRR)	0.95	0.94	1.04	1.18	1.24	0.60	1.41	0.41	
95% confidence interval of SRR	0.93-0.96	0.92-0.95	1.02-1.06	1.15–1.21	1.20-1.27	0.56-0.65	1.32-1.49	0.35-0.46	
Varicose veins stripping and ligation									
Separations <sup>(a)</sup>	3,985	4,618	2,380	1,170	1,168	245	409	86	14,061
Separations not within state of residence (%)	1	1	3	<1	1	<1	26	<1	2
Proportion of separations public patients (%)	32	42	22	21	41	21	45	37	34
Separation rate <sup>(c)</sup>	0.6	0.8	0.5	0.5	0.7	0.4	1.2	0.5	0.6
Standardised separation rate ratio (SRR)	0.87	1.32	0.85	0.83	1.08	0.70	1.87	0.75	
95% confidence interval of SRR	0.84-0.89	1.29-1.36	0.82-0.89	0.78-0.88	1.01-1.14	0.62-0.79	1.69-2.06	0.59-0.91	

Notes: See Box 3.5.

Table S3.10: Average length of stay (days)(a)(b) for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008-09

AR-DR	G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
E62C	Respiratory in	nfections/inflammatio	ns W/O CC								
	ALOS (days)	Public	3.6	2.8	2.9	3.2	3.3	3.9	2.9	3.6	3.2
		Private	5.3	5.2	4.8	5.0	5.1	n.p.	n.p.	n.p.	5.0
		Total	3.7	3.2	3.4	3.4	3.6	n.p.	n.p.	n.p.	3.5
	Separations	Public	10,323	6,336	5,736	2,572	2,042	573	406	645	28,633
		Private	664	1,474	1,756	413	449	n.p.	n.p.	n.p.	4,963
		Total	10,987	7,810	7,492	2,985	2,491	n.p.	n.p.	n.p.	33,596
E65B	Chronic obst	ructive airway disease	e W/O catastroph	nic or severe C	С						
	ALOS (days)	Public	4.8	3.9	4.3	4.5	4.4	5.3	3.8	4.3	4.5
		Private	7.6	6.9	6.9	7.2	5.4	n.p.	n.p.	n.p.	6.8
		Total	5.0	4.5	5.0	5.0	4.6	n.p.	n.p.	n.p.	4.8
	Separations	Public	10,112	5,531	5,358	2,214	2,633	786	300	522	27,456
		Private	702	1,284	1,889	566	534	n.p.	n.p.	n.p.	5,199
		Total	10,814	6,815	7,247	2,780	3,167	n.p.	n.p.	n.p.	32,655
E69C	Bronchitis an	d asthma age<50 W/C	CC								
	ALOS (days)	Public	1.6	1.4	1.5	1.6	1.6	1.6	1.5	1.8	1.5
		Private	2.0	2.7	2.1	2.5	2.9	n.p.	n.p.	n.p.	2.3
		Total	1.6	1.4	1.5	1.7	1.6	n.p.	n.p.	n.p.	1.6
	Separations	Public	10,174	6,818	4,669	2,304	2,826	392	296	341	27,820
		Private	111	207	541	85	81	n.p.	n.p.	n.p.	1,101
		Total	10,285	7,025	5,210	2,389	2,907	n.p.	n.p.	n.p.	28,921

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008–09

AR-DR	G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
F62B	Heart failure a	and shock W/O catast	rophic CC								
	ALOS (days)	Public	5.5	4.2	4.5	4.7	5.5	5.0	5.0	4.3	4.9
		Private	8.7	7.4	7.1	8.2	7.0	n.p.	n.p.	n.p.	7.5
		Total	5.8	5.0	5.3	5.4	5.9	n.p.	n.p.	n.p.	5.4
	Separations	Public	9,039	5,834	4,020	2,180	1,970	559	341	230	24,173
		Private	914	1,910	1,810	507	676	n.p.	n.p.	n.p.	6,089
		Total	9,953	7,744	5,830	2,687	2,646	n.p.	n.p.	n.p.	30,262
F71B	Non-major ar	rhythmia and conduct	ion disorders V	I/O catastrophic	or severe CC						
	ALOS (days)	Public	2.5	2.0	2.1	1.8	2.3	2.0	2.1	2.3	2.2
		Private	2.0	2.2	2.3	1.7	2.1	n.p.	n.p.	n.p.	2.1
		Total	2.4	2.1	2.2	1.8	2.2	n.p.	n.p.	n.p.	2.2
	Separations	Public	11,384	7,817	5,843	2,538	2,763	763	644	252	32,004
		Private	2,022	2,970	3,287	1,422	1,493	n.p.	n.p.	n.p.	11,661
		Total	13,406	10,787	9,130	3,960	4,256	n.p.	n.p.	n.p.	43,665
G07B	Appendicecto	omy W/O Catastrophic	or Severe CC								
	ALOS (days)	Public	2.8	2.6	2.4	2.5	2.6	2.4	2.6	2.7	2.6
		Private	2.3	2.5	2.0	2.4	2.5	n.p.	n.p.	n.p.	2.3
		Total	2.7	2.6	2.3	2.4	2.6	n.p.	n.p.	n.p.	2.5
	Separations	Public	6,825	4,624	3,384	2,305	1,405	364	424	246	19,577
		Private	722	985	1,764	620	381	n.p.	n.p.	n.p.	4,721
		Total	7,547	5,609	5,148	2,925	1,786	n.p.	n.p.	n.p.	24,298

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008–09

AR-DR	G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT NT	T	otal
G08B	Abdominal ar	nd other hernia proced	lures age 1 to 59	or W catastro	phic or severe	СС					
	ALOS (days)	Public	1.6	1.5	1.4	1.5	1.9	1.4	1.7	2.0	1.5
		Private	1.3	1.4	1.2	1.5	1.4	n.p.	n.p.	n.p.	1.4
		Total	1.5	1.4	1.3	1.5	1.6	n.p.	n.p.	n.p.	1.4
	Separations	Public	2,193	2,069	1,414	783	643	159	92	77	7,430
		Private	2,238	1,582	2,051	848	533	n.p.	n.p.	n.p.	7,614
		Total	4,431	3,651	3,465	1,631	1,176	n.p.	n.p.	n.p.	15,044
309Z	Inguinal and f	femoral hernia proced	ures age > 0								
	ALOS (days)	Public	1.3	1.4	1.2	1.3	1.4	1.4	1.3	1.5	1.3
		Private	1.3	1.3	1.2	1.3	1.3	n.p.	n.p.	n.p.	1.3
		Total	1.3	1.4	1.2	1.3	1.4	n.p.	n.p.	n.p.	1.3
	Separations	Public	5,357	4,809	3,049	1,710	1,453	348	177	134	17,037
		Private	7,244	5,163	5,233	2,352	1,600	n.p.	n.p.	n.p.	22,619
		Total	12,601	9,972	8,282	4,062	3,053	n.p.	n.p.	n.p.	39,656
108B	Laparacopic o	cholecystectomy W/O	closed CDE W/G	O catastrophic	or severe CC						
	ALOS (days)	Public	2.0	1.9	1.8	2.0	2.0	1.7	1.8	2.4	1.9
		Private	1.5	1.8	1.7	1.8	1.8	n.p.	n.p.	n.p.	1.7
		Total	1.8	1.9	1.7	1.9	1.9	n.p.	n.p.	n.p.	1.8
	Separations	Public	6,698	5,262	3,575	1,817	1,670	375	270	154	19,821
		Private	5,297	3,751	4,176	1,684	1,270	n.p.	n.p.	n.p.	16,968
		Total	11,995	9,013	7,751	3,501	2,940	n.p.	n.p.	n.p.	36,789

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008–09

AR-DF	RG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
103C	Hip replacem	ent W/O catastrophic	or severe CC								
	ALOS (days)	Public	6.8	6.8	6.9	7.0	6.4	6.4	6.0	n.p.	6.8
		Private	6.6	7.2	6.5	8.6	7.0	n.p.	n.p.	n.p.	7.0
		Total	6.7	7.0	6.6	8.0	6.8	n.p.	n.p.	n.p.	6.9
	Separations	Public	2,681	1,872	1,129	785	718	285	164	39	7,673
		Private	3,777	3,331	2,430	1,320	1,429	n.p.	n.p.	n.p.	12,937
		Total	6,458	5,203	3,559	2,105	2,147	n.p.	n.p.	n.p.	20,610
104Z	Knee replace	ment and reattachmer	nt								
	ALOS (days)	Public	6.9	7.3	7.1	8.2	6.2	6.8	6.0	13.1	7.1
		Private	6.9	7.6	6.6	9.7	6.8	n.p.	n.p.	n.p.	7.2
		Total	6.9	7.5	6.8	9.2	6.6	n.p.	n.p.	n.p.	7.2
	Separations	Public	4,424	2,817	2,007	1,239	1,126	298	211	56	12,178
		Private	7,440	4,871	5,107	2,379	2,326	n.p.	n.p.	n.p.	23,051
		Total	11,864	7,688	7,114	3,618	3,452	n.p.	n.p.	n.p.	35,229
I16Z	Other should	er procedures									
	ALOS (days)	Public	1.6	1.6	1.4	1.5	1.4	1.5	1.3	n.p.	1.5
		Private	1.4	1.4	1.3	1.4	1.4	n.p.	n.p.	n.p.	1.4
		Total	1.4	1.4	1.3	1.5	1.4	n.p.	n.p.	n.p.	1.4
	Separations	Public	1,732	1,497	1,049	967	541	82	88	42	5,998
		Private	8,069	6,706	6,487	4,748	2,802	n.p.	n.p.	n.p.	29,924
		Total	9,801	8,203	7,536	5,715	3,343	n.p.	n.p.	n.p.	35,922

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008–09

AR-DR	:G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
L63B	Kidney and u	rinary tract infections	age>69 W/O cat	astrophic CC							
	ALOS (days)	Public	5.4	3.8	4.6	4.9	5.0	4.8	3.7	6.7	4.8
		Private	7.6	6.5	6.7	7.9	6.7	n.p.	n.p.	n.p.	6.8
		Total	5.6	4.4	5.2	5.4	5.4	n.p.	n.p.	n.p.	5.2
	Separations	Public	7,000	4,257	3,208	1,486	1,397	237	282	155	18,022
		Private	549	1,129	1,355	300	365	n.p.	n.p.	n.p.	3,824
		Total	7,549	5,386	4,563	1,786	1,762	n.p.	n.p.	n.p.	21,846
M02B	Transurethra	I prostatectomy W/O c	atastrophic or s	evere CC							
	ALOS (days)	Public	3.1	2.6	2.6	2.7	2.9	2.8	3.7	n.p.	2.8
		Private	2.9	2.9	2.9	2.9	3.3	n.p.	n.p.	n.p.	3.0
		Total	3.0	2.8	2.8	2.8	3.1	n.p.	n.p.	n.p.	2.9
	Separations	Public	2,155	2,177	934	598	616	175	62	21	6,738
		Private	3,874	3,248	2,401	950	918	n.p.	n.p.	n.p.	11,820
		Total	6,029	<i>5,4</i> 2 <i>5</i>	3,335	1,548	1,534	n.p.	n.p.	n.p.	18,558
N04Z	Hysterectomy	y for non-malignancy									
	ALOS (days)	Public	3.7	3.7	3.3	3.7	3.6	3.3	3.9	4.1	3.6
		Private	3.8	4.2	3.4	4.0	4.2	n.p.	n.p.	n.p.	3.8
		Total	3.7	4.0	3.3	3.9	3.9	n.p.	n.p.	n.p.	3.7
	Separations	Public	3,381	3,149	1,929	898	1,112	286	145	92	10,992
		Private	4,235	2,605	3,485	1,553	1,117	n.p.	n.p.	n.p.	13,773
		Total	7,616	5,754	5,414	2,451	2,229	n.p.	n.p.	n.p.	24,765

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008–09

AR-DR	G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	
N06Z	Female repro	ductive system recon	structive proce	dures								
	ALOS (days)	Public	2.8	2.6	2.1	2.8	2.5	2.5	2.5	n.p.	2.6	
		Private	3.0	2.8	2.2	3.0	3.0	n.p.	n.p.	n.p.	2.7	
		Total	2.9	2.7	2.2	2.9	2.8	n.p.	n.p.	n.p.	2.7	
	Separations	Public	2,062	1,666	1,090	535	636	193	71	29	6,282	
		Private	3,528	2,053	2,531	1,052	984	n.p.	n.p.	n.p.	10,551	
		Total	5,590	3,719	3,621	1,587	1,620	n.p.	n.p.	n.p.	16,833	
O01C	Caesarean delivery W moderate complicating diagnosis											
	ALOS (days)	Public	4.1	4.1	3.7	4.1	4.4	3.8	3.9	5.2	4.0	
		Private	5.1	5.2	4.6	5.8	5.2	n.p.	n.p.	n.p.	5.1	
		Total	4.5	4.5	4.1	4.9	4.7	n.p.	n.p.	n.p.	4.5	
	Separations	Public	14,807	10,591	9,093	4,030	3,182	803	652	547	43,705	
		Private	7,796	6,413	7,436	3,798	1,798	n.p.	n.p.	n.p.	28,788	
		Total	22,603	17,004	16,529	7,828	4,980	n.p.	n.p.	n.p.	72,493	
O60B	3 Vaginal delivery W severe complicating diagnosis											
	ALOS (days)	Public	2.8	2.6	2.4	2.8	2.8	2.7	2.3	3.3	2.7	
		Private	4.2	4.2	3.9	4.6	4.2	n.p.	n.p.	n.p.	4.2	
		Total	3.1	3.0	2.8	3.3	3.1	n.p.	n.p.	n.p.	3.1	
	Separations	Public	36,425	27,202	19,808	9,764	6,702	1,790	1,972	1,304	104,967	
		Private	10,946	9,406	7,472	4,127	2,426	n.p.	n.p.	n.p.	36,835	
		Total	47,371	36,608	27,280	13,891	9,128	n.p.	n.p.	n.p.	141,802	

Table S3.10 (continued): Average length of stay (days)<sup>(a)(b)</sup> for selected AR-DRGs version 5.2, public and private hospitals, states and territories, 2008-09

AR-DR	G	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT To	otal			
R61B	Lymphoma a	nphoma and non-acute leukaemia W/O catastrophic CC												
	ALOS (days)	Public	5.1	4.3	4.7	5.3	5.2	5.5	8.7	n.p.	5.0			
		Private	4.8	3.6	5.0	2.9	4.3	n.p.	n.p.	n.p.	4.1			
		Total	5.0	4.0	4.9	3.8	4.8	n.p.	n.p.	n.p.	4.5			
	Separations	Public	2,693	1,962	983	658	863	214	149	42	7,564			
		Private	609	2,201	1,672	1,071	635	n.p.	n.p.	n.p.	6,292			
		Total	3,302	4,163	2,655	1,729	1,498	n.p.	n.p.	n.p.	13,856			
U63B	Major affective disorders age<70 W/O catastrophic or severe CC													
	ALOS (days)	Public	14.1	13.1	13.9	14.7	11.6	14.3	17.2	13.1	13.6			
		Private	19.1	19.5	19.9	13.9	19.2	n.p.	n.p.	n.p.	18.6			
		Total	15.9	16.0	16.7	14.3	13.3	n.p.	n.p.	n.p.	15.6			
	Separations	Public	6,097	3,801	2,807	1,922	2,350	393	300	142	17,812			
		Private	3,504	3,252	2,421	1,684	655	n.p.	n.p.	n.p.	12,078			
		Total	9,601	7,053	5,228	3,606	3,005	n.p.	n.p.	n.p.	29,890			

Notes: See Box 3.5.

Abbreviations: ALOS—average length of stay, CC—complications and comorbidities, CDE—common duct exploration, W/O—without, W—with.

# 4 Australia's hospital resources

This chapter presents an overview of public and private hospitals in 2008-09, covering the number and types of hospitals and availability of beds. This chapter also describes public hospitals in terms of public hospital expenditure and revenue, the number of full-time equivalent staff employed, and specialised services provided.

# What data are reported?

The hospital types reported in this chapter are:

- public acute hospitals and public psychiatric hospitals (public hospitals)
- private free-standing day hospital facilities and other private hospitals (includes private acute and private psychiatric hospitals).

Information on public hospital resources was derived from the National Public Hospital Establishments Database (NPHED). Financial data reported from the NPHED are not directly comparable with data reported in the annual AIHW publication of *Health expenditure Australia* 2007–08 (AIHW 2009b). In the latter, trust fund expenditure is included (whereas it is not generally included in the data here), and hospital expenditure may be defined to cover activity not covered by this data collection.

Information on expenditure and revenue for private hospitals was sourced from the Australian Bureau of Statistics' *Private hospitals Australia* (ABS 2010). For 2008–09, information on the number of private hospitals and private hospital bed numbers was mainly provided by states and territories. Information on the number of *Private free-standing day hospital facilities* and beds for New South Wales, South Australia and the Northern Territory was sourced from the Department of Health and Ageing (DoHA 2010, unpublished data) as data were not available from states and territories (see *Appendix 1*).

#### Box 4.1 What are the limitations of the data?

#### Hospitals

• The number of hospitals reported can be affected by administrative and/or reporting arrangements and is not necessarily a measure of the number of physical hospital buildings or campuses (see *Appendix 2*).

### Hospital beds

- Comparability of bed numbers can be affected by the range and types of patients treated by a hospital (casemix), with for example, different proportions of beds being available for special and more general purposes. Public and private hospital bed numbers presented in this chapter are based on different definitions.
- The number of average available beds presented in this report may differ from the counts published elsewhere. For example, counts based on a specified date, such as 30 June, may differ from the average available beds for the reporting period.

# Box 4.1 (continued)

### Public hospital financial data

 A small number of establishments in 2008–09 did not report any financial data, or reported incomplete financial data.

### Public hospital expenditure

- Capital formation expenditure is not reported in this publication. Not all jurisdictions were able to report using the *National health data dictionary* (HDSC 2006) categories and the comparability of the data may not be adequate for reporting.
- Recurrent expenditure reported in this chapter was largely expenditure by hospitals
  and may not necessarily include all expenditure spent on hospital services by each state
  or territory government, such as recurrent expenditure on purchase of public hospital
  services at the state or area health service level from privately owned and/or operated
  hospitals.
- Expenditure on public patients hospitalised in other jurisdictions may not be included in the report.

### Public hospital revenue

- Revenue reported in this chapter was largely revenue received by individual hospitals, and may not necessarily include all revenue received by each state or territory government for provision of public hospital services.
- There was some variation among the states and territories in the treatment of revenue data, for example in the treatment of Australian Government grants and asset sales (see *Appendix* 2).

### Public hospital staffing

- The collection of data by staffing category was not consistent among states and territories for some jurisdictions, best estimates were reported for some staffing categories.
- There was variation in the reporting of *Other personal care staff* and *Domestic and other staff*. Queensland noted that there was little difference between these categories, and that an employee may perform different functions within these two categories on different days (see *Appendix* 2).
- The outsourcing of services with a large labour-related component (such as food services and domestic services) can have a substantial impact on staffing figures.
   Differences in outsourcing may explain some of the differences in full-time equivalent staff in some staffing categories and also some of the differences between the states and territories.
- Different reporting practices and use of outsourced services may also explain some of
  the variation in average salaries reported for *Diagnostic and allied health professionals*,
   *Other personal care staff* and *Domestic and other staff*. The degree of outsourcing of higher
  paid versus lower paid staffing functions affect the comparison of averages. For
  example, outsourcing the provision of domestic services but retaining domestic service
  managers to oversee the activities of the contractors tends to result in higher average
  salaries for the domestic service staff.

#### Box 4.2 What methods were used?

- The Remoteness area of hospital presented in chapter was based on the ABS 2006 classification (see *Appendix 1*). Beds per 1,000 population in remoteness area is reported as a crude rate based on the 30 June 2008 population in the remoteness area in question.
- Depreciation represents a significant portion of expenditure, and expenditure totals are reported including and excluding depreciation to ensure comparable figures are available across jurisdictions.
- The Mersey Community Hospital data was included with private hospitals in presentations of hospital resources.

# How do hospitals vary across states and territories?

# **Hospital numbers**

Table 4.1 presents the number of public and private hospitals by state and territory for 2008–09. It shows 30% of reported hospitals were in New South Wales, 23% in Victoria, 21% in Queensland and 11% in Western Australia.

Table 4.1: Public and private hospitals, states and territories, 2008-09

	NSW	Vic <sup>(a)</sup>	Qld <sup>(b)</sup>	WA	SA	Tas <sup>(c)</sup>	ACT	NT	Total
Public hospitals									_
Public acute hospitals	219	148	166	93	78	25	3	5	737
Public psychiatric hospitals	8	1	4	1	2	3	0	0	19
Private hospitals <sup>(d)</sup>									
Private free-standing day hospital facilities	89	74	53	29	28	2	9	1	285
Other private hospitals	84	75	53	23	30	7	3	1	276
Total	400	298	276	146	138	37	15	7	1,317

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

### **Bed numbers**

In 2008–09, the number of available beds in public hospitals ranged from 2.4 per 1,000 population in Victoria, to 3.0 per 1,000 population in South Australia (Table 4.2). The total number of available beds in public and private hospitals combined ranged from 3.2 per 1,000 population in the Northern Territory to 4.6 per 1,000 population in Tasmania in 2008–09.

<sup>(</sup>a) The number of hospitals in Victoria is reported as a count of the campuses that reported data separately to the National Hospital Morbidity

<sup>(</sup>b) The count of private hospitals and licensed beds in Queensland was based on data as at June 2009.

<sup>(</sup>c) Mersev community hospital is included in *Other private hospitals*.

<sup>(</sup>d) Information on the number of private hospitals was mainly provided by states and territories. Information on the number of Private free-standing day hospital facilities for New South Wales, South Australia and the Northern Territory was sourced from the Department of Health and Ageing (DoHA 2010, unpublished data).

Table 4.2: Public and private hospital average available beds<sup>(a)</sup> and number of average available beds per 1,000 population<sup>(b)</sup>, states and territories, 2008–09

	NSW	Vic	QId <sup>(c)</sup>	WA	SA	Tas <sup>(d)</sup>	ACT	NT	Total
Average available or licensed beds <sup>(a)</sup>									
Public hospitals									
Public acute hospitals	18,844	12,715	10,347	5,155	4,600	1,196	875	606	54,338
Public psychiatric hospitals	961	154	458	214	274	79			2,140
Private hospitals <sup>(e)</sup>									
Private free-standing day hospital facilities	644	589	411	294	150	9	64	7	2,168
Other private hospitals	6,070	6,802	6,003	2,815	2,158	1,026	327	97	25,298
Total beds	26,519	20,260	17,219	8,478	7,182	2,310	1,266	710	83,944
Average available or licensed beds per 1,000	populatio	n <sup>(a)(b)</sup>							
Public hospitals									
Public acute hospitals	2.7	2.4	2.4	2.3	2.9	2.4	2.5	2.7	2.5
Public psychiatric hospitals	0.1	0.0	0.1	0.1	0.2	0.2			0.1
Private hospitals <sup>(e)</sup>									
Private free-standing day hospital facilities	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.1
Other private hospitals	0.9	1.3	1.4	1.3	1.3	2.1	0.9	0.4	1.2
Total beds per 1,000 population <sup>(a)(b)</sup>	3.8	3.8	4.0	3.8	4.5	4.6	3.6	3.2	3.9

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

# **Public hospitals**

# How diverse are public hospitals?

The **public hospital peer groups** were designed to explain variability in hospital costs by grouping hospitals according to the type and volume of their admitted patient activity, and their geographical location. A range of other statistics are presented about public hospital peer groups in *chapters 3*, 5 and 10. Detailed information on the public hospital peer group classification is included in *Appendix 1*.

The 756 public hospitals are very diverse in size and the types of services provided for admitted and non-admitted patients (Table 4.3). The diversity of admitted patient services provided by each type can be gauged by the average number of diagnosis related groups reported (AR-DRGs). In 2008–09, there were:

<sup>(</sup>a) The number of average available beds presented here may differ form the counts published elsewhere. For example counts based on bed numbers at a specified date such as 30 June may differ from the average available beds over the reporting period. The Australian Bureau of Statistics' Private hospitals Australia reported 27,180 private hospital beds/chairs (ABS 2010).

<sup>(</sup>b) Average available beds per 1,000 population is reported as a crude rate based on the estimated resident population as at 31 December 2008.

<sup>(</sup>c) The count of private hospitals and licensed beds in Queensland was based on data as at June 2009.

<sup>(</sup>d) Mersey community hospital is included in Other private hospitals.

<sup>(</sup>e) Information on private hospital bed numbers was mainly provided by states and territories. Information on the number of Private freestanding day hospital facilities beds for New South Wales, South Australia and the Northern Territory was sourced from the Department of Health and Ageing (DoHA 2010, unpublished data)

- 74 Principal referral hospitals located mainly in major cities, with at least one in each state and territory. They provided a wide range of services, including emergency department, outpatient and admitted patient services (including 5 or more separations for 398 AR-DRGs on average). These hospitals accounted for a total of 3.1 million separations or 64% of the total for public hospitals (Figure 4.1). These accounted for 10.7 million days or 60% of the total for public hospitals (Figure 4.2).
- 11 Specialist women's and children's hospitals—located in Sydney, Melbourne, Brisbane, Perth and Adelaide. They delivered an average of 20,634 separations, specialising in maternity and other specialist services for women, and/or specialist paediatric services.
- 41 *Large hospitals* 23 in major cities and 18 in regional and remote areas. They provided emergency department, outpatient and admitted patient services, generally with a range of activities less than for the *Principal referral hospitals* (5 or more separations for 259 AR-DRGs), with an average of 15,419 separations per hospital.
- 92 *Medium hospitals* 22 in major cities and 70 in regional areas. They delivered an average of 5,770 separations per hospital (with a narrower range of services than the *Large hospitals*), and most had accident and emergency services (rather than formal emergency departments) and some had outpatient clinics.
- 151 Small acute hospitals 110 in regional areas and 40 in remote areas. They delivered mainly acute care for admitted patients, with an average of 1,205 separations per hospital in the year, with a relatively narrow range of services (5 or more separations for 49 AR-DRGs). They generally did not have emergency departments although most provided accident and emergency services.
- 19 *Psychiatric hospitals* specialising in the treatment and care of people with mental health problems. They were located in Sydney, Melbourne, Brisbane, Perth, Adelaide and Hobart, with 3 in regional Queensland centres.
- 8 specialist *Rehabilitation hospitals*—located in Sydney, Perth and Adelaide, and 2 in regional areas.
- 8 specialist *Mothercraft hospitals*—located in Sydney, Melbourne, Brisbane and Canberra.
- 86 Small non-acute hospitals mainly in rural and remote areas. The services they provided tended to be mainly non-acute, so the average length of stay was longer than in the hospitals that provided mainly acute care.
- 79 *Multi-purpose services* in regional and remote areas. These hospitals were generally combined with services for residential aged care, and mainly provide non-acute admitted patient care.
- 187 other hospitals, mainly small hospitals or specialist hospitals, such as hospices.

More information on hospitals by state and territory is presented in supplementary tables at the end of *Chapter 3*.

Table 4.3: The diversity of public hospitals, 2008-09

			Νι	ımber	of hos	oitals							
		Loca	ition		5	Service p	rovide	d					
Hospital type	Major cities	Regional	Remote	Total	Emergency departments <sup>(a)</sup>	Accident emergency services <sup>(b)</sup>	Outpatient clinics <sup>(c)</sup>	Elective surgery <sup>(d)</sup>	Average beds	Separations (average)	Average length of stay (days)	Non-acute care (patient days %)	AR-DRGs (5+) <sup>(6)</sup>
Principal referral	50	23	1	74	74	74	69	74	411.8	42,058	3.4	8.1	398
Specialist women's and children's	11	0	0	11	9	11	11	11	200.8	20,634	3.1	0.5	227
Large	23	17	1	41	38	41	36	34	143.5	15,419	3.0	13.1	259
Medium	22	70	0	92	34	90	11	55	64.1	5,770	3.2	21.3	146
Small acute	0	110	40	151	18	148	2	33	21.6	1,205	3.2	10.6	49
Psychiatric	10	9	0	19	0	3	0	0	110.7	554	54.7	51.6	10
Rehabilitation	6	2	0	8	0	7	1	1	70.5	1,104	20.8	91.2	27
Mothercraft	8	0	0	8	0	8	0	0	26.5	1,683	3.6	0.0	10
Small non-acute	13	62	11	86	4	83	1	2	28.4	883	8.5	67.9	21
Multi-purpose services	0	47	32	79	0	79	0	3	12.0	345	4.3	29.0	15
Other	32	78	77	187	6	173	0	1	13.1	233	15.0	85.8	22
Total	175	418	162	756	183	717	131	214	74.7	6,434	3.7	17.1	126

Private hospitals expenditure and revenue data were sourced from Private hospitals Australia, 2008–09 (ABS 2010).

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) This is the number of hospitals reporting episode-level non-admitted patient emergency department care data to the National Non-admitted Patient Emergency Department Care Database.

<sup>(</sup>b) This is the number of hospitals reporting establishment-level accident and emergency occasions of service data to the National Public Hospital Establishments Database.

<sup>(</sup>c) This is the number of hospitals reporting outpatient clinic-level non-admitted patient data to the National Outpatient Care Database.

<sup>(</sup>d) This is the number of hospitals reporting episode-level data to the Elective Surgery Waiting Times Data Collection.

<sup>(</sup>e) This is the average number of Diagnosis Related Groups (AR-DRGs) for which there were at least 5 separations.

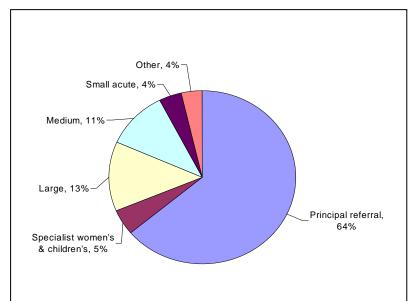


Figure 4.1: Separations (%) for public hospitals, by public hospital peer group, Australia, 2008–09

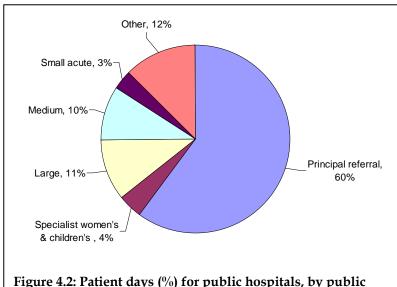


Figure 4.2: Patient days (%) for public hospitals, by public hospital peer group, Australia, 2008–09

#### **Bed numbers**

Grouping hospitals by number of available beds showed that there were more small hospitals (Table 4.4). This was particularly the case in jurisdictions that covered large geographical areas. The majority of beds were in larger hospitals and in more densely populated areas. The largest hospital had 1,047 beds. Fifty per cent of hospitals had 26 beds or less.

Table 4.4: Number of public acute and psychiatric hospitals and average available beds, by hospital size, 2008–09

		Proportion of total public hospitals	Average	Proportion of total public hospital beds
Hospital size	Hospitals	(per cent)	available beds	(per cent)
10 or fewer beds	208	28%	951	2%
More than 10 to 50 beds	330	44%	8,119	14%
More than 50 to 100 beds	74	10%	5,288	9%
More than 100 to 200 beds	65	9%	9,855	17%
More than 200 to 500 beds	56	7%	16,876	30%
More than 500 beds	23	3%	15,388	27%
Total	756	100%	56,478	100%

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

Additional information by states and territories is available in Table S4.1 at the end of this chapter.

#### Where are public hospitals located?

The remoteness area classification is used in Table 4.5 to present information on the geographical distribution of public hospitals and available beds, and on the number of available beds per 1,000 population. The highest number of hospitals was in *Outer regional* areas (224) and the largest number of beds was in *Major cities* (36,209).

In 2008-09, there were 2.6 public hospital beds per 1,000 population. The number of public hospital beds per 1,000 population varied across remoteness areas. The ratio of available beds to the population does not necessarily indicate the accessibility of hospital services. A hospital can provide services for patients who usually reside in other areas of the state or territory, or in other jurisdictions. The patterns of bed availability across regions may also reflect a number of factors including the availability of other health-care services and patterns of disease and injury.

Table 4.5: Number of hospitals, average available beds and number of average available beds per 1,000 population resident in area<sup>(a)</sup>, by remoteness area, public acute and psychiatric hospitals, 2008–09

Remoteness area	Hospitals	Average available beds	Average available beds per 1,000 population resident in area <sup>(a)</sup>
Major cities	175	36,209	2.5
Inner regional	194	11,597	2.7
Outer regional	224	6,578	3.3
Total regional	418	18,175	2.9
Remote	90	1,443	4.5
Very remote	72	640	3.8
Total remote	162	2,083	4.3
Total <sup>(b)</sup>	756	56,478	2.6

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

Additional information for states and territories is available in Table S4.2 at the end of this chapter.

<sup>(</sup>a) Average available beds per 1,000 population is reported as a crude rate based on the estimated resident population as at 30 June 2008.

<sup>(</sup>b) Remoteness area information for one new public hospital in Victoria in 2008–09 was not available. Hence it is included in statistics for total hospitals but excluded from statistics by remoteness area.

## How much expenditure and revenue?

#### Public hospital recurrent expenditure

**Salary expenditure** include salaries and wages, payments to staff on paid leave, workers compensation leave and salaries paid to contract staff where the contract was for the supply of labour and where full-time equivalent staffing data were available.

**Non-salary expenditure** includes items such as Payments to visiting medical officers, Superannuation payments, Drug supplies, Medical and surgical supplies (which include consumable supplies only and not equipment purchases), Food supplies, Domestic services, Repairs and maintenance, Patient transport, Administrative expenses, Interest payments and Depreciation and Other recurrent expenditure.

Information on gross recurrent expenditure, categorised into Salary expenditure and Non-salary expenditure, is presented in Table 4.6. Nationally, total recurrent expenditure excluding depreciation by public acute and psychiatric hospitals was over \$31.3 billion in 2008–09.

With payments to *Visiting medical officers* and payments for outsourced services excluded, salary payments accounted for 63% of the \$31.3 billion spent within the public hospital system.

Depreciation represents a significant portion of expenditure, and expenditure totals are reported including and excluding depreciation to ensure comparable figures are available across jurisdictions. In 2008–09, depreciation ranged from 4.1% of total expenditure in Queensland to 0.8% in the Northern Territory.

Table 4.6: Recurrent expenditure (\$'000,000)(a), public acute and psychiatric hospitals, states and territories, 2008–09

	NSW <sup>(b)</sup>	Vic	Qld <sup>(c)</sup>	WA	SA	Tas	ACT	NT	Total
Salary expenditure	6,253	5,013	3,736	2,134	1,507	407	355	288	19,695
Non-salary expenditure	4,338	3,219	2,263	1,208	1,038	304	248	158	12,777
Total recurrent expenditure including depreciation	10,592	8,232	6,000	3,343	2,545	712	603	446	32,473
Public acute hospitals	10,374	8,186	5,882	3,263	2,426	696	603	446	31,877
Public psychiatric hospitals	218	46	118	79	119	15			596
Total recurrent expenditure excluding depreciation	10,209	7,912	5,755	3,258	2,467	693	586	443	31,323
Public acute hospitals	9,998	7,868	5,642	3,180	2,350	678	586	443	30,746
Public psychiatric hospitals	211	44	113	78	117	15			577

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) Recurrent expenditure does not include the purchase of public hospital services at the state or area health service level from privately owned and/or operated hospitals.

<sup>(</sup>b) New South Wales hospital expenditure recorded against special purposes and trust funds was not included.

<sup>(</sup>c) Pathology services were purchased from a state-wide pathology service rather than being provided by hospital employees in Queensland. Additional information for states and territories is available in Table S4.3 at the end of this chapter.

#### Public hospital revenue

**Revenue** is reported against three categories: Patient revenue, Recoveries, and Other revenue. **Recoveries** are income from the use of hospital facilities by salaried medical officers or private practitioners exercising their rights of private practice, and other recoveries. **Other revenue** includes investment income, income from charities, bequests and accommodation provided to visitors.

Australian public hospitals received \$2.98 billion in revenue in 2008-09 (Table 4.7). This was equivalent to 9.5% of total recurrent expenditure (excluding depreciation). Revenue as a proportion of total expenditure varied among the states and territories.

Table 4.7: Revenue (\$'000), public acute and psychiatric hospitals, states and territories, 2008-09

	NSW	Vic	QId <sup>(a)</sup>	WA	SA <sup>(b)</sup>	Tas	ACT	NT	Total
Patient revenue	611,309	269,616	286,828	127,481	118,700	40,626	39,874	12,172	1,506,605
Recoveries	267,363	123,196	45,258	28,709	n.a.	27,161	10,125	6,745	508,558
Other revenue	229,557	490,255	163,991	39,268	29,293	3,846	3,756	37	960,004
Total revenue	1,108,228	883,067	496,078	195,458	147,993	71,633	53,756	18,954	2,975,167
Public acute	1,098,631	881,910	489,484	195,438	143,700	70,900	53,756	18,954	2,952,772
Psychiatric	9,597	1,157	6,594	21	4,293	734			22,395

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

## How many staff in public hospitals?

**Staff** is summarised against six categories: Salaried medical officers, Total nurses, Other personal care staff, Diagnostic and allied health professionals, Administrative and clerical staff, and Domestic and other staff. **Total nurses** includes Registered nurses, Enrolled nurses, and Student nurses.

Nationally, over 246,000 full-time equivalent staff were employed in the public hospital sector in 2008-09. *Nurses* constituted 45.3% (over 111,000) of public hospital staff. There were around 29,000 *Salaried medical officers* employed in public hospitals throughout Australia, representing 11.8% of the public hospital labour force (Table 4.8).

The average salary for full-time equivalent *Nurses* in 2008–09 was around \$78,200 nationally (Table 4.8), which was an increase of 5.3% compared with the average salary of \$74,237 in 2007–08 (AIHW 2009a). In 2008-09, the average salary for full-time equivalent *Salaried medical officers* was around \$158,300 and it was a 4.7% increase over the previous year.

The collection of data by staffing category was not consistent among states and territories and may explain some of the variation on average salaries reported.

Different reporting practices and use of outsourcing services with a large labour-related component (such as food services, domestic services and information technology) can have a substantial impact on staffing figures and may also explain some of the variation in average salaries reported between jurisdictions.

<sup>(</sup>a) Patient revenue in Queensland includes revenue for items such as pharmacy and ambulance, which may be considered to be Recoveries.

<sup>(</sup>b) South Australia did not identify any Recoveries due to a change in data recording practices.

For medical officers, for example, this may be reflected in the variation in the proportion of total expenditure that was reported as being for visiting medical officers (VMOs) who were contracted by hospitals to provide services to public patients and paid on a sessional or feefor-service basis (Table S4.3). Variations in the outsourcing arrangements may also be reflected in variations in other recurrent expenditure categories reported in tables 4.6 and S4.3.

Table 4.8: Average full-time equivalent staff<sup>(a)</sup> and average salaries, public acute and psychiatric hospitals, states and territories, 2008–09

	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	Qld <sup>(d)</sup>	WA	SA <sup>(e)</sup>	Tas <sup>(f)</sup>	ACT	NT	Total
Full-time equivalent staff numb	ers								
Salaried medical officers	8,702	7,323	6,061	2,863	2,450	750	649	369	29,166
Total nurses	37,499	28,745	19,699	10,392	9,678	2,464	2,035	1,358	111,870
Other personal care staff	n.a.	n.a.	967	n.a.	800	n.a.	190	14	n.a.
Diagnostic and allied health professionals	11,584	12,989	4,645	3,059	1,844	510	533	341	35,506
Administrative and clerical staff <sup>(g)</sup>	11,246	10,908	6,255	4,256	3,027	803	687	456	37,640
Domestic and other staff	8,918	6,583	7,268	4,253	1,884	1,089	171	578	30,743
Total staff	77,947	66,548	44,896	24,824	19,683	5,616	4,266	3,114	246,895
Average salaries (\$)									
Salaried medical officers	145,736	153,626	167,835	197,684	158,284	121,052	140,944	191,914	158,305
Total nurses	77,898	78,244	78,454	80,909	73,764	75,319	80,439	94,704	78,200
Other personal care staff	n.a.	n.a.	54,437	n.a.	41,083	n.a.	52,942	70,313	48,984
Diagnostic and allied health professionals	68,760	52,682	80,507	75,707	78,949	85,363	73,427	81,845	65,977
Administrative and clerical staff <sup>(g)</sup>	67,451	49,663	60,661	61,900	52,174	48,691	61,472	61,345	58,728
Domestic and other staff	57,077	62,777	50,589	54,699	36,627	44,394	48,002	55,865	54,659
Total staff (\$)	80,224	75,336	83,227	85,984	76,566	72,535	83,181	92,609	79,772

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) Where average full-time equivalent staff numbers were not available, staff numbers at 30 June 2009 were used. Staff contracted to provide products (rather than labour) are not included.

<sup>(</sup>b) In New South Wales, Other personal care staff were included in Diagnostic and allied health professionals, Domestic and other staff and Total Nurses.

<sup>(</sup>c) For Victoria, full-time equivalent staff numbers may be slightly understated as data were unavailable for one hospital. Other personal care staff were included in Domestic and other staff.

<sup>(</sup>d) Queensland pathology services provided by staff employed by the state pathology service were not reported here.

<sup>(</sup>e) In South Australia, Total nurses include Trainee nurses.

<sup>(</sup>f) For Tasmania, data for Other personal care staff were not supplied separately and are included in other staffing categories. Data for two small hospitals in Tasmania were not supplied.

<sup>(</sup>g) Administrative and clerical staff may include staff working to support clinicans, such as ward clerks.

## What specialised services were provided?

#### **Specialised services**

In 2008-09, the most common specialised services offered by hospitals were *Domiciliary care service, Obstetric/maternity service* and services provided by *Nursing home care units* (Table 4.9).

The existence of a specialised unit does not necessarily imply the delivery of large numbers of services in that unit. For example, there were some smaller hospitals with an *Obstetric/maternity service* unit that had less than one delivery a week on average. There were also a few hospitals that did not report having an obstetric unit but reported one or more deliveries a day.

Data on specialised services were not available for a few hospitals so the services may be under-enumerated.

Table 4.9: Number of public acute hospitals with selected specialised services, 2008-09

Specialised service unit	Major cities	Regional	Remote	Australia
Domiciliary care service	83	245	64	392
Intensive care unit (level III)	54	21	1	76
In-vitro fertilisation unit	7	2	0	9
Maintenance renal dialysis centre	70	95	16	182
Major plastic/reconstructive surgery unit	40	2	0	42
Neonatal intensive care unit (level III)	22	4	0	26
Nursing home care unit	13	191	57	261
Obstetric/maternity service	64	158	24	246
Oncology unit	61	58	0	119
Rehabilitation unit	80	60	1	141

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

Additional information for states and territories is available in Table S4.4 at the end of this chapter.

#### Service related groups

The Service related group (SRG) classification is based on Australian Refined Diagnosis Related Group (AR-DRG) aggregations and categorises admitted patient episodes into groups representing clinical divisions of hospital activity. SRGs are used to assist in the planning of services, analysing and comparing hospital activity, examining patterns of service needs and access, and projecting potential trends in services. The method to assign records to SRGs largely involves aggregations of AR-DRG information. However, the assignment of some separations to SRGs is based on other information, such as procedures, diagnoses and care types. Separations may also be assigned to certain specialist SRGs depending on whether or not the hospital had a specialist neurosurgery, perinatology (neonatal intensive care unit) or cardiothoracic unit, as appropriate, as reported to the National Public Hospital Establishments Database. For more information on the method used to allocate admitted patient records to SRGs, see *Appendix 4*.

Table 4.10 presents the number of public hospitals reporting more than 360 patient days in each SRG for selected SRGs by remoteness area of the hospital. This has been included as an

indicative measure of the number of specialty units. More detailed statistics are available in Table A4.1 accompanying this report on the Internet at <www.aihw.gov.au>.

Table 4.10: Number of public hospitals reporting more than 360 patient days for selected service related groups, by remoteness area of hospital, 2008-09

Service related group	Major cities	Regional	Remote	Australia
Respiratory Medicine	98	197	20	315
Maintenance	67	176	32	275
Orthopaedics	106	143	13	262
Cardiology	93	154	8	255
Medicine, No Definitive Subspecialty	111	127	6	244
Surgery, No Definitive Subspecialty	102	125	13	240
Gastroenterology	95	106	6	207
Neurology	97	105	3	205
Obstetrics	69	122	12	203
Rehabilitation	95	95	2	192
Immunology & Infections	90	84	11	185
Acute Psychiatry	93	61	5	159
Medical Oncology	82	71	2	155
Acute Definitive Geriatrics	88	61	1	150
Diagnostic GI Endoscopy	82	63	0	145
Endocrinology	86	56	2	144
Renal Dialysis	60	74	6	140
Colorectal Surgery	85	53	1	139
Gynaecology	75	57	3	135
Renal Medicine	85	45	2	132

Notes: See Box 4.1 and 4.2 for notes on data limitations and methods.

Additional information for states and territories is available in tables A4.1 to A4.5 at <www.aihw.gov.au>.

## **Additional information**

Tables A4.2 and A4.3 (accompanying this report on the CD and Internet at <www.aihw.gov.au>) summarise the number of separations in each SRG category by state and territory for all public and private hospitals, respectively.

Tables A4.4 and A4.5 (accompanying this report on the CD and Internet at <www.aihw.gov.au>) summarise the number of patient days in each SRG category by state and territory for all public and private hospitals, respectively.

## Supplementary tables

The following supplementary tables provide more information on public hospital resources by state and territory.

Table S4.1: Number of public acute and psychiatric hospitals and average available beds, by hospital size, states and territories, 2008-09

Hospital size <sup>(a)</sup>	NSW	Vic <sup>(b)</sup>	Qld	WA	SA	Tas	ACT	NT	Total
Hospitals									
10 or fewer beds	27	41	72	42	7	18	1	0	208
More than 10 to 50 beds	122	46	64	31	58	7	0	2	330
More than 50 to 100 beds	28	24	10	5	6	0	0	1	74
More than 100 to 200 beds	23	19	10	9	2	1	0	1	65
More than 200 to 500 beds	19	15	9	5	5	1	1	1	56
More than 500 beds	8	4	5	2	2	1	1	0	23
Total	227	149	170	94	80	28	3	5	756
Average available beds									
10 or fewer beds	99	197	270	235	41	99	10		951
More than 10 to 50 beds	3,186	1,071	1,466	738	1,468	150		40	8,119
More than 50 to 100 beds	2,023	1,724	690	330	460			60	5,288
More than 100 to 200 beds	3,464	2,795	1,634	1,345	316	130		171	9,855
More than 200 to 500 beds	5,752	4,727	2,688	1,435	1,387	330	223	335	16,876
More than 500 beds	5,281	2,354	4,057	1,286	1,201	566	642		15,388
Total	19,805	12,869	10,805	5,369	4,874	1,275	875	606	56,478

Notes: See Boxes 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) Size is based on the average number of available beds.

<sup>(</sup>b) The count of hospitals in Victoria is a count of the campuses that report data separately to the National Hospital Morbidity Database.

Table S4.2: Number of hospitals, average available beds<sup>(a)</sup> and number of average available beds per 1,000 population resident in area<sup>(b)</sup>, by remoteness area<sup>(c)</sup>, public acute and psychiatric hospitals, states and territories, 2008–09

Remoteness area	NSW	Vic <sup>(c)</sup>	Qld	WA	SA	Tas	ACT	NT	Total
Hospitals									
Major cities	68	52	16	22	14		3		175
Inner regional	76	58	26	9	16	9			194
Outer regional	63	36	54	28	28	14		1	224
Total regional	139	94	80	37	44	23		1	418
Remote	14	2	31	22	16	3		2	90
Very remote	6		43	13	6	2		2	72
Total remote	20	2	74	35	22	5		4	162
Total all remoteness areas <sup>(e)</sup>	227	149	170	94	80	28	3	5	756
Average available beds <sup>(a)(f)</sup>									
Major cities	13,379	9,294	5,676	3,846	3,139		875		36,209
Inner regional	4,490	2,815	2,330	506	445	1,011			11,597
Outer regional	1,679	735	2,133	597	857	242		335	6,578
Total regional	6,169	3,550	4,463	1,103	1,301	1,253		335	18,175
Remote	225	14	348	276	337	12		231	1,443
Very remote	31		318	144	96	10		40	640
Total remote	256	14	666	420	434	22		271	2,083
Total all remoteness areas <sup>(e)</sup>	19,805	12,869	10,805	5,369	4,874	1,275	875	606	56,478
Number of average available beds per	1,000 population	resident in ar	ea <sup>(b)</sup>						
Major cities	2.6	2.3	2.2	2.5	2.7		2.5		2.5
Inner regional	3.2	2.6	2.5	1.8	2.3	3.1			2.7
Outer regional	3.8	2.9	3.3	3.0	4.7	1.5		2.8	3.3
Total regional	3.3	2.7	2.8	2.3	3.4	2.6		2.8	2.9
Remote	6.9	3.0	4.1	2.9	7.4	1.5		4.8	4.5
Very remote	6.9		6.3	3.0	6.9	3.8		0.8	3.8
Total remote	6.9	3.0	4.9	2.9	7.3	2.1		2.8	4.3
Total all remoteness areas <sup>(e)</sup>	2.8	2.4	2.5	2.5	3.0	2.6	2.5	2.8	2.6

Notes: See Boxes 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) The number of average available beds presented here may differ from the counts published elsewhere. For example counts based on bed numbers at a specified date such as 30 June may differ from the average available beds over the reporting period.

<sup>(</sup>b) Average available beds per 1,000 population is reported as a crude rate based on the estimated resident population as at 30 June 2008.

<sup>(</sup>c) Remoteness area of hospital was based on the ABS 2006 remoteness area classification.

<sup>(</sup>d) The count of hospitals in Victoria is a count of the campuses that report data separately to the National Hospital Morbidity Database.

<sup>(</sup>e) Includes hospitals for which remoteness area was Not reported.

<sup>(</sup>f) The comparability of bed numbers can be affected by the casemix of hospitals including the extent to which hospitals provide same-day admitted patient services and other specialised services.

Table S4.3: Recurrent expenditure (\$'000)(a), public acute and psychiatric hospitals, states and territories, 2008-09

Recurrent expenditure category	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	Qld <sup>(d)</sup>	WA	SA <sup>(e)</sup>	Tas <sup>(f)</sup>	ACT	NT	Total
Salary and wages expenditure									
Salaried medical officers	1,268,121	1,125,045	1,017,307	565,871	387,750	90,775	91,454	70,755	4,617,077
Registered nurses	n.a.	2,249,114	1,396,650	808,834	598,601	168,332	144,447	118,453	n.a.
Enrolled nurses	n.a.	n.a.	147,198	32,001	110,695	17,286	19,223	10,127	n.a.
Student nurses			1,616		4,618				6,234
Total nurses	2,921,056	2,249,114	1,545,464	840,835	713,915	185,618	163,669	128,580	8,748,251
Other personal care staff	n.a.	n.a.	52,654	n.a.	32,864	n.a.	10,067	968	96,553
Diagnostic and allied health professionals	796,498	684,294	373,979	231,621	145,569	43,557	39,169	27,877	2,342,565
Administrative and clerical staff	758,581	541,733	379,415	263,476	157,952	39,105	42,256	27,974	2,210,492
Domestic and other staff	509,005	413,246	367,679	232,642	68,997	48,332	8,223	32,270	1,680,393
Total salary and wages expenditure	6,253,260	5,013,432	3,736,498	2,134,445	1,507,046	407,386	354,838	288,426	19,695,330

(continued)

Table S4.3 (continued): Recurrent expenditure (\$'000)(a), public acute and psychiatric hospitals, states and territories, 2008-09

Recurrent expenditure category	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	$Qld^{(d)}$	WA	SA <sup>(e)</sup>	Tas <sup>(f)</sup>	ACT	NT	Total
Non-salary expenditure									
Payments to visiting medical officers	534,498	127,042	100,321	107,595	121,365	20,329	32,396	5,158	1,048,704
Superannuation payments	570,936	432,610	353,494	174,141	137,297	42,156	43,010	20,402	1,774,046
Drug supplies	506,865	431,712	292,818	178,846	116,060	38,114	16,892	19,678	1,600,986
Medical and surgical supplies	930,114	705,133	593,334	222,426	176,377	79,868	51,713	30,306	2,789,270
Food supplies	109,964	89,435	44,863	25,931	19,428	7,805	2,323	3,598	303,346
Domestic services	308,773	189,638	151,294	79,174	61,808	15,137	22,304	11,530	839,657
Repairs and maintenance	209,126	150,924	127,552	84,202	59,893	13,092	7,592	11,107	663,488
Patient transport	98,832	42,378	35,457	24,186	22,277	4,615	955	18,846	247,546
Administrative expenses	509,268	479,891	315,944	135,113	36,630	34,492	35,923	20,359	1,567,619
Interest payments	8,160	0	0	10,376	0	0	104	0	18,640
Depreciation	382,868	320,036	245,119	84,332	78,197	18,446	16,952	3,704	1,149,654
Other recurrent expenditure	169,056	250,097	3,076	81,746	208,701	30,162	18,042	13,379	774,259
Total non-salary expenditure excluding									
depreciation	3,955,591	2,898,861	2,018,152	1,123,735	959,837	285,769	231,255	154,362	11,627,562
Total non-salary expenditure including									
depreciation	4,338,459	3,218,897	2,263,271	1,208,067	1,038,034	304,215	248,207	158,067	12,777,216
Total expenditure excluding depreciation	10,208,851	7,912,293	5,754,650	3,258,180	2,466,883	693,156	586,093	442,788	31,322,893
Public acute hospitals	9,998,037	7,867,910	5,642,106	3,180,436	2,350,330	678,166	586,093	442,788	30,745,865
Psychiatric hospitals	210,814	44,383	112,544	77,744	116,552	14,990			577,027
Total expenditure including depreciation	10,591,719	8,232,328	5,999,769	3,342,512	2,545,080	711,601	603,045	446,492	32,472,547
Public acute hospitals	10,373,614	8,186,340	5,881,577	3,263,088	2,426,124	696,490	603,045	446,492	31,876,769
Psychiatric hospitals	218,105	45,988	118,192	79,424	118,957	15,111			595,778

Notes: See Boxes 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) Recurrent expenditure does not include the purchase of public hospital services at the state or area health service level from privately owned and/or operated hospitals.

<sup>(</sup>b) New South Wales hospital expenditure recorded against special purposes and trust funds is not included. Other personal care staff are included in Diagnostic and allied health professionals and Domestic and other staff and Total nurses. New South Wales was unable to provide information for each nurse category, although data on Total nurses were provided.

<sup>(</sup>c) Victorian Other personal care staff are included in Domestic and other staff. Victoria was unable to provide information for each nurse category, although data on Total nurses were provided.

<sup>(</sup>d) Pathology services were purchased from a state-wide pathology service rather than being provided by hospital employees in Queensland.

<sup>(</sup>e) South Australian Interest payments are included in Administrative expenses. Termination payments are included in Other recurrent expenditure.

<sup>(</sup>f) For Tasmania, Total nurses include payments to Trainee nurses. Superannuation payments to Visiting Medical Officers are included in Superannuation payments.

Table S4.4: Number of public acute hospitals<sup>(a)</sup> with specialised services, by remoteness area, states and territories, 2008–09

Specialised services	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	Qld	WA	SA	Tas	ACT	NT	Total <sup>(d)</sup>
Acute renal dialysis unit	23	19	12	3	4	2	1	2	66
Major cities	15	16	6	3	4		1		45
Regional	8	3	6	0	0	2	0	1	20
Remote	0	0	0	0	0	0		1	1
Acute spinal cord injury unit	3	2	1	2	1	0	0	0	9
Major cities	3	2	1	2	1		0		9
AIDS unit	9	3	2	2	1	0	1	1	19
Major cities	9	3	1	2	1		1		17
Regional	0	0	1	0	0	0	0	0	1
Remote	0	0	0	0	0	0		1	1
Alcohol and drug unit	75	14	9	3	2	1	1	1	106
Major cities	25	8	4	3	1		1		42
Regional	49	6	5	0	1	1	0	0	62
Remote	1	0	0	0	0	0		1	2
	3	2	2	2	2	1	0	0	12
Burns unit (level III)								-	
Major cities	3 0	2 0	2 0	2 0	2 0	 1	0 0	0	11 1
Regional	-			-	-				
Cardiac surgery unit	11	9	4	4	2	1	1	0	32
Major cities	10	9	3	4	2	• :	1		29
Regional	1	0	1	0	0	1	0	0	3
Clinical genetics unit	11	7	2	3	2	1	1	0	27
Major cities	9	7	1	3	2		1		23
Regional	2	0	1	0	0	1	0	0	4
Coronary care unit	45	24	19	5	9	3	2	2	109
Major cities	30	15	10	5	6		2		68
Regional	15	9	9	0	2	3	0	1	39
Remote	0	0	0	0	1	0		1	2
Diabetes unit	22	17	13	5	5	3	1	1	67
Major cities	21	15	8	5	5		1		55
Regional	1	2	5	0	0	3	0	1	12
Domiciliary care service	160	94	35	58	44	0	0	1	392
Major cities	38	28	3	7	7		0		83
Regional	111	66	12	31	25	0	0	0	245
Remote	11	0	20	20	12	0		1	64
Geriatric assessment unit	66	36	12	22	13	3	2	0	154
Major cities	37	23	5	6	6	_	2	_	79
Regional	28	13	7	14	6	3	0	0	71
Remote	1	0	0	2	1	0		0	4
	47	23	7		=	1	1	_	
Hospice care unit Major cities	47 14	23 11	3	<b>29</b> 0	<b>14</b> 5		1	1	<b>123</b> 34
•	29	12	3 3	20	5 5	 1	0	 1	71
Regional	4	0	3 1	9	4	0	•	0	18
Remote									
Infectious diseases unit	13	14	10	4	4	1	1	1	48
Major cities	13	14	7	4	4	• • •	1		43
Regional	0	0	3	0	0	1	0	0	4
Remote	0	0	0	0	0	0		1	1
Intensive care unit (level III)	38	16	9	4	4	2	1	2	76
Major cities	24	14	7	4	4		1		54
Regional	14	2	2	0	0	2	0	1	21
Remote	0	0	0	0	0	0		1	1
In-vitro fertilisation unit	2	4	1	0	2	0	0	0	9
Major cities	2	2	1	0	2		0		7
Regional	0	2	0	0	0	0	0	0	2
Maintenance renal dialysis centre	56	65	27	11	16	2	1	4	182
Major cities	22	28	7	6	6		1		70
Regional	30	37	14	4	7	2	0	1	95
Remote	4	0	6	1	2	0		3	16

(continued)

Table S4.4 (continued): Number of public acute hospitals<sup>(a)</sup> with specialised services, by remoteness area, states and territories, 2008–09

Specialised services	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	Qld	WA	SA	Tas	ACT	NT	Total <sup>(d)</sup>
Major plastic/reconstructive surgery									
unit	10	13	8	5	4	1	1	0	42
Major cities	10	13	7	5	4		1		40
Regional	0	0	1	0	0	1	0	0	2
Neonatal intensive care unit (level III)	12	4	3	2	2	1	1	1	26
Major cities	11	4	2	2	2		1		22
Regional	1	0	1	0	0	1	0	1	4
Neurosurgical unit	13	8	6	3	3	1	1	0	35
Major cities	13	8	5	3	3		1		33
Regional	0	0	1	0	0	1	0	0	2
Nursing home care unit	75	75	15	43	43	10	0	0	261
Major cities	1	11	0	1	0		0		13
Regional	60	64	8	21	32	6	0	0	191
Remote	14	0	7	21	11	4		0	57
Obstetric/maternity service	78	57	41	29	32	2	2	5	246
Major cities	28	14	7	8	5		2		64
Regional	49	43	27	14	22	2	0	1	158
Remote	1	0	7	7	5	0		4	24
Oncology unit	44	36	14	11	9	3	2	0	119
Major cities	21	17	8	6	7		2		61
Regional	23	19	6	5	2	3	0	0	58
Psychiatric unit/ward	45	34	17	17	8	3	2	3	129
Major cities	27	26	9	14	8		2		86
Regional	18	8	8	3	0	3	0	1	41
Remote	0	0	0	0	0	0		2	2
Refractory epilepsy unit	5	5	1	3	3	0	0	0	17
Major cities	5	5	1	3	3		0		17
Rehabilitation unit	58	31	17	19	9	3	2	2	141
Major cities	33	19	8	12	<b>9</b> 6		2		80
Regional	25	12	9	7	3	3	0		60
Remote	0	0	0	0	0	0	_	1	1
	12	9		3	4	1	 O	0	
Sleep centre	12	<b>9</b> 8	<b>6</b> 4	<b>3</b>	4		0	_	<b>35</b> 31
Major cities	0	1	2	0	0		0	0	4
Regional	_			-	-		-	_	
Specialist paediatric service	44	29	18	9	7	3	2	2	114
Major cities	25	15	7	5	4		2		58
Regional Remote	19 0	14	11	3 1	3 0	3 0	0	1 1	54
	_	0	0		-	-		-	2
Transplantation unit—bone marrow	14	7	4	3	1	1	1	0	31
Major cities	14	7	4	3	1		1		30
Regional	0	0	0	0	0	1	0	0	1
Transplantation unit—heart	_	_		_	_	_	_	_	_
(including heart/lung)	2	2	1	2	0	0	0	0	7
Major cities	2	2	1	2	0		0		7
Transplantation unit—liver	2	2	2	2	1	0	0	0	9
Major cities	2	2	2	2	1		0		9
Transplantation unit—pancreas	1	1	0	0	0	0	0	0	2
Major cities	1	1	0	0	0		0		2
Transplantation unit—renal	6	6	2	3	2	0	0	0	19
Major cities	6	6	2	3	2		0		19

Notes: See Boxes 4.1 and 4.2 for notes on data limitations and methods.

<sup>(</sup>a) Excludes psychiatric hospitals. Rows for Regional and Remote with no units omitted from table.

<sup>(</sup>b) Data for a small number of hospitals in New South Wales were not available, so the number of services is therefore slightly under-enumerated.

<sup>(</sup>c) Data for Victoria may underestimate the number of specialised services as some small multi-campus rural services were reported at network rather than campus level. Consequently if two campuses within the group had a specialised type of service, they were counted as one.

<sup>(</sup>d) Includes hospitals for which remoteness area was Not reported.

## 5 Emergency department services

This chapter presents information on emergency department care in Australia's public hospitals. The chapter is particularly focused on information related to:

- total emergency department activity
- characteristics of patients presenting to emergency departments
- emergency department waiting times
- the type of care received
- how patients arrived and left the emergency department.

## What data are reported?

## **National Public Hospital Establishments Database**

Data on accident and emergency occasions of service were sourced from the National Public Hospital Establishments Database (NPHED), which has essentially full coverage of public hospitals (see *Appendix* 2). For the purposes of this report, accident and emergency occasions of service refer to those occasions of service reported with a type of non-admitted patient care of *Emergency services*. There were variations in the type of activity reported for accident and emergency occasions of service. South Australia's NPHED occasions of service data excluded patients who were dead on arrival (no resuscitation attempted) and patients in country hospitals who did not wait for treatment. For all other states and territories, both emergency presentations and other types of occasions of service were included, at least for hospitals reporting episode-level data.

Terms relevant to the discussion of emergency department care are summarised in Box 5.1.

# National Non-admitted Patient Emergency Department Care Database

The National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) is a compilation of episode-level data for emergency department presentations in public hospitals. The database is based on the National Minimum Data Set (NMDS) for Non-admitted patient emergency department care, as defined in the *National health data dictionary, version 14* (HDSC 2008).

The scope of this NMDS in 2008–09 was non-admitted patients registered for care in emergency departments in public hospitals that were classified as either peer group A (*Principal referral and Specialist women's and children's hospitals*) or B (*Large hospitals*) in *Australian hospital statistics* 2007–08 (AIHW 2009a). The peer group classification was developed for the cost per casemix-adjusted separation analysis based on admitted patient activity (see *Appendix 1*). The use of this classification as an interim measure to define the scope of this collection is under review.

For 2008–09, all states and territories provided episode-level data to the NNAPEDCD for all public hospitals in peer groups A and B that had emergency departments (that all hospitals that were required to report episode-level data). Data were provided for 83 *Principal referral and Specialist women's and children's hospitals* and 39 *Large hospitals*.

Some states and territories also provided episode-level data for public hospitals that were classified to peer groups other than A or B, and these data have been included in this chapter. Data were also provided for:

- 19 Medium hospitals, 17 Small hospitals and 6 Unpeered/Other hospitals in New South Wales
- 6 Medium hospitals in Victoria
- 4 Medium hospitals in Queensland
- 3 Medium hospitals and 2 Small remote acute hospitals in Western Australia
- 1 Medium hospital in South Australia
- 1 Medium hospital in Tasmania
- 3 *Small remote acute hospitals* in the Northern Territory.

Data reported to the NNAPEDCD for Tasmania includes the Mersey Community Hospital.

Between 2004–05 and 2008–09, the proportion of accident and emergency occasions of service for which detailed episode-level data were available increased from 76% to 80% (Table 5.1).

In 2008–09, the NNAPEDCD provided detailed information for about 80% of all public hospital accident and emergency occasions of service. For hospitals (peer groups A and B), the overall coverage was approximately 100%. The proportion for all public hospitals ranged from 67% for South Australia to 100% for the Australian Capital Territory and the Northern Territory (see Table S5.1 at the end of this chapter). This may underestimate the proportion because some accident and emergency occasions of service were for services other than emergency services (see Box 5.3 for more detail).

The detailed information presented for all episode-level records in this chapter should be interpreted with caution as the data may not be representative of emergency department presentations for hospitals which were not required to provide data for non-admitted patient emergency department care.

## Box 5.1: Summary of terms and classifications relating to non-admitted patient emergency department care

The **Triage category** indicates the urgency of the patient's need for medical and nursing care (NHDC 2003). It is usually assigned by triage nurses to patients at, or shortly after, the time of presentation to the emergency department, in response to the question 'This patient should wait for medical care no longer than...?'. The National Triage Scale has five categories that incorporate the time by which the patient should receive care:

- Resuscitation: immediate (within seconds)
- *Emergency*: within 10 minutes
- *Urgent*: within 30 minutes
- *Semi-urgent*: within 60 minutes
- *Non-urgent*: within 120 minutes.

#### Box 5.1 (continued):

The **Type of visit** to the emergency department indicates the reason the patient presents to an emergency department.

The emergency department service **Episode end status** indicates the status of the patient at the end of the non-admitted patient emergency department service episode.

**Emergency presentations** include only presentations for which the Type of visit was reported as *Emergency presentation* for all states and territories except South Australia. As one South Australian hospital is unable to report Type of visit data and most presentations are expected to be emergencies, all presentations that have Type of visit *Emergency presentation* or *Not reported* are included for South Australia.

Emergency department waiting time to service delivery is 'The time elapsed for each patient from presentation in the emergency department to commencement of service by a treating medical officer or nurse' (HDSC 2008).

An emergency department care episode is considered to be **Seen on time** if the waiting time to service delivery was within the time specified in the definition of the Triage category. For the purpose of this report, a patient with a triage category of *Resuscitation* was considered to be seen on time if the waiting time to service delivery was less than or equal to 2 minutes. There is some variation between jurisdictions in the criteria used to determine the proportion of *Resuscitation* patients seen on time, therefore these data may differ from those reported by individual jurisdictions.

An emergency department care episode is considered to **End in admission** if the Episode end status was reported as *Admitted to this hospital*. This includes being admitted to units or beds within the emergency department.

The **Duration of service event** is the length of time between when a health-care professional first takes responsibility for the patient's care and the end of the non-admitted patient episode.

The **Duration of non-admitted patient episode** is the length of time between the time of presentation to the emergency department and the end of the non-admitted patient episode.

The **Time in emergency department** is the length of time between presentation to the emergency department and physical departure from the emergency department.

#### Box 5.2 What are the limitations of the data?

When interpreting the data presented, the reader should note the following:

- The proportion of accident and emergency occasions of service for which detailed episode-level data were available was 100% for *Principal referral and Specialist women's and children's hospitals* and *Large hospitals* (peer group A and B hospitals), but only about 80% for all hospitals.
- As certain issues of definition have not been resolved, comparability across
  jurisdictions may be limited. Development and implementation of standard data
  definitions is ongoing.

#### Box 5.2 (continued)

- There is variation between jurisdictions in the point at which the emergency department presentation is recorded as completed for those patients subsequently admitted within the emergency department and/or elsewhere in the hospital. This will affect the comparability of presentation length statistics across jurisdictions.
- For Victoria and Tasmania, the conclusion of the non-admitted patient episode is reported as the time of physical departure for patients admitted to short stay wards within the emergency department.
- New South Wales were unable to supply valid waiting time data for approximately 25,000 records, the majority of which were referrals to a GP clinic co-located with the emergency department. These records were therefore not used to derive waiting time statistics or presentation length statistics.
- Approximately 5,000 records for Western Australia had the recorded Physical departure time occurring before the recorded Episode end time or the recorded Episode end time occurring before the recorded Service commencement time. These records were therefore not used in deriving emergency department presentation length statistics.

#### Box 5.3 What methods were used?

Readers should note the following:

- The coverage of the NNAPEDCD episode-level data is calculated as the number of presentations reported to the NNAPEDCD divided by the number of accident and emergency occasions of service reported to the National Public Hospital Establishments Database (NPHED) as a percentage. This may underestimate the NNAPEDCD coverage because some accident and emergency occasions of service are for other than emergency presentations. As accident and emergency occasions of service may have been under-enumerated for some jurisdictions, coverage may also be overestimated. The coverage has been adjusted to 100% for jurisdictions where the number of presentations reported to the NNAPEDCD exceeded the number of accident and emergency occasions of service reported to the NPHED.
- Waiting time statistics, the proportion ending in admission and emergency department presentation length statistics are not presented in this report for patients with a Type of visit other than *Emergency presentation* (or *Not reported* for South Australia).
- The median and 90th percentile waiting time are determined from the time elapsed between presentation in the emergency department to commencement of service. The calculation is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia). In addition, presentations were excluded if the waiting time was missing or invalid, or the patient *Did not wait to be attended by a health care professional*, or was *Dead on arrival*.

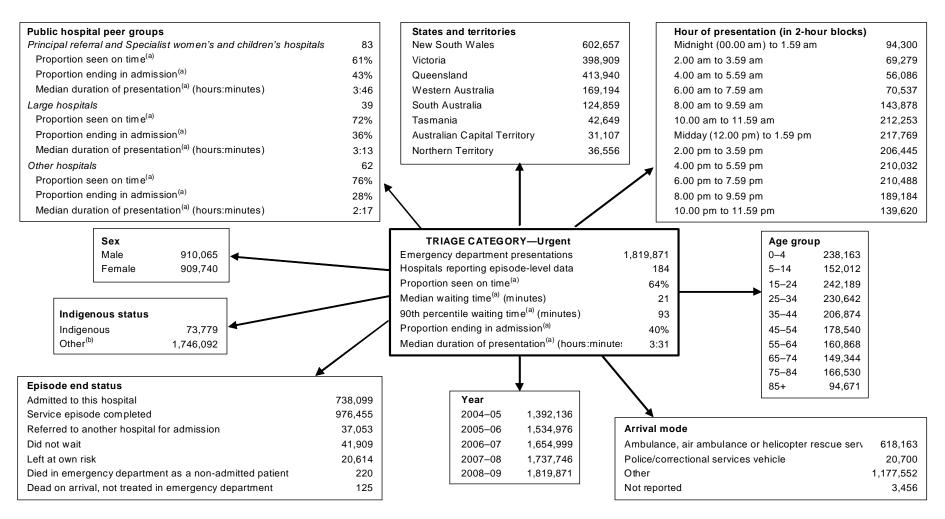
#### Box 5.3 (continued)

- The proportion of presentations seen on time was determined as the proportion of presentations in each Triage category with a waiting time less than or equal to the maximum waiting time stated in the National Triage Scale definition (see Box 5.1). The calculation is restricted as above. In addition, presentations were excluded if the Triage category was *Not reported*.
- The proportion of presentations ending in admission is determined as the proportion of presentations with an Episode end status of *Admitted to this hospital*. The calculation is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia).
- The calculations of median duration of service event, median duration of non-admitted patient episode and median time in emergency department also exclude presentations with an Episode end status of *Did not wait*, *Left at own risk*, or *Dead on arrival* and only include those presentations for which the Service commencement time, Episode end time and Physical departure time were all valid and occurred in sequence.
- Patients who present to the emergency department with a Type of visit of *Return visit*, *Planned*, *Pre-arranged admission* or *Patient in transit* do not necessarily undergo the same processes as *Emergency presentations*, and their waiting times may rely on factors outside the control of the emergency department.

Figure 5.1 presents an example of the information available from the NNAPEDCD, for presentations for which patients were assigned a Triage category of *Urgent* at the time of presentation at the emergency department.

#### In 2008-09:

- there were over 1.8 million emergency department presentations assigned an *Urgent* Triage category reported by 184 hospitals
- slightly less than two-thirds of *Urgent* presentations were seen within a clinically appropriate time
- the median waiting time for *Urgent* presentations was 21 minutes, and 90% of *Urgent* presentations were seen within 93 minutes
- Over 40% of *Urgent* presentations, were subsequently admitted to the same hospital (including admission within the emergency department)
- 35% of *Urgent* presentations were for people aged 24 years and under
- 34% of *Urgent* presentations had an Arrival mode of *Ambulance, air ambulance or helicopter rescue service*
- The number of *Urgent* presentations increased by nearly 5% between 2007–08 and 2008–09
- over a third of *Urgent* presentations were for patients who arrived overnight (between 8 pm and 8 am).



Note: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Figure 5.1: Interrelationships of Urgent Triage category non-admitted patient emergency department presentations with other data elements, 2008-09

<sup>(</sup>a) For episodes with a Type of visit of Emergency presentation or Not reported (South Australia only).

<sup>(</sup>b) Includes records for which Indigenous status was Not reported.

## How has activity changed over time?

Between 2004–05 and 2008–09 the number of accident and emergency occasions fo service reported to the NPHED increased from 6.0 million to 7.2 million, an average annual increase of 4.6%. Over the same period, the number of presentations reported to the NNAPEDCD increased by 6.1% per year, from 4.5 million to 5.7 million.

Tthe proportion of occasions of service for which detailed episode level data were available has been relatively stable, with slight improvement in coverage for 2008–09 (Table 5.1).

Table 5.1: Non-admitted patient emergency department presentation coverage statistics, public hospitals, 2004–05 to 2008–09

						Change (per cent)		
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08	
Accident and emergency occasions of service reported to NPHED	5,993,248	6,327,784	6,741,304	7,085,219	7,171,667	4.6	1.2	
Hospitals reporting emergency department episode-level data	148	153	164	165	184	5.6	11.5	
Emergency department presentations reported to NNAPEDCD	4,529,412	4,914,896	5,287,451	5,537,196	5,742,140	6.1	3.7	
Estimated proportion of occasions of service with episode-level data (%) <sup>(a)</sup>	76	78	78	78	80	1.5	2.7	

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for public hospital peer groups is available in Tables S5.2 at the end of this chapter.

Between 2004-05 and 2008-09 both the proportion of *Emergency presentations* treated within an appropriate time and the median waiting time of *Emergency presentations* remained relatively stable. The time by which 90% of presentations were seen was slightly more variable over this period (Table 5.2).

Table 5.2: Non admitted patient emergency department *Emergency presentation* waiting time statistics, public hospitals, 2004-05 to 2008-09

	2004–05	2005–06	2006–07	2007–08	2008–09
Proportion seen on time (%)	69	69	70	69	70
Median waiting time to service delivery (minutes)	24	24	24	24	23
90th percentile waiting time to service delivery (minutes)	121	123	120	124	119
Proportion ending in admission (%)	28	28	27	27	27

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for public hospital peer groups is available in Tables S5.2 at the end of this chapter.

<sup>(</sup>a) The number of presentations reported to the NNAPEDCD divided by the number of accident and emergency occasions of service reported to the NPHED as a percentage.

## How much activity was there in 2008–09?

In 2008–09, Australian public hospitals provided about 7.2 million non-admitted patient accident and emergency occasions of service (Table 5.3).

Detailed episode-level information was available for over 5.7 million emergency department presentations (about 80% of accident and emergency occasions of service). The detailed information presented for all episode-level records below should be interpreted with caution as the data may not be representative of emergency department presentations for hospitals which were not required to provide data for non-admitted patient emergency department care.

Table 5.3: Non-admitted patient emergency department presentations, public hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Accident and emergency occasions of service reported to NPHED	2,416,731	1,537,510	1,525,407	783,294	531,575	146,085	101,898	129,167	7,171,667
Emergency department presentations reported to NNAPEDCD	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for public hospital peer groups is available in Tables S5.2 at the end of this chapter.

#### Who used these services?

#### Sex and age group

Figure 5.2 presents data on the sex and age group of patients who presented to an emergency department. All states and territories supplied the date of birth of the patient, from which the age of the patient at the date of presentation was calculated.

Males accounted for slightly more than half of emergency department presentations, and there were more presentations for males than females in most age groups. Females accounted for more presentations than males for the 20–34 year age groups and for age groups 80 years and over. The most common age group reported for emergency department presentations was 0–4 years, followed by 20–24 years.

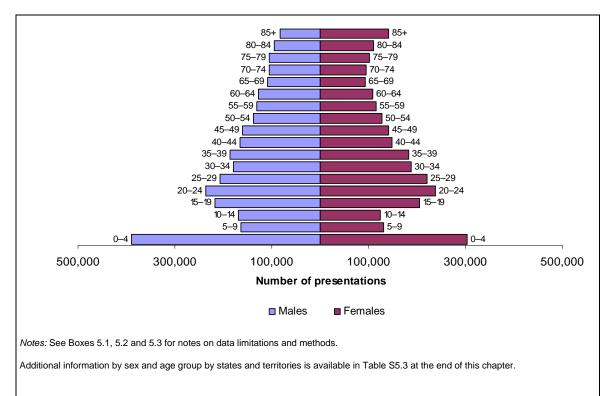


Figure 5.2: Non-admitted patient emergency department presentations, by age group and sex, public hospitals, 2008–09

#### Aboriginal and Torres Strait Islander people

#### Box 5.4: Quality of Indigenous data

The quality of the data provided for Indigenous status in 2008–09 for emergency department presentations varied by jurisdiction. Most states and territories advised that the Indigenous status data collected in an emergency department setting could be less accurate than the data collected for admitted patients. The data should, therefore, be used with caution. See *Appendix 1* for more information on the quality of Indigenous data in the NNAPEDCD.

Table 5.4 presents Indigenous status data by state and territory of the hospital. Nationally, 4.5% of all presentations had an Indigenous status of *Aboriginal and/or Torres Strait Islander*. The Northern Territory had the highest proportion of emergency department presentations for *Indigenous Australians*. Victoria recorded the lowest proportion of emergency department presentations for *Indigenous Australians*. Indigenous status was *Not reported* for about 5% of presentations.

Table 5.4: Non-admitted patient emergency department presentations, by Indigenous status, selected public hospitals, states and territories, 2008–09

Indigenous status	NSW <sup>(a)</sup>	Vic <sup>(b)</sup>	Qld	WA	SA	Tas	ACT	NT	Total
Aboriginal but not Torres Strait Islander origin	65,263	15,376	49,594	42,100	6,671	4,261	1,658	54,635	239,558
Torres Strait Islander but not Aboriginal origin	1,034	1,132	5,235	249	68	199	46	336	8,299
Aboriginal and Torres Strait Islander origin	1,988	1,675	3,841	509	72	215	214	859	9,373
Indigenous Australians	68,285	18,183	58,670	42,858	6,811	4,675	1,918	55,830	257,230
Not Aboriginal or Torres Strait Islander origin	1,726,554	1,333,511	1,014,665	520,829	324,492	122,142	98,407	73,225	5,213,825
Not reported	213,024	6,508	17,741	2,724	26,114	3,291	1,573	110	271,085
Total	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

Note: See Boxes 5.1, 5.2, 5.3 and 5.4 for notes on data limitations and methods.

## How did people access these services?

The emergency department data element Arrival mode — transport indicates the mode of transport by which the patient arrived at the emergency department. The category *Other* includes presentations for which patients walked to the emergency department, came by private transport, public transport, community transport or taxi.

In 2008–09, the majority of presentations to emergency departments reported an Arrival mode of *Other* (Table 5.5). However, there was variation in Arrival mode by Triage category. For example, for the Arrival mode *Ambulance*, *air ambulance or helicopter rescue service*, the proportion for *Resuscitation* patients was much higher than the proportion for *Non-urgent* patients.

<sup>(</sup>a) For NSW, Indigenous status information had been recorded in the patient administration system for the majority of those records presented here as *Not reported*. However, due to systems issues, the information was not available at the time of reporting. See *Appendix 1* for more detail

<sup>(</sup>b) One Victorian hospital reported relatively large number of presentations for people of Torres Straight Islander but not Aboriginal origin.

Table 5.5: Non-admitted patient emergency department presentations, by Triage category and emergency department Arrival mode, selected public hospitals, 2008–09

	Triage category									
Arrival mode	Resuscitation	Emergency	Urgent	Semi- urgent	Non- urgent	Total <sup>(a)</sup>				
Ambulance, air ambulance or helicopter										
rescue service	34,969	240,609	618,163	408,461	33,188	1,335,858				
Police/correctional services vehicle	340	6,525	20,700	13,069	4,763	45,452				
Other	6,082	253,019	1,177,552	2,177,429	729,450	4,348,724				
Not stated/unknown	96	1,040	3,456	4,576	2,547	12,106				
Total	41,487	501,193	1,819,871	2,603,535	769,948	5,742,140				

Note: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for states and territories is available in Table S5.4 at the end of this chapter.

## When did people present to the emergency department?

The Time of presentation at the emergency department is defined as the earliest occasion of being registered clerically or triaged. Time of presentation was reported for all non-admitted patient emergency department presentations reported to the NNAPEDCD.

Figure 5.3 presents the number of presentations by Triage category and hour of presentation. This figure highlights the uneven use of emergency department resources throughout the average day. Over two-thirds of emergency department presentations occur between the hours of 8 am (08:00) and 8 pm (20:00).

Figure 5.4 illustrates the relative distribution of use within each Triage category across the 24-hour period. The figure shows that for the *Resuscitation* Triage category, emergency department presentations are more evenly distributed throughout the day than for other Triage categories.

<sup>(</sup>a) Includes presentations for which the Triage category was Not reported.

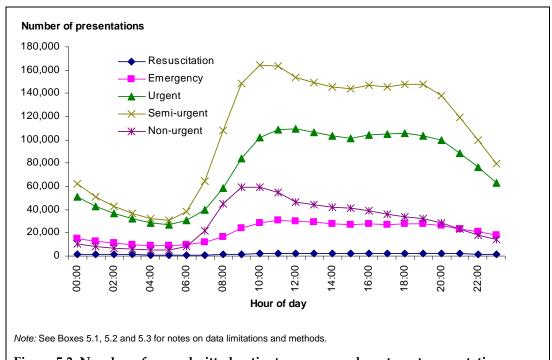


Figure 5.3: Number of non-admitted patient emergency department presentations, by hour of presentation and Triage category, selected public hospitals, 2008–09

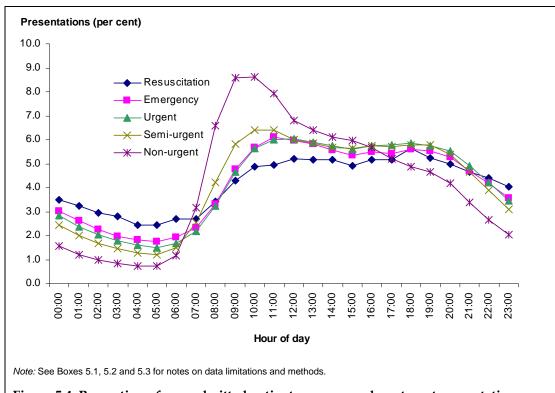


Figure 5.4: Proportion of non-admitted patient emergency department presentations, by hour of presentation for each Triage category, selected public hospitals, 2008–09

## Why did people receive the care?

The data element Type of visit to emergency department describes the reason the patient presented to the emergency department. The Type of visit can be reported as:

- *Emergency presentation*: attendance for an actual or suspected condition which is sufficiently serious to require acute unscheduled care
- Return visit, planned: presentation is planned and is a result of a previous emergency department presentation or return visit
- *Pre-arranged admission*: patient who presents at the emergency department for either a clerical, nursing or medical process to be undertaken, and admission has been pre-arranged by the referring medical officer and a bed allocated
- *Patient in transit*: the emergency department is responsible for care and treatment of a patient awaiting transport to another facility
- *Dead on arrival*: a patient who is dead on arrival at the emergency department.

Table 5.6 presents the number of emergency department presentations, by Type of visit and state or territory, reported to the NNAPEDCD for 2008–09.

Nationally, 97% of presentations were *Emergency presentations*, and 2% were *Return visit*, *planned*. The proportion of presentations by Type of visit varied by state or territory. Not all states and territories reported presentations for all categories of Type of visit.

Table 5.6: Non-admitted patient emergency department presentations, by Type of visit, selected public hospitals, states and territories, 2008–09

Type of visit	NSW	Vic	Qld	WA <sup>(a)</sup>	SA <sup>(b)</sup>	Tas	ACT	NT	Total
Emergency presentation	1,958,834	1,317,635	1,063,074	558,896	318,580	125,136	101,531	121,828	5,565,514
Return visit, planned	42,625	36,017	23,689	6,714	4,521	4,547	319	7,245	125,677
Pre-arranged admission	3,077	1,355	3,749	463	432	0	8	0	9,084
Patient in transit	69	225	305	0	0	0	19	12	630
Dead on arrival	2,565	2,771	259	0	0	425	21	28	6,069
Not reported	693	199	0	338	33,884	0	0	52	35,166
Total	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for states and territories is available in Table S5.5 at the end of this chapter.

<sup>(</sup>a) Western Australia does not provide non-admitted patient emergency department care data for patients who were *Dead on arrival* at the emergency department.

<sup>(</sup>b) South Australia does not provide non-admitted patient emergency department care data for patients who were *Dead on arrival* (no resuscitation attempted) at the emergency department.

## How urgent was the care?

The Triage category indicates the urgency of the patient's need for medical and nursing care (NHDC 2003). It is usually assigned by triage nurses to patients at, or shortly after, the time of presentation to the emergency department, in response to the question 'This patient should wait for medical care no longer than...?'. For more detail refer to Box 5.1.

Table 5.7 presents the number of presentations for which the emergency department Type of visit was reported as *Emergency* or was *Not reported* (South Australia only) by Triage category for states and territories for 2008–09.

In 2008–09, approximately 1% of *Emergency presentations* were assigned a Triage category of *Resuscitation*, and 9% were assigned a Triage category of *Emergency*. The majority of *Emergency presentations* were *Urgent* or *Semi-urgent*. There was some variation among the states and territories in the proportions of presentations in each Triage category.

Table 5.7: Non-admitted patient emergency department *Emergency presentations*, by Triage category, selected public hospitals, states and territories, 2008–09

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation	12,563	9,037	8,351	4,765	4,516	703	514	796	41,245
Emergency	157,878	113,186	100,995	58,855	41,648	8,830	9,433	8,525	499,350
Urgent	598,331	397,194	410,985	168,444	124,671	42,409	31,093	35,947	1,809,074
Semi-urgent	870,855	623,395	455,522	283,354	154,178	62,772	44,839	64,594	2,559,509
Non-urgent	316,747	174,823	87,221	43,473	27,451	10,422	15,652	11,966	687,755
Total <sup>(a)</sup>	1,958,834	1,317,635	1,063,074	558,896	352,464	125,136	101,531	121,828	5,599,398

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information by peer group for states and territories is available in Table S5.6 at the end of this chapter.

## How long did people wait for care?

Patients who present to the emergency department with a Type of visit of *Return visit*, *Planned*, *Pre-arranged admission* or *Patient in transit* do not necessarily undergo the same processes as *Emergency presentations*, and their waiting times may rely on factors outside the control of the emergency department. Therefore, waiting time statistics (including the proportion of presentations seen on time) are only presented for patients with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia).

The proportion of presentations seen on time was determined as the proportion of *Emergency presentations* in each Triage category with a waiting time less than or equal to the maximum waiting time stated in the National Triage Scale definition. For the purpose of this report, a patient with a triage category of *Resuscitation* was considered to be seen on time if the waiting time to service delivery was less than or equal to 2 minutes. For more detailed information about the methods used to derive the proportion of *Emergency presentations* seen on time and other waiting time statistics, refer to Box 5.3.

<sup>(</sup>a) Includes presentations for which the Triage category was Not reported

Emergency department waiting times are regarded as indicators of access to hospitals. The *National health data dictionary* definition for Emergency department waiting time to service delivery is 'The time elapsed for each patient from presentation in the emergency department to commencement of service by a treating medical officer or nurse' (HDSC 2008).

Table 5.8 presents the proportion of all *Emergency presentations* reported to the NNAPEDCD that were seen on time by state and territory and Triage category for 2008–09. As indicated in Box 5.3, certain *Emergency presentations* are excluded from the calculation of the figures provided in this table. For 2008–09, there were over 313,000 presentations with an Episode end status of *Did not wait* or *Dead on arrival* which were excluded from this analysis. Approximately 27,000 additional presentations with missing or invalid waiting times were also excluded.

For 2008–09, for all triage categories combined (excluding those whose Triage category was *Not reported*), the overall proportion of *Emergency presentations* seen on time was 70%. The proportion seen on time varied by state and territory, ranging from 54% in the Northern Territory to 75% in New South Wales (Table 5.8). The proportion seen on time also varied by Triage category. Approximately 100% of *Resuscitation* presentations were seen on time and 77% of *Emergency* presentations were seen on time.

Table 5.8: Proportion (%) of non-admitted patient emergency department *Emergency presentations* seen on time by Triage category, selected public hospitals<sup>(a)</sup>, states and territories, 2008–09

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation	100	100	99	99	100	99	100	100	100
Emergency	80	82	72	69	75	76	85	62	77
Urgent	68	74	59	53	59	54	53	48	64
Semi-urgent	73	68	65	62	62	61	53	49	67
Non-urgent	90	86	88	89	83	87	78	89	88
Total	75	73	66	62	64	62	60	54	70

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information by peer group for states and territories is available in Table S5.6 at the end of this chapter.

In 2008–09, 50% of all *Emergency presentations* were attended by a medical officer or nurse within 23 minutes and 90% were attended within 119 minutes. There was marked variation between states and territories in the median and 90th percentile waiting times to service delivery. The median varied from 20 minutes in New South Wales to 39 minutes for the Northern Territory. The 90th percentile varied from 107 minutes in New South Wales to 179 minutes in the Australian Capital Territory (Figure 5.5).

<sup>(</sup>a) Values are derived from all hospitals that reported to the NNAPEDCD. In addition to providing data to the NNAPEDCD for all hospitals classified to peer group A (*Principal referral and Specialist women's and children's hospitals*) and B (*Large hospitals*), some states and territories provided data to the NNAPEDCD for public hospitals that were classified to other peer groups. Therefore, the proportions of *emergency presentations* seen on time provided here are not directly comparable to the proportions of *emergency presentations* seen on time provided in Table 3.7 for hospitals in peer groups A and B only.

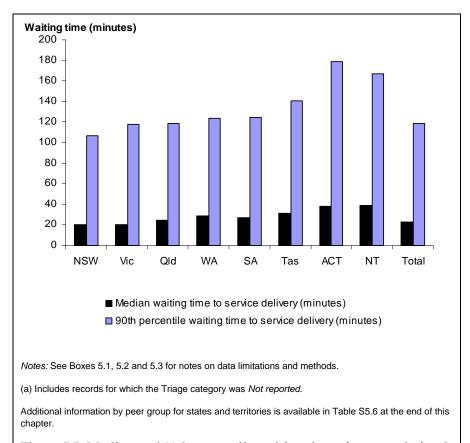


Figure 5.5: Median and 90th percentile waiting times for non-admitted patient emergency department *Emergency presentations*<sup>(a)</sup>, selected public hospitals, states and territories, 2008–09

## How long did patients stay?

Useful measures of the amount of time associated with emergency department activity include:

- median duration of the service event measured as the time from the commencement of service by a treating medical officer or nurse to the conclusion of the non-admitted component of care (episode end). The service event represents a measure of the amount of time during which the patient receives service (is treated and/or observed)
- median duration of non-admitted patient episode measured from the time of
  presentation to the conclusion of the non-admitted component of care (episode end).
   The length of patient episode consists of the emergency department waiting time and
  duration of the service event
- median total time in the emergency department measured from the time of presentation to the time of physical departure of the patient from the emergency department.

As patients who present to the emergency department with a Type of visit of *Return visit*, *Planned*, *Pre-arranged admission* or *Patient in transit* do not necessarily undergo the same processes as *Emergency presentations*, all three measures are restricted to presentations with Type of visit *Emergency presentation* (or *Not reported* for South Australia only). The calculations also exclude presentations with an Episode end status of *Did not wait*, *Left at own risk*, or *Dead on arrival*. These calculations only include those presentations for which the Service commencement time, Episode end time and Physical departure time were all valid and occurred in sequence.

The timing and duration of emergency department activity is affected by whether or not the patient presenting to the emergency department is subsequently admitted to the same hospital. As a result, summary length of presentation statistics are presented separately for patients subsequently admitted to hospital and for patients not subsequently admitted to hospital (including those referred to another hospital).

Figures 5.6 presents summary length of presentation statistics by Triage category for presentations with an Episode end status of *Admitted to this hospital* and Figure 5.7 presents summary length of presentation statistics by Triage category for presentations were not *Admitted to this hospital*.

Generally, the durations of service event and non-admitted patient episode were greater for presentations *Admitted to this hospital* than for presentations that were not *Admitted to this hospital*. This indicates that those *Admitted to this hospital* generally required more lengthy treatment (in the emergency department) than other presentations. *Resuscitation* was the only Triage category for which presentations *Admitted to this hospital* had shorter durations of service event than those not *Admitted to this hospital* (figures 5.6 and 5.7).

#### Patients subsequently admitted to the same hospital

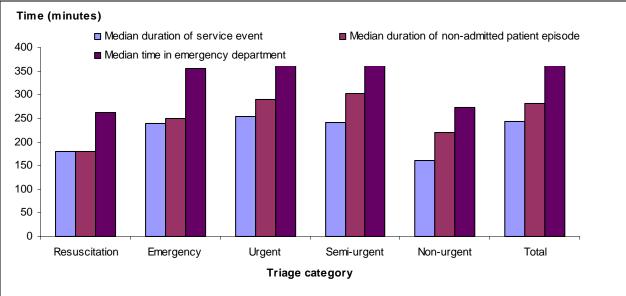
Overall, for presentations with an Episode end status of *Admitted to this hospital*, the median duration of service event was 4 hours and 4 minutes (244 minutes) and the median duration of non-admitted patient episode was 4 hours and 41 minutes (281 minutes) (Figure 5.6).

The presentation length statistics varied by Triage category. For *Resuscitation* patients, the median duration of non-admitted patient episode was generally the same as the median duration of the service event, which reflects the short waiting times for these patients. *Non-urgent* patients who were *Admitted to this hospital* had the shortest median duration of the service event.

#### Patients not subsequently admitted to the same hospital

Figure 5.7 presents summary length of presentation statistics for presentations which did not have an Episode end status of *Admitted to this hospital*. Overall, the median duration of the service event was 1 hour and 19 minutes (79 minutes) and the median duration of the non-admitted patient episode was 2 hours and 15 minutes (135 minutes).

The presentation length statistics varied by Triage category, decreasing with the decrease in urgency of the Triage category. As with presentations *Admitted to this hospital*, the median duration of non-admitted patient episode for *Resuscitation* presentations was generally the same as the median duration of the service event.

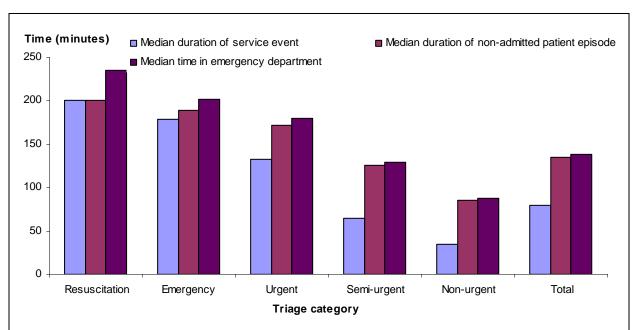


Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

(a) Total includes presentations for which the Triage category was Not reported.

Additional information for states and territories is available in Table S5.7 at the end of this chapter.

Figure 5.6: Non-admitted patient emergency department presentation length statistics (in minutes) for *Emergency presentations*<sup>(a)</sup> with an Episode end status of *Admitted to this hospital*, by Triage category, selected public hospitals, 2008–09



Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

(a) Includes presentations for which the Triage category was Not reported.

Additional information for states and territories is available in Table S5.8 at the end of this chapter.

Figure 5.7: Non-admitted patient emergency department presentation length statistics (in minutes) for *Emergency presentations*<sup>(a)</sup> with an Episode end status other than *Admitted to this hospital*, by Triage category, selected public hospitals, 2008–09

## How was the care completed?

Episode end status describes the status of the patient at the conclusion of the non-admitted patient episode in the emergency department. The Episode end status can be reported as:

- Admitted to this hospital (including to units or beds within the emergency department)
- Non-admitted patient emergency department service episode completed departed without being admitted or referred to another hospital
- Non-admitted patient emergency department service episode completed referred to another hospital for admission
- Did not wait to be attended by a health care professional
- Left at own risk after being attended by a health care professional but before the non-admitted patient emergency department service episode was complete
- Died in emergency department as a non-admitted patient
- Dead on arrival, not treated in emergency department

For 2008–09, the majority of presentations reported an Episode end status of *Departed without being admitted or referred to another hospital* (Table 5.9). However, the proportion varied markedly by Triage category, increasing as the Triage category became less urgent. Approximately 27% of presentations had an Episode end status of *Admitted to the hospital*.

Overall, 5.3% of emergency department presentations had an Episode end status of *Did not wait*. The proportion of presentations where patients *Did not wait* also varied by Triage category, and was highest for *Non-urgent* and *Semi-urgent* presentations.

Table 5.9: Non-admitted patient emergency department presentations, by Triage category and Episode end status, selected public hospitals, 2008–09

Episode end status	Resuscitation	Emergency	Urgent	Semi- urgent	Non- urgent	Total <sup>(a)</sup>
Admitted to this hospital	32,634	304,718	738,099	413,186	35,255	1,524,053
Departed without being admitted or referred	4,478	169,290	976,455	1,955,255	644,028	3,750,327
Referred to another hospital	2,682	18,646	37,053	18,623	1,575	78,583
Did not wait	15	1,104	41,909	183,780	78,731	306,977
Left at own risk	238	5,159	20,614	29,019	6,778	61,860
Died in emergency department	1,261	372	220	43	12	1,911
Total <sup>(b)</sup>	41,487	501,193	1,819,871	2,603,535	769,948	5,742,140

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for states and territories is available in Table S5.9 at the end of this chapter.

Western Australia had the highest proportion of presentations with an Episode end status of *Not admitted or referred to another hospital* and the lowest overall proportion of presentations where the patient *Did not wait* (Table 5.10).

<sup>(</sup>a) Includes presentations for which the Triage category was Not reported.

<sup>(</sup>b) Includes presentations for which the Episode end status was Dead on arrival or Not reported.

Table 5.10: Non-admitted patient emergency department presentations, by Episode end status, selected public hospitals, states and territories, 2008–09

Episode end status	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Admitted to this hospital	525,135	444,552	235,287	123,867	105,690	31,213	27,097	31,212	1,524,053
Departed without being admitted or referred	1,311,341	828,089	740,792	410,718	221,098	90,506	62,992	84,791	3,750,327
Referred to another hospital for admission	24,688	3,453	22,269	15,949	9,815	1,108	1,163	138	78,583
Did not wait	111,832	68,811	70,420	10,617	17,044	6,316	10,070	11,867	306,977
Left at own risk	29,750	9,911	13,652	3,651	2,932	404	483	1,077	61,860
Died in emergency department	0	124	725	577	232	117	90	46	1,911
Dead on arrival	2,843	2,766	252	1	0	425	3	34	6,324
Not reported	2,274	496	7,679	1,031	606	19	0	0	12,105
Total	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods of analysis.

Additional information for states and territories is available in Table S5.9 at the end of this chapter.

The comparability of the data may be influenced by the comparability of the triage categories among the states and territories. Although the Triage category is not a measure of the need for admission to hospital, the proportion of presentations in each category that had an Episode end status of *Admitted to this hospital* can be used as an indication of the comparability of the triage categorisation. The proportions of presentations with an Episode end status of *Admitted to this hospital* are presented for the states and territories by Triage category in Table 5.11. As indicated in Box 5.3, this calculation of the proportion of presentations ending in admission is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia).

Nationally, 26.5% of all *Emergency presentations* had an Episode end status of *Admitted to this hospital*. Victoria had a higher proportion of presentations *Admitted to this hospital* than the national figures in all Triage categories except *Non-urgent*. Western Australia had the lowest proportion of *Resuscitation* presentations with an Episode end status of *Admitted to this hospital* (Table 5.11).

Table 5.11: Proportion of non-admitted patient emergency department *Emergency presentations* with an Episode end status of *Admitted to this hospital*, by Triage category, selected public hospitals, states and territories, 2008–09

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation	81	92	69	67	78	82	77	72	79
Emergency	62	74	53	48	58	58	63	61	61
Urgent	41	52	30	34	42	38	44	43	40
Semi-urgent	17	21	10	12	15	13	15	14	16
Non-urgent	5	4	3	4	5	5	3	4	5
Total	26	33	22	22	30	25	27	25	27

Notes: See Boxes 5.1, 5.2 and 5.3 for notes on data limitations and methods.

Additional information for states and territories is available in Table S5.6 at the end of this chapter.

<sup>(</sup>a) In NSW, presentations for which a patient dies in the emergency department are categorised as Admitted to this hospital.

## **Additional information**

Further detailed information on non-admitted patient emergency department care by state or territory of hospitalisation and public hospital peer groups, including patient characteristics, and triage categories is available in the following supplementary tables and in the tables accompanying this report on the CD and Internet.

## Supplementary tables

#### Box 5.5: Methods – Chapter 5 Supplementary tables

#### Table S5.2

- (a) Includes records for which the Type of visit was reported as *Emergency presentation* or was *Not reported* (South Australia only).
- (b) The number of presentations reported to the National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) divided by the number of accident and emergency occasions of service reported to the National Public Hospital Establishments Database (NPHED) as a percentage.
- (c) Includes records for which the Triage category was *Not reported*.
- (d) The proportion of presentations for which the waiting time to service delivery was within the time specified in the definition of the Triage category.
- (e) This proportion is based on presentations for which the Episode end status was reported as *Admitted to this hospital*.
- (f) Time series has been revised to reflect admissions for only *Emergency presentations*.

#### Table S5.6

- (a) Includes records for which the Type of visit was reported as *Emergency presentation* or was *Not reported* (South Australia only).
- (b) Includes presentations for which the Triage category was *Not reported*.
- (c) The proportion of presentations for which the waiting time to service delivery was within the time specified in the definition of the Triage category.
- (d) The proportion of presentations for which the emergency department Episode end status was reported as *Admitted to this hospital*.

#### Tables S5.7 and S5.8

- (a) Includes records for which the Type of visit was reported as *Emergency presentation* or was *Not reported* (South Australia only).
- (b) The duration of non-admitted patient episode is the length of time between the time of presentation to the emergency department and the end of the non-admitted patient episode.
- (c) The duration of the service event is the length of time between when a health-care professional first takes responsibility for the patient's care and the end of the non-admitted patient episode.
- (d) The time in emergency department is the length of time between presentation and physical departure from the emergency department.

#### Box 5.5 (continued)

- (e) There is variation in the time recorded as the time of departure from the emergency department for patients admitted subsequent to a non-admitted emergency department presentation.
- (f) Includes presentations for which the Triage category was *Not reported*.

#### Table S5.9

- (a) In NSW presentations for which a patient dies in the emergency department are categorised as *Admitted to this hospital*.
- (b) Including units or beds within the emergency department.
- (c) Non-admitted patient emergency department service episode completed departed without being admitted or referred to another hospital.
- (d) Did not wait to be attended by a health care professional.
- (e) Left at own risk after being attended by a health care professional but before the non-admitted patient emergency department service episode was complete.
- (f) Died in emergency department as a non-admitted patient.
- (g) Dead on arrival, not treated in emergency department.
- (h) Includes presentations for which the Triage category was *Not reported*.

Table S5.1: Non-admitted patient emergency department presentations, by public hospital peer group, states and territories, 2008-09

Peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and Specialist women's and children's hospitals									
Hospitals reporting emergency department episode-level data	28	20	18	6	5	2	2	2	83
Presentations reported with episode-level data	1,201,962	918,346	851,642	283,206	271,550	80,150	101,898	92,793	3,801,547
Estimated proportion of occasions with episode-level data $(\%)^{(a)}$	100	100	100	100	100	100	100	100	100
Large hospitals									
Hospitals reporting emergency department episode-level data	15	12	4	5	2	1	0	0	39
Presentations reported with episode-level data	400,928	342,791	147,736	159,305	39,309	25,379			1,115,448
Estimated proportion of occasions with episode-level data $(\%)^{(a)}$ <b>Coverage of episode-level data for hospitals in peer group</b> s	100	100	100	100	100	100			100
A and B	100	100	100	100	100	100	100	100	100
Other hospitals									
Hospitals reporting emergency department episode-level data	42	6	4	5	1	1	0	3	62
Presentations reported with episode-level data	404,973	97,065	91,698	123,900	46,558	24,579		36,372	825,145
Estimated proportion of occasions with episode-level data (%) <sup>(a)</sup>	50	35	17	36	21	61		100	37
Total									
Hospitals reporting emergency department episode-level data	85	38	26	16	8	4	2	5	184
Presentations reported with episode-level data	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140
Estimated proportion of occasions with episode-level data (%) <sup>(a)</sup>	83	88	72	72	67	89	100	100	80

<sup>(</sup>a) The number of presentations reported to the NNAPEDCD divided by the number of accident and emergency occasions of service reported to the NPHED as a percentage.

Table S5.2: Non-admitted patient emergency department *Emergency presentation*<sup>(a)</sup> statistics, by Triage category and public hospital peer group, Australia, 2004–05 to 2008–09

Triage category and peer group	2004-05	2005-06	2006-07	2007-08	2008-09
Coverage of episode-level data for hospitals in peer groups A and B					
Hospitals reporting emergency department episode-level data	116	118	119	124	122
Presentations reported with episode-level data	4,026,666	4,312,108	4,607,684	4,895,446	4,916,995
Estimated proportion of occasions with episode-level data <sup>(b)</sup>	100	100	100	100	100
Principal referral and Specialist women's and children's hospitals					
Hospitals reporting emergency department episode-level data	73	77	81	81	83
Presentations reported with episode-level data	2,911,508	3,202,097	3,526,341	3,648,559	3,801,547
Estimated proportion of occasions of service with episode-level data (%) <sup>(b)</sup>	100	100	100	100	100
Proportion by triage category (%)					
Resuscitation	1	1	1	1	1
Emergency	9	9	10	10	10
Urgent	34	35	35	35	35
Semi-urgent	45	45	45	44	44
Non-urgent	10	10	10	10	10
Total <sup>(c)</sup>	100	100	100	100	100
Proportion seen on time (%) <sup>(d)</sup>					
Resuscitation	100	100	99	100	100
Emergency	75	75	76	74	75
Urgent	61	60	63	60	61
Semi-urgent	61	61	63	62	63
Non-urgent Non-urgent	86	86	86	85	86
Total	65	65	66	65	66
Median waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	6	6	5	6	6
Urgent	23	23	22	24	23
Semi-urgent	44	43	41	42	41
Non-urgent	33	33	33	34	34
Total <sup>(c)</sup>	26	27	25	26	25
					(continued)

Table S5.2 (continued): Non-admitted patient emergency department *Emergency presentation*(a) statistics, by Triage category and public hospital peer group, Australia, 2004–05 to 2008–09

Triage category and peer group	2004-05	2005-06	2006-07	2007-08	2008-09
Principal referral and Specialist women's and children's hospitals (continued)					
90th percentile waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	23	24	22	24	23
Urgent	95	101	96	107	103
Semi-urgent	161	163	158	161	157
Non-urgent Non-urgent	144	144	142	146	145
Total <sup>(c)</sup>	129	132	127	132	128
Proportion ending in admission (%) <sup>(e)(f)</sup>					
Resuscitation	83	83	82	81	82
Emergency	67	67	64	64	64
Urgent	46	46	44	44	43
Semi-urgent Semi-urgent	20	19	19	18	18
Non-urgent Non-urgent	6	6	6	6	6
Total <sup>(c)</sup>	33	32	31	31	31
Large hospitals					
Hospitals reporting emergency department episode-level data	43	41	38	43	39
Presentations reported with episode-level data	1,115,158	1,110,011	1,081,343	1,246,887	1,115,448
Estimated proportion of occasions of service with episode-level data (%) <sup>(b)</sup>	100	100	100	100	100
Proportion by triage category (%)					
Resuscitation	<1	<1	<1	<1	<1
Emergency	6	6	6	6	6
Urgent	27	27	27	27	28
Semi-urgent Semi-urgent	49	48	48	49	48
Non-urgent	18	18	19	19	18
Total <sup>(c)</sup>	100	100	100	100	100
Proportion seen on time (%) <sup>(d)</sup>					
Resuscitation	99	99	99	99	99
Emergency	78	80	82	81	82
Urgent	69	70	70	70	72
Semi-urgent	70	69	69	69	71
Non-urgent	87	87	87	86	86
Total	73	73	73	73	74
					(continued)

Table S5.2 (continued): Non-admitted patient emergency department *Emergency presentation*<sup>(a)</sup> statistics, by Triage category and public hospital peer group, Australia, 2004–05 to 2008–09

Triage category and peer group	2004–05	2005–06	2006–07	2007-08	2008-09
Large hospitals (continued)					
Median waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	6	5	5	5	5
Urgent	19	18	18	18	17
Semi-urgent Semi-urgent	33	34	34	33	32
Non-urgent	33	33	35	34	34
Total <sup>c)</sup>	24	24	25	24	22
90th percentile waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	20	19	18	18	17
Urgent	70	72	74	73	71
Semi-urgent Semi-urgent	129	134	132	133	126
Non-urgent	137	140	142	146	145
Total <sup>c)</sup>	111	115	116	117	111
Proportion ending in admission (%) <sup>(e)(f)</sup>					
Resuscitation	63	67	66	64	65
Emergency	52	57	57	55	54
Urgent	34	38	37	35	36
Semi-urgent Semi-urgent	13	14	13	13	14
Non-urgent	3	3	3	3	3
Total <sup>(c)</sup>	20	22	21	20	21
All hospitals					
Hospitals reporting emergency department episode-level data	148	153	164	165	184
Presentations reported with episode-level data	4,529,412	4,914,896	5,287,451	5,537,196	5,742,140
Estimated proportion of occasions of service with episode-level data (%) <sup>(b)</sup>	76	78	78	78	80
Proportion by triage category (%)					
Resuscitation	1	1	1	1	1
Emergency	8	8	8	8	9
Urgent	31	31	31	31	32
Semi-urgent	46	46	46	46	45
Non-urgent	14	14	13	13	13
Total <sup>(c)</sup>	100	100	100	100	100
					(continued)

Table S5.2 (continued): Non-admitted patient emergency department *Emergency presentation*(a) statistics, by Triage category and public hospital peer group, Australia, 2004–05 to 2008–09

Triage category and peer group	2004–05	2005-06	2006-07	2007-08	2008-09
All hospitals (continued)					
Proportion seen on time (%) <sup>(d)</sup>					
Resuscitation	100	99	99	100	100
Emergency	76	77	78	76	77
Urgent	64	64	65	63	64
Semi-urgent	65	65	66	66	67
Non-urgent	88	87	88	87	88
Total	69	69	70	69	70
Median waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	5	5	5	6	5
Urgent	21	21	20	21	21
Semi-urgent	37	37	36	36	35
Non-urgent	28	29	28	28	28
Total <sup>(c)</sup>	24	24	24	24	23
90th percentile waiting time to service delivery (minutes)					
Resuscitation	0	0	0	0	0
Emergency	22	23	21	23	22
Urgent	88	93	90	97	93
Semi-urgent	148	149	146	148	143
Non-urgent	134	136	133	137	134
Total <sup>(c)</sup>	121	123	120	124	119
Proportion ending in admission (%) <sup>(e)(f)</sup>					
Resuscitation	79	80	79	78	79
Emergency	63	64	62	61	61
Urgent	43	43	42	41	40
Semi-urgent	17	17	16	16	16
Non-urgent	5	5	5	4	5
Total <sup>(c)</sup>	28	28	27	27	27

Table S5.3: Non-admitted patient emergency department presentations, by age group and sex, public hospital, states and territories, 2008-09

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Males	1									
	0–4	138,811	89,325	74,444	41,512	23,333	6,912	6,163	8,641	389,141
	5–14	118,908	76,664	65,013	35,056	18,835	6,929	5,410	6,642	333,457
	15-24	153,883	100,115	95,677	47,867	25,266	11,484	9,107	10,059	453,458
	25-34	130,156	86,507	80,304	39,606	21,477	9,007	7,333	10,908	385,298
	35-44	120,108	80,115	70,106	34,851	19,905	7,898	6,038	11,444	350,465
	45-54	104,601	68,680	57,172	28,860	17,626	7,242	5,185	8,992	298,358
	55-64	93,475	60,108	47,602	23,371	15,602	6,626	4,550	6,441	257,775
	65–74	79,446	53,245	38,261	18,902	12,736	5,265	3,322	3,404	214,581
	75–84	76,162	51,190	31,696	16,729	14,087	4,477	2,994	1,408	198,743
	85 and over	33,655	20,924	11,648	6,965	6,927	1,623	1,224	264	83,230
	Total <sup>(a)</sup>	1,049,356	686,873	571,923	293,719	175,794	67,463	51,332	68,206	2,964,666
Fema	les									
	0–4	107,958	69,264	58,732	32,912	18,058	5,497	4,626	6,559	303,606
	5–14	88,839	58,921	49,982	26,903	15,150	5,831	4,234	5,324	255,184
	15–24	142,677	100,484	94,263	45,731	29,020	11,495	9,247	10,553	443,470
	25-34	127,541	106,336	77,556	40,783	28,955	8,115	8,165	11,382	408,833
	35-44	107,094	81,846	63,545	32,834	21,598	7,516	6,139	10,671	331,243
	45-54	93,791	62,274	51,974	26,246	16,454	6,608	5,024	7,911	270,282
	55-64	80,182	54,540	40,772	20,657	13,330	5,511	4,518	4,755	224,265
	65–74	69,939	47,724	31,690	16,268	12,109	4,665	3,191	2,243	187,829
	75–84	83,193	54,289	30,868	17,941	15,723	4,571	3,258	1,098	210,941
	85 and over	57,158	35,649	19,672	12,380	11,214	2,827	2,159	460	141,519
	Total <sup>(a)</sup>	958,420	671,327	519,054	272,655	181,611	62,636	50,563	60,957	2,777,223
Perso										
	0–4	246,777	158,589	133,184	74,434	41,391	12,409	10,789	15,200	692,773
	5–14	207,751	135,585	115,006	61,963	33,985	12,761	9,644	11,966	588,661
	15–24	296,573	200,600	189,953	93,600	54,288	22,979	18,354	20,612	896,959
	25-34	257,715	192,843	157,873	80,392	50,433	17,123	15,498	22,291	794,168
	35-44	227,210	161,962	133,662	67,692	41,504	15,416	12,177	22,115	681,738
	45-54	198,405	130,954	109,153	55,108	34,080	13,851	10,210	16,904	568,665
	55–64	173,670	114,648	88,403	44,034	28,940	12,137	9,068	11,196	482,096
	65-74	149,389	100,969	69,952	35,171	24,845	9,930	6,513	5,647	402,416
	75–84	159,357	105,479	62,567	34,670	29,810	9,048	6,253	2,506	409,690
	85 and over	90,816	56,573	31,323	19,347	18,141	4,454	3,383	724	224,761
Total <sup>(i</sup>	a)(b)	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

<sup>(</sup>a) Includes presentations for which the age group of the patient was Not reported.

<sup>(</sup>b) Includes presentations for which the sex of the patient was Not reported.

Table S5.4: Non-admitted patient emergency department presentations, by Triage category and emergency department Arrival mode, public hospitals, states and territories, 2008–09

Triage category and Arrival mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation									
Ambulance, air ambulance or helicopter rescue service	10,472	7,536	7,353	4,088	3,870	637	437	576	34,969
Police/correctional services vehicle	61	149	50	50	6	1	4	19	340
Other <sup>(a)</sup>	2,025	1,407	1,040	625	643	63	77	202	6,082
Not stated/unknown	86	0	0	4	0	6	0	0	96
Total	12,644	9,092	8,443	4,767	4,519	707	518	797	41,487
Emergency									
Ambulance, air ambulance or helicopter rescue service	76,505	52,968	54,352	23,765	20,932	4,862	3,706	3,519	240,609
Police/correctional services vehicle	1,805	1,441	1,713	697	143	208	278	240	6,525
Other <sup>(a)</sup>	79,498	58,981	45,503	34,512	20,588	3,725	5,445	4,767	253,019
Not stated/unknown	937	0	0	36	8	53	6	0	1,040
Total	158,745	113,390	101,568	59,010	41,671	8,848	9,435	8,526	501,193
Urgent									
Ambulance, air ambulance or helicopter rescue service	206,765	135,300	152,601	43,685	45,717	15,655	9,265	9,175	618,163
Police/correctional services vehicle	7,333	3,542	4,307	2,276	1,039	637	390	1,176	20,700
Other <sup>(a)</sup>	385,416	260,067	257,032	123,095	78,093	26,201	21,443	26,205	1,177,552
Not stated/unknown	3,143	0	0	138	10	156	9	0	3,456
Total	602,657	398,909	413,940	169,194	124,859	42,649	31,107	36,556	1,819,871
Semi-urgent									
Ambulance, air ambulance or helicopter rescue service	170,828	90,248	74,674	28,107	22,569	9,156	5,621	7,258	408,461
Police/correctional services vehicle	4,444	1,428	2,061	1,915	590	521	243	1,867	13,069
Other <sup>(a)</sup>	701,813	544,047	388,500	256,236	133,972	55,019	39,062	58,780	2,177,429
Not stated/unknown	4,280	0	0	180	8	101	7	0	4,576
Total	881,365	635,723	465,235	286,438	157,139	64,797	44,933	67,905	2,603,535
									(continued)

Table S5.4 (continued): Non-admitted patient emergency department presentations, by Triage category and emergency department Arrival mode, public hospitals, states and territories, 2008–09

Triage category and Arrival mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Non-urgent									
Ambulance, air ambulance or helicopter rescue service	20,329	4,989	3,976	1,160	1,376	352	427	579	33,188
Police/correctional services vehicle	2,013	322	807	297	292	303	53	676	4,763
Other <sup>(a)</sup>	324,766	193,006	97,107	45,469	27,549	12,005	15,422	14,126	729,450
Not stated/unknown	2,437	0	0	67	12	28	3	0	2,547
Total	349,545	198,317	101,890	46,993	29,229	12,688	15,905	15,381	769,948
Total <sup>(b)</sup>									
Ambulance, air ambulance or helicopter rescue service	485,280	291,118	292,956	100,809	94,464	30,668	19,456	21,107	1,335,858
Police/correctional services vehicle	15,702	6,891	8,938	5,235	2,070	1,670	968	3,978	45,452
Other <sup>(a)</sup>	1,495,608	1,060,193	789,182	459,942	260,845	97,425	81,449	104,080	4,348,724
Not stated/unknown	11,273	0	0	425	38	345	25	0	12,106
Total <sup>(b)</sup>	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

<sup>(</sup>a) Includes presentations for which the patient walked in, came by private transport, public transport, community transport or taxi.

<sup>(</sup>b) Includes presentations for which the Triage category was *Not reported*.

Table S5.5: Non-admitted patient emergency department presentations, by Type of visit and public hospital peer group, states and territories, 2008–09

Type of visit and peer group	NSW	Vic	Qld	$WA^{(a)}$	SA <sup>(b)</sup>	Tas	ACT	NT	Total
Principal referral and Specialist women	's and children's ho	spitals							
Emergency presentation	1,183,652	900,193	837,505	277,349	268,087	78,723	101,531	90,343	3,737,383
Return visit, planned	13,684	15,144	10,393	5,108	2,393	1,011	319	2,417	50,469
Pre-arranged admission	1,946	473	3,322	418	409	0	8	0	6,576
Patient in transit	25	168	227	0	0	0	19	6	445
Dead on arrival	2,063	2,207	195	0	0	416	21	26	4,928
Not reported	592	161	0	331	661	0	0	1	1,746
Total	1,201,962	918,346	851,642	283,206	271,550	80,150	101,898	92,793	3,801,547
Large hospitals									
Emergency presentation	389,695	324,645	139,250	158,142	6,132	24,002			1,041,866
Return visit, planned	10,555	17,044	8,111	1,128	45	1,374			38,257
Pre-arranged admission	322	602	331	29	14	0			1,298
Patient in transit	18	45	22	0	0	0			85
Dead on arrival	269	424	22	0	0	3			718
Not reported	69	31	0	6	33,118	0			33,224
Total	400,928	342,791	147,736	159,305	39,309	25,379			1,115,448
Other hospitals									
Emergency presentation	385,487	92,797	86,319	123,405	44,361	22,411		31,485	786,265
Return visit, planned	18,386	3,829	5,185	478	2,083	2,162		4,828	36,951
Pre-arranged admission	809	280	96	16	9	0		0	1,210
Patient in transit	26	12	56	0	0	0		6	100
Dead on arrival	233	140	42	0	0	6		2	423
Not reported	32	7	0	1	105	0		51	196
Total	404,973	97,065	91,698	123,900	46,558	24,579		36,372	825,145
Total									
Emergency presentation	1,958,834	1,317,635	1,063,074	558,896	318,580	125,136	101,531	121,828	5,565,514
Return visit, planned	42,625	36,017	23,689	6,714	4,521	4,547	319	7,245	125,677
Pre-arranged admission	3,077	1,355	3,749	463	432	0	8	0	9,084
Patient in transit	69	225	305	0	0	0	19	12	630
Dead on arrival	2,565	2,771	259	0	0	425	21	28	6,069
Not reported	693	199	0	338	33,884	0	0	52	35,166
Total presentations reported at									
episode-level	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

<sup>(</sup>a) Western Australia does not provide non-admitted patient emergency department care data for patients who were Dead on arrival at the emergency department.

<sup>(</sup>b) South Australia does not provide non-admitted patient emergency department care data for patients who were Dead on arrival (no resuscitation attempted) at the emergency department

Table S5.6: Non-admitted patient emergency department *Emergency presentation*<sup>(a)</sup> statistics, by Triage category and public hospital peer group, states and territories, 2008–09

Triage category and peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Tota
Principal referral and Specialist women's and children's h	ospitals								
Resuscitation	9,447	8,311	7,757	3,508	4,236	592	514	751	35,116
Emergency	112,795	91,912	87,880	36,669	34,262	6,631	9,433	7,932	387,514
Urgent	399,168	300,651	339,059	87,728	96,976	28,892	31,093	31,633	1,315,200
Semi-urgent	493,654	416,687	348,746	134,047	108,090	36,830	44,839	47,659	1,630,552
Non-urgent	166,850	82,632	54,063	15,396	25,184	5,778	15,652	2,368	367,923
Total <sup>(b)</sup>	1,183,652	900,193	837,505	277,349	268,748	78,723	101,531	90.343	3,738,04
Proportion seen on time (%) <sup>(c)</sup>	, ,	,	,	,	•	ŕ	•	•	
Resuscitation	100	100	99	100	100	100	100	100	100
Emergency	78	81	70	66	74	73	85	61	75
Urgent	63	72	57	44	57	42	53	45	6′
Semi-urgent	68	66	62	54	59	48	53	39	63
Non-urgent	86	88	86	83	82	82	78	76	86
Total	70	72	63	54	63	51	60	44	60
Median waiting time to service delivery (minutes)									
Resuscitation	0	0	0	0	0	0	0	0	(
Emergency	6	5	7	7	5	7	5	8	6
Urgent	22	16	25	36	25	40	29	36	23
Semi-urgent Semi-urgent	34	34	42	55	47	64	56	82	41
Non-urgent	33	24	35	51	42	53	55	53	34
Total <sup>(b)</sup>	23	19	27	38	28	45	38	49	25
90th percentile waiting time to service delivery (minutes)									
Resuscitation	1	0	1	0	0	0	0	0	(
Emergency	22	20	27	23	22	23	16	27	23
Urgent	97	84	104	123	101	156	152	134	103
Semi-urgent	143	154	157	154	164	183	218	220	157
Non-urgent	143	130	147	150	164	155	178	199	145
Total <sup>(b)</sup>	119	121	125	134	130	164	179	181	128
Proportion ending in admission (%) <sup>(d)</sup>	710	121	120	70-7	700	101	170	701	720
Resuscitation	85	92	71	77	80	85	77	72	82
Emergency	66	77	54	53	61	63	63	61	64
Urgent	44	56	32	41	44	43	44	43	43
Semi-urgent	20	24	10	16	18	17	15	14	18
Non-urgent	7	6	3	7	5	6	3	3	
Total <sup>b)</sup>	31	39	24	29	33	30	27	28	3
I Ulai	31	39	24	29	33	30	21	20	(continuea

Table S5.6 (continued): Non-admitted patient emergency department *Emergency presentation*(a) statistics, by Triage category and public hospital peer group, states and territories, 2008–09

Triage category and peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Large hospitals									
Resuscitation	1,927	587	370	804	182	73			3,943
Emergency	27,361	17,571	8,240	13,484	4,290	899			71,845
Urgent	114,569	78,525	46,234	46,795	17,238	6,088			309,449
Semi-urgent	189,010	159,849	62,368	83,493	15,512	13,991			524,223
Non-urgent	56,475	68,113	22,038	13,563	2,028	2,951			165,168
Total <sup>(b)</sup>	389,695	324,645	139,250	158,142	39,250	24,002			1,074,984
Proportion seen on time (%) <sup>(c)</sup>									
Resuscitation	100	100	100	98	100	n.p.			99
Emergency	87	87	88	68	67	n.p.			82
Urgent	77	79	68	55	54	n.p.			72
Semi-urgent	75	69	75	59	68	n.p.			71
Non-urgent	89	80	92	87	91	n.p.			86
Total	79	<i>7</i> 5	76	61	63	n.p.			74
Median waiting time to service delivery (minutes)									
Resuscitation	0	0	0	0	0	n.p.			0
Emergency	5	4	5	7	5	n.p.			5
Urgent	15	13	17	27	27	n.p.			17
Semi-urgent Semi-urgent	27	33	25	48	36	n.p.			32
Non-urgent	25	47	25	38	34	n.p.			34
Total <sup>(b)</sup>	19	24	20	34	26	n.p.			22
90th percentile waiting time to service delivery (minutes)						r			
Resuscitation	1	1	1	0	0	n.p.			0
Emergency	14	13	11	24	31	n.p.			17
Urgent	62	50	89	95	126	n.p.			71
Semi-urgent	123	124	110	148	143	n.p.			126
Non-urgent	125	173	109	134	116	n.p.			145
Total <sup>(b)</sup>	100	117	100	128	124	n.p.			111
Proportion ending in admission (%) <sup>(d)</sup>	700		700	,20	,_,	p.		• •	
Resuscitation	73	84	61	34	59	n.p.			65
Emergency	58	61	48	38	66	n.p.		• •	54
Urgent	38	41	26	27	47	n.p.			36
Semi-urgent	16	15	9	9	21	n.p.			14
Non-urgent	4	2	3	2	3	n.p.		• • •	3
Total <sup>(b)</sup>			16	17		•	• •	• •	
i otar *	24	21	16	17	37.	n.p.			21
									(continued)

Table S5.6 (continued): Non-admitted patient emergency department *Emergency presentation*(a) statistics, by Triage category and public hospital peer group, states and territories, 2008–09

Triage category and peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
All hospitals reporting waiting times data									
Resuscitation	12,563	9,037	8,351	4,765	4,516	703	514	796	41,245
Emergency	157,878	113,186	100,995	58,855	41,648	8,830	9,433	8,525	499,350
Urgent	598,331	397,194	410,985	168,444	124,671	42,409	31,093	35,947	1,809,074
Semi-urgent	870,855	623,395	455,522	283,354	154,178	62,772	44,839	64,594	2,559,509
Non-urgent	316,747	174,823	87,221	43,473	27,451	10,422	15,652	11,966	687,755
Total emergency visits <sup>(b)</sup>	1,958,834	1,317,635	1,063,074	558,896	352,464	125,136	101,531	121,828	5,599,398
Proportion seen on time (%) <sup>(c)</sup>	, ,		, ,	•	•	•	•	,	
Resuscitation	100	100	99	99	100	99	100	100	100
Emergency	80	82	72	69	75	76	85	62	77
Urgent	68	74	59	53	59	54	53	48	64
Semi-urgent	73	68	65	62	62	61	53	49	67
Non-urgent	90	86	88	89	83	87	78	89	88
Total emergency visits seen on time	75	73	66	62	64	62	60	54	70
Median waiting time to service delivery (minutes)									
Resuscitation	0	0	0	0	0	0	0	0	0
Emergency	5	5	7	6	5	7	5	8	5
Urgent	19	15	24	28	24	27	29	32	21
Semi-urgent Semi-urgent	28	33	38	43	43	44	56	63	35
Non-urgent	23	32	30	29	41	36	55	24	28
Total <sup>(b)</sup>	20	20	25	29	27	31	38	39	23
90th percentile waiting time to service delivery (minutes)									
Resuscitation	1	0	1	0	0	0	0	0	0
Emergency	20	18	25	22	23	21	16	27	22
Urgent	85	75	100	106	100	131	152	129	93
Semi-urgent	128	143	146	143	153	156	218	201	143
Non-urgent	122	146	131	127	160	138	178	128	134
Total <sup>(b)</sup>	107	118	119	124	125	141	179	167	119
Proportion ending in admission (%) <sup>(d)</sup>									
Resuscitation	81	92	69	67	78	82	77	72	79
Emergency	62	74	53	48	58	58	63	61	61
Urgent	41	52	30	34	42	38	44	43	40
Semi-urgent	17	21	10	12	15	13	15	14	16
Non-urgent	5	4	3	4	5	5	3	4	5
Total proportion ending in admission (%) <sup>(b)</sup>	26	33	22	22	30	25	27	25	27

Table S5.7 Non-admitted patient emergency department presentation length statistics (hours: minutes) for *Emergency presentations*<sup>(a)</sup> with an Episode end status of *Admitted to this hospital*, by Triage category, public hospitals, states and territories, 2008–09

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation									
Median duration of non-admitted patient episode <sup>(b)</sup>	3:10	5:10	2:19	1:36	1:52	3:55	2:00	1:35	2:59
Median duration of service event(c)	3:10	5:10	2:19	1:36	1:52	3:55	2:00	1:35	2:59
Median time in emergency department <sup>(d)(e)</sup>	4:12	5:10	4:09	3:54	3:53	3:55	4:47	3:48	4:22
Emergency									
Median duration of non-admitted patient episode <sup>(b)</sup>	4:30	5:47	3:21	2:22	2:33	5:32	3:05	1:58	4:09
Median duration of service event(c)	4:22	5:40	3:10	2:12	2:22	5:22	2:59	1:45	4:00
Median time in emergency department <sup>(d)(e)</sup>	5:49	5:47	6:00	6:15	5:56	5:32	8:35	7:33	5:56
Urgent									
Median duration of non-admitted patient episode <sup>(b)</sup>	5:11	6:03	3:55	2:56	3:07	6:28	3:45	2:31	4:49
Median duration of service event(c)	4:37	5:35	3:18	2:13	2:25	5:28	2:49	1:42	4:13
Median time in emergency department (d)(e)	6:21	6:03	6:30	6:13	6:13	6:28	10:42	6:46	6:20
Semi-urgent									
Median duration of non-admitted patient episode <sup>(b)</sup>	5:22	5:59	3:51	3:15	3:34	6:23	3:56	2:50	5:03
Median duration of service event(c)	4:24	5:01	2:46	2:04	2:20	5:02	2:20	1:14	4:01
Median time in emergency department <sup>(d)(e)</sup>	6:25	5:59	6:21	6:17	6:17	6:23	11:53	6:07	6:16
Non-urgent									
Median duration of non-admitted patient episode <sup>(b)</sup>	3:59	4:21	2:16	2:15	2:39	4:32	2:49	2:00	3:40
Median duration of service event(c)	3:02	3:25	1:18	1:18	1:13	3:35	1:15	0:54	2:40
Median time in emergency department <sup>(d)(e)</sup>	4:46	4:21	3:59	3:45	4:39	4:32	8:54	2:28	4:32
Total <sup>(f)</sup>									
Median duration of non-admitted patient episode <sup>(b)</sup>	5:02	5:56	3:43	2:49	3:03	6:13	3:34	2:28	4:41
Median duration of service event(c)	4:26	5:23	3:07	2:09	2:20	5:17	2:41	1:34	4:04
Median time in emergency department <sup>(d)(e)</sup>	6:11	5:56	6:16	6:09	6:04	6:13	10:13	6:34	6:10

Table S5.8 Non-admitted patient emergency department presentation length statistics (hours: minutes) for *Emergency presentations*(a) with an Episode end status other than *Admitted to this hospital*, by Triage category, public hospitals, states and territories, 2008–09

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation									
Median duration of non-admitted patient episode <sup>(b)</sup>	3:22	2:44	3:16	3:46	3:31	3:39	1:08	3:45	3:20
Median duration of service event <sup>(c)</sup>	3:22	2:44	3:14	3:45	3:31	3:39	1:08	3:45	3:20
Median time in emergency department <sup>(d)</sup>	3:58	2:44	4:21	3:46	4:13	3:39	2:53	3:45	3:55
Emergency									
Median duration of non-admitted patient episode <sup>(b)</sup>	3:29	2:48	3:00	3:10	3:08	3:42	2:55	3:27	3:09
Median duration of service event(c)	3:20	2:40	2:48	3:00	2:59	3:30	2:46	3:13	2:59
Median time in emergency department <sup>(d)</sup>	3:42	2:48	3:34	3:10	3:25	3:42	3:34	3:27	3:22
Urgent									
Median duration of non-admitted patient episode <sup>(b)</sup>	2:59	2:43	2:48	2:43	3:18	2:58	2:53	2:59	2:52
Median duration of service event(c)	2:25	2:12	2:05	1:59	2:35	2:05	2:00	2:02	2:13
Median time in emergency department <sup>(d)</sup>	3:06	2:43	3:03	2:43	3:26	2:58	3:39	2:59	3:00
Semi-urgent Semi-urgent									
Median duration of non-admitted patient episode <sup>(b)</sup>	2:07	2:09	2:01	1:55	2:26	2:02	2:28	2:22	2:06
Median duration of service event <sup>(c)</sup>	1:12	1:08	0:59	0:56	1:21	0:57	1:04	0:54	1:05
Median time in emergency department <sup>(d)</sup>	2:10	2:09	2:06	1:55	2:28	2:02	2:44	2:22	2:09
Non-urgent									
Median duration of non-admitted patient episode(b)	1:26	1:26	1:16	1:22	1:48	1:24	1:49	1:11	1:25
Median duration of service event(c)	0:38	0:30	0:29	0:36	0:43	0:31	0:35	0:29	0:34
Median time in emergency department <sup>(d)</sup>	1:28	1:26	1:19	1:22	1:48	1:24	1:59	1:11	1:27
Total <sup>(f)</sup>									
Median duration of non-admitted patient episode <sup>(b)</sup>	2:14	2:10	2:16	2:08	2:39	2:16	2:27	2:23	2:15
Median duration of service event(c)	1:24	1:14	1:20	1:12	1:42	1:12	1:10	1:06	1:19
Median time in emergency department <sup>(d)</sup>	2:18	2:10	2:25	2:08	2:43	2:16	2:50	2:23	2:18

Table S5.9 Non-admitted patient emergency department presentations, by Triage category and Episode end status, public hospitals, states and territories, 2008–09

Triage category and episode end status	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation									
Admitted to this hospital <sup>(b)</sup>	10,188	8,341	5,840	3,191	3,525	575	397	577	32,634
Departed without being admitted or referred(c)	1,407	550	1,223	511	550	31	39	167	4,478
Referred to another hospital for admission	890	81	754	612	291	28	21	5	2,682
Did not wait <sup>(d)</sup>	7	0	4	4	0	0	0	0	15
Left at own risk <sup>(e)</sup>	70	31	80	37	13	2	0	5	238
Died in emergency department <sup>(f)</sup>	0	81	468	411	136	68	58	39	1,261
Dead on arrival <sup>(g)</sup>	56	0	33	1	0	3	3	4	100
Not reported	26	8	41	0	4	0	0	0	79
Total	12,644	9,092	8,443	4,767	4,519	707	518	797	41,487
Emergency									
Admitted to this hospital <sup>(b)</sup>	98,665	83,777	53,731	28,061	24,249	5,154	5,915	5,166	304,718
Departed without being admitted or referred(c)	52,692	27,885	38,802	25,823	14,159	3,437	3,265	3,227	169,290
Referred to another hospital for admission	5,225	714	5,288	4,306	2,717	181	193	22	18,646
Did not wait <sup>(d)</sup>	265	223	399	102	92	13	6	4	1,104
Left at own risk <sup>(e)</sup>	1,683	677	1,681	607	340	31	40	100	5,159
Died in emergency department <sup>(f)</sup>	0	24	132	102	60	31	16	7	372
Dead on arrival <sup>(g)</sup>	12	0	4	0	0	0	0	0	16
Not reported	203	90	1,531	9	54	1	0	0	1,888
Total	158,745	113,390	101,568	59,010	41,671	8,848	9,435	8,526	501,193
Urgent									
Admitted to this hospital <sup>(b)</sup>	247,422	208,178	126,986	57,355	52,502	16,300	13,769	15,587	738,099
Departed without being admitted or referred(c)	320,847	177,343	252,723	102,192	63,778	24,500	15,528	19,544	976,455
Referred to another hospital for admission	11,286	1,467	11,742	6,880	4,549	546	534	49	37,053
Did not wait <sup>(d)</sup>	13,470	8,512	12,642	1,242	2,797	1,112	1,112	1,022	41,909
Left at own risk <sup>(e)</sup>	9,098	3,151	5,349	1,361	977	175	149	354	20,614
Died in emergency department <sup>(f)</sup>	0	15	95	50	32	13	15	0	220
Dead on arrival <sup>(g)</sup>	31	0	94	0	0	0	0	0	125
Not reported	503	243	4,309	114	224	3	0	0	5,396
Total	602,657	398,909	413,940	169,194	124,859	42,649	31,107	36,556	1,819,871
									(continued)

Table S5.9 (continued): Non-admitted patient emergency department presentations, by Triage category and Episode end status, public hospitals, states and territories, 2008–09

Triage category and episode end status	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Semi-urgent									
Admitted to this hospital <sup>(b)</sup>	150,870	135,109	45,614	33,375	23,765	8,571	6,542	9,340	413,186
Departed without being admitted or referred <sup>(c)</sup>	648,885	451,462	363,942	239,799	118,671	51,599	31,567	49,330	1,955,255
Referred to another hospital for admission	6,580	1,075	4,172	3,973	2,096	333	343	51	18,623
Did not wait <sup>(d)</sup>	59,358	43,170	44,121	7,142	10,975	4,086	6,261	8,667	183,780
Left at own risk <sup>(e)</sup>	14,812	4,784	5,733	1,402	1,361	191	219	517	29,019
Died in emergency department <sup>(f)</sup>	0	4	18	11	4	5	1	0	43
Dead on arrival <sup>(g)</sup>	54	0	6	0	0	0	0	0	60
Not reported	806	119	1,629	736	267	12	0	0	3,569
Total	881,365	635,723	465,235	286,438	157,139	64,797	44,933	67,905	2,603,535
Non-urgent									
Admitted to this hospital <sup>(b)</sup>	17,837	9,142	3,116	1,882	1,649	613	474	542	35,255
Departed without being admitted or referred <sup>(c)</sup>	286,692	170,849	84,102	42,390	23,940	10,939	12,593	12,523	644,028
Referred to another hospital for admission	703	116	313	178	162	20	72	11	1,575
Did not wait <sup>(d)</sup>	37,294	16,906	13,254	2,127	3,180	1,105	2,691	2,174	78,731
Left at own risk <sup>(e)</sup>	4,035	1,268	809	244	241	5	75	101	6,778
Died in emergency department <sup>(f)</sup>	0	0	12	0	0	0	0	0	12
Dead on arrival <sup>(g)</sup>	2,683	0	115	0	0	3	0	30	2,831
Not reported	301	36	169	172	57	3	0	0	738
Total	349,545	198,317	101,890	46,993	29,229	12,688	15,905	15,381	769,948
Total <sup>(h)</sup>									
Admitted to this hospital <sup>(b)</sup>	525,135	444,552	235,287	123,867	105,690	31,213	27,097	31,212	1,524,053
Departed without being admitted or referred <sup>(c)</sup>	1,311,341	828,089	740,792	410,718	221,098	90,506	62,992	84,791	3,750,327
Referred to another hospital for admission	24,688	3,453	22,269	15,949	9,815	1,108	1,163	138	78,583
Did not wait <sup>(d)</sup>	111,832	68,811	70,420	10,617	17,044	6,316	10,070	11,867	306,977
Left at own risk <sup>(e)</sup>	29,750	9,911	13,652	3,651	2,932	404	483	1,077	61,860
Died in emergency department <sup>(f)</sup>	0	124	725	577	232	117	90	46	1,911
Dead on arrival <sup>(g)</sup>	2,843	2,766	252	1	0	425	3	34	6,324
Not reported	2,274	496	7,679	1,031	606	19	0	0	12,105
Total <sup>(h)</sup>	2,007,863	1,358,202	1,091,076	566,411	357,417	130,108	101,898	129,165	5,742,140

<sup>(</sup>a) In NSW, presentations for which a patient dies in the emergency department are categorised as Admitted to this hospital.

## 6 Outpatient care

This chapter presents information on outpatient services and other non-admitted, non-emergency patient services provided by public hospitals in Australia (detailed information on non-admitted patient emergency department care for Australia's public hospitals is given in *Chapter 5* of this report).

## What data are reported?

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

Data on outpatient-related occasions of service and group sessions were also sourced from the National Public Hospital Establishments Database (NPHED) which has essentially full coverage of public hospitals (see *Appendix* 2). Data on non-admitted patient care activity for the NPHED are collected for 14 non-admitted patient service types. In addition to outpatient services, these service types cover a range of non-admitted patient care services that are not in scope for the NOCD.

### **National Outpatient Care Database**

The National Outpatient Care Database (NOCD) is a compilation of summary data for outpatient clinic occasions of service in public hospitals. The data supplied are based on the National Minimum Data Set (NMDS) for Outpatient care, as defined in the *National health data dictionary, version 14* (HDSC 2008). These data were provided to the AIHW for 2008–09 as counts of individual occasions of service and group sessions for 24 types of outpatient clinics.

The scope for the Outpatient care NMDS for 2008–09 was for services provided to non-admitted, non-emergency patients registered for care in outpatient clinics of public hospitals that were classified as either peer group A (*Principal referral and Specialist women's and children's hospitals*) or B (*Large hospitals*) in *Australian hospital statistics* 2007–08 (AIHW 2009a). The public hospital peer group classification was developed for the cost per casemix-adjusted separation analysis based on admitted patient activity (see *Appendix* 1).

For 2008–09, all states and territories were able to provide summary data to the NOCD for all public hospitals in peer groups A and B that managed outpatient clinic services. Some states and territories also provided outpatient care data for public hospitals which were classified to other peer groups:

- New South Wales provided data for two Medium hospitals
- Victoria provided data for one *Medium hospital*
- Western Australia provided data for six *Medium hospitals*, two *Small remote acute hospitals*, one *Small non-acute hospital* and one *Mothercraft hospital*
- South Australia provided data for one Medium hospital
- Tasmania provided data for 1 *Medium hospital*, the Mersey Community Hospital.

These data have also been included in analyses of NOCD data presented in this chapter.

While the proportion of individual outpatient occasions of service and group sessions for which clinic-level data were available was 100% for peer groups A and B, coverage for all public hospitals was only about 79% for individual occasions of service and 63% for group sessions (see Table S6.1).

#### Box 6.1 What are the limitations of the data?

When interpreting the data presented, the reader should note the following:

- The data presented are counts of occasions of service, not persons. A person may have multiple occasions of service, at a variety of outpatient clinics or departments reported in a reference year.
- States and territories may differ in the extent to which outpatient services are provided in non-hospital settings (such as community health services) which are beyond the scope of the NPHED and NOCD.
- There is considerable variation among states and territories and between reporting years in the way in which non-admitted patient occasions of service data are collected for the NPHED. Differing admission practices between the states and territories also lead to variation among jurisdictions in the services reported.
- Data from the NOCD should be interpreted with caution as the data may not be representative of outpatient clinic activity for hospitals that were not required to provide data for the NOCD. While the proportion of individual outpatient-related occasions of service and group sessions for which clinic-level data were available was 100% for peer group A (*Principal referral and Specialist women's and children's hospitals*) and B (*Large hospitals*) coverage for all public hospitals was only about 79% for individual occasions of service and 63% for group sessions.
- NOCD data should be interpreted with caution as the comparability of the data may
  be influenced by variation in admission practices, the type of facility providing these
  services and in the allocation of outpatient services to the 24 clinic types among the
  states and territories.
- For Western Australia, counts of outpatient group sessions reported to the NOCD
  actually reflect the number of individuals who attended group sessions. The data for
  Western Australian group sessions are therefore not directly comparable to the data
  provided for group sessions presented for other states and territories.

#### Box 6.2: What methods were used?

Readers should note the following:

- For the purposes of aligning the two data sources, outpatient-related occasions of service sourced from the NPHED refer to occasions of service and group sessions reported with a Type of non-admitted patient service of *Allied health*, *Dental*, *Dialysis*, *Endoscopy and related procedures* and *Other medical/surgical/obstetric*.
- Other non-admitted patient service types reported to the NPHED analysed in this chapter include the service types of, *Alcohol and other drugs*, *Community health services*, *District nursing*, *Mental health*, *Other outreach services*, *Pathology*, *Pharmacy* and *Radiology and organ imaging*.
- The number of occasions of service for the non-admitted patient service type *Accident* and emergency are not presented in this chapter and were discussed in *Chapter 5* of this report (see Table 5.3).
- The coverage of the NOCD clinic-level data is calculated as the number of outpatient occasions of service reported to the NOCD divided by the number of outpatient-related occasions of service, as defined above, from the NPHED, expressed as a percentage. Where the number of occasions of service reported to the NOCD is greater than the number of outpatient-related occasions of service reported to the NPHED, the proportion is presented as 100%.

## How has activity changed over time?

Table 6.1 shows the number of individual occasions of service for outpatient-related services and other non-admitted patient services reported to the NPHED for public acute hospitals between 2004–05 and 2008–09.

Between 2004–05 and 2008–09, outpatient care delivered in specialist outpatient clinics increased by an average of 1.7% per year with *Endoscopy and related procedures* showing the largest relative increase in number of individual occasions of service. Over the same time period *Pharmacy, Pathology* and *Radiology and organ imaging* services increased by 10.1% per year; *Mental health* and *Alcohol & drug* services decreased by 2.5% per year; and *Community health, Outreach* and *District nursing* services decreased by about 6% per year (Table 6.1).

Table 6.1 Number of individual occasions of service<sup>(a)</sup> for outpatient and other non-admitted patient services, public acute hospitals, 2004–05 to 2008–09

						Change	(per cent)
Type of service	2004–05	2005–06	2006–07	2007–08	2008-09	Ave since 2004–05	Since 2007–08
Outpatient care							
Allied health	4,357,567	3,681,164	3,659,763	3,715,798	3,751,560	-3.7	1.0
Dental	1,281,359	1,134,303	1,084,156	1,034,822	775,382	-11.8	-25.1
Dialysis	14,958	10,079	32,798	25,319	25,612	14.4	1.2
Endoscopy and related procedures	15,675	25,991	24,429	46,995	57,885	38.6	23.2
Other medical/surgical/obstetric <sup>(b)</sup>	9,759,964	10,073,999	11,031,151	11,545,782	11,905,566	5.1	3.1
Total outpatient occasions of service	15,429,523	14,925,536	15,832,297	16,368,716	16,516,005	1.7	0.9
Pharmacy, Pathology, Radiology and organ imaging	11,596,677	14,462,913	14,909,645	16,212,632	17,065,627	10.1	5.3
Mental health, Alcohol & drug	2,760,745	3,079,504	3,154,917	3,078,262	3,042,035	2.5	-1.2
Community health, Outreach and District nursing	6,863,238	5,953,122	5,502,733	5,594,899	5,365,453	-6.0	-4.1
Total non-admitted patient occasions of service	36,650,183	38,421,075	39,399,592	41,254,509	41,989,120	3.5	1.8

Source: National Public Hospital Establishments Database.

### How much patient activity was there in 2008-09?

Table 6.2 shows the number of individual occasions of service for outpatient-related services and other non-admitted patient services reported to the NPHED for public acute hospitals by state and territory.

In 2008–09, public hospitals provided almost 42 million service episodes for non-admitted patients.

- 16.5 million service episodes were delivered in specialist outpatient clinics with the chief contributors being *Medical/surgical/obstetric*, *Allied health* and *Dental*.
- *Mental health* and *Alcohol and drug* services delivered 3.0 million services.
- *Pharmacy, Pathology, Radiology & organ imaging* made up a further 17.1 million services.
- 5.4 million occasions were for Community health, Outreach or District nursing services.

The proportion of non-admitted patient occasions of service which are related to outpatient care varies across states, from 39% in the Northern Territory to 68% in the Australian Capital Territory. For all states except Western Australia, the largest contributor to outpatient-related services was *Other medical/surgical/obstetric* followed by *Allied health*, whereas in Western Australia the order was reversed. There was also considerable variation in activity for other non-admitted patient service types across states and territories. For example,

<sup>(</sup>a) Reporting arrangements have varied significantly across years and across jurisdictions.

<sup>(</sup>b) Other medical/surgical/obstetric includes the outpatient services of Gynaecology, Obstetrics, Cardiology, Endocrinology, Oncology, Respiratory, Gastroenterology, Medical, General practice primary care Paediatric, Plastic surgery, Urology, Orthopaedic surgery, Ophthalmology, Ear, nose and throat, Chemotherapy, Paediatric surgery and Renal medical.

*Pharmacy, Pathology, Radiology and organ imaging* accounted for 67% of all non-admitted patient occasions of service in New South Wales, but only 28% of all non-admitted patient occasions of service in South Australia.

Table 6.2: Number of individual occasions of service ('000)<sup>(a)</sup> for outpatient and other non-admitted patient services, public acute hospitals, states and territories, 2008–09

Type of service	NSW	Vic	Qld	WA	SA	Tas	ACT	NT <sup>(b)</sup>	Total <sup>(c)</sup>
			Occ	asions of	service	('000)			
Outpatient care									
Allied health	761	1,047	632	1,008	180	86	26	10	3,752
Dental	497	256		12	9	2			775
Dialysis	26		<1						26
Endoscopy and related procedures	18		13		22	2	2		58
Other medical/surgical/obstetric <sup>(d)</sup>	5,248	1,637	2,545	755	919	364	315	122	11,906
Total outpatient occasions of service	6,550	2,940	3,190	1,775	1,131	455	343	132	16,516
Pharmacy <sup>(e)</sup> , Pathology, Radiology and organ imaging	7,713	1,806	5,429	1,114	230	451	119	204	17,066
Mental health, Alcohol & drug	2,079	707	168	65	19	2	2		3,042
Community health, Outreach and District nursing <sup>(f)</sup>	3,345	569	426	790	196	<1	38		5,365
Total non-admitted patient occasions of service	19,687	6,021	9,214	3,745	1,576	909	502	336	41,989

Notes: See Boxes 6.1 and 6.2 for notes on data limitations and methods.

Additional information for states and territories is available in Table S6.2 at the end of this chapter.

In 2008–09, almost 341,000 non-admitted patient care occasions of service were reported to the NPHED for group sessions (provided to more than one patient at a time), with *Mental health, Alcohol & drug* and *Community health* accounting for 31% of the sessions (see Table S6.2).

### What care was provided?

Clinic-level data were provided to the NOCD for 13.0 million occasions of service for individuals and 144,000 group sessions for non-admitted patient outpatient clinic care. The estimated proportion of outpatient-related occasions of service for all hospitals that also reported to the NOCD was about 77% for individual occasions of service, and about 62% for group sessions (see Table S6.2). Clinic-level data were provided for 84 *Principal referral and Specialist women's and children's hospitals*, 38 *Large hospitals* and 15 *Other hospitals* (not classified in peer groups A or B). Coverage varied significantly by state and territory, ranging from 65% for the Australian Capital Territory to 100% for Tasmania for individual

<sup>(</sup>a) Reporting arrangements have varied significantly across years and across jurisdictions.

<sup>(</sup>b) Radiology figures for the Northern Territory are underestimated and Pathology figures relate only to three of the five hospitals.

<sup>(</sup>c) National total includes only those states and territories for which data are available.

<sup>(</sup>d) Other medical/surgical/obstetric includes the outpatient services of Gynaecology, Obstetrics, Cardiology, Endocrinology, Oncology, Respiratory, Gastroenterology, Medical, General practice primary care, Paediatric, Plastic surgery, Urology, Orthopaedic surgery, Ophthalmology, Ear, nose and throat, Chemotherapy, Paediatric surgery and Renal medical.

<sup>(</sup>e) Justice Health in New South Wales reported a large number of occasions of service for *Pharmacy* which may not be typical for other hospitals

<sup>(</sup>f) Justice Health in New South Wales reported a large number of occasions of service which may not be typical of *District nursing*. Source: National Public Hospital Establishments Database.

occasions of service and from 35% for Victoria to 100% for Western Australia for group occasions of service.

In 2008–09, just over half of individual outpatient occasions of service reported to the NOCD were provided by *Allied Health*, *Medical* and *Obstetrics* clinics (Table 6.3).

Table 6.3: Outpatient care individual occasions of service<sup>(a)</sup>, by outpatient clinic-type, states and territories, 2008–09

Clinic type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Allied health	622,938	772,541	511,655	465,856	173,051	81,231	24,887	8,508	2,660,667
Dental	224,623	128,661	0	3,580	9,453	1,684	0	0	368,001
Gynaecology	54,059	45,745	66,916	21,273	36,807	10,638	4,835	6,018	246,291
Obstetrics	850,179	310,242	372,770	98,782	117,256	49,920	46,342	18,966	1,864,457
Cardiology	74,933	21,802	87,550	29,920	24,820	21,011	12,303	1,744	274,083
Endocrinology	175,999	56,181	67,921	31,267	30,982	23,320	10,638	1,287	397,595
Oncology	323,111	157,262	87,859	48,196	19,126	47,730	16,392	2,092	701,768
Respiratory	159,328	16,280	61,158	15,577	32,785	4,956	5,203	1,114	296,401
Gastroenterology	31,921	22,454	34,926	13,473	17,542	1,458	5,557	160	127,491
Medical	1,141,110	207,243	312,517	225,480	116,531	63,830	31,590	19,324	2,117,625
General practice/primary									
care	247,482	0	21,789	574	0	0	0	0	269,845
Paediatric	112,845	13,972	46,141	8,511	29,600	19,732	6,657	5,406	242,864
Endoscopy	17,553	0	12,520	4	15,481	2,307	2,244	837	50,946
Plastic surgery	33,397	90,757	29,320	37,714	25,983	3,794	5,866	1,557	228,388
Urology	29,608	42,137	42,736	16,981	13,757	1,748	1,177	375	148,519
Orthopaedic	279,111	175,392	262,671	79,629	58,877	18,490	12,629	12,547	899,346
Ophthalmology	150,876	98,724	72,519	52,757	59,986	8,479	7,074	13,505	463,920
Ear, nose and throat surgery	30,618	44,368	47,792	24,099	20,131	908	2,192	4,172	174,280
Pre-admission and pre-									
anaesthesia	192,680	96,949	148,938	26,128	41,585	17,942	7,673	7,030	538,925
Chemotherapy	78,371	0	4,688	454	20,918	18,663	5,187	1,924	130,205
Dialysis	25,145	0	33	1,024	0	0	0	3,374	29,576
Surgery	93,786	139,286	142,447	44,487	78,133	48,139	8,489	14,809	569,576
Paediatric surgery	10,018	9,968	8,255	311	3,389	0	1,239	427	33,607
Renal medicine	116,816	0	50,458	0	17,941	10,552	5,839	0	201,606
Total	5,076,507	2,449,964	2,493,579	1,246,077	964,134	456,532	224,013	125,176	13,035,982

Notes: See Boxes 6.1 and 6.2 for notes on data limitations and methods.

Source: National Outpatient Care Database.

<sup>(</sup>a) There were variations among jurisdictions in the reporting of occasions of service because of differences in admission practices and in the types of facilities offering these services.

In 2008–09, over 71% of group sessions reported to the NOCD were provided by *Allied Health* clinics (Table 6.4).

Table 6.4: Outpatient care group occasions of service<sup>(a)</sup>, by outpatient clinic-type, states and territories, 2008–09

Clinic type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Allied health	15,918	9,498	5,403	65,601	5,264	631	187	0	102,502
Dental	0	0	0	0	0	0	0	0	0
Gynaecology	15	0	0	0	0	0	0	0	15
Obstetrics	3,673	0	1,771	0	1,318	265	37	0	7,064
Cardiology	2,246	0	916	0	332	42	0	0	3,536
Endocrinology	1,335	0	425	0	155	216	71	0	2,202
Oncology	480	0	52	4	0	0	0	0	536
Respiratory	2,123	0	4	0	138	0	0	0	2,265
Gastroenterology	141	0	67	0	69	0	0	0	277
Medical	17,321	0	480	471	3,443	112	6	125	21,958
General practice/primary care	319	0	0	11	0	0	0	0	330
Paediatric	417	0	0	0	503	0	0	0	920
Endoscopy	0	0	0	0	0	0	0	0	0
Plastic surgery	6	0	0	0	590	0	0	0	596
Urology	13	0	0	0	0	0	0	0	13
Orthopaedic	402	0	1	0	12	0	0	0	415
Ophthalmology	0	0	0	0	0	14	0	0	14
Ear, nose and throat surgery	5	0	0	0	0	0	0	0	5
Pre-admission and pre- anaesthesia	239	0	0	0	2	0	0	0	241
Chemotherapy	195	0	0	0	0	0	0	0	195
Dialysis	109	0	0	0	0	0	0	0	109
Surgery	170	0	0	0	96	0	2	0	268
Paediatric surgery	0	0	0	0	0	0	0	0	0
Renal medicine	621	0	0	0	19	0	0	0	640
Total	45,748	9,498	9,119	66,087	11,941	1,280	303	125	144,101

 $\it Notes:$  See Boxes 6.1 and 6.2 for notes on data limitations and methods.

Source: National Outpatient Care Database.

### **Additional information**

Further detailed information on non-admitted patient care by state or territory of hospitalisation and public hospital peer groups is available in the following supplementary tables and in the tables accompanying this report on the CD and Internet.

<sup>(</sup>a) There were variations among jurisdictions in the reporting of occasions of service because of differences in admission practices and in the types of facilities offering these services.

## Supplementary tables

The following supplementary tables provide more detailed information on non-admitted patient care by state and territory.

# Box 6.3 Methods — Chapter 6 Supplementary tables Table S6.2

- (a) Reporting arrangements have varied significantly across years and across jurisdictions.
- (b) *Radiology* figures for the Northern Territory are underestimated and *Pathology* figures relate only to three of the five hospitals.
- (c) National total includes only those states and territories for which data are available.
- (d) Other medical/surgical/obstetric includes the outpatient services of Gynaecology, Obstetrics, Cardiology, Endocrinology, Oncology, Respiratory, Gastroenterology, Medical, General practice primary care, Paediatric, Plastic surgery, Urology, Orthopaedic surgery, Ophthalmology, Ear, nose and throat, Chemotherapy, Paediatric surgery and Renal medical.
- (e) Justice Health in New South Wales reported a large number of occasions of service for *Pharmacy* which may not be typical for other hospitals.
- (f) Justice Health in New South Wales reported a large number of occasions of service which may not be typical of *District nursing*.
- (g) Includes any group sessions for Dialysis and Endoscopy and related procedures. *Source:* National Public Hospital Establishments Database.

Table S6.1: Outpatient occasions of service, by public hospital peer group, states and territories, 2008-09

Peer group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and Specialist women's and children's ho	spitals								
Hospitals reporting outpatient occasions of service									
Individual occasions of service	29	20	19	5	5	2	2	2	84
Group occasions of service	28	12	15	5	5	2	2	1	70
Occasions of service reported									
Individual occasions of service	4,358,002	1,920,799	2,318,789	909,311	831,676	367,021	224,013	125,176	11,054,787
Group occasions of service	35,609	6,003	8,486	47,319	10,181	505	303	125	108,531
Large hospitals									
Hospitals reporting outpatient occasions of service									
Individual occasions of service	13	14	4	4	2	1	0	0	38
Group occasions of service	13	9	4	4	2	1	0	0	33
Occasions of service reported									
Individual occasions of service	654,050	498,695	174,790	96,504	120,895	54,582	N22		1,599,516
Group occasions of service	9,232	3,347	633	5,461	1,612	775			21,060
Total									
Hospitals reporting outpatient occasions of service									
Individual occasions of service	44	35	23	19	8	4	2	2	137
Group occasions of service	43	22	19	15	8	3	2	1	113
Occasions of service reported									
Individual occasions of service	5,076,507	2,449,964	2,493,579	1,246,077	964,134	456,532	224,013	125,176	13,035,982
Group occasions of service	45,748	9,498	9,119	66,087	11,941	1,280	303	125	144,101
Estimated proportion of occasions of service in NOCD <sup>(a)</sup>									
Individual occasions of service	78	83	78	70	85	100	65	95	79
Group occasions of service	62	35	71	100	89	36	17	100	63

<sup>(</sup>a) The number of outpatient occasions of service reported to the NOCD divided by the number of outpatient-related occasions of service reported to the NPHED as a percentage.

Table S6.2 Non-admitted patient care occasions of service<sup>(a)</sup>, public acute hospitals, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT <sup>(b)</sup>	Total <sup>(c)</sup>
Individual occasions of service									
Outpatient care									
Allied health	761,182	1,046,751	632,023	1,008,440	180,494	86,331	26,445	9,894	3,751,560
Dental	496,582	255,763		11,900	9,453	1,684			775,382
Dialysis	25,579		33						25,612
Endoscopy and related procedures	18,393		12,801		22,140	2,307	2,244		57,885
Other medical/surgical/obstetric(d)	5,247,780	1,637,315	2,545,260	755,022	918,912	364,484	314,694	122,099	11,905,566
Total outpatient occasions of service	6,549,516	2,939,829	3,190,117	1,775,362	1,130,999	454,806	343,383	131,993	16,516,005
Mental health	751,967	681,663	92,627	65,250	18,585	2,108	1,887		1,614,087
Alcohol and drug	1,326,799	25,382	75,767	0		0			1,427,948
Pharmacy <sup>(e)</sup>	3,581,070	460,891	610,939	197,449		115,662	1,371	38,200	5,005,582
Community health	1,548,685	337,769	167,088	513,480	7,127	624	17,303		2,592,076
District nursing <sup>(f)</sup>	1,486,123	226,695	118,318	163,591	6,804	0			2,001,531
Pathology	3,235,058	720,461	3,836,489	467,707		246,531	36,977	98,030	8,641,253
Radiology and organ imaging	896,894	624,310	981,946	448,824	229,755	88,833	80,466	67,764	3,418,792
Other outreach	310,521	4,308	140,314	113,177	182,498	91	20,937		771,846
Total individual occasions of service	19,686,633	6,021,308	9,213,605	3,744,840	1,575,768	908,655	502,324	335,987	41,989,120
Group sessions									
Outpatient care									
Allied health	20,033	23,920	7,645	13,972	6,089	2,898	501		75,058
Dental	15								15
Other medical/surgical/obstetric(d)	53,279	3,202	5,127		7,309	621	1,239	125	70,902
Total outpatient occasions of service <sup>(g)</sup>	73,436	27,122	12,772	13,972	13,398	3,519	1,740	125	146,084
Mental health	25,514	,		4,149	361				30,024
Alcohol and drug	1,455		88	n.a.					1,543
Community health	39,751		4,232	30,418			131		74,532
District nursing	5,205		100	3,399					8,704
Other outreach	5,259		321	4,201	69,991		79		79,851
Other	258	n.a.	0	2		n.a.		n.a.	260
Total group sessions	150,769	27,122	17,513	56,141	83,750	3,519	1,950	125	340,889

## 7 Admitted patient care overview

This chapter draws on data from the National Hospital Morbidity Database (NHMD) to present an overview of admitted patient care in Australia's hospitals. This chapter is particularly focused on information related to total admitted patient activity.

Subsequent chapters present information on subsets of admitted patient care:

- same-day acute admitted patient care (Chapter 8)
- overnight acute admitted patient care (Chapter 9)
- elective surgery (*Chapter 10*)
- sub- and non-acute care (*Chapter 11*).

## Data on admitted patients

The NHMD contains episode-level records from admitted patient morbidity data collection systems in Australian hospitals. The data presented in this chapter include administrative, demographic and clinical data.

Administrative data provides information on:

- how patients were admitted
- the type of care provided
- how patient care ended
- length of stay in hospital
- the source of funding.

Demographic information includes:

- patient age
- patient sex
- Indigenous status
- remoteness area of usual residence
- socioeconomic status of area of usual residence.

#### Clinical information includes:

- principal diagnoses
- procedures and
- Australian Refined-Diagnosis Related Groups (AR-DRGs).

Terms relevant to admitted patient care data are summarised in Box 7.1.

#### Box 7.1: Summary of terms and classifications relating to admitted patient care

Statistics on **admitted patients** are compiled when an admitted patient (a patient who undergoes a hospital's formal admission process) completes an episode of admitted patient care and 'separates' from the hospital. This is because most of the data on the use of hospitals by admitted patients are based on information provided at the end of the patients' episodes of care, rather than at the beginning. The length of stay and the procedures carried out are then known and the diagnostic information is more accurate.

**Separation** is the term used to refer to the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example from acute to rehabilitation). 'Separation' also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care.

**Patient day** means the occupancy of a hospital bed (or chair in the case of some same-day patients) by an admitted patient for all or part of a day. The length of stay for an overnight patient is calculated by subtracting the date the patient is admitted from the date of separation and deducting days the patient was on leave. A same-day patient is allocated a length of stay of 1 day.

A **same-day** separation occurs when a patient is admitted and separated from the hospital on the same date. An **overnight** separation occurs when a patient is admitted and separated from the hospital on different dates.

The **principal diagnosis** is the diagnosis established after study to be chiefly responsible for occasioning the patient's episode of admitted patient care). An **additional diagnosis** is a condition or complaint that either coexists with the principal diagnosis or arises during the episode of care.

A **procedure** is a clinical intervention that is surgical in nature, carries an anaesthetic risk, requires specialised training and/or requires special facilities or services available only in an acute care setting. Procedures therefore encompass surgical procedures and non-surgical investigative and therapeutic procedures such as X-rays. Client support interventions that are neither investigative nor therapeutic (such as anaesthesia) are also included.

**AR-DRG** is an Australian system of diagnoses related groups (DRGs). DRGs provide a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital resources. The AR-DRG system is partly hierarchical, with 23 Major Diagnostics Categories, divided into *Surgical*, *Medical* and *Other* DRG partitions, and then into 665 individual DRGs.

In 2008–09, diagnoses and external causes of injury were recorded using the sixth edition of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) (NCCH 2008). It comprises classifications of diseases and external causes of injuries and poisoning, based on the World Health Organization version of ICD-10.

The ICD-10-AM classification is hierarchical, with 20 summary disease chapters that are divided into a large number of more specific disease groupings (represented by 3-character codes). Most of the 3-character codes are divided into even larger numbers of very specific disease categories represented by 4- and 5-character codes/ grouped according to chapters, covering broad groups of conditions. In this publication, most diagnosis information is presented at the chapter and 3-character level. (continued)

#### Box 7.1 (continued):

Procedures were recorded using the sixth edition of *Australian Classification of Health Interventions* (ACHI) (NCCH 2008). The ACHI classification is divided into 20 chapters by anatomical site. These subchapters are further divided into more specific procedure blocks, ordered from the least invasive to the most invasive. The blocks, which are numbered sequentially, group the very specific procedure information. In this publication, procedures are presented based on the ACHI procedure chapters and the ACHI procedure blocks.

#### Box 7.2: What are the limitations of the data?

When interpreting the data presented, the reader should note the following:

- Coverage for the NHMD is essentially complete. For 2008–09, all public hospitals were
  included except for a small mothercraft hospital in the Australian Capital Territory.
  Private hospital data were not provided for private freestanding day facilities in the
  Australian Capital Territory and the Northern Territory, and for one private freestanding day facility in Tasmania.
- Hospitals may be re-categorised as public or private between or within years (see *Appendix* 2).
- There may be variation among states and territories in the use of statistical discharges and the use of care types. States and territories varied in whether or not they reported separations for *Newborns with no qualified days* and records for *Hospital boarders* and *Posthumous organ procurement* (see *Appendix* 1).
- The overall quality of the data provided for Indigenous status in 2008–09 is considered to be in need of some improvement, being considered acceptable for data analysis purposes for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory (see *Appendix 1*).
- In 2008–09, there were 67 separations that did not have sex reported as male or female, and 6 separations for which date of birth was not reported (age could not be calculated).
- Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients (see *Appendix 1*). This is particularly the case for the Australian Capital Territory. In 2008–09, about 22% of separations for Australian Capital Territory hospitals were for patients who resided in New South Wales.

#### Box 7.3: What methods were used?

Readers should note the following:

- Unless otherwise indicated in footnotes, separations with a care type of *Newborn with no qualified days*, and records for *Hospital boarders* and *Posthumous organ procurement* have been excluded.
- The patient's age is calculated at the date of admission.
- In tables by age group and sex, separations for which age and sex were not reported are included in totals.
- Separation rates are age standardised as detailed in *Appendix* 1.

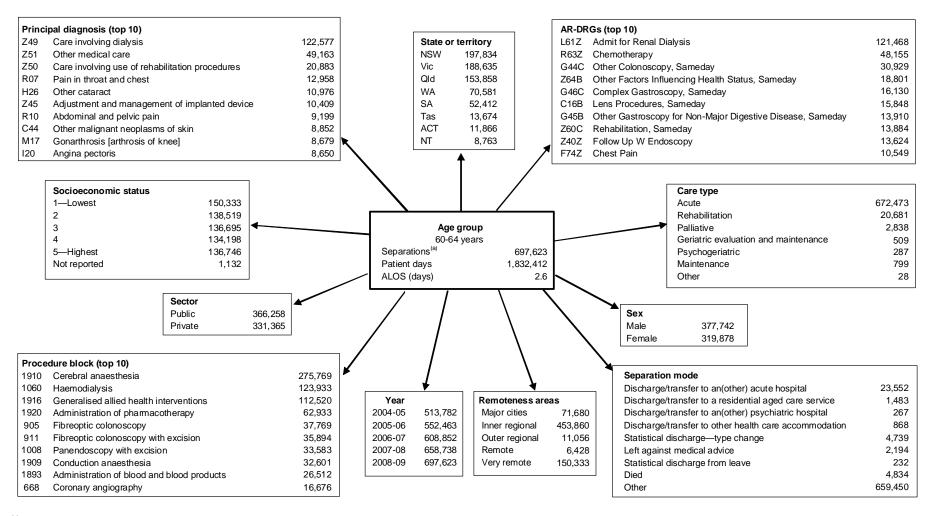
#### Box 7.3 (continued)

- In some tables, separation rates are accompanied by the standardised separation rate ratio (SRR). If the SRR is greater than 1, then the rate for category was higher than the national average (or, in the case of Indigenous status, than *Other Australians*). The 95% confidence interval of the SRR is also included. If the confidence interval includes 1, then a difference between categories is considered less likely (see *Appendix 1*).
- The data presented on area of usual residence were provided as state or territory and Statistical Local Area (SLA) and/or postcode, and have been aggregated to remoteness areas under the Australian Standard Geographical Classification (ASGC 2006) (see *Appendix 1*).
- Socioeconomic status (SES) groups in this report are based on the Index of Relative Advantage/Disadvantage (IRAD) (from SEIFA 2006) for the area of usual residence (SLA) of the patient. The SLAs are ranked from lowest to highest according to the IRAD. The SLAs are then grouped together so that each of the resulting socioeconomic status groups (SES) contain about 20% of the total Australian population (see *Appendix 1*).

Figure 7.1 demonstrates some of the data included in the NHMD using the example of separations for admitted patients aged 60 to 64 years.

#### In 2008-09:

- there were approximately 698,000 separations for people aged 60 to 64 years
- the number of separations for people aged 60 to 64 years increased by 35.8% over the period 2004–05 to 2008–09, an average annual increase of 7.9%
- 54.1% of these separations were for males
- 52.5% of these separations were in the public sector
- the majority of separations (94.5%) had a separation mode of *Other*, suggesting that these patients went home at the end of their care
- a small proportion of separations had a separation mode of *Discharged/transferred to an(other) acute hospital* (3.4%) or *Died* (0.7%)
- the most common principal diagnosis was *Care involving dialysis*, followed by *Other medical care* (mostly for chemotherapy sessions)
- the most common Diagnosis related group (AR-DRG) was Admit for renal dialysis
- the most common procedure was Cerebral anaesthesia, followed by Haemodialysis.



#### Notes:

Abbreviations: AR-DRG—Australian Refined Diagnosis Related Group; ALOS—average length of stay; CC—complication or comorbidity; Cat— Catastrophic; Sev— Severe; W—with; W/O—without.

Figure 7.1: Data reported for separations for persons aged 60-64 years, all hospitals, 2008-09

## How has activity changed over time?

From 2007–08 to 2008–09, separations rose 3.5% to 8.15 million. Between 2004–05 and 2008–09, the number of separations rose by an average of 3.8% per year (Table 7.1). Over that period, the average annual rise in separations was higher in private hospitals than in public hospitals. For both hospital sectors, the rate and direction of change in the number of separations varied between funding sources.

Table 7.1: Separations<sup>(a)</sup> ('000s), by principal source of funds, public and private hospitals, 2004–05 to 2008–09

		Separa	tions ('000)			Change	(per cent)
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public patients <sup>(a)</sup>	3,703,459	3,866,522	4,030,707	4,081,111	4,188,501	3.1	2.6
Private health insurance	325,804	350,807	382,085	415,919	451,591	8.5	8.6
Self-funded <sup>(b)</sup>	50,741	52,085	53,385	54,765	58,226	3.5	6.3
Workers compensation	21,644	22,268	22,550	23,296	22,478	0.9	-3.5
Motor vehicle third party personal claim	20,475	21,318	21,664	21,880	23,102	3.1	5.6
Department of Veterans' Affairs	137,203	135,417	131,807	125,645	123,600	-2.6	-1.6
Other <sup>(c)</sup>	17,099	17,659	19,082	21,445	23,525	8.3	9.7
Total	4,276,425	4,466,076	4,661,280	4,744,061	4,891,023	3.4	3.1
Private hospitals							
Public patients <sup>(a)</sup>	92,278	100,092	49,095	76,227	100,619	2.2	32.0
Private health insurance	2,114,158	2,196,184	2,348,872	2,497,892	2,579,128	5.1	3.3
Self-funded <sup>(b)</sup>	260,139	273,530	260,940	267,179	278,086	1.7	4.1
Workers compensation	49,771	52,180	50,735	50,163	54,788	2.4	9.2
Motor vehicle third party personal claim	4,852	5,020	4,610	4,840	4,719	-0.7	-2.5
Department of Veterans' Affairs	208,594	207,525	213,246	205,007	203,840	-0.6	-0.6
Other <sup>(c)</sup>	12,633	11,376	14,139	28,577	36,245	30.1	26.8
Total	2,742,425	2,845,907	2,941,637	3,129,885	3,257,425	4.4	4.1
All hospitals	7,018,850	7,311,983	7,602,917	7,873,946	8,148,448	3.8	3.5

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Abbreviations: Ave—average.

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a public patient election status), *Other, No charge raised* (in private hospitals) and *Not reported*.

## How much activity was there in 2008-09?

In 2008-09, there were almost 4.9 million public hospital separations and 3.3 million private hospital separations (Table 7.2). The Australian Capital Territory and the Northern Territory do not have public psychiatric hospitals, and admitted patient data for private free-standing day hospital facilities was not available.

Table 7.2: Separations<sup>(a)</sup> ('000s) by hospital type, public and private hospitals, states and territories, 2008–09

Hospital type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute	1,500	1,379	883	466	372	94	90	95	4,880
Public psychiatric	6	0	0	1	2	1			11
Total public hospitals	1,506	1,380	883	467	375	95	90	95	4,891
Private hospitals									
Private free-standing day hospital									
facilities	203	182	208	87	47	n.p.	n.p.	n.p.	729
Other private hospitals	705	629	606	276	209	n.p.	n.p.	n.p.	2,528
Total private hospitals	907	811	814	362	256	n.p.	n.p.	n.p.	3,257
All hospitals	2,413	2,191	1,697	830	630	n.p.	n.p.	n.p.	8,148

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in Table S7.1 at the end of this chapter.

There were almost 17.9 million public hospital patient days (69% of total patient days) compared to 7.9 million private hospital patient days (Table 7.3). For private hospitals, 78% of separations and 91% of patient days were in *Other private hospitals*.

Table 7.3: Patient days ('000s) by hospital type, public and private hospitals, states and territories, 2008–09

Hospital type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute	5,885	4,455	2,954	1,588	1,490	367	293	270	17,302
Public psychiatric	229	44	119	59	109	27			587
Total public hospitals	6,114	4,500	3,073	1,647	1,599	394	293	270	17,889
Private hospitals									
Private free-standing day hospital facilities	203	182	208	87	47	n.p.	n.p.	n.p.	729
Other private hospitals	1,919	1,879	1,798	733	563	n.p.	n.p.	n.p.	7,164
Total private hospitals	2,121	2,061	2,006	820	610	n.p.	n.p.	n.p.	7,893
All hospitals	8,235	6,560	5,079	2,467	2,208	n.p.	n.p.	n.p.	25,782

Notes: See Boxes 7.1, 7.2, 7.3 for notes on data limitations and methods.

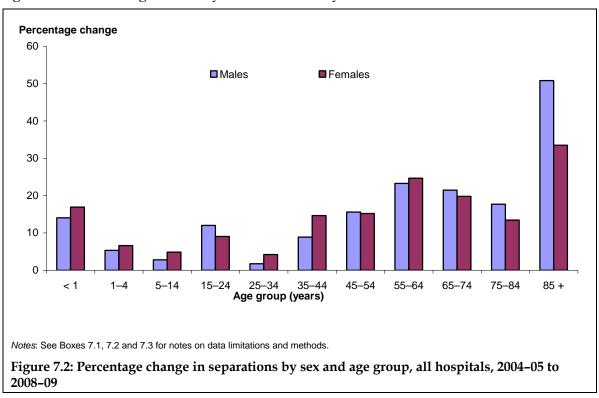
Additional information by state and territory is available in Table S7.1 at the end of this chapter.

#### Who used these services?

#### Sex and age group

#### Changes in activity by the patients' sex and age group over time

Between 2004–05 and 2008–09, the increase in separations was more marked for males than females, particularly for males aged 85 and over (Figure 7.2). The increase in separations was greatest for males aged 0 to 14 years and 55 to 84 years.



Between 2004–05 and 2008–09, patient days in public hospitals increased by 11.3% for males, and by 6.2% for females (Figure 7.3). The relative size and direction of change in patient days varied by sex and age group.

#### Sex and age group profile for 2008-09

In 2008–09, there were about 4.3 million separations for females compared with 3.9 million separations for males overall. People aged 55 years and over accounted for 52.9% of separations overall (Figure 7.4).

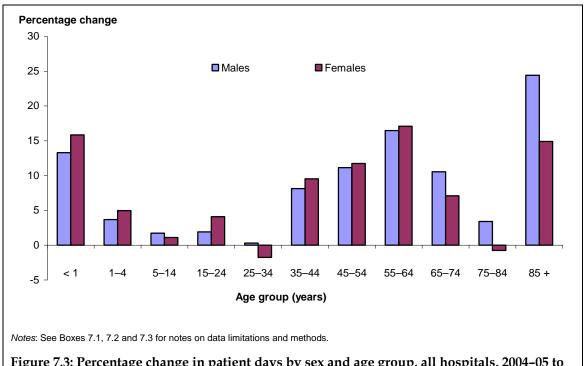
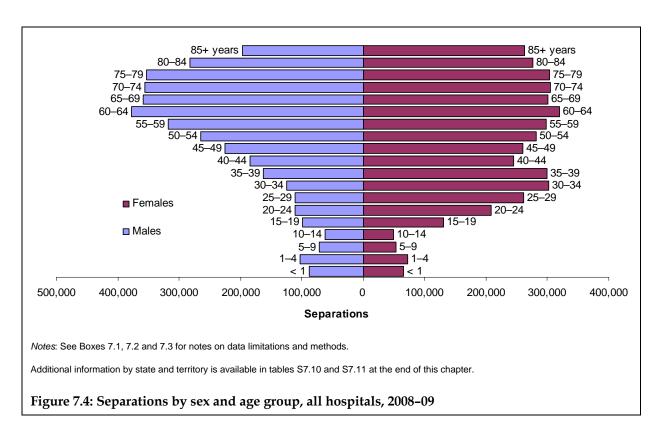
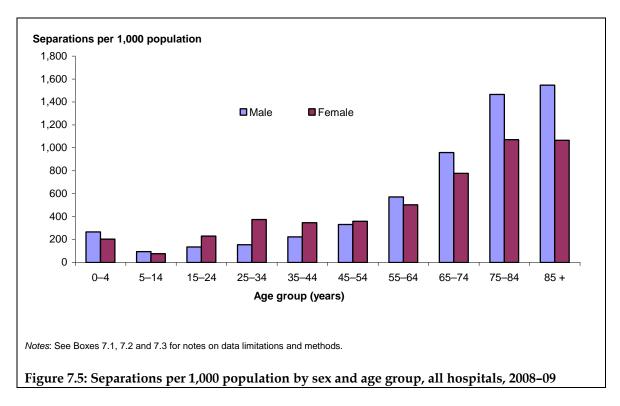


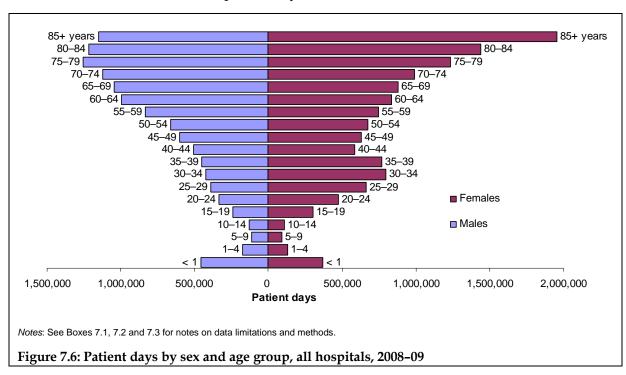
Figure 7.3: Percentage change in patient days by sex and age group, all hospitals, 2004–05 to 2008–09



There were more separations per 1,000 population for females than for males in all age groups from 15–54 years in 2008–09 (Figure 7.5). Separations rates increased with age for both males and females from the age group 55 to 64 years and above.



Females accounted for more patient days than males (Figure 7.6). People aged 55 years and over accounted for over 59% of patient days in 2008–09.



### Aboriginal and Torres Strait Islander people

#### Box 7.4: Quality of Indigenous status data

The AIHW report *Indigenous identification in hospital separations data-quality report* (AIHW 2010c) found that the level of Indigenous identification was acceptable for analysis purposes (greater than 80%) for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (public hospitals only).

Nationally, about 89% of Indigenous Australians were identified correctly in hospital admissions data in a recent study (AIHW 2010c), and the 'true' number of separations for *Indigenous Australians* was about 12% higher than reported.

Caution should be used in the interpretation of these data because of jurisdictional differences in data quality. It should also be noted that data presented for the six jurisdictions with data of acceptable quality for analysis purposes are not necessarily representative of the jurisdictions excluded. See *Appendix 1* for more information on the quality of Indigenous status data in the NHMD.

In 2008–09, there were about 291,000 separations for Aboriginal and Torres Strait Islander people. About 98% of these separations were reported for the six jurisdictions with data of sufficient quality for analysis purposes (see above and *Appendix 1*). *Other Australians* includes separations for which the Indigenous status was not reported.

#### For the six jurisdictions:

- Over 88.6% of separations for *Indigenous Australians* were reported as *Aboriginal but not Torres Strait Islander origin*, 7.8% were reported as *Torres Strait Islander but not Aboriginal origin* and 3.6% were reported as *Aboriginal and Torres Strait Islander origin*.
- Nearly 89.2% of separations for *Indigenous Australians* in 2008–09 were from the public sector (269,000), whereas 59.7% of separations for *Other Australians* were from the public sector.

In 2008–09, there were 869.8 separations per 1,000 population for *Indigenous Australians* (Figure 7.7), 2.5 times the separation rate for *Other Australians*. About four-fifths of the difference between these rates was due to higher separation rates for *Indigenous Australians* admitted for maintenance renal dialysis (see *Chapter 8*).

The Northern Territory had the highest separation rate for *Indigenous Australians* (1,656.0 separations per 1,000). In the Northern Territory, the separation rate for *Indigenous Australians* was 7.7 times the rate for *Other Australians*.

#### Under-identification of Indigenous persons

Using the national estimated Indigenous under-identification level of 89% (see above) (and assuming that the age distributions for unidentified and identified *Indigenous Australians* is similar) the 'true' number of separations for *Indigenous Australians* for 2008–09 could be estimated at about 320,000 separations. As *Other Australians* may include unidentified Aboriginal and Torres Strait Islander people, the 'true' number of *Other Australians* would be reduced, and could be estimated at about 7,536,000 separations.

Using the same method, the 'true' separation rates for *Indigenous Australians* and *Other Australians* for 2008–09 could be estimated as about 974 per 1,000 population and 352 per 1,000, respectively. These rates indicate that, after adjusting for under-identification, *Indigenous Australians* were hospitalised at about 2.8 times the rate for *Other Australians*.

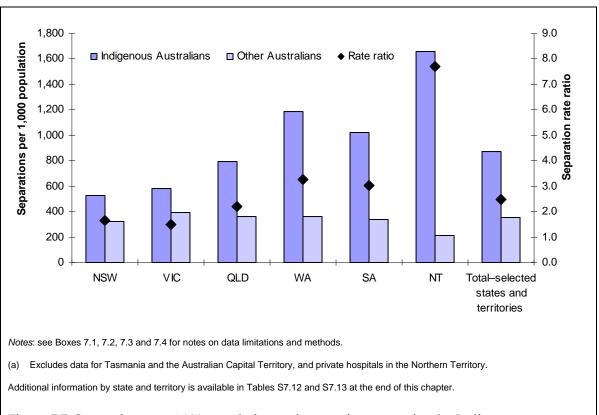


Figure 7.7: Separations per 1,000 population and separation rate ratios, by Indigenous status, selected states and territories<sup>(a)</sup>, 2008-09

#### Sex and age group

Table 7.4 presents separations for the six jurisdictions by Indigenous status, sex and age group. In 2008–09:

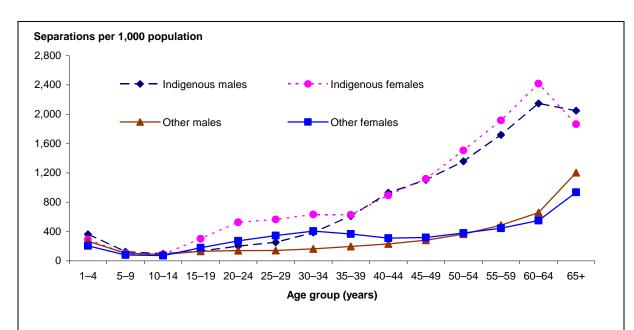
- 55.7% of separations for *Indigenous Australians* were for females, compared to 52.5% for *Other Australians*
- 11.9% of separations for *Indigenous Australians* were for people aged 65 years and over, compared with 36.5% of separations for *Other Australians*.

In 2008–09, separation rates for Indigenous males and females were higher than those for other males and females across all age groups (Figure 7.8). Separation rates for *Indigenous Australians* in older age groups are subject to variability because of the relatively small populations in these age groups.

Table 7.4: Separations by Indigenous status, sex and age group, selected states and territories<sup>(a)</sup>, 2008–09

	Indigen	Indigenous Australians				
Age group	Males	Females	Persons	Males	Females	Persons
0–4	11,686	8,975	20,661	173,921	125,447	299,368
5–9	3,965	2,996	6,961	65,559	48,608	114,167
10–14	3,129	2,659	5,788	56,868	44,865	101,733
15–19	3,967	8,442	12,409	91,827	117,563	209,390
20–24	4,607	11,726	16,333	102,371	188,877	291,248
25–29	4,743	10,626	15,369	102,380	241,481	343,861
30–34	6,465	10,856	17,321	113,204	280,175	393,379
35–39	10,154	11,362	21,516	145,912	277,015	422,927
40–44	13,428	14,028	27,456	164,683	221,416	386,099
45–49	13,494	14,966	28,460	203,834	234,640	438,474
50–54	13,435	15,973	29,408	241,144	255,157	496,301
55–59	12,394	15,458	27,852	294,026	271,538	565,564
60–64	10,665	13,743	24,408	352,502	293,902	646,404
65+	14,373	17,501	31,874	1,480,478	1,380,885	2,861,363
Total	126,506	159,311	285,817	3,588,709	3,981,573	7,570,282

(a) Excludes data for Tasmania and the Australian Capital Territory, and private hospitals in the Northern Territory.



Notes: see Boxes 7.1, 7.2, 7.3 and 7.4 for notes on data limitations and methods.

(a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

Figure 7.8: Separations per 1,000 population by sex, age group and Indigenous status, selected states and territories<sup>(a)</sup>, 2008-09

### State or territory of residence

The admitted patient care data includes information on the patient's area of usual residence, in the form of the state or territory of usual residence and the Statistical Local Area of usual residence.

Table S7.3 (at the end of this chapter) presents separations and age standardised separation rates (per 1,000 population) by both the state or territory of hospitalisation and the state or territory of usual residence of the patient. For 2008–09, about 98% of separations (7.9 million) were for people who were hospitalised in their state or territory of residence. However, in the Australian Capital Territory, only 77% of hospital separations were for Australian Capital Territory residents, with most of the remainder being residents of New South Wales.

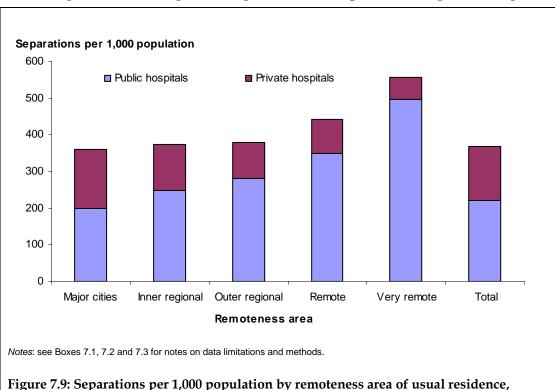
#### Remoteness area of residence

public and private hospitals, 2008-09

The Statistical Local Area of usual residence can be used to derive the patient's remoteness area of usual residence. Remoteness area categories divide Australia into areas depending on distances from population centres.

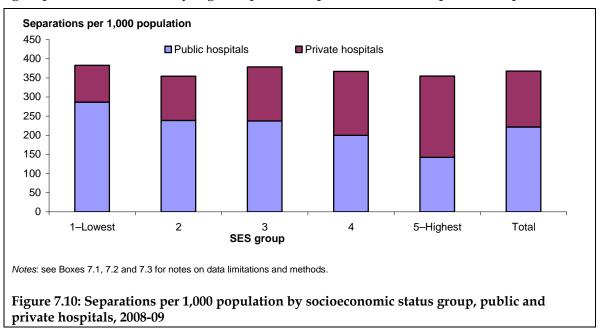
The number of separations per 1,000 population varied by remoteness area. Overall, separation rates were highest in *Remote* and *Very remote* areas, and in both instances, the difference from the national rate was statistically significant (Figure 7.9).

The separation rates for public and private sectors varied across remoteness areas. *Very remote* areas, which had the highest separation rate overall, had the highest rate for public hospital separations and the lowest rate for private hospital separations. *Major cities* had the lowest separation rate for public hospitals and the highest rate for private hospitals.

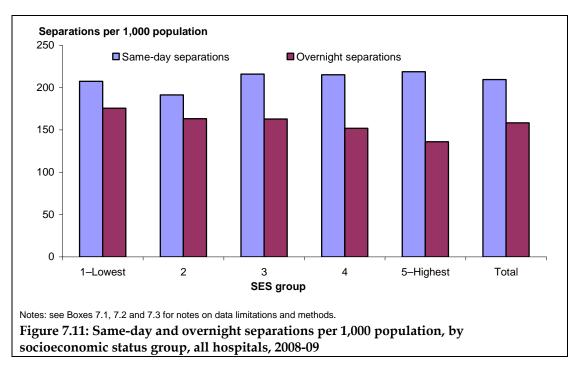


#### Socioeconomic status

In 2008–09, separation rates varied across socioeconomic status (SES) groups and between public and private hospitals (Figure 7.10). Separation rates for patients living in areas classified as the lowest SES group were slightly above the overall rate. However, for this SES group, rates were relatively high for public hospitals, and low for private hospitals.



The separation rates for same-day separations versus overnight separations varied across SES groups (Figure 7.11). The highest rate of same-day separations occurred for patients living in areas classified as being in the highest SES group and the highest rate of overnight separations occurred for patients living in areas classified as being in the lowest SES group.



# How did people access these services?

The Mode of admission records the mechanism by which an admitted patient begins an episode of care. Patients may have the following modes of admission:

- Admitted patient transferred from another hospital
- Statistical admission: care type change where a new admitted patient episode is created as
  a result of a change in the clinical intent of care (for example, a patient's care may move
  from a focus on acute care to a focus on rehabilitation or palliative care), within the same
  hospital
- Other the term used to refer to all other planned and unplanned admissions

In 2008–09, most separations in both public and private hospitals had a Mode of admission of *Other* (94.4%). Public hospitals had a higher proportion of transfers than private hospitals (4.8% and 3.0% respectively). Public hospitals also reported higher proportions of *Statistical admissions* than private hospitals (1.4% and 0.7% respectively) (Table 7.5).

Table 7.5: Separations by mode of admission, public and private hospitals, 2008-09

Mode of admission	Public hospitals	Private hospitals	Total
Admitted patient transferred from another hospital	235,311	98,230	333,541
Statistical admission: care type change	69,955	22,316	92,271
Other <sup>(a)</sup>	4,553,768	3,136,192	7,689,960
Not reported	31,989	687	32,676
Total	4,891,023	3,257,425	8,148,448

Notes: see Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in Table S7.7 at the end of this chapter.

# Why did people receive the care?

The reasons that patients receive admitted patient care are usually described in terms of the principal diagnosis. The principal diagnosis is the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care.

Where a patient has a diagnosis related to injury and poisoning, additional information is available on the cause of the injury (for example, a traffic accident or fall). In some cases, the principal diagnosis is described in terms of a treatment for an ongoing condition (for example, care involving dialysis).

### **Principal diagnosis**

In 2008–09, about a quarter of separations in public and private hospitals had a principal diagnosis in the *Factors influencing health status and contact with health services* chapter, which includes care involving dialysis and chemotherapy (Table 7.6).

The relative distribution of separations by diagnosis chapter varied across public and private hospitals. For example, over eight in ten separations for *Injury, poisoning and certain other* 

<sup>(</sup>a) Other refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

consequences of external causes were from public hospitals and over seven in ten separations for *Diseases of the eye and adnexa* were from private hospitals.

Table 7.6: Separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2008–09

-		Public	Private	
Principal d	agnosis chapter	hospitals	hospitals	Total
A00-B99	Certain infectious and parasitic diseases	101,774	17,061	118,835
C00-D48	Neoplasms	265,743	287,821	553,564
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	67,625	32,111	99,736
E00-E90	Endocrine, nutritional and metabolic diseases	101,356	62,874	164,230
F00-F99	Mental and behavioural disorders	176,721	147,343	324,064
G00-G99	Diseases of the nervous system	114,621	83,324	197,945
H00-H59	Diseases of the eye and adnexa	70,660	172,995	243,655
H60-H95	Diseases of the ear and mastoid process	29,831	26,072	55,903
100-199	Diseases of the circulatory system	314,380	159,791	474,171
J00-J99	Diseases of the respiratory system	282,008	87,325	369,333
K00-K93	Diseases of the digestive system	379,591	459,653	839,244
L00-L99	Diseases of the skin and subcutaneous tissue	91,845	40,542	132,387
M00-M99	Diseases of the musculoskeletal system and connective tissue	169,390	266,401	435,791
N00-N99	Diseases of the genitourinary system	214,574	165,180	379,754
O00-O99	Pregnancy, childbirth and the puerperium	332,013	150,427	482,440
P00-P96	Certain conditions originating in the perinatal period	44,552	12,175	56,727
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	24,983	10,199	35,182
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	370,106	173,645	543,751
S00-T98	Injury, poisoning and certain other consequences of external causes	445,815	97,414	543,229
Z00–Z99	Factors influencing health status and contact with health services	1,293,176	801,611	2,094,787
	Not reported	259	3,461	3,720
Total		4,891,023	3,257,425	8,148,448

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

#### Aboriginal and Torres Strait Islander people

Over 46% of separations for *Indigenous Australians* were for *Factors influencing health status* and contact with health services, compared to 25% for *Other Australians* (Table 7.7). *Injury,* poisoning and certain other consequences of external causes was the second most common principal diagnosis among *Indigenous Australians*, accounting for about 7.5% of separations for *Indigenous Australians*.

Table 7.7: Separations by principal diagnosis in ICD-10-AM chapters, by Indigenous status, selected states and territories<sup>(a)</sup>, 2008-09

Principal d	iagnosis chapter	Indigenous Australians	Other Australians <sup>(b)</sup>	Total <sup>(a)</sup>
A00-B99	Certain infectious and parasitic diseases	5,181	110,167	115,348
C00-D48	Neoplasms	4,129	530,990	535,119
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1,332	94,973	96,305
E00-E90	Endocrine, nutritional and metabolic diseases	5,954	151,225	157,179
F00-F99	Mental and behavioural disorders	11,646	299,388	311,034
G00-G99	Diseases of the nervous system	3,771	187,625	191,396
H00-H59	Diseases of the eye and adnexa	1,448	234,522	235,970
H60-H95	Diseases of the ear and mastoid process	2,271	51,666	53,937
100-199	Diseases of the circulatory system	8,826	446,914	455,740
J00-J99	Diseases of the respiratory system	17,097	339,555	356,652
K00-K93	Diseases of the digestive system	13,870	798,600	812,470
L00-L99	Diseases of the skin and subcutaneous tissue	6,210	121,733	127,943
M00-M99	Diseases of the musculoskeletal system and connective tissue	4,794	411,488	416,282
N00-N99	Diseases of the genitourinary system	7,016	358,430	365,446
O00-O99	Pregnancy, childbirth and the puerperium	19,629	444,737	464,366
P00-P96	Certain conditions originating in the perinatal period	2,983	51,357	54,340
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	994	32,952	33,946
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	12,479	511,779	524,258
S00-T98	Injury, poisoning and certain other consequences of external causes	21,460	500,181	521,641
Z00–Z99	Factors influencing health status and contact with health services	134,717	1,888,293	2,023,010
	Not reported	10	3,707	3,717
Total		285,817	7,570,282	7,856,099

### How many separations were due to injury and poisoning?

The number of separations with a principal diagnosis of injury or poisoning is an NHA performance indicator, recently reported in the *National Healthcare Agreement: Baseline performance report for 2008-09* (CRC 2010) using 2007–08 data.

Some hospitalisations for injury or poisoning may be considered potentially avoidable. It should also be noted that the admitted patient care data provide only a partial picture of the overall burden of injury as it does not include injuries that are treated by GPs and in the emergency department, that do not require admission to hospital.

<sup>(</sup>a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

<sup>(</sup>b) 'Other Australians' includes separations for which the Indigenous status was Not reported.

In 2008–09, approximately 543,000 separations had a principal diagnosis for *Injury, poisoning* and certain other consequences of external causes. The majority (82%) of these were treated in public hospitals (Table 7.8).

Table 7.8: Separations with a principal diagnosis of injury or poisoning, public and private hospitals, 2008–09

Principal di	agnosis	Public hospitals	Private hospitals	Total
S00-S19	Injuries to head & neck	83,526	6,685	90,211
S20-S39	Injuries to thorax, abdomen, back, spine & pelvis	39,989	5,577	45,566
S40-S99	Injuries to upper & lower limbs	195,779	49,953	245,732
T00-T19	Injuries to multi- or unspecified region; foreign body effects	9,920	1,279	11,199
T20-T35	Burns and frostbite	8,268	314	8,582
T36-T65	Poisoning and toxic effects	38,409	688	39,097
T66-T79	Other and unspecified effects of external causes	10,652	944	11,596
T80-T88	Complications of medical and surgical care	59,072	31,935	91,007
T89-T98	Other trauma complications; external cause sequelae	200	39	239
Total		445,815	97,414	543,229
Separations	s per 1,000 population	20.4	4.4	24.8

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

### Aboriginal and Torres Strait Islander people

Indigenous Australians were hospitalised with a principal diagnosis for injury and poisoning at about twice the rate for *Other Australians* (Table 7.9). *Injuries to the head and neck* accounted for almost 27% of these separations for *Indigenous Australians* and 16% for *Other Australians*. *Complications of medical and surgical care* accounted for a higher proportion of these separations for *Other Australians* compared with *Indigenous Australians*.

Table 7.9: Separations with a principal diagnosis of injury or poisoning, by Indigenous status, selected states and territories<sup>(a)</sup>, 2008–09

Principal diagnosis		Indigenous Australians	Other Australians <sup>(b)</sup>	Total <sup>(a)</sup>
S00-S19	Injuries to head & neck	5,790	81,154	86,944
S20-S39	Injuries to thorax, abdomen, back, spine & pelvis	1,545	42,338	43,883
S40-S99	Injuries to upper & lower limbs	8,586	227,194	235,780
T00-T19	Injuries to multi- or unspecified region; foreign body effects	490	10,297	10,787
T20-T35	Burns and frostbite	668	7,639	8,307
T36-T65	Poisoning and toxic effects	1,576	35,837	37,413
T66-T79	Other and unspecified effects of external causes	471	10,739	11,210
T80-T88	Complications of medical and surgical care	2,313	84,770	87,083
T89-T98	Other trauma complications; external cause sequelae	21	213	234
Total		21,460	500,181	521,641
Separation	ns per 1,000 population	22.2	11.8	12.0

<sup>(</sup>a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

<sup>(</sup>b) 'Other Australians' includes separations for which the Indigenous status was Not reported.

### What were the causes of injury and poisoning?

An external cause is defined as the environmental event, circumstance or condition that was the cause of injury, poisoning or adverse event. Whenever a patient has a principal or additional diagnosis of an injury or poisoning, an external cause code should be recorded. A place of occurrence code is also usually recorded and, for most records, the activity of the person at the time of the event should be recorded (HDSC 2006).

More information on the place of occurrence and the activity when injured are available on the Internet <www.aihw.gov.au>.

In 2008–09, there were 930,000 separations that reported an 'external cause of injury or poisoning' for either a principal or an additional diagnosis of injury or poisoning (Table7.10). About 77% of these separations were from public hospitals. The most frequently reported group of external causes in both public and private hospitals was *Complications of medical and surgical care*, followed by *Falls*. Public hospitals had higher proportions of separations with external causes of *Transport accidents*, *Intentional self-harm* and *Assault* than private hospitals.

Table 7.10: Separations, by external cause in ICD-10-AM groupings, public and private hospitals, 2008-09

External ca	use	Public hospitals	Private hospitals	Total
V00-V99	Transport accidents	63,719	7,719	71,438
W00-W19	Falls	198,567	43,044	241,611
W20-W64	Exposure to mechanical forces	81,877	10,264	92,141
W65-W74	Accidental drowning and submersion	590	18	608
W75-W84	Other accidental threats to breathing	9,634	1,336	10,970
W85–W99	Exposure to electricity, radiation, extreme temperature/pressure	1,355	204	1,559
X00-X19	Exposure to smoke, fire, flames, hot substances	8,703	414	9,117
X20-X39	Exposure to venomous plants, animals, forces of nature	5,456	367	5,823
X40-X49	Accidental poisoning	12,379	595	12,974
X50-X59	Other external causes of accidental injury	38,869	34,518	73,387
X60-X84	Intentional self-harm	30,972	787	31,759
X85-Y09	Assault	28,121	638	28,759
Y10-Y34	Events of undetermined intent	8,734	311	9,045
Y35-Y36	Legal intervention and operations of war	150	19	169
Y40-Y84	Complications of medical and surgical care	243,785	107,212	350,997
Y85-Y98	Sequelae and supplementary factors	20,923	7,754	28,677
Total		720,108	209,738	929,846

### Aboriginal and Torres Strait Islander people

Assault was the most commonly reported external cause of injury and poisoning for hospitalisations for *Indigenous Australians*. This category accounted for 20.1% of external causes reported for *Indigenous Australians* compared to 2.5% of external causes reported for *Other Australians* (Table 7.11).

Table 7.11: Separations, by external cause in ICD-10-AM groupings and Indigenous status, selected states and territories, 2008-09

External ca	use	Indigenous Australians	Other Australians <sup>(b)</sup>	Total <sup>(a)</sup>
V00-V99	Transport accidents	2,457	65,476	67,933
W00-W19	Falls	4,973	227,787	232,760
W20-W64	Exposure to mechanical forces	4,249	84,265	88,514
W65-W74	Accidental drowning and submersion	28	563	591
W75-W84	Other accidental threats to breathing	303	10,525	10,828
W85–W99	Exposure to electricity, radiation, extreme temperature/pressure	21	1,469	1,490
X00-X19	Exposure to smoke, fire, flames, hot substances	703	8,158	8,861
X20-X39	Exposure to venomous plants, animals, forces of nature	209	5,466	5,675
X40-X49	Accidental poisoning	582	11,969	12,551
X50-X59	Other external causes of accidental injury	1,926	68,814	70,740
X60-X84	Intentional self-harm	1,740	28,567	30,307
X85-Y09	Assault	6,167	21,524	27,691
Y10-Y34	Events of undetermined intent	500	8,132	8,632
Y35-Y36	Legal intervention and operations of war	16	149	165
Y40-Y84	Complications of medical and surgical care	6,785	328,994	335,779
Y85-Y98	Sequelae and supplementary factors	1,265	25,985	27,250
Total		30,729	861,347	892,076

Notes: See Boxes 7.1, 7.2 and 7.3 and 7.4 for notes on data limitations and methods.

### How many separations were potentially preventable?

#### Potentially preventable hospitalisations

The rate of potentially preventable hospitalisations (PPHs) is an NHA performance indicator, recently reported in the *National Healthcare Agreement: Baseline performance report for 2008-09* (CRC 2010) using 2007–08 data.

(PPHs) are those conditions where hospitalisation is thought to have been avoidable if timely and adequate non-hospital care had been provided. Separation rates for PPHs therefore have potential as indicators of the quality or effectiveness of non-hospital care. A high rate of PPHs may indicate an increased prevalence of the conditions in the community, poorer functioning of the non-hospital care system or an appropriate use of the hospital system to respond to greater need.

(continued)

<sup>(</sup>a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

<sup>(</sup>b) 'Other Australians' includes separations for which the Indigenous status was Not reported.

#### Potentially preventable hospitalisations (continued)

Three broad categories of PPHs have been used in this chapter. These have been sourced from *The Victorian Ambulatory Care Sensitive Conditions Study* (DHS, Victoria 2002) and are classified as:

- *Vaccine-preventable*. These diseases can be prevented by proper vaccination and include influenza, bacterial pneumonia, tetanus, measles, mumps, rubella, pertussis and polio. The conditions are considered to be preventable, rather than the hospitalisation.
- Acute. These conditions may not be preventable, but theoretically would not result in
  hospitalisation if adequate and timely care (usually non-hospital) was received. These
  include complicated appendicitis, dehydration/gastroenteritis, pyelonephritis,
  perforated ulcer, cellulitis, pelvic inflammatory disease, ear nose and throat infections
  and dental conditions.
- *Chronic*. These conditions may be preventable through behaviour modification and lifestyle change, but they can also be managed effectively through timely care (usually non-hospital) to prevent deterioration and hospitalisation. These conditions include diabetes complications, asthma, angina, hypertension, congestive heart failure and chronic obstructive pulmonary disease.

*Appendix 5* presents more information on the PPH classification.

In 2008–09, over 690,000 separations in public and private hospitals were classified as PPHs (Table 7.13). PPHs accounted for 8.5% of all hospital separations, 10.5% of public hospital separations and 5.5% of private hospital separations. Nearly three-quarters of PPHs occurred in public hospitals.

Table 7.12: Separation for potentially preventable hospitalisations (PPH), public and private hospitals, 2008–09

PPH category	Public hospitals	Private hospitals	Total
Vaccine preventable conditions	13,927	2,418	16,345
Acute conditions	217,820	80,535	298,355
Chronic conditions <sup>(a)</sup>	283,082	95,778	378,860
Diabetes complications	117,813	59,428	177,241
Chronic conditions (excluding diabetes)	178,256	38,320	216,576
Total	512,177	178,311	690,488
Proportion of total separations	10.5	5.5	8.5

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by residence state is available in Table S7.9 at the end of this chapter.

Between 2004–05 and 2007–08, PPH separations rates were relatively stable (Table 7.13). Over that period, the rate of PPH separations in Western Australia was relatively high, influenced by the recording of diabetes as an additional diagnosis when a patient with diabetes was admitted for dialysis treatment. This was not done in all jurisdictions and because dialysis

<sup>(</sup>a) As more than one chronic condition may be reported for a separation, the sum of *Diabetes complications* and *Chronic conditions* (excluding diabetes) does not necessarily equal the total number of separations for *Chronic conditions*.

may be required several times per week, the number of separations which are included in *Diabetes complications* was markedly higher than in other jurisdictions.

Between 2007–08 and 2008–09, there was a 7.9% decrease in PPHs overall, mostly due to decreases in the number of hospitalisations for *Chronic conditions* (14.8%).

Table 7.13 shows that the decrease in *Diabetes complications* conditions was much greater (28.0%) than for *Chronic conditions* overall. The decrease in *Chronic conditions* was most marked in Western Australia and Tasmania (see Table S7.9). This decline was probably due to the introduction of changes in clinical coding rules in June 2008, to ensure that additional diagnoses were only coded where they had an impact on the care given to patients. The effect was less marked in other jurisdictions.

Table 7.13: Separations per 1,000 population (age-standardised) for potentially preventable hospitalisations, by PPH category, all hospitals, 2004–05 to 2008–09

					Change (per cent)		
PPH category	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Vaccine preventable conditions	0.7	0.7	0.6	0.7	0.7	2.1	3.4
Acute conditions	12.4	12.8	13.0	13.4	13.5	2.3	1.4
Chronic conditions	18.8	18.7	19.0	19.3	16.5	-3.2	-14.8
Diabetes complications	9.8	9.9	10.4	10.7	7.7	-5.9	-28.0
Chronic conditions (excluding diabetes)	10.0	9.9	9.7	9.7	9.4	-1.6	-3.3
Total	31.7	32.1	32.5	33.3	30.6	-0.9	-7.9

Notes: See Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

For 2008–09, the overall rate of PPHs was highest for residents of *Very remote* areas (69.7 per 1,000 population) and lowest for residents of *Major cities* (28.0 per 1,000 population). This pattern was also observed for the vaccine-preventable and acute conditions (Table 7.14). For chronic conditions, the highest rates were observed for those living in *Remote* areas, who had the highest rate for *Diabetes complications*.

Separations for patients living in areas classified as being in the lowest SES group were more likely to be separated from hospital for a PPH than residents of other SES groups. The rate of PPH separations decreased with increased levels of advantage (Table 7.14).

<sup>(</sup>a) As more than one chronic condition may be reported for a separation, the sum of *Diabetes complications* and *Chronic conditions* (excluding diabetes) does not necessarily equal the total number of separations for *Chronic conditions*.

Table 7.14: Separations per 1,000 population (age-standardised) for potentially preventable hospitalisations, by remoteness area and socioeconomic status, all hospitals, 2008–09

PPH category	Vaccine- preventable conditions	Acute conditions	Total chronic conditions	Diabetes complications	Chronic conditions (excluding diabetes)	Total
Remoteness						
Major cities	0.7	12.5	15.0	6.8	8.7	28.0
Inner regional	0.7	15.2	18.0	8.5	10.2	33.8
Outer regional	0.8	16.6	20.7	9.5	12.0	38.0
Remote	1.3	23.2	39.8	25.7	15.4	64.0
Very remote	2.4	30.7	37.5	21.3	18.0	69.7
SES group						
1-Lowest	1.0	16.4	22.2	10.7	12.4	39.4
2	0.8	14.9	19.2	9.0	11.0	34.7
3	0.7	13.6	18.2	9.5	9.5	32.5
4	0.7	13.2	14.4	6.1	8.8	28.2
5-Highest	0.6	11.8	10.8	4.4	6.8	23.2
Total	0.7	14.0	16.5	8.0	9.4	30.6

# How urgent was the care?

Admissions to hospital can be categorised as *Emergency* (required within 24 hours), or *Elective* (required at some stage beyond 24 hours). Urgency of admission is *Not assigned* for some admissions, such as admissions for normal delivery and birth, statistical admissions and planned readmissions for some treatments.

Table 7.15 includes information on Urgency of admission and whether the separations were considered to be *Surgical*, *Medical* or *Other DRGs* based on the AR-DRG classification. See the section *What care did people receive?* for more information on these types of care.

In 2008–09, over a quarter of separations had an Urgency of admission of *Emergency*. Over 92% of *Emergency* admissions were in public hospitals, with about 86% of these being for *Medical* care. Private hospitals accounted for about 57% of *Elective* admissions, with 44% of these for *Surgical* care (Table 7.15). Over 15% of separations had a *Not assigned* urgency of admission.

<sup>(</sup>a) As more than one chronic condition may be reported for a separation, the sum of *Diabetes complications* and *Chronic conditions* (excluding diabetes) does not necessarily equal the total number of separations for *Chronic conditions*.

Table 7.15: Separations, by type of care<sup>(a)</sup> and urgency of admission, public and private hospitals, 2008–09

	Public hos	Public hospitals		Private hospitals		Total	
Urgency of admission and type of care	Separations	Per cent (column)	Separations	Per cent (column)	Separations	Per cent (column)	
Emergency							
Surgical	231,418	4.7	30,609	0.9	262,027	3.2	
Medical	1,737,232	35.5	125,669	3.9	1,862,901	22.9	
Other	54,994	1.1	10,800	0.3	65,794	0.8	
Total emergency	2,023,644		167,078		2,190,722		
Elective							
Surgical	659,027	13.5	1,186,080	36.4	1,845,107	22.6	
Medical	1,135,150	23.2	861,023	26.4	1,996,173	24.5	
Other	247,579	5.1	619,348	19.0	866,927	10.6	
Total elective	2,041,756		2,666,451		4,708,207		
Not assigned	825,054	16.9	407,755	12.5	1,232,809	15.1	
Not reported	569	<0.1	16,141	0.5	16,710	0.2	
Total	4,891,023	100	3,257,425	100	8,148,448	100	

Additional information by state and territory is available in Table S7.8 at the end of this chapter.

## What care was provided?

The care that the patient received can be described in a variety of ways. This section presents information describing care by:

- the overall type of care: Surgical (involving an operating room procedure), Medical (not involving a procedure) and Other (involving a non-operating room procedure such as endoscopy)
- 'Care type', which reflects the clinical intent or treatment goal of an episode
- the type of surgical or other procedure undertaken (see *chapters 8*, 9 and 11).

#### **Australian Refined Diagnosis Group**

In this section, separations are grouped according to categories of care, using the Australian Refined Diagnosis Group (AR-DRG) classification. AR-DRGs are a means of relating types of patients treated in a hospital in a meaningful way.

<sup>(</sup>a) The type of care is assigned according to the Medical/Surgical/Other partitions of the AR-DRG classification.

Acute care activity can be classified as *Medical*, *Surgical* and *Other* care. This classification is based on the *Medical*, *Surgical* and *Other* partitions of the AR-DRG classification (see Box 7.1).

Episodes are assigned to AR-DRGs within MDCs, mainly on the basis of the procedure codes (in the *Surgical* DRG partition) or the diagnosis codes (in the *Medical* DRG partition). Additional variables including the patient's age, complicating diagnoses/procedures and/or patient clinical complexity level, the length of stay, and the mode of separation are also used for AR-DRG assignment.

#### Medical, Surgical and Other care

In 2008–09, about 18% of separations in public hospitals were for *Surgical* care and 59% were for *Medical* care, compared to 37% and 30% in private hospitals, respectively (Table 7.15). Overall, *Medical* care accounted for 47% of separations and *Surgical* care accounted for 26% of separations.

#### Care type

The care type describes the overall nature of a clinical service provided to an admitted patient during an episode of care.

The care type can be classified as *Acute care*, *Rehabilitation care*, *Palliative care*, *Geriatric evaluation and management*, *Psychogeriatric care*, *Maintenance care*, *Newborn care* and *Other admitted patient care*.

For public and private sectors combined, 95.4% of separations were classified as episodes of *Acute care*, 3.5% as *Newborn* and 2.6% as *Rehabilitation care* (Table 7.16). Public and private sectors varied in the proportions of separations and the separation rates for each care type. The proportion of patient days, and days per 1,000 population varied for each care type and between public and private sectors.

In public hospitals, the average length of stay for episodes of *Acute care* (3.1 days) was longer than that for private hospitals (2.2 days). The average length of stay for *Rehabilitation care* was 18.1 days in public hospitals, and 5.6 days in private hospitals. In part, this reflects a high proportion of same-day rehabilitation separations in the private sector, as well as a number of very long stay rehabilitation separations in the public sector. More information on subacute and non-acute care is available in *Chapter 11*.

Table 7.16: Selected separations statistics by care type, public and private hospitals, 2008-09

Care type and sector	Separations	Separations per 1,000 population	Patient days	Days per 1,000 population	Average length of stay
Public hospitals					
Acute care	4,689,915	212.8	14,399,657	646.3	3.1
Newborn total	215,619	10.4	444,324	40.1	2.1
Newborn with qualified days only	45,968	2.2	406,053	19.5	8.8
Newborn with a mixture of qualified days and unqualified days <sup>(a)</sup>	10,308	0.5	38,271	1.8	3.7
Rehabilitation care	77,875	3.4	1,413,375	61.6	18.1
Other non-acute care <sup>(b)</sup>	66,957	2.8	1,631,826	69.5	24.4
Total <sup>(c)</sup>	4,891,023	221.8	17,889,182	798.7	3.7
Private hospitals					
Acute care	3,087,308	138.4	6,846,149	303.3	2.2
Newborn total	60,151	2.9	106,418	13.6	1.8
Newborn with qualified days only	15,581	0.7	97,695	4.7	6.3
Newborn with a mixture of qualified days and unqualified days <sup>(a)</sup>	2,334	0.1	8,723	0.4	3.7
Rehabilitation care	137,946	6.0	771,272	32.8	5.6
Other non-acute care <sup>(b)</sup>	14,256	0.6	169,090	7.1	11.9
Total <sup>(c)</sup>	3,257,425	145.9	7,892,929	348.4	2.4
Total	8,148,448	367.6	25,782,111	1,147.2	3.2

Additional information by state and territory is available in tables S7.3 and S7.4 at the end of this chapter.

#### What was the cost of the care?

### Admitted patient expenditure—public hospitals

In 2008–09, approximately \$22 billion was expended on admitted patient services in public hospitals (Table 7.17). This figure is based on the total expenditure reported for public hospitals, multiplied by the estimated 'admitted patient cost proportion' provided for each public hospital, see *chapters* 3 and 4 for more information.

<sup>(</sup>a) For Newborns with a mixture of qualified and unqualified days, the number of patient days includes only the qualified days for these separations. Unqualified days for these separations are not included in counts of patient days in this report.

<sup>(</sup>b) Includes separations for Palliative care, Geriatric evaluation and management, Psychogeriatric care, Maintenance care and Other admitted patient care.

<sup>(</sup>c) The totals do not include separations and unqualified days for *Newborns with no qualified days*. For information on *Newborns with no qualified days*, see tables S7.3 and S7.4.

Table 7.17: Estimated expenditure on admitted patient care (\$'000,000), public hospitals, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
				\$'	000,000				
Total expenditure	10,209	7,912	5,755	3,258	2,467	693	586	442	31,322
Estimated admitted patient cost proportion <sup>(a)</sup>	0.69	0.71	0.70	0.69	0.70	0.69	0.68	0.80	0.70
Estimated admitted patient expenditure <sup>(b)</sup>	7,062	5,675	4,005	2,269	1,761	467	399	354	21,993

#### **Cost weights**

The cost estimates for admitted patient care are approximations of the relative costs of hospital services during 2008–09. They should be used with caution in any comparisons between the states and territories. They are not derived from, or comparable to, the expenditure and cost per casemix-adjusted separation information presented in *chapters 3 and 4*.

Estimated total admitted patient costs are not directly comparable between public and private hospitals. Private hospital treatment may include medical, pharmacy, and pathology costs that are not included in existing private hospital cost information. These costs are included in public hospital cost information.

The 'cost weight' for a separation is the ratio of the estimated average cost for the separation (based on the reported AR-DRG version 5.2) compared to the average cost for all acute separations. For 2008–09, the 2007–08 AR-DRG (version 5.1) cost weights obtained from the National Hospital Cost Data Collection (NHCDC) (DoHA 2009) were applied to each separation. Separate cost weights are estimated for the public and private sectors because of the differences in the range of costs recorded in public and private hospitals.

The average relative cost for admitted patient care varied across the public and private sectors. In public hospitals, separations for *Public patients* generally had lower average costs weights than other patients. In private hospitals, *Self-funded* separations had lower average costs than other separations (Table 7.18). In both sectors overall, separations funded by *Motor vehicle third party personal claim* had higher average cost weights than most other separations.

#### Cost by volume

An estimate of expenditure in public and private hospitals can be made using AR-DRGs and related cost information. The NHCDC provided estimates of average costs for each separation for an AR-DRG with a cost weight of 1.00-\$3,907 in the public sector (including depreciation) and 1.00-\$2,895 in the private sector (based on 2007–08 AR-DRGs version 5.1, DoHA 2009).

<sup>(</sup>a) Estimated admitted patient cost proportion is based on the mean of reported admitted patient cost proportions for all benchmarking hospitals in the state or territory.

<sup>(</sup>b) Admitted patient expenditure includes estimated expenditure on non-benchmarking hospitals (see Chapter 3) in the state or territory.

Table 7.18: Average cost weight of separations, by funding source, public and private hospitals, states and territories, 2008–09

Funding source	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public patients <sup>(a)</sup>	1.04	0.94	1.00	0.94	1.08	1.05	0.97	0.67	0.99
Private health insurance	1.13	1.07	0.95	1.32	1.24	0.91	1.46	1.24	1.12
Self-funded <sup>(b)</sup>	1.21	0.74	1.04	0.83	0.82	n.a.	1.27	1.01	1.03
Workers compensation	1.31	1.19	1.32	1.29	1.21	1.21	1.48	1.16	1.27
Motor vehicle third party personal claim	1.89	2.20	2.30	2.70	2.21	2.24	3.57	2.54	2.23
Department of Veterans' Affairs	1.20	1.13	1.13	1.19	1.32	1.15	0.83	1.14	1.17
Other <sup>(c)</sup>	1.53	1.23	1.11	1.44	1.02	1.13	0.98	1.34	1.26
Total	1.07	0.97	1.00	0.98	1.10	1.05	1.00	0.70	1.01
Private hospitals									
Public patients <sup>(a)</sup>	1.14	1.17	0.56	0.17	0.31	n.p.	n.p.	n.p.	0.40
Private health insurance	0.86	0.83	0.83	0.86	0.88	n.p.	n.p.	n.p.	0.85
Self-funded <sup>(b)</sup>	0.63	0.46	0.49	0.58	0.61	n.p.	n.p.	n.p.	0.54
Workers compensation	1.15	1.12	0.96	1.00	1.13	n.p.	n.p.	n.p.	1.08
Motor vehicle third party personal claim	1.12	1.12	1.31	1.02	1.14	n.p.	n.p.	n.p.	1.12
Department of Veterans' Affairs	1.16	1.13	0.93	1.09	1.11	n.p.	n.p.	n.p.	1.05
Other <sup>(c)</sup>	0.99	0.55	0.40	0.47	0.68	n.p.	n.p.	n.p.	0.73
Total	0.86	0.81	0.80	0.76	0.88	n.p.	n.p.	n.p.	0.82

The cost by volume figures in Table 7.19 were derived for each version 5.2 AR-DRG by multiplying the estimated average cost for the AR-DRG by the number of acute separations for the AR-DRG. The cost estimates for all of the AR-DRGs within a given Major Diagnostic Category (MDC) were then summed to produce an estimated cost for the MDC. It should be noted that the estimates in Table 7.19 do not include the costs for sub-acute and non-acute separations. The cost estimates in that table do not reconcile with those presented for total admitted patient care in public hospitals due to different estimation methods.

For 2008–09, the total estimated costs for acute admitted patient care were \$18.8 billion in public hospitals and \$7.4 billion in private hospitals (Table 7.19). The highest cost by volume MDC in both the public and private sector was *Diseases and disorders of the musculoskeletal system and connective tissue* (over \$2,216 million and \$1,697 million, respectively), *Medical DRGs* accounted for 53% of the estimated costs in public hospitals and 26% in private hospitals. *Surgical DRGs* accounted for 42% of the estimated costs in public hospitals and about 65% in private hospitals.

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a Public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a *Public* patient election status), *Other*, *No charge raised* (in private hospitals) and *Not reported*.

Table 7.19: Separations and cost statistics, by Major Diagnostic Category version 5.2 and *Medical/Surgical/Other* partition, public and private hospitals, 2008–09

		Public ho	spitals	Private ho	spitals
	_		Cost by		Cost by
			volume		volume
Majo	or Diagnostic Category	Separations	(\$'000) <sup>(b)</sup>	Separations	(\$'000) <sup>(c)</sup>
PR	Pre-MDC (tracheostomies, transplants, ECMO)	11,991	1,010,703	1,470	111,377
01	Diseases and disorders of the nervous system	234,533	1,237,283	65,556	245,375
02	Diseases and disorders of the eye	95,559	251,555	199,635	304,981
03	Diseases and disorders of the ear, nose, mouth and throat	181,384	487,319	210,104	314,722
04	Diseases and disorders of the respiratory system	273,761	1,450,547	87,930	241,133
05	Diseases and disorders of the circulatory system	397,341	2,034,401	156,716	1,025,924
06	Diseases and disorders of the digestive system	477,024	1,671,451	518,475	723,247
07	Diseases and disorders of the hepatobiliary system and pancreas	87,816	509,976	33,760	131,559
80	Diseases and disorders of the musculoskeletal system and connective tissue	361,223	2,216,138	332,831	1,697,060
09	Diseases and disorders of the skin, subcutaneous tissue and breast	180,000	632,368	171,871	346,513
10	Endocrine, nutritional and metabolic diseases and disorders	72,585	414,537	43,497	201,488
11	Diseases and disorders of the kidney and urinary tract	1,032,935	1,147,950	271,340	256,081
12	Diseases and disorders of the male reproductive system	45,878	169,579	67,204	155,271
13	Diseases and disorders of the female reproductive system	111,437	387,358	158,983	272,798
14	Pregnancy, childbirth and puerperium	350,337	1,379,651	153,225	469,916
15	Newborns and other neonates	65,895	615,999	19,855	59,008
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	77,354	192,507	35,694	50,297
17	Neoplastic disorders (haematological and solid neoplasms)	178,633	449,412	216,088	160,184
18	Infectious and parasitic diseases	58,277	360,015	12,329	57,680
19	Mental diseases and disorders	130,242	1,076,818	118,004	247,999
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	34,123	107,825	24,607	47,706
21	Injuries, poisoning and toxic effects of drugs	147,181	591,845	22,963	68,573
22	Burns	8,341	74,012	369	1,403
23	Factors influencing health status and other contacts with health services	127,491	252,221	175,358	137,953
ED	Error DRGs <sup>(d)</sup>	4,859	66,899	7,445	45,465
	Surgical DRGs	947,168	7,826,304	1,270,484	4,819,444
	Medical DRGs	3,490,801	10,025,656	1,188,310	1,939,667
	Other DRGs	308,231	936,412	646,515	614,603
Tota		4,746,200	18,788,372	3,105,309	7,373,713
ıota	1	4,740,200	10,100,312	3,103,309	1,313,113

Abbreviations: ALOS—average length of stay; MDC—Major Diagnostic Category; DRG—Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation.

<sup>(</sup>a) Separations for which the care type was reported as Acute, or Newborn with qualified patient days, or Not reported.

<sup>(</sup>b) Cost by volume for public hospitals is based on the 2007–08 AR-DRG version 5.1 average public hospital cost estimates applied to AR-DRG version 5.2.

<sup>(</sup>c) Cost by volume for private hospitals is based on the 2007–08 AR-DRG version 5.1 average private hospital cost estimates applied to AR-DRG version 5.2.

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### Who paid for the care?

The Principal funding source describes the principal source of funds for the admitted patient episode.

There may be some variation between jurisdictions in the definitions of funding source categories and in the way in which state- or territory- level information were mapped to the *National health data dictionary* domain values (see *Appendix 1*).

In 2008–09, almost 86% of separations in public hospitals were for *Public patients*, compared to about 3% in private hospitals. Over 79% of private hospital separations were funded by *Private health insurance* (Table 7.20).

Table 7.20: Separations, by principal source of funds, public and private hospitals, 2008-09

Funding source	Public hospitals	Private hospitals	Total
Public patients <sup>(a)</sup>	4,188,501	100,619	4,289,120
Private health insurance	451,591	2,579,128	3,030,719
Self-funded <sup>(b)</sup>	58,226	278,086	336,312
Workers compensation	22,478	54,788	77,266
Motor vehicle third party personal claim	23,102	4,719	27,821
Department of Veterans' Affairs	122,656	198,277	320,933
Other <sup>(c)</sup>	24,469	41,808	66,277
Total	4,891,023	3,257,425	8,148,448

Notes: See Boxes 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in tables S7.2 and S7.3 at the end of this chapter.

# How much care was contracted between hospitals?

Inter-hospital contracted patient separations are episodes of care for an admitted patient whose treatment and/or care is provided under an arrangement between a hospital purchaser of hospital care and a provider of an admitted service and for which the activity is recorded by both hospitals (HDSC 2006).

These data should be interpreted with caution as the activity reported here includes separations under contract between hospitals, but does not include separations under contract between private hospitals and the jurisdiction or between private hospitals and regional or area health services.

As inter-hospital contracted patients are admitted patients of both the contracting and contracted hospital, these separations may represent double-counting of hospital activity in the NHMD.

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a Public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a *Public* patient election status), *Other*, *No charge raised* (in private hospitals) and *Not reported*.

In 2008–09, there were over 62,000 separations for inter-hospital contracted patients (Table 7.21). The total number of inter-hospital contracted patients was higher for private hospitals than for public hospitals. Over 95% (45,300 separations) of contracted care provided by private hospitals was purchased by public hospitals.

Table 7.21: Separations, by inter-hospital contracted patient status, public and private hospitals, 2008–09

Contracted patient status	Public hospitals	Private hospitals	Total
Inter-hospital contracted patient from public sector	10,233	45,334	55,567
Inter-hospital contracted patient from private sector	4,290	2,299	6,589
Not inter-hospital contracted patient	4,804,430	3,169,850	7,974,280
Not reported	72,070	39,942	112,012
Total	4,891,023	3,257,425	8,148,448

Notes: see Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in Table S7.15 at the end of this chapter.

### How much hospital care was provided in the patient's home?

Most states and territories have hospital-in-the-home (HITH) programs under which admitted patients are provided with hospital care in the home. This care has been defined as occurring in the patient's (permanent or temporary) place of residence as a substitute for hospital accommodation, and within an episode of care for an admitted patient (HDSC 2006). Two jurisdictions (NSW and Tasmania) did not provide information on HITH activity to the NHMD. Hospital-in-the-home days are counted as patient days in the data presented in this report (see Table S7.14 at the end of this chapter).

# How long did patients stay?

In 2008–09, public hospitals accounted for 60% of separations and 69% of patient days. The average length of stay per separation was higher in the public sector, at 3.7 days, compared to 2.4 days in the private sector. Same-day separations accounted for 50% of public hospital separations and 67% of private hospital separations. The average length of stay for overnight separations was 6.0 days overall, 6.3 days in public hospitals and 5.3 in private hospitals (Table 7.22).

Table 7.22 Average length of stay, public and private hospitals, 2008-09

Hospital type	Separations	Same-day separations	Patient days	Average length of stay (ALOS)	ALOS (excluding same-day)
Public hospitals	4,891,023	2,460,879	17,889,182	3.7	6.3
Private hospitals	3,257,425	2,183,666	7,892,929	2.4	5.3
Total	8,148,448	4,644,545	25,782,111	3.2	6.0

Notes : see Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in table S7.2 and S7.3 at the end of this chapter.

### How was the care completed?

The Mode of separation records the status of the patient at the time of separation and, for some categories, the place to which the person was discharged or transferred.

About 92% of separations (7.5 million) were included in the *Other* category, suggesting that most patients go home after their episode of care (Table 7.23). This was particularly the case in the private sector, where 97.1% of separations (3.2 million) were categorised as *Other*, compared with 88.8% (4.3 million) in the public sector.

There is a discrepancy between the number of separations with a Mode of separation of *Discharge/transfer to an (other) hospital (acute and psychiatric)* (344,000; see Table 7.23) and the number of separations with a Mode of admission of *Admitted patient transferred from another hospital* (320,000; see Table 7.4). This may indicate that not all patients who are transferred from one hospital to another are having this recorded as their Mode of admission, or that some patients were admitted and separated in different reporting years.

Table 7.23: Separations, by mode of separation, public and private hospitals, 2008-09

Mode of separation	Public hospitals	Private hospitals	Total
Discharge/transfer to an (other) acute hospital	292,660	56,120	348,780
Discharge/transfer to residential aged care service <sup>(a)</sup>	56,504	8,480	64,984
Discharge/transfer to an (other) psychiatric hospital	6,254	215	6,469
Discharge/transfer to other health care accommodation	13,624	2,077	15,701
Statistical discharge: type change	70,258	12,286	82,544
Left against medical advice/discharge at own risk	39,360	1,870	41,230
Statistical discharge from leave	6,440	142	6,582
Died	60,850	13,530	74,380
Other <sup>(b)</sup>	4,345,061	3,162,690	7,507,751
Not reported	12	15	27
Total	4,891,023	3,257,425	8,148,448

Notes: see Boxes 7.1, 7.2 and 7.3 for notes on data limitations and methods.

Additional information by state and territory is available in Table S7.13 at the end of this chapter.

# **Additional information**

More detailed information on admitted patient care, including data by state and territory for principal diagnoses and procedures, is provided on the accompanying CD and Internet at <www.aihw.gov.au>.

<sup>(</sup>a) Unless this is the usual place of residence.

<sup>(</sup>b) Includes discharge to usual residence/own accommodation/welfare institution (including prisons, hostels and group homes providing primarily welfare services).

# Supplementary tables

The following supplementary tables provide more information on administrative data such as funding source, care type, sex and age group, Indigneous status data, modes of admission and separation, urgency of admission, inter-hospital contracted patients and hospital-in-the-home care by state and territory.

### Box 7.4 Methods – Chapter 7 supplementary tables

#### Table S7.4

- (a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.
- (b) Separation rates were directly age-standardised as detailed in *Appendix* 1.
- (c) Includes Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory.
- (d) Includes resident overseas, at sea, no fixed address.

#### Tables S7.5 and S7.6

- (a) The reporting of *Newborns with unqualified days only* is not compulsory for the Victorian private sector, resulting in a low number of separations in this category.
- (b) Tasmania and the Northern Territory did not supply *Newborn* care according to the *National health data dictionary definition* and did not report any separations with both qualified and unqualified days.
- (c) Total separations and patient days exclude unqualified days for *Newborns*.

#### Table S7.7:

(b) *Other* refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

#### Tables S7.11 and S7.12:

- (b) Identification of Indigenous patients is not considered to be complete and completeness varies among the jurisdictions. See *Appendix 1* for further detail.
- (c) Excludes data for Tasmania and the Australian Capital Territory. See Box 7.4 for more information. Caution should be used in the interpretation of these data because of jurisdictional differences in data quality.
- (d) Rates per 1,000 population were directly age-standardised as detailed in *Appendix 1*, and separation rate for *Other Australians* includes Indigenous status *Not reported*.
- (e) The rate ratio is equal to the separation rate for *Indigenous Australians* divided by the separation rate for *Other Australians*.

Table S7.1: Summary of separation, average cost weight, patient day and average length of stay statistics, by hospital type, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations <sup>(a)</sup>									
Public hospitals	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023
Public acute hospitals	1,500,020	1,379,132	882,933	465,971	372,401	94,226	89,869	95,356	4,879,908
Public psychiatric hospitals	5,949	492	407	1,462	2,139	666	0	0	11,115
Private hospitals	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425
Private free-standing day hospital facilities	202,544	181,631	208,048	86,596	46,609	n.p.	n.p.	n.p.	729,162
Other private hospitals <sup>(b)</sup>	704,670	629,389	605,893	275,566	208,891	n.p.	n.p.	n.p.	2,528,263
Public acute and private hospitals	2,407,234	2,190,152	1,696,874	828,133	627,901	n.p.	n.p.	n.p.	8,137,333
Total	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	8,148,448
Overnight separations <sup>(a)</sup>									
Public hospitals	844,105	590,087	440,246	227,217	206,420	45,360	41,176	35,533	2,430,144
Public acute hospitals	838,343	589,596	439,839	225,833	204,644	44,700	41,176	35,533	2,419,664
Public psychiatric hospitals	5,762	491	407	1,384	1,776	660	0	0	10,480
Private hospitals	277,995	274,134	264,426	118,883	92,977	n.p.	n.p.	n.p.	1,073,759
Private free-standing day hospital facilities	0	85	0	1,160	0	n.p.	n.p.	n.p.	1,247
Other private hospitals <sup>(b)</sup>	277,995	274,049	264,426	117,723	92,977	n.p.	n.p.	n.p.	1,072,512
Public acute and private hospitals	1,116,338	863,730	704,265	344,716	297,621	n.p.	n.p.	n.p.	3,493,423
Total	1,122,100	864,221	704,672	346,100	299,397	n.p.	n.p.	n.p.	3,503,903
Same-day separations <sup>(a)</sup>									
Public hospitals	661,864	789,537	443,094	240,216	168,120	49,532	48,693	59,823	2,460,879
Public acute hospitals	661,677	789,536	443,094	240,138	167,757	49,526	48,693	59,823	2,460,244
Public psychiatric hospitals	187	1	0	78	363	6	0	0	635
Private hospitals <sup>(b)</sup> Private free-standing day hospital	629,219	536,886	549,515	243,279	162,523	n.p.	n.p.	n.p.	2,183,666
facilities	202,544	181,546	208,048	85,436	46,609	n.p.	n.p.	n.p.	727,915
Other private hospitals <sup>(b)</sup>	426,675	355,340	341,467	157,843	115,914	n.p.	n.p.	n.p.	1,455,751
Public acute and private hospitals	1,290,896	1,326,422	992,609	483,417	330,280	n.p.	n.p.	n.p.	4,643,910
Total	1,291,083	1,326,423	992,609	483,495	330,643	n.p.	n.p.	n.p.	4,644,545
									(continued)

Table S7.1 (continued): Summary of separations, average cost weight, patient day and average length of stay statistics, by hospital type, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Same-day separations as a % of total									
Public hospitals	43.9	57.2	50.2	51.4	44.9	52.2	54.2	62.7	50.3
Public acute hospitals	44.1	57.2	50.2	51.5	45.0	52.6	54.2	62.7	50.4
Public psychiatric hospitals	3.1	0.2	0.0	5.3	17.0	0.9			5.7
Private hospitals <sup>(b)</sup>	69.4	66.2	67.5	67.2	63.6	n.p.	n.p.	n.p.	67.0
Private free-standing day hospital facilities	100.0	100.0	100.0	98.7	100.0	n.p.	n.p.	n.p.	99.8
Other private hospitals <sup>(b)</sup>	60.5	56.5	56.4	57.3	55.5	n.p.	n.p.	n.p.	57.6
Public acute and private hospitals	53.6	60.6	58.5	58.4	52.6	n.p.	n.p.	n.p.	57.1
Total	53.5	60.5	58.5	58.3	52.5	n.p.	n.p.	n.p.	57.0
Separations per 1,000 population <sup>(c)</sup>									
Public hospitals	204.2	247.3	202.1	212.6	216.3	179.0	275.4	487.9	219.3
Public acute hospitals	203.4	247.2	202.0	212.0	215.1	177.7	275.4	487.9	218.8
Public psychiatric hospitals	0.9	0.1	0.1	0.7	1.3	1.3			0.5
Private hospitals <sup>(b)</sup>	122.1	144.0	184.4	163.0	142.5	n.p.	n.p.	n.p.	144.3
Private free-standing day hospital facilities	27.4	32.2	47.2	39.0	25.8	n.p.	n.p.	n.p.	32.4
Other private hospitals <sup>(b)</sup>	94.7	111.7	137.3	123.9	116.7	n.p.	n.p.	n.p.	111.9
Public acute and private hospitals	325.5	391.1	386.5	374.9	357.5	n.p.	n.p.	n.p.	363.1
Total	326.4	391.2	386.5	375.6	358.8	n.p.	n.p.	n.p.	363.6
Average public cost weight of separations <sup>(d)</sup>									
Public hospitals	1.07	0.97	1.00	0.98	1.10	1.05	1.00	0.70	1.01
Public acute hospitals	1.06	0.97	1.00	0.97	1.09	1.04	1.00	0.70	1.01
Public psychiatric hospitals	2.69	3.86	4.37	3.20	3.21	2.45			2.91
Private hospitals <sup>(b)</sup>	0.93	0.89	0.88	0.83	0.96	n.p.	n.p.	n.p.	0.90
Private free-standing day hospital facilities	0.55	0.41	0.48	0.34	0.46	n.p.	n.p.	n.p.	0.47
Other private hospitals <sup>(b)</sup>	1.06	1.03	1.02	0.99	1.08	n.p.	n.p.	n.p.	1.03
Public acute and private hospitals	1.02	0.94	0.94	0.91	1.04	n.p.	n.p.	n.p.	0.97
Total	1.02	0.94	0.94	0.91	1.04	n.p.	n.p.	n.p.	0.97

(continued)

Table S7.1 (continued): Summary of separations, average cost weight, patient day and average length of stay statistics, by hospital type, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Average private cost weight of separations <sup>(e)</sup>									
Private hospitals <sup>(b)</sup>	0.86	0.81	0.80	0.76	0.88	n.p.	n.p.	n.p.	0.82
Private free-standing day hospital facilities	0.42	0.30	0.35	0.26	0.34	n.p.	n.p.	n.p.	0.35
Other private hospitals <sup>(b)</sup>	1.00	0.96	0.96	0.91	1.00	n.p.	n.p.	n.p.	0.97
Patient days									
Public hospitals	6,114,244	4,499,508	3,072,713	1,647,019	1,598,610	394,285	292,947	269,856	17,889,182
Public acute hospitals	5,884,963	4,455,411	2,953,505	1,588,188	1,489,687	367,287	292,947	269,856	17,301,844
Public psychiatric hospitals	229,281	44,097	119,208	58,831	108,923	26,998			587,338
Private hospitals <sup>(b)</sup>	2,121,237	2,060,800	2,005,809	819,851	609,747	n.p.	n.p.	n.p.	7,892,929
Private free-standing day hospital facilities	202,544	181,692	208,048	86,596	46,609	n.p.	n.p.	n.p.	729,223
Other private hospitals <sup>(b)</sup>	1,918,693	1,879,108	1,797,761	733,255	563,138	n.p.	n.p.	n.p.	7,163,706
Public acute and private hospitals	8,006,200	6,516,211	4,959,314	2,408,039	2,099,434	n.p.	n.p.	n.p.	25,194,773
Total	8,235,481	6,560,308	5,078,522	2,466,870	2,208,357	n.p.	n.p.	n.p.	25,782,111
Patient days per 1,000 population <sup>(c)</sup>									
Public hospitals	810.6	789.5	702.0	751.2	871.8	713.3	909.0	1,543.0	789.3
Public acute hospitals	778.4	781.2	674.4	724.6	810.3	662.7	909.0	1,543.0	762.4
Public psychiatric hospitals	32.2	8.3	27.6	26.5	61.5	50.6			27.0
Private hospitals <sup>(b)</sup>	279.8	358.4	454.4	371.6	326.1	n.p.	n.p.	n.p.	344.3
Private free-standing day hospital facilities	27.4	32.3	47.2	39.0	25.8	n.p.	n.p.	n.p.	32.4
Other private hospitals <sup>(b)</sup>	252.4	326.1	407.2	332.5	300.4	n.p.	n.p.	n.p.	311.9
Public acute and private hospitals	1,058.2	1,139.6	1,128.8	1,096.2	1,136.5	n.p.	n.p.	n.p.	1,106.7
Total	1,090.4	1,147.9	1,156.4	1,122.8	1,198.0	n.p.	n.p.	n.p.	1,133.7

(continued)

Table S7.1 (continued): Summary of separations, average cost weight, patient day and average length of stay statistics, by hospital type, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Average length of stay (days)									
Public hospitals	4.1	3.3	3.5	3.5	4.3	4.2	3.3	2.8	3.7
Public acute hospitals	3.9	3.2	3.3	3.4	4.0	3.9	3.3	2.8	3.5
Public psychiatric hospitals <sup>(f)</sup>	38.5	89.6	292.9	40.2	50.9	40.5			52.8
Private hospitals <sup>(b)</sup>	2.3	2.5	2.5	2.3	2.4	n.p.	n.p.	n.p.	2.4
Private free-standing day hospital facilities	1.0	1.0	1.0	1.0	1.0	n.p.	n.p.	n.p.	1.0
Other private hospitals <sup>(b)</sup>	2.7	3.0	3.0	2.7	2.7	n.p.	n.p.	n.p.	2.8
Public acute and private hospitals	3.3	3.0	2.9	2.9	3.3	n.p.	n.p.	n.p.	3.1
Total	3.4	3.0	3.0	3.0	3.5	n.p.	n.p.	n.p.	3.2
Average length of stay, excluding same-day se	parations (days)								
Public hospitals	6.5	6.3	6.0	6.2	6.9	7.6	5.9	5.9	6.3
Public acute hospitals	6.2	6.2	5.7	6.0	6.5	7.1	5.9	5.9	6.1
Public psychiatric hospitals <sup>(f)</sup>	39.8	89.8	292.9	42.5	61.1	40.9			56.0
Private hospitals <sup>(b)</sup>	5.4	5.6	5.5	4.8	4.8	n.p.	n.p.	n.p.	5.3
Private free-standing day hospital facilities		1.7		1.0		n.p.	n.p.	n.p.	1.0
Other private hospitals <sup>(b)</sup>	5.4	5.6	5.5	4.9	4.8	n.p.	n.p.	n.p.	5.3
Public acute and private hospitals	6.0	6.0	5.6	5.6	5.9	n.p.	n.p.	n.p.	5.9
Total	6.2	6.1	5.8	5.7	6.3	n.p.	n.p.	n.p.	6.0

<sup>(</sup>a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.

<sup>(</sup>b) Includes private psychiatric hospitals.

<sup>(</sup>c) Figures are directly age-standardised to the June 2001 Australian population as detailed in Appendix 1.

<sup>(</sup>d) Separations for which the care type was reported as *Acut*e, or as *Newborn with qualified patient days*, or was *Not reported*. AR-DRG version 5.1 national public sector estimated cost weights 2007–08 were applied to AR-DRG version 5.2 DRGs for all rows in Average public cost weight of separations.

<sup>(</sup>e) Separations for which the care type was reported as *Acute*, or as *Newborn with qualified patient days*, or was *Not reported*. AR-DRG version 5.1 national private sector estimated cost weights for 2007–08 were applied to AR-DRG version 5.2 DRGs for all rows in Average private cost weight of separations.

<sup>(</sup>f) Caution should be used with average length of stay data for public psychiatric hospitals. The figures include a small percentage of long-stay patients who can affect the average markedly.

Table S7.2: Separations by funding source, public and private hospitals, states and territories, 2008-09

Funding source	NSW	Vic	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Public hospitals									
Public patients <sup>(a)</sup>	1,190,540	1,194,355	809,615	419,343	325,903	78,296	78,691	91,758	4,188,501
Private health insurance	222,985	116,224	33,356	31,089	29,932	11,919	5,433	653	451,591
Self-funded <sup>(b)</sup>	25,725	14,837	14,911	674	1,508		213	358	58,226
Workers compensation	7,384	5,571	4,964	1,872	1,475	453	445	314	22,478
Motor vehicle third party personal claim	4,654	8,861	3,363	2,945	1,715	851	241	472	23,102
Department of Veterans' Affairs	51,415	30,450	13,457	7,906	11,778	3,108	4,099	443	122,656
Other <sup>(c)</sup>	3,266	9,326	3,674	3,604	2,229	265	747	1,358	24,469
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023
Private hospitals									
Public patients <sup>(a)</sup>	6,393	1,165	25,262	54,004	4,098	n.p.	n.p.	n.p.	100,619
Private health insurance	741,102	677,625	615,766	262,709	219,865	n.p.	n.p.	n.p.	2,579,128
Self-funded <sup>(b)</sup>	91,837	80,823	74,243	17,725	10,193	n.p.	n.p.	n.p.	278,086
Workers compensation	19,584	10,061	11,560	6,779	5,185	n.p.	n.p.	n.p.	54,788
Motor vehicle third party personal claim	620	2,742	63	620	389	n.p.	n.p.	n.p.	4,719
Department of Veterans' Affairs	46,721	37,444	77,577	17,201	13,703	n.p.	n.p.	n.p.	198,277
Other <sup>(c)</sup>	957	1,160	9,470	3,124	2,067	n.p.	n.p.	n.p.	41,808
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425
All hospitals	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	8,148,448

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been Self-funded, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority (without a public patient election status), Other, No charge raised (in private hospitals) and Not reported.

Table S7.3: Patient days by funding source, public and private hospitals, states and territories, 2008-09

Funding source	NSW	Vic	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Public hospitals									
Public patients <sup>(a)</sup>	4,616,210	3,699,821	2,811,225	1,388,328	1,310,114	319,148	247,661	254,845	14,647,352
Private health insurance	944,945	470,812	111,346	162,794	163,983	38,974	25,164	1,783	1,919,801
Self-funded <sup>(b)</sup>	82,994	22,250	23,619	1,238	2,016	0	765	1,233	134,115
Workers compensation	27,412	16,826	18,839	7,565	5,408	1,624	1,829	1,323	80,826
Motor vehicle third party personal claim	31,683	45,565	21,234	24,948	11,107	5,534	1,814	4,068	145,953
Department of Veterans' Affairs	307,976	175,323	73,670	44,962	99,272	20,818	13,042	2,040	737,103
Other <sup>(c)</sup>	103,024	68,911	12,780	17,184	6,710	8,187	2,672	4,564	224,032
Total	6,114,244	4,499,508	3,072,713	1,647,019	1,598,610	394,285	292,947	269,856	17,889,182
Private hospitals									
Public patients <sup>(a)</sup>	8,886	2,695	73,607	80,133	6,049	n.p.	n.p.	n.p.	200,326
Private health insurance	1,709,225	1,727,331	1,485,047	607,483	517,855	n.p.	n.p.	n.p.	6,200,983
Self-funded <sup>(b)</sup>	142,603	103,950	83,903	20,913	11,695	n.p.	n.p.	n.p.	367,284
Workers compensation	42,312	25,628	20,418	10,969	12,077	n.p.	n.p.	n.p.	114,999
Motor vehicle third party personal claim	2,142	32,899	184	1,360	1,377	n.p.	n.p.	n.p.	39,523
Department of Veterans' Affairs	214,228	166,458	327,978	93,881	55,035	n.p.	n.p.	n.p.	882,282
Other <sup>(c)</sup>	1,841	1,839	14,672	5,112	5,659	n.p.	n.p.	n.p.	87,532
Total	2,121,237	2,060,800	2,005,809	819,851	609,747	n.p.	n.p.	n.p.	7,892,929
All hospitals	8,235,481	6,560,308	5,078,522	2,466,870	2,208,357	n.p.	n.p.	n.p.	25,782,111

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been Self-funded, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority (without a public patient election status), Other, No charge raised (in private hospitals) and Not reported.

Table S7.4: Separations, by state or territory of usual residence, public and private hospitals, states and territories, 2008-09

	State or territory of hospitalisation									
State or territory of usual residence	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	per 1,000 population <sup>(b)</sup>
Public hospitals										
New South Wales	1,468,718	19,549	10,207	602	1,874	223	20,398	331	1,521,902	206.4
Victoria	6,615	1,348,878	1,957	596	2,236	315	331	356	1,361,284	243.9
Queensland	11,564	1,410	864,494	546	510	144	168	479	879,315	201.2
Western Australia	520	593	427	463,413	286	77	55	2,291	467,662	212.7
South Australia	645	1,740	482	228	367,182	59	70	3,258	373,664	215.7
Tasmania	266	1,491	254	88	67	93,933	18	33	96,150	181.6
Australian Capital Territory	2,908	235	197	30	57	7	68,761	37	72,232	221.0
Northern Territory	238	245	381	228	1,664	5	21	88,002	90,784	465.4
Other Australian territories (c)	n.p.	742	8	140	0	0	0	0	n.p.	n.p.
Not elsewhere classified (d)	n.p.	4,301	4,179	1,562	125	129	47	388	n.p.	n.p.
Not reported	0	440	754	0	539	0	0	0	1,733	
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,175	4,890,842	219.3
Private hospitals										
New South Wales	891,305	5,950	27,623	201	1,636	n.p.	n.p.	n.p.	934,184	125.6
Victoria	7,200	801,061	1,430	241	1,537	n.p.	n.p.	n.p.	811,702	144.1
Queensland	4,219	975	782,464	207	270	n.p.	n.p.	n.p.	788,315	178.6
Western Australia	369	326	306	361,119	98	n.p.	n.p.	n.p.	362,307	163.1
South Australia	222	443	288	62	250,311	n.p.	n.p.	n.p.	251,391	140.2
Tasmania	218	1,176	282	48	50	n.p.	n.p.	n.p.	55,950	104.4
Australian Capital Territory	2,119	178	181	17	51	n.p.	n.p.	n.p.	30,734	92.3
Northern Territory	289	332	601	133	1,190	n.p.	n.p.	n.p.	15,740	86.7
Other Australian territories (c)	n.p.	36	43	35	0	n.p.	n.p.	n.p.	n.p.	n.p.
Not elsewhere classified (d)	n.p.	543	669	99	12	n.p.	n.p.	n.p.	n.p.	n.p.
Not reported	0	0	54	0	345	n.p.	n.p.	n.p.	482	
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425	144.3
Total	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	8,148,448	363.6

Table S7.5: Separations by care type, public and private hospitals, states and territories, 2008–09

Care type	NSW	Vic <sup>(a)</sup>	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT <sup>(b)</sup>	Total
Public hospitals									
Acute care	1,437,796	1,332,252	842,765	450,300	359,088	91,658	82,785	93,271	4,689,915
Rehabilitation care	26,400	13,821	17,574	8,923	6,907	1,168	2,681	401	77,875
Palliative care	9,345	5,652	5,457	1,245	1,298	304	609	352	24,262
Geriatric evaluation and management	2,348	12,250	1,336	708	377	44	1,244	0	18,307
Psychogeriatric care	669	2,001	525	716	265	165	53	0	4,394
Maintenance care	6,391	802	5,547	1,895	2,767	464	1,369	402	19,637
Newborn-qualified days only	18,816	10,940	7,017	3,262	2,886	1,089	1,046	912	45,968
Newborn-qualified and unqualified days <sup>(c)</sup>	4,195	1,906	2,790	384	952	0	81	0	10,308
Newborn-unqualified days only	54,139	41,630	35,353	18,497	11,612	2,845	3,009	2,566	169,651
Newborn total	77,150	54,476	45,160	22,143	15,450	3,934	4,136	3,478	225,927
Other admitted patient care	0	0	329	0	0	0	1	18	348
Not reported	9	0	0	0	0	0	0	0	9
Total	1,560,108	1,421,254	918,693	485,930	386,152	97,737	92,878	97,922	5,060,674
Private hospitals									
Acute care	816,865	786,677	782,217	355,940	241,913	n.p.	n.p.	n.p.	3,087,308
Rehabilitation care	82,032	13,596	25,295	1,393	12,484	n.p.	n.p.	n.p.	137,946
Palliative care	434	506	1,949	2,156	221	n.p.	n.p.	n.p.	5,281
Geriatric evaluation and management	0	0	55	3	47	n.p.	n.p.	n.p.	113
Psychogeriatric care	0	6,353	27	199	0	n.p.	n.p.	n.p.	6,579
Maintenance care	101	83	1,479	292	11	n.p.	n.p.	n.p.	2,004
Newborn-qualified days only	7,488	3,805	1,969	950	824	n.p.	n.p.	n.p.	15,581
Newborn-qualified and unqualified days (c)	294	0	760	1,229	0	n.p.	n.p.	n.p.	2,334
Newborn-unqualified days only	15,699	2	16,519	8,091	42	n.p.	n.p.	n.p.	44,570
Newborn total	23,481	3,807	19,248	10,270	866	n.p.	n.p.	n.p.	62,485
Other admitted patient care	0	0	190	0	0	n.p.	n.p.	n.p.	193
Not reported	0	0	0	0	0	n.p.	n.p.	n.p.	86
Total	922,913	811,022	830,460	370,253	255,542	n.p.	n.p.	n.p.	3,301,995

Table S7.6: Patient days, by care type, public and private hospitals, states and territories, 2008-09

Care type	NSW	Vic <sup>(a)</sup>	Qld	WA	SA	Tas <sup>(b)</sup>	ACT	NT <sup>(b)</sup>	Total
Public hospitals									
Acute care	5,111,025	3,585,978	2,402,547	1,328,711	1,193,685	320,269	214,760	242,682	14,399,657
Rehabilitation care	489,683	302,083	265,098	175,511	112,223	31,725	32,050	5,002	1,413,375
Palliative care	109,058	81,867	51,375	11,882	16,392	3,316	0	387	285,300
Geriatric evaluation and management	22,642	313,534	23,590	6,239	3,646	704	13,000	0	383,355
Psychogeriatric care	48,774	63,576	10,851	32,842	38,386	182	546	0	195,157
Maintenance care	199,516	33,453	235,524	53,022	193,592	27,645	15,456	8,352	766,560
Newborn-qualified days	133,267	119,017	82,614	38,812	40,686	10,444	9,523	9,961	444,324
Newborn-unqualified days	151,985	109,978	82,944	50,449	32,776	7,346	6,651	7,664	449,793
Newborn total	285,252	228,995	165,558	89,261	73,462	17,790	16,174	17,625	894,117
Other admitted patient care	0	0	1,114	0	0	0	1	60	1,175
Not reported	279	0	0	0	0	0	0	0	279
Total <sup>(c)</sup>	6,114,244	4,499,508	3,072,713	1,647,019	1,598,610	394,285	292,947	269,856	17,889,182
Private hospitals									
Acute care	1,739,792	1,788,993	1,779,257	747,655	543,658	n.p.	n.p.	n.p.	6,846,149
Rehabilitation total	334,033	202,119	127,023	28,084	57,438	n.p.	n.p.	n.p.	771,272
Palliative care	5,059	6,030	27,682	20,914	3,230	n.p.	n.p.	n.p.	63,024
Geriatric evaluation and management	0	0	504	3	208	n.p.	n.p.	n.p.	738
Psychogeriatric care	0	29,052	356	5,472	0	n.p.	n.p.	n.p.	34,880
Maintenance care	1,572	11,830	46,239	7,599	342	n.p.	n.p.	n.p.	68,661
Newborn-qualified days	40,781	22,776	24,151	10,124	4,871	n.p.	n.p.	n.p.	106,418
Newborn-unqualified days	68,329	2	66,866	42,043	137	n.p.	n.p.	n.p.	194,573
Newborn total	109,110	22,778	91,017	52,167	5,008	n.p.	n.p.	n.p.	300,991
Other admitted patient care	0	0	597	0	0	n.p.	n.p.	n.p.	707
Not reported	0	0	0	0	0	n.p.	n.p.	n.p.	1,080
Total <sup>(c)</sup>	2,121,237	2,060,800	2,005,809	819,851	609,747	n.p.	n.p.	n.p.	7,892,929

Table S7.7: Separations, by mode of admission, public and private hospitals, states and territories, 2008-09

Mode of admission	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Admitted patient transferred from another hospital	87,001	62,102	28,446	34,165	17,404	3,033	2,852	308	235,311
Statistical admission: type change	21,465	9,574	17,970	8,223	4,414	1,606	5,399	1,304	69,955
Other <sup>(a)</sup>	1,378,865	1,307,456	836,924	425,045	350,342	79,774	81,618	93,744	4,553,768
Not reported	18,638	492	0	0	2,380	10,479	0	0	31,989
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023
Private hospitals									
Admitted patient transferred from another hospital	36,400	26,688	17,696	6,430	5,898	n.p.	n.p.	n.p.	98,230
Statistical admission: type change	2,797	2,221	4,958	986	272	n.p.	n.p.	n.p.	22,316
Other <sup>(a)</sup>	867,873	782,111	791,287	354,746	249,239	n.p.	n.p.	n.p.	3,136,192
Not reported	144	0	0	0	91	n.p.	n.p.	n.p.	687
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425
All hospitals									
Admitted patient transferred from another hospital	123,401	88,790	46,142	40,595	23,302	n.p.	n.p.	n.p.	333,541
Statistical admission: type change	24,262	11,795	22,928	9,209	4,686	n.p.	n.p.	n.p.	92,271
Other <sup>(a)</sup>	2,246,738	2,089,567	1,628,211	779,791	599,581	n.p.	n.p.	n.p.	7,689,960
Not reported	18,782	492	0	0	2,471	n.p.	n.p.	n.p.	32,676
Total	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	8,148,448

Table S7.8: Separations, by urgency of admission and Medical/Surgical/Other care(a), public and private hospitals, 2008-09

Urgency of admission and type of care	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Emergency									
Surgical	78,224	54,710	37,670	25,685	19,844	5,728	5,775	3,782	231,418
Medical	582,332	425,740	343,842	152,737	144,094	33,659	28,419	26,409	1,737,232
Other	19,975	13,148	7,762	5,287	5,312	1,555	1,003	952	54,994
Total emergency	680,531	493,598	389,274	183,709	169,250	40,942	35,197	31,143	2,023,644
Elective									
Surgical	186,860	196,943	112,377	70,431	64,642	11,905	10,081	5,788	659,027
Medical	389,220	516,563	71,467	67,249	47,182	15,387	8,019	20,063	1,135,150
Other	66,662	83,690	39,813	36,541	11,138	4,675	3,301	1,759	247,579
Total elective	642,742	797,196	223,657	174,221	122,962	31,967	21,401	27,610	2,041,756
Not assigned <sup>(b)</sup>	182,635	88,338	270,409	109,503	82,328	21,967	33,271	36,603	825,054
Not reported	61	492	0	0	0	16	0	0	569
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023

(continued)

Table S7.8 (continued): Separations, by urgency of admission and Medical/Surgical/Other care(a), public and private hospitals, 2008-09

Urgency of admission and type of care	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Private hospitals									
Emergency									
Surgical	4,256	6,927	9,783	3,651	5,237	n.p.	n.p.	n.p.	30,609
Medical	15,132	27,386	47,109	11,976	18,257	n.p.	n.p.	n.p.	125,669
Other	1,145	2,691	3,384	1,054	2,244	n.p.	n.p.	n.p.	10,800
Total emergency	20,533	37,004	60,276	16,681	25,738	n.p.	n.p.	n.p.	167,078
Elective									
Surgical	368,602	285,811	260,031	131,788	99,559	n.p.	n.p.	n.p.	1,186,080
Medical	272,517	283,582	157,785	74,143	48,429	n.p.	n.p.	n.p.	861,023
Other	183,403	179,763	139,267	60,793	42,057	n.p.	n.p.	n.p.	619,348
Total elective	824,522	749,156	557,083	266,724	190,045	n.p.	n.p.	n.p.	2,666,451
Not assigned <sup>(c)</sup>	62,159	24,860	196,582	78,757	39,717	n.p.	n.p.	n.p.	407,755
Not reported	0	0	0	0	0	n.p.	n.p.	n.p.	16,141
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425

<sup>(</sup>a) The type of care is assigned according to the Medical/Surgical/Other partitions of the AR-DRG classification.

<sup>(</sup>b) The Urgency of admission category Not assigned includes admissions for normal delivery and birth, statistical admissions and planned readmissions for some treatments.

Table S7.9: Separations for selected potentially preventable hospitalisations, by state or territory of usual residence, all hospitals, 2008-09

PPH category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Vaccine-preventable conditions									
Influenza and pneumonia	3,778	2,798	2,760	998	960	275	143	319	12,053
Other vaccine-preventable conditions	1,398	1,433	609	348	265	49	23	183	4,312
Total vaccine-preventable conditions	5,169	4,227	3,364	1,345	1,224	324	166	500	16,345
Acute conditions									
Appendicitis with generalised peritonitis	1,131	1,004	695	475	299	84	66	41	3,799
Cellulitis	12,023	8,615	8,481	3,309	2,647	640	435	734	36,945
Convulsions and epilepsy	10,742	7,689	6,953	2,810	2,601	768	485	745	32,852
Dehydration and gastroenteritis	18,578	19,256	12,085	5,400	4,843	1,115	702	535	62,559
Dental conditions	15,799	16,356	11,836	7,765	5,025	874	726	773	59,174
Ear, nose and throat infections	10,979	7,946	8,306	3,405	3,413	635	417	707	35,847
Gangrene	1,132	1,649	1,085	470	357	110	38	149	4,998
Pelvic inflammatory disease	1,349	1,187	1,042	448	366	91	71	114	4,670
Perforated/bleeding ulcer	1,711	1,414	891	547	450	104	82	38	5,242
Pyelonephritis	16,916	13,590	10,856	4,718	4,098	780	789	615	52,450
Total acute conditions	90,316	78,648	62,193	29,332	24,081	5,198	3,810	4,446	298,355
Chronic conditions									
Angina	9,615	8,504	9,087	2,860	2,750	853	298	326	34,319
Asthma	12,489	9,374	6,611	2,914	3,719	611	323	435	36,526
Chronic obstructive pulmonary disease	20,751	15,189	13,470	4,847	5,911	1,531	633	969	63,340
Congestive cardiac failure	14,961	12,714	8,524	3,958	3,931	969	617	341	46,057
Diabetes complications	43,548	35,526	39,589	41,218	11,126	2,788	1,455	1,873	177,241
Hypertension	2,092	1,363	1,505	384	579	114	80	26	6,149
Iron deficiency anaemia	7,673	9,002	4,666	2,749	2,189	632	284	186	27,393
Nutritional deficiencies	64	44	59	20	14	1	5	25	232
Rheumatic heart disease	645	589	654	223	221	44	26	157	2,560
Total chronic conditions	107,157	88,620	81,086	57,519	29,204	7,311	3,545	4,135	378,860
Total chronic conditions, excluding diabetes	68,290	56,779	44,576	17,955	19,314	4,755	2,266	2,465	216,576
Total selected potentially preventable hospitalisations	201,786	170,790	145,944	87,871	54,232	12,772	7,496	8,963	690,488

<sup>(</sup>a) As more than one chronic condition may be reported for a separation, the sum of *Diabetes complications* and *Chronic conditions (excluding diabetes)* does not necessarily equal the total number of separations for *Chronic conditions*.

Table S7.10: Separations, by age group and sex, public hospitals, states and territories, 2008-09

Sex	Age group	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Total
Males	Under 1	26,407	16,817	13,377	5,895	5,244	1,221	1,327	1,414	71,702
	1–4	26,569	18,950	16,837	8,039	7,233	1,174	1,150	1,819	81,771
	5–14	33,390	25,703	22,376	10,835	7,443	1,906	1,842	1,895	105,390
	15–24	41,483	37,497	29,102	14,663	10,107	2,891	2,787	2,400	140,930
	25–34	45,353	43,418	33,212	16,556	11,248	3,300	3,339	3,452	159,878
	35–44	61,343	61,264	41,396	23,037	17,618	4,375	4,733	7,400	221,166
	45–54	84,145	81,286	56,403	29,589	21,681	6,310	5,252	9,375	294,041
	55–64	110,877	112,330	72,345	38,245	27,249	7,551	8,488	7,932	385,017
	65–74	127,415	131,246	71,991	38,808	29,509	8,575	7,849	5,191	420,584
	75–84	130,399	121,366	59,983	33,969	33,664	6,583	7,607	1,257	394,828
	85 and over	42,828	30,285	15,039	9,099	10,805	2,133	2,075	195	112,459
	Total <sup>(a)</sup>	730,210	680,162	432,061	228,735	181,801	46,019	46,449	42,330	2,387,767
Females	Under 1	20,945	12,548	10,108	4,377	3,923	910	860	1,080	54,751
	1–4	19,737	13,740	12,305	5,548	4,868	864	817	1,312	59,191
	5–14	23,902	19,142	17,002	7,732	5,814	1,396	1,110	1,391	77,489
	15–24	63,584	55,960	51,604	22,986	18,904	4,783	3,652	5,310	226,783
	25–34	108,908	98,906	69,258	33,119	26,362	6,169	6,282	7,061	356,065
	35–44	82,900	83,568	52,836	28,736	22,484	5,615	5,415	8,976	290,530
	45–54	75,043	80,524	51,849	29,652	20,713	6,554	4,381	11,365	280,081
	55–64	83,407	91,073	56,120	29,712	21,205	6,794	6,017	10,691	305,019
	65–74	110,534	99,860	56,758	32,290	25,324	6,558	6,116	4,323	341,763
	75–84	122,183	97,893	49,124	29,904	28,511	6,309	5,843	1,218	340,985
	85 and over	64,600	46,246	24,315	14,641	14,630	2,920	2,927	299	170,578
	Total <sup>(a)</sup>	775,745	699,460	451,279	238,697	192,738	48,872	43,420	53,026	2,503,237
Total <sup>(a)</sup>		1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023

Table S7.11: Separations, by age group and sex, private hospitals, states and territories, 2008-09

Sex	Age group	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Total
Males	Under 1	5,755	3,825	3,203	2,613	1,078	n.p.	n.p.	n.p.	16,959
	1–4	6,652	3,833	5,434	2,759	1,854	n.p.	n.p.	n.p.	21,419
	5–14	8,739	6,038	7,384	3,534	2,184	n.p.	n.p.	n.p.	28,953
	15–24	19,821	17,153	15,097	9,827	5,622	n.p.	n.p.	n.p.	70,080
	25–34	21,640	19,650	16,885	10,130	5,248	n.p.	n.p.	n.p.	76,412
	35–44	36,428	32,033	28,507	16,250	8,901	n.p.	n.p.	n.p.	126,186
	45–54	53,204	47,978	48,077	24,683	15,486	n.p.	n.p.	n.p.	195,955
	55–64	85,366	72,478	82,740	35,905	24,120	n.p.	n.p.	n.p.	310,713
	65–74	82,309	68,890	77,584	31,971	24,458	n.p.	n.p.	n.p.	294,255
	75–84	66,950	61,127	60,314	24,230	22,352	n.p.	n.p.	n.p.	241,654
	85 and over	22,035	21,583	24,806	6,969	6,224	n.p.	n.p.	n.p.	83,747
	Total <sup>(a)</sup>	408,899	354,588	370,031	168,871	117,527	n.p.	n.p.	n.p.	1,466,333
Females	Under 1	4,067	2,430	2,064	1,635	448	n.p.	n.p.	n.p.	11,028
	1–4	4,303	2,413	3,520	1,743	1,297	n.p.	n.p.	n.p.	13,767
	5–14	7,440	5,336	6,354	3,021	1,994	n.p.	n.p.	n.p.	25,100
	15–24	28,889	31,526	26,926	14,366	6,550	n.p.	n.p.	n.p.	112,446
	25–34	57,352	53,604	50,544	25,244	12,773	n.p.	n.p.	n.p.	207,844
	35–44	70,218	70,126	58,556	29,532	15,885	n.p.	n.p.	n.p.	253,600
	45–54	70,019	67,270	63,945	30,050	20,300	n.p.	n.p.	n.p.	261,204
	55–64	85,747	77,189	78,336	35,017	26,139	n.p.	n.p.	n.p.	312,644
	65–74	76,133	63,055	67,913	25,611	22,468	n.p.	n.p.	n.p.	263,625
	75–84	69,904	59,044	60,973	20,183	21,497	n.p.	n.p.	n.p.	238,347
	85 and over	24,243	24,428	24,779	6,889	8,610	n.p.	n.p.	n.p.	91,449
	Total <sup>(a)</sup>	498,315	456,421	443,910	193,291	137,961	n.p.	n.p.	n.p.	1,791,054
Total <sup>(a)</sup>		907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425

Table S7.12: Separations, by Indigenous status, public and private hospitals, states and territories, 2008-09

									Sub-total— selected states and	
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	territories	Total
Public hospitals										
Aboriginal but not Torres Strait Islander origin	54,436	11,454	54,954	39,872	17,920	2,236	1,690	64,824	243,460	247,386
Torres Strait Islander but not Aboriginal origin	1,012	277	9,964	206	433	105	16	298	12,190	12,311
Aboriginal and Torres Strait Islander origin	1,305	949	3,790	900	100	111	281	1,067	8,111	8,503
Indigenous people	56,753	12,680	68,708	40,978	18,453	2,452	1,987	66,189	263,761	268,200
Neither Aboriginal nor Torres Strait Islander origin	1,434,823	1,357,081	797,701	426,455	339,592	89,994	86,244	29,165	4,384,817	4,561,055
Not reported	14,393	9,863	16,931	0	16,495	2,446	1,638	2	57,684	61,768
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,706,262	4,891,023
Private hospitals										
Aboriginal but not Torres Strait Islander origin	791	271	3,156	14,022	934	n.p.	n.p.	n.p.	19,174	19,776
Torres Strait Islander but not Aboriginal origin	59	81	742	278	46	n.p.	n.p.	n.p.	1,206	1,255
Aboriginal and Torres Strait Islander origin	609	358	528	143	38	n.p.	n.p.	n.p.	1,676	1,779
Indigenous people	1,459	710	4,426	14,443	1,018	n.p.	n.p.	n.p.	22,056	22,810
Neither Aboriginal nor Torres Strait Islander origin	885,960	800,180	733,180	347,719	240,286	n.p.	n.p.	n.p.	3,007,325	3,088,730
Not reported	19,795	10,130	76,335	0	14,196	n.p.	n.p.	n.p.	120,456	145,885
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,149,837	3,257,425
All hospitals										
Indigenous people	58,212	13,390	73,134	55,421	19,471	n.p.	n.p.	n.p.	285,817	291,010
Other Australians <sup>(c)</sup>	2,354,971	2,177,254	1,624,147	774,174	610,569	n.p.	n.p.	n.p.	7,570,282	7,857,438
Total	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	7,856,099	8,148,448
Separation rate <sup>(d)</sup> for Indigenous people per 1,000	528.8	581.9	797.1	1190.4	1017.9	n.p.	n.p.	1656.0	869.8	n.p.
Separation rate <sup>(d)</sup> for Other Australians per 1,000	327.4	395.3	383.5	364.2	355.4	n.p.	n.p.	215.0	362.5	n.p.
Separation rate <sup>(d)</sup> for all people per 1,000	330.5	396.0	391.2	380.9	362.8	n.p.	n.p.	502.6	369.4	n.p.
Rate ratio <sup>(e)</sup>	1.6	1.5	2.1	3.3	2.9	n.p.	n.p.	7.7	2.4	n.p.

Table S7.13: Overnight separations, by Indigenous status, public and private hospitals, states and territories, 2008-09

									Sub-total— selected states and	
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	territories	Total
Public hospitals										
Aboriginal but not Torres Strait Islander origin	28,194	4,775	23,547	20,652	7,310	1,249	709	19,494	103,972	105,930
Torres Strait Islander but not Aboriginal origin	472	179	3,472	65	225	51	10	96	4,509	4,570
Aboriginal and Torres Strait Islander origin	820	465	1,759	213	63	68	81	262	3,582	3,731
Indigenous people	29,486	5,419	28,778	20,930	7,598	1,368	800	19,852	112,063	114,231
Neither Aboriginal nor Torres Strait Islander origin	805,789	579,730	403,071	206,287	190,842	42,600	39,239	15,680	2,201,399	2,283,238
Not reported	8,830	4,938	8,397	0	7,980	1,392	1,137	1	30,146	32,675
Total	844,105	590,087	440,246	227,217	206,420	45,360	41,176	35,533	2,343,608	2,430,144
Private hospitals										
Aboriginal but not Torres Strait Islander origin	256	99	813	128	366	n.p.	n.p.	n.p.	1,662	1,985
Torres Strait Islander but not Aboriginal origin	26	55	136	3	20	n.p.	n.p.	n.p.	240	259
Aboriginal and Torres Strait Islander origin	138	58	84	34	12	n.p.	n.p.	n.p.	326	369
Indigenous people	420	212	1,033	165	398	n.p.	n.p.	n.p.	2,228	2,613
Neither Aboriginal nor Torres Strait Islander origin	273,370	271,138	246,438	118,718	88,808	n.p.	n.p.	n.p.	998,472	1,034,400
Not reported	4,205	2,784	16,955	0	3,771	n.p.	n.p.	n.p.	27,715	36,746
Total	277,995	274,134	264,426	118,883	92,977	n.p.	n.p.	n.p.	1,028,415	1,073,759
All hospitals										
Indigenous people	29,906	5,631	29,811	21,095	7,996	n.p.	n.p.	n.p.	114,291	116,844
Other Australians <sup>(c)</sup>	1,092,194	858,590	674,861	325,005	291,401	n.p.	n.p.	n.p.	3,257,732	3,387,059
Total	1,122,100	864,221	704,672	346,100	299,397	n.p.	n.p.	n.p.	3,372,023	3,503,903
Separation rate <sup>(d)</sup> for Indigenous people per 1,000	241.9	205.9	278.2	364.0	363.6	n.p.	n.p.	359.2	288.5	n.p.
Separation ${\rm rate}^{({\rm d})}$ for Other Australians per 1,000	153.3	156.7	160.6	154.3	171.1	n.p.	n.p.	118.3	157.0	n.p.
Separation rate <sup>(d)</sup> for all people per 1,000	155.0	157.0	163.5	160.2	173.9	n.p.	n.p.	179.7	159.7	n.p.
Rate ratio <sup>(e)</sup>	1.6	1.3	1.7	2.4	2.1	n.p.	n.p.	3.0	1.8	n.p.

Table S7.14: Separations, by mode of separation, public and private hospitals, states and territories, 2008-09

Mode of separation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Discharge/transfer to an(other) acute hospital	101,522	88,319	49,698	21,947	21,523	3,397	3,454	2,800	292,660
Discharge/transfer to residential aged care service <sup>(a)</sup>	17,640	19,111	4,524	5,058	7,928	1,234	757	252	56,504
Discharge/transfer to an(other) psychiatric hospital	2,667	1,213	147	960	1,227	0	30	10	6,254
Discharge/transfer to other health-care accommodation	4,140	2,213	1,896	1,112	842	1,072	387	1,962	13,624
Statistical discharge: type change	21,302	9,829	18,072	8,334	4,307	1,787	5,479	1,148	70,258
Left against medical advice/discharge at own risk	15,960	5,688	7,698	3,969	2,738	351	270	2,686	39,360
Statistical discharge from leave	4,228	3	712	1,332	157	8	0	0	6,440
Died	23,944	15,618	9,710	3,936	4,908	1,286	961	487	60,850
Other <sup>(b)</sup>	1,314,555	1,237,630	790,883	420,785	330,909	85,757	78,531	86,011	4,345,061
Not reported	11	0	0	0	1	0	0	0	12
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023
Private hospitals									
Discharge/transfer to an(other) acute hospital	17,877	16,461	10,134	3,385	7,118	n.p.	n.p.	n.p.	56,120
Discharge/transfer to residential aged care service <sup>(a)</sup>	1,306	3,431	1,243	992	1,278	n.p.	n.p.	n.p.	8,480
Discharge/transfer to an(other) psychiatric hospital	48	55	50	39	19	n.p.	n.p.	n.p.	215
Discharge/transfer to other health-care accommodation	698	4	668	11	98	n.p.	n.p.	n.p.	2,077
Statistical discharge: type change	2,768	2,364	4,836	1,041	372	n.p.	n.p.	n.p.	12,286
Left against medical advice/discharge at own risk	688	605	360	133	44	n.p.	n.p.	n.p.	1,870
Statistical discharge from leave	8	0	105	20	1	n.p.	n.p.	n.p.	142
Died	2,102	3,042	4,754	1,975	1,202	n.p.	n.p.	n.p.	13,530
Other <sup>(b)</sup>	881,719	785,058	791,791	354,566	245,353	n.p.	n.p.	n.p.	3,162,690
Not reported	0	0	0	0	15	n.p.	n.p.	n.p.	15
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425

<sup>(</sup>a) Unless this is the usual place of residence.

<sup>(</sup>b) Includes discharge to usual residence/ own accommodation/ welfare institution (including prisons, hostels and group homes providing primarily welfare services).

Table S7.15: Separations by inter-hospital contracted patient status, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Inter-hospital contracted patient from public sector	1,232	249	0	6,748	2,002	0	0	2	10,233
Inter-hospital contracted patient from private sector	4,145	50	0	3	0	0	0	92	4,290
Not inter-hospital contracted patient	1,497,587	1,378,833	883,340	460,682	372,538	94,892	21,296	95,262	4,804,430
Not reported	3,005	492	0	0	0	0	68,573	0	72,070
Total	1,505,969	1,379,624	883,340	467,433	374,540	94,892	89,869	95,356	4,891,023
Private hospitals									
Inter-hospital contracted patient from public sector	4,420	1,111	6,181	27,551	4,112	n.p.	n.p.	n.p.	45,334
Inter-hospital contracted patient from private sector	0	3	2,290	1	5	n.p.	n.p.	n.p.	2,299
Not inter-hospital contracted patient	902,794	809,906	805,326	334,610	251,383	n.p.	n.p.	n.p.	3,169,850
Not reported	0	0	144	0	0	n.p.	n.p.	n.p.	39,942
Total	907,214	811,020	813,941	362,162	255,500	n.p.	n.p.	n.p.	3,257,425
All hospitals									
Inter-hospital contracted patient from public sector	5,652	1,360	6,181	34,299	6,114	n.p.	n.p.	n.p.	55,567
Inter-hospital contracted patient from private sector	4,145	53	2,290	4	5	n.p.	n.p.	n.p.	6,589
Not inter-hospital contracted patient	2,400,381	2,188,739	1,688,666	795,292	623,921	n.p.	n.p.	n.p.	7,974,280
Not reported	3,005	492	144	0	0	n.p.	n.p.	n.p.	112,012
Total separations	2,413,183	2,190,644	1,697,281	829,595	630,040	n.p.	n.p.	n.p.	8,148,448

Table S7.16: Separations with hospital-in-the-home care, by hospital sector, states and territories, 2008-09

	NSW	Vic	Qld <sup>(a)</sup>	WA	SA <sup>(a)</sup>	Tas	ACT	NT	Total
Public hospitals									
Same-day separations	n.a.	9,010	445	65	109	n.a.	34	8	9,671
Overnight separations	n.a.	23,416	2,362	7,640	6,530	n.a.	1,039	621	41,608
Total patient days	n.a.	290,405	29,639	125,137	86,098	n.a.	15,383	9,773	556,435
Hospital-in-the-home days	n.a.	187,327	21,520	87,265	59,544	n.a.	10,843	5,953	372,452
Average length of stay		12.4	12.5	16.4	13.2		14.8	15.7	13.4
Average length of stay excluding hospital-in-the- home days		4.4	3.4	5.0	4.1		4.4	6.2	4.4
Private hospitals									
Same-day separations	n.a.	1,903	2,350	32	2,220	n.a.	n.p.	n.p.	6,505
Overnight separations	n.a.	2,359	122	156	46	n.a.	n.p.	n.p.	2,683
Total patient days	n.a.	50,390	3,927	3,929	2,515	n.a.	n.p.	n.p.	60,761
Hospital-in-the-home days	n.a.	40,232	3,927	2,133	2,515	n.a.	n.p.	n.p.	48,807
Average length of stay		21.4	32.2	25.2	54.7		n.p.	n.p.	22.6
Average length of stay excluding hospital-in-the- home days		4.3		11.5			n.p.	n.p.	n.a.
All hospitals									
Same-day separations	n.a.	10,913	2,795	97	2,329	n.a.	n.p.	n.p.	16,176
Overnight separations	n.a.	25,775	2,484	7,796	6,576	n.a.	n.p.	n.p.	44,291
Total patient days	n.a.	340,795	33,566	129,066	88,613	n.a.	n.p.	n.p.	617,196
Hospital-in-the-home days	n.a.	227,559	25,447	89,398	62,059	n.a.	n.p.	n.p.	421,259
Average length of stay		13.2	13.5	16.6	13.5		n.p.	n.p.	13.9
Average length of stay excluding hospital-in-the- home days		4.4	n.a.	5.1	n.a.		n.p.	n.p.	n.a.

<sup>(</sup>a) For private hospitals in Queensland and South Australia, separations with hospital-in-the-home care were reported with hospital-in-the-home days only.

# 8 Same-day acute admitted patient care

This chapter presents information on same-day acute admitted patient care provided by public and private hospitals in Australia. The information in this chapter is presented for same-day separations for which the care type was reported as *Acute, Newborn* (with at least one qualified day) or was *Not reported*. Separations for other care types were excluded (see *Chapter 7*). The data are sourced from the AIHW's National Hospital Morbidity Database (NHMD).

Of all patient same-day separations, 97.7% were reported as *Acute* (2.3 million of the 2.4 million in the public sector and 2.0 million of the 2.1 million in the private sector).

#### Box 8.1

#### **Definitions**

A summary of terms and classifications relating to admitted patient care can be found in *Chapter 7* (Box 7.1).

The information in this chapter is presented for same-day separations for which the care type was reported as *Acute*, *Newborn* (with at least one qualified day) or was *Not reported*.

A same-day separation is one in which the patient is admitted and separated on the same day.

#### What are the limitations of the data?

The reader should note that there are important limitations to the data drawn from the NHMD. These limitations are discussed in *Chapter 7* (Box 7.2).

### What methods were used?

Details of the methods used to extract and interpret NHMD are discussed in *Chapter 7* (Box 7.3).

# How has activity changed over time?

From 2007–08 to 2008–09, same-day acute separations increased 4.5% to 4.5 million, matching the average rise of 4.5% per year between 2004–05 and 2008–09 (Table 8.1). Between 2004–05 and 2008–09, the growth rate in same-day acute separations was higher in private hospitals than in public hospitals. The greatest increase occurred in private free-standing day hospital facilities, increasing from 515,000 same-day acute separations in 2004–05 to 727,000 in 2008–09.

Table 8.1: Same-day acute separations, public and private hospitals, 2004-05 to 2008-09

						Chan (per d	
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	2,078,799	2,195,064	2,311,123	2,340,658	2,438,275	4.1	4.2
Public psychiatric hospitals	2,152	1,871	2,147	1,798	630	-26.4	-65.0
Total	2,080,951	2,196,935	2,313,270	2,342,456	2,438,905	4.0	4.1
Private hospitals							
Private free-standing day hospital facilities	515,497	542,948	566,190	664,151	726,572	9.0	9.4
Other private hospitals	1,188,413	1,225,537	1,276,154	1,319,030	1,356,396	3.4	2.8
Total	1,703,910	1,768,485	1,842,344	1,983,181	2,082,968	5.1	5.0
All hospitals	3,784,861	3,965,420	4,155,614	4,325,637	4,521,873	4.5	4.5

# How much activity was there in 2008-09?

In 2008–09, there were 204 same-day acute separations per 1,000 population. Over half (55.5%) of all hospital separations were same-day, accounting for 49.9% of public hospital separations and 64.0% of private hospital separations. The same-day acute separation rate varied across states and territories, particularly in public hospitals, ranging from 90 per 1,000 population in New South Wales to 308 per 1,000 in the Northern Territory (Table 8.2).

Table 8.2: Same-day acute separations, public and private hospitals, states and territories, 2008-09

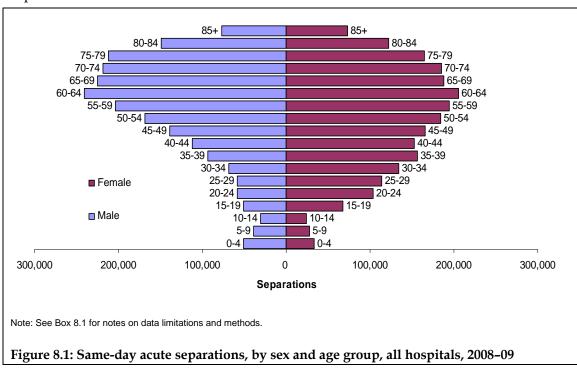
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute	654,088	789,241	433,612	239,821	164,384	49,332	48,248	59,549	2,438,275
Public psychiatric	184	1	0	78	361	6			630
Total	654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905
Separation rate	89.6	143.1	100.4	110.5	96.3	92.9	150.6	308.1	110.5
Private hospitals									
Private free- standing day facilities	202,544	181,546	206,705	85,436	46,609	n.p.	n.p.	n.p.	726,572
Other private hospitals <sup>(b)</sup>	361,415	350,063	323,319	157,505	107,272	n.p.	n.p.	n.p.	1,356,396
Total	563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968
Separation rate	76.9	95.9	121.6	110.7	87.1	n.p.	n.p.	n.p.	93.5
All hospitals	1,218,231	1,320,851	963,636	482,840	318,626	n.p.	n.p.	n.p.	4,521,873
Separation rate	166.6	239.0	222.0	221.2	183.4	n.p.	n.p.	n.p.	204.0

<sup>(</sup>a) Annual average change, not adjusted for changes in coverage and recategoristation of hospitals as public or private.

#### Who used these services?

## Sex and age group

More than half (51.0%) of same-day acute separations were for females (Figure 8.1). However, there were more same-day separations for males aged 0 to 14 years and aged 55 years and above. People aged 55 years and over accounted for over half of all same-day separations.



### **Aboriginal and Torres Strait Islander people**

### Box 8.2 Quality of Indigenous status data

The quality of the data provided for Indigenous status in 2008–09 for admitted patient care varied by jurisdiction. See *Chapter 7* and *Appendix 1* for more information on the quality of Indigenous data in the NHMD.

Separations for Aboriginal and Torres Strait Islander people are likely to be underenumerated. It should also be noted that data presented for the six jurisdictions with data of acceptable quality for analysis purposes are not necessarily representative of the jurisdictions excluded.

Nationally, 4.0% of all same-day acute separations were for Aboriginal or Torres Strait Islander people.

In 2008–09, the same-day acute separation rate for *Indigenous Australians* was almost three times the rate for *Other Australians* (Table 8.3). The Northern Territory had the highest rate of same-day acute separations for *Indigenous Australians*.

For both Indigenous and other Australians, *Care involving dialysis* accounted for a large proportion of same-day separations, particularly for *Indigenous Australians*, who were 12

times more likely to be admitted for dialysis than *Other Australians* were (AIHW 2009). Excluding separations for dialysis, *Indigenous Australians* had a lower same-day acute separation rate than *Other Australians*.

Table 8.3: Same-day acute separations per 1,000 population, by Indigenous status, selected states and territories<sup>(a)</sup>, 2008–09

	NSW	Vic	Qld	WA	SA	NT	Total
Indigenous Australians	286.2	375.9	514.8	825.8	654.2	1295.3	579.5
Excluding Care involving dialysis	99.5	134.3	137.0	112.4	120.4	111.1	113.9
Other Australians	164.5	237.6	216.2	209.6	177.9	94.8	199.3
Excluding Care involving dialysis	127.6	188.2	179.0	164.6	141.2	69.8	156.7
Total	166.0	238.0	221.1	220.5	182.5	321.1	204.2
Excluding Care involving dialysis	127.4	188.0	178.3	163.6	140.9	80.4	157.9

Notes: See Boxes 8.1 and 8.2 for notes on data limitations and methods. .

#### Remoteness area

In 2008–09, people who lived in *Very remote* areas had just over 294 same-day acute separations per 1,000 population, compared with 204 per 1,000 nationally (Table 8.4). The standardised separation rate ratio (SRR) for *Very remote* areas was 1.44 indicating that the separation rate was 44% higher than the national separation rate. This difference was statistically significant.

Table 8.4: Selected same-day acute separation statistics, by remoteness area of usual residence, all hospitals, 2008–09

	Major cities	Inner regional	Outer regional	Remote	Very remote	Total <sup>(a)</sup>
Separations	3,072,847	907,002	411,209	68,274	44,872	4,521,873
Separation rate	205.8	197.6	192.9	215.9	294.5	204.0
Standardised separation rate ratio (SRR)	1.01	0.97	0.95	1.06	1.44	
95% confidence interval of SRR	1.01-1.01	0.97-0.97	0.94-0.95	1.05-1.07	1.43-1.46	

Notes: See Box 8.1 for notes on data limitations and methods.

#### Socioeconomic status

Socioeconomic status (SES) groups in this report are based on the Index of Relative Advantage/Disadvantage (from SEIFA 2006) for the area of usual residence (SLA) of the patient. See *Appendix 1* for details.

Each SES group accounted for between 19.2% and 20.4% of total same-day acute separations. The separation rates varied from 190.9 per 1,000 population for people living in areas classified as being the second lowest SES group to 210.9 per 1,000 for the middle SES group (Table 9.5). The 95% confidence intervals applying to the SRRs for all SES groups indicate that the differences in separation rates from the national rate were statistically significant.

<sup>(</sup>a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

<sup>(</sup>a) Total includes separations for which the remoteness area was not able to be categorised.

Table 8.5: Selected same-day acute separation statistics, by socioeconomic status group, all hospitals, 2008–09

		SES group					
	1—Lowest	2	3	4	5—Highest	Total <sup>(a)</sup>	
Separations	921,976	863,926	922,801	885,182	919,549	4,521,873	
Separation rate	204.3	187.3	211.3	209.5	208.2	204.0	
Standardised separation rate ratio (SRR)	1.00	0.92	1.04	1.03	1.02		
95% confidence interval of SRR	1.00-1.00	0.92-0.92	1.03-1.04	1.02-1.03	1.02-1.02		

# How did people access these services?

The Mode of admission records the mechanism by which a patient begins an episode of care.

In both public and private hospitals, most same-day separations had a Mode of admission of *Other* (98% overall), the term used to refer to all planned and unplanned admissions except transfers from other hospitals and statistical admissions. Public hospitals recorded higher proportions of *Admitted patient transferred from another hospital* than private hospitals (1.2% and 0.7%, respectively) (Table 8.6).

Table 8.6: Same-day acute separations, by mode of admission, public and private hospitals, 2008–09

Mode of admission	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
Admitted patient transferred from another hospital	29,722	5,051	5,833	40,606
Statistical admission: care type change	2,694	0	5,738	8,432
Other <sup>(a)</sup>	2,378,289	721,461	1,344,675	4,444,425
Not reported	28,200	60	150	28,410
Total	2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

# Why did people receive the care?

The reasons that patients receive admitted patient care are usually described in terms of the principal diagnosis. The principal diagnosis is the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care.

#### **Principal diagnosis**

In 2008–09, almost half (47%) of same-day separations in public hospitals and 30% in private hospitals had a principal diagnosis in the *Factors influencing health status and contact with* 

<sup>(</sup>a) Total includes separations for which socioeconomic status group was not able to be categorised.

health services chapter (Table 8.7), the majority being for Care involving dialysis and chemotherapy (Table 8.8).

The relative distribution of separations by diagnosis chapter varied across public and private hospitals. For example, over 80% of same-day separations for *Factors influencing health status* and contact with health services were from the public hospitals, while over 70% of same-day separations for *Diseases of the eye and adnexa* were from private hospitals.

Table 8.7: Same-day acute separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2008–09

Principal di	iagnosis chapter	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
A00-B99	Certain infectious and parasitic diseases	29,929	1,789	5,230	36,948
C00-D48	Neoplasms	121,975	63,580	118,225	303,780
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	44,366	8,940	15,859	69,165
E00-E90	Endocrine, nutritional and metabolic diseases	40,883	12,165	18,601	71,649
F00-F99	Mental and behavioural disorders	41,847	1,380	108,781	152,008
G00-G99	Diseases of the nervous system	50,705	4,275	24,696	79,676
H00-H59	Diseases of the eye and adnexa	59,626	99,478	63,291	222,395
H60-H95	Diseases of the ear and mastoid process	17,307	3,138	16,914	37,359
100-199	Diseases of the circulatory system	70,710	18,001	38,608	127,319
J00-J99	Diseases of the respiratory system	47,106	3,677	12,360	63,143
K00-K93	Diseases of the digestive system	165,107	139,788	221,169	526,064
L00-L99	Diseases of the skin and subcutaneous tissue	33,632	9,452	18,133	61,217
M00-M99	Diseases of the musculoskeletal system and connective tissue	70,053	16,058	100,967	187,078
N00-N99	Diseases of the genitourinary system	98,464	14,154	80,718	193,336
O00-O99	Pregnancy, childbirth and the puerperium	75,668	42,364	15,213	133,245
P00-P96	Certain conditions originating in the perinatal period	3,393	18	449	3,860
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	12,333	1,256	4,711	18,300
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	169,698	38,931	83,527	292,156
S00-T98	Injury, poisoning and certain other consequences of external causes	149,089	4,849	23,680	177,618
Z00–Z99	Factors influencing health status and contact with health services	1,136,902	241,976	384,198	1,763,076
	Not reported	112	1,303	1,066	2,481
Total		2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

 $Additional\ information\ by\ state\ and\ territory\ is\ available\ in\ tables\ S8.1\ and\ S8.2\ at\ the\ end\ of\ this\ chapter.$ 

Public and private hospitals also differed substantially in the relative distributions of principal diagnoses at the 3-character level. Public hospitals accounted for the majority (82.4%) of same-day separations for *Care involving dialysis*, but private hospitals provided more of the same-day separations (58.6%) for *Other medical care* (which includes chemotherapy for neoplasms), *Other cataract* (68.5%), and *Other malignant neoplasms of skin* (89.1%).

Table 8.8: Separations for the top 20 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of same-day acute separations, public and private hospitals, 2008–09

Princinal	diagnosis	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
Z49	Care involving dialysis	862,599	107,072	77,542	1,047,213
Z51	Other medical care	133,402	49,832	138,847	322,081
H26	Other cataract	39,872	41,571	44,975	126,418
R10	Abdominal and pelvic pain	37,980	18,453	24,178	80,611
K01	Embedded and impacted teeth	8,064	17,565	48,210	73,839
C44	Other malignant neoplasms of skin	21,843	21,137	27,963	70,943
Z45	Adjustment and management of implanted device	23,889	5,092	34,021	63,002
Z31	Procreative management	4,471	27,397	23,968	55,836
K21	Gastro-oesophageal reflux disease	13,937	18,751	22,604	55,292
O04	Medical abortion	11,004	41,244	1,127	53,375
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	15,356	12,882	22,827	51,065
Z12	Special screening examination for neoplasms	10,011	15,604	22,434	48,049
R07	Pain in throat and chest	39,576	1,343	6,767	47,686
K92	Other diseases of digestive system	19,286	8,279	20,065	47,630
D12	Benign neoplasm of colon, rectum, anus and anal canal	10,112	14,924	21,437	46,473
M23	Internal derangement of knee	9,848	3,546	32,813	46,207
Z08	Follow-up examination after treatment for malignant neoplasms	18,775	4,698	21,404	44,877
R19	Other symptoms and signs involving the digestive system and abdomen	11,366	8,525	18,854	38,745
F32	Depressive episode	10,588	906	24,210	35,704
184	Haemorrhoids	8,989	12,518	13,360	34,867
Other		1,127,937	295,233	708,790	2,131,960
Total		2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

Additional information by state and territory is available in tables S8.3 and S8.4 at the end of this chapter.

## How urgent was the care?

Admissions to hospital can be categorised as *Emergency* (required within 24 hours), or *Elective* (required at some stage beyond 24 hours). Urgency of admission is *Not assigned* for some admissions, such as admissions for normal delivery and birth, statistical admissions and planned readmissions for some treatments.

In 2008–09, nearly three-quarters same-day separations were *Elective* admissions, and 54% of these were from private hospitals. Over 31% of *Elective* admissions were *Medical*. About 11% of same-day separations were *Emergency* admissions, 98% of these were from public hospitals (Table 8.9). Over 94% of *Emergency* admissions were for *Medical* care.

Table 8.9: Same-day acute separations, by urgency of admission and type of care<sup>(a)</sup>, public and private hospitals, 2008–09

	Public hospitals Private hospitals		te hospitals		Total	
Urgency of admission and type of care	Separations	Per cent (column)	Separations	Per cent (column)	Separations	Per cent (column)
Emergency						
Surgical	20,402	0.8	2,621	0.1	23,023	0.5
Medical	468,825	19.2	8,302	0.4	477,127	10.6
Other	5,052	0.2	1,547	0.1	6,599	0.1
Total emergency	494,279		12,470		506,749	
Elective						
Surgical	335,623	13.8	679,318	32.6	1,014,941	22.4
Medical	919,702	37.7	496,673	23.8	1,416,375	31.3
Other	227,889	9.3	582,089	27.9	809,978	17.9
Total elective	1,483,214		1,758,080		3,241,294	
Not assigned	461,400	18.9	302,169	14.5	763,569	16.9
Not reported	12	0.0	10,249	0.5	10,261	0.2
Total	2,438,905	100	2,082,968	100	4,521,873	100

Notes: See Box 8.1 for notes on data limitations and methods.

Additional information by state and territory is available in Table S8.5 at the end of this chapter.

# What care was provided?

The care that the patient received can be described in a variety of ways. This section presents information on same-day acute separations describing care by:

- the overall type of care: *Surgical* (involving an operating room procedure), *Medical* (not involving a procedure) and *Other* (involving a non-operating room procedure such as endoscopy)
- Major Diagnostic Categories and Australian Refined Diagnosis Related Groups (AR-DRGs), based on the AR-DRG classification of acute care separations
- the type of surgical or other procedure undertaken.

<sup>(</sup>a) The type of care is assigned according to the Medical/Surgical/Other partitions of the AR-DRG classification.

### Medical, surgical or other care

In this section, separations are grouped according to categories of care, using the Australian Refined Diagnosis Group (AR-DRG) classification. Acute care activity can be classified as *Medical, Surgical* and *Other* care based on the *Medical, Surgical* and *Other* partitions of the AR-DRG classification (see Box 7.1).

*Medical* care accounted for 58% of same-day separations and *Surgical* care accounted for 24% of same-day separations (Table 8.10).

For public hospitals, over 75% of same-day separations were for *Medical* care, and almost 15% for *Surgical* care. For private hospitals, about 37% of same-day separations were for *Medical* care and 34% for *Surgical* care.

### **Major Diagnostic Categories**

The AR-DRG classification contains 23 Major Diagnostic Categories (MDCs).

Table 8.10 presents same-day acute separations by MDCs for public and private hospitals. *Diseases and disorders of the kidney and urinary tract* accounted for one in four same-day separations for the combined public and private sectors, with 80% of this activity occurring in public hospitals. Over 73% of same-day separations for *Mental diseases and disorders* and 70% of separations for *Diseases and disorders of the eye* were from private hospitals.

#### **Most common AR-DRGs**

In 2008–09, the 20 most common AR-DRGs accounted for two-thirds of same-day separations. Almost a quarter of same-day separations were for *Admit for renal dialysis*, with *Chemotherapy* being the next most common AR-DRG (Table 8.11).

There was variation in the types of same-day admitted care by hospital sector. Public hospitals provided the majority of same-day separations for *Admit for renal dialysis*, *Antenatal and other obstetric admission* – *sameday* and *Chest Pain*. Private hospitals provided the majority of separations for *Mental health treatment* – *sameday*, *without electroconvulsive treatment*, *Other colonoscopy* – *sameday*, *Lens procedures* – *sameday*, and *Dental extractions and restorations*.

Table 8.10: Same-day acute separations, by Major Diagnostic Category, AR-DRG version 5.2, public and private hospitals, 2008–09

Maio	r Diagnostic Category	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	240	2	11	253
01	Diseases and disorders of the nervous system	88,239	5,849	27,645	121,733
02	Diseases and disorders of the eye	78,711	111,790	75,328	265,829
03	Diseases and disorders of the ear, nose, mouth and throat	86,663	38,933	110,507	236,103
04	Diseases and disorders of the respiratory system	44,521	1,046	6,642	52,209
05	Diseases and disorders of the circulatory system	112,663	7,105	34,757	154,525
06	Diseases and disorders of the digestive system	228,358	174,564	238,301	641,223
07	Diseases and disorders of the hepatobiliary system and pancreas	17,467	865	3,667	21,999
08	Diseases and disorders of the musculoskeletal system and connective tissue	132,505	17,838	121,079	271,422
09	Diseases and disorders of the skin, subcutaneous tissue and breast	88,588	47,053	73,444	209,085
10	Endocrine, nutritional and metabolic diseases and disorders	20,381	3,326	9,414	33,121
11	Diseases and disorders of the kidney and urinary tract	934,621	111,281	121,905	1,167,807
12	Diseases and disorders of the male reproductive system	24,917	7,548	34,081	66,546
13	Diseases and disorders of the female reproductive system	69,069	38,720	79,948	187,737
14	Pregnancy, childbirth and puerperium	86,722	42,365	16,611	145,698
15	Newborns and other neonates	6,101	673	1,125	7,899
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	51,950	9,941	17,956	79,847
17	Neoplastic disorders (haematological and solid neoplasms)	159,225	55,094	149,323	363,642
18	Infectious and parasitic diseases	11,688	449	1,550	13,687
19	Mental diseases and disorders	32,926	1,392	90,282	124,600
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	9,302	18	18,578	27,898
21	Injuries, poisoning and toxic effects of drugs	55,497	2,109	6,260	63,866
22	Burns	2,976	75	106	3,157
23	Factors influencing health status and other contacts with health services	94,399	46,704	115,919	257,022
ED	Error DRGs	1,176	1,832	1,957	4,965
	Surgical	359,714	269,040	434,363	1,063,117
	Medical	1,842,571	235,679	544,958	2,623,208
	Other	236,620	221,853	377,075	835,548
Tota	I	2,438,905	726,572	1,356,396	4,521,873

Abbreviations: DRG—Diagnosis related group; ECMO—extracorporeal membrane oxygenation; MDC—Major diagnostic category.

Additional information by state and territory is available in tables S8.6 and S8.7 at the end of this chapter.

Table 8.11: Separations for the top 20 AR-DRGs version 5.2 with the highest number of same-day acute separations, public and private hospitals, 2008–09

		Public	Private free- standing day	Other private	
AR-DRO	6	hospitals	facilities	hospitals	Total
L61Z	Admit for Renal Dialysis	855,966	106,399	77,414	1,039,779
R63Z	Chemotherapy	126,859	48,506	138,054	313,419
G44C	Other Colonoscopy, Sameday	56,680	74,995	95,563	227,238
C16B	Lens Procedures, Sameday	54,873	71,077	56,893	182,843
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	34,808	47,612	47,833	130,253
Z64B	Other Factors Influencing Health Status, Sameday	42,896	24,750	58,712	126,358
G46C	Complex Gastroscopy, Sameday	25,824	40,695	54,322	120,841
D40Z	Dental Extractions and Restorations	23,014	25,787	68,797	117,598
U60Z	Mental Health Treatment, Sameday, W/O ECT	20,448	1,392	85,860	107,700
Z40Z	Follow Up W Endoscopy	29,470	19,863	44,063	93,396
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	33,511	20,879	30,121	84,511
O05Z	Abortion W OR Procedure	23,603	41,495	9,673	74,771
I18Z	Other Knee Procedures	14,497	4,707	49,174	68,378
N07Z	Other Uterine and Adnexa Procedures for Non- Malignancy	14,122	16,301	31,360	61,783
L41Z	Cystourethroscopy, Sameday	22,652	2,840	23,342	48,834
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	30,628	6,255	11,437	48,320
O66B	Antenatal and Other Obstetric Admission, Sameday	43,352	27	4,241	47,620
F74Z	Chest Pain	36,324	902	3,087	40,313
168C	Non-surgical Spinal Disorders, Sameday	17,419	5,315	15,983	38,717
R61C	Lymphoma and Non-Acute Leukaemia, Sameday	22,649	5,207	8,811	36,667
Other		909,310	161,568	441,656	1,512,534
Total		2,438,905	726,572	1,356,396	4,521,873

Abbreviations: CC— complications and comorbidities; ECT—electroconvulsive therapy; OR—operating room; W—with; W/O—without.

Additional information by state and territory is available in tables S8.8 and S8.9 at the end of this chapter.

## **Procedures**

A procedure is defined as a clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic risk, requires specialised training, and/or requires special facilities or equipment available only in an acute care setting (HDSC 2006).

Procedures therefore encompass surgical procedures and non-surgical investigative and therapeutic procedures such as X-rays and chemotherapy. Client support interventions that are neither investigative nor therapeutic (such as anaesthesia) are also included.

In 2008–09, 6.0 million procedures were reported for same-day separations, nearly 3.4 million of these procedures were in the private sector. Public hospitals accounted for almost half (49%) of the same-day separations for which a procedure was reported (Table 8.12). In public hospitals, 82% of same-day separations involved a procedure, compared to 96% of separations in private hospitals. See Box 7.1 and *Appendix 1* for information on the classification of procedures.

Table 8.12: Same-day acute separations<sup>(a)</sup>, by procedure in ACHI chapters, public and private hospitals, 2008–09

		Public	Private free- standing day	Other private	
Procedure of	chapters	hospitals	facilities	hospitals	Total
1–86	Procedures on nervous system	27,933	9,291	36,017	73,241
110–129	Procedures on endocrine system	269	6	118	393
160–256	Procedures on eye and adnexa	70,966	106,324	70,586	247,876
300–333	Procedures on ear and mastoid process	16,806	3,531	18,265	38,602
370-422	Procedures on nose, mouth and pharynx	18,909	7,678	20,057	46,644
450-490	Dental services	25,104	27,910	74,063	127,077
520-570	Procedures on respiratory system	18,705	355	6,765	25,825
600–777	Procedures on cardiovascular system	44,617	6,965	32,877	84,459
800–817	Procedures on blood and blood-forming organs	12,091	1,856	4,373	18,320
850–1011	Procedures on digestive system	214,580	221,300	321,856	757,736
1040–1129	Procedures on urinary system	922,178	112,951	141,101	1,176,230
1160–1203	Procedures on male genital organs	21,230	7,972	34,065	63,267
1240–1299	Gynaecological procedures	85,762	80,887	86,829	253,478
1330–1347	Obstetric procedures	7,925	64	1,960	9,949
1360–1579	Procedures on musculoskeletal system	74,638	14,875	109,436	198,949
1600–1718	Dermatological and plastic procedures	87,920	51,696	78,197	217,813
1740–1759	Procedures on breast	8,380	4,697	10,161	23,238
1786–1799	Radiation oncology procedures	1,561	64	623	2,248
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	936,355	484,871	1,127,462	2,548,688
1940–2016	Imaging services	84,365	3,152	40,567	128,084
	Procedures reported <sup>(a)</sup>	2,978,945	1,337,372	2,604,364	6,920,681
	Separations with no procedure reported	429,016	2,471	70,386	501,873
Total		2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

Abbreviation: n.e.c-not elsewhere classified.

Additional information by state and territory is available in tables S8.10 and S8.11 at the end of this chapter.

<sup>(</sup>a) A separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

In 2008–09, *Cerebral anaesthesia* (general anaesthesia) was the most common procedure overall, reflecting that it is a companion procedure for many other procedures (Table 8.13). Apart from *Cerebral anaesthesia*, *Haemodialysis*, *Pharmacotherapy* (chemotherapy) and *Fibreoptic colonoscopy* were the most frequently reported procedure groups.

Table 8.13: Procedure statistics<sup>(a)</sup> for the top 20 ACHI procedure blocks with the highest number of same-day acute separations, public and private hospitals, 2008–09

		Public	Private free- standing day	Other private	
Proced	dure block	hospitals	facilities	hospitals	Total
1910	Cerebral anaesthesia	593,914	398,722	843,743	1,836,379
1060	Haemodialysis	858,186	106,380	77,245	1,041,811
1920	Administration of pharmacotherapy	185,652	54,537	163,108	403,297
905	Fibreoptic colonoscopy	66,255	85,423	113,668	265,346
1008	Panendoscopy with excision	63,255	81,723	112,133	257,111
911	Fibreoptic colonoscopy with excision	56,398	73,661	113,065	243,124
	Extracapsular crystalline lens extraction by				
197	phacoemulsification	54,354	69,424	55,948	179,726
1909	Conduction anaesthesia	57,764	48,769	54,350	160,883
1265	Curettage of uterus	54,266	45,209	42,789	142,264
1620	Excision of lesion of skin and subcutaneous tissue	46,143	34,928	53,410	134,481
1893	Transfusion of blood and gamma globulin	69,873	12,855	21,741	104,469
458	Surgical removal of tooth	12,262	21,728	62,220	96,210
1089	Examination procedures on bladder	32,234	4,536	36,992	73,762
1005	Panendoscopy	20,263	26,990	22,053	69,306
1916	Generalised allied health interventions	30,289	1,332	27,639	59,260
1297	Procedures for reproductive medicine	4,289	30,585	23,313	58,187
1259	Examination procedures on uterus	24,635	3,107	27,424	55,166
1517	Arthroscopic meniscectomy of knee with repair	6,036	3,291	29,752	39,079
668	Coronary angiography	14,951	3,558	17,375	35,884
1873	Psychological/psychosocial therapies	61	1,206	34,251	35,518
	Other	727,865	229,408	672,145	1,629,418
	Total procedures reported	2,978,945	1,337,372	2,604,364	6,920,681
	Separations with no procedure reported	429,016	2,471	70,386	501,873
Total	separations	2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

Additional information by state and territory is available in tables S8.12 and S8.13 at the end of this chapter.

<sup>(</sup>a) A separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

## Who paid for the care?

Almost nine in ten same-day acute separations from public hospitals were *Public patients*, and almost eight in ten same-day acute separations from private hospitals were funded by *Private health insurance* (Table 8.14). For *Other private hospitals*, almost 6% of separations were funded by the *Department of Veterans' Affairs*.

Table 8.14: Same-day acute separations, by principal source of funds, public and private hospitals, 2008–09

Funding source	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
Public patients <sup>(a)</sup>	2,133,000	58,495	28,687	2,220,182
Private health insurance	200,954	487,069	1,122,926	1,810,949
Self-funded <sup>(b)</sup>	33,959	145,834	88,833	268,626
Workers compensation	8,620	2,214	22,908	33,742
Motor vehicle third party personal claim	6,604	104	1,623	8,331
Department of Veterans' Affairs	47,466	24,315	75,951	147,732
Other <sup>(c)</sup>	8,302	8,541	15,468	32,311
Total	2,438,905	726,572	1,356,396	4,521,873

Notes: See Box 8.1 for notes on data limitations and methods.

# How was the care completed?

The Mode of separation records the status of the patient at the time of separation and, for some categories, the place to which the person was discharged or transferred

Over 96% of same-day separations had a Mode of separation of *Other*, suggesting that most patients went home after their episode of care. In private hospitals, 99% of separations reported a Mode of separation of *Other*, compared to 94% in public hospitals. A higher proportion separations ended with a transfer to another hospital (acute or psychiatric) in public hospitals compared with private hospital (4.6% and 0.8% respectively) (Table 8.15).

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a Public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been Self-funded, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority (without a Public patient election status), Other, No charge raised (in private hospitals) and Not reported.

Table 8.15: Same-day acute separations, by mode of separation, public and private hospitals, 2008-09

Mode of separation	Public hospitals	Private free- standing day facilities	Other private hospitals	Total
Discharge/transfer to an (other) acute hospital	110,070	11,848	5,638	127,556
Discharge/transfer to residential aged care service <sup>(a)</sup>	6,304	22	246	6,572
Discharge/transfer to an (other) psychiatric hospital	1,740	10	46	1,796
Discharge/transfer to other health care accommodation	2,073	69	279	2,421
Statistical discharge: type change	3,430	2	94	3,526
Left against medical advice/discharge at own risk	13,335	22	351	13,708
Statistical discharge from leave	492	0	40	532
Died	5,871	6	378	6,255
Other <sup>(b)</sup>	2,295,587	714,592	1,349,318	4,359,497
Not reported	3	1	6	10
Total	2,438,905	726,572	1,356,396	4,521,873

<sup>(</sup>a) Unless this is the usual place of residence.

<sup>(</sup>b) Includes discharge to usual residence/own accommodation/welfare institution (including prisons, hostels and group homes providing primarily welfare services).

# Supplementary tables

The following supplementary tables provide more information on diagnosis and procedure information provided for same-day acute separations, by state and territory.

#### Box 8.3 Methods – Chapter 8 Supplementary tables

#### **Tables S8.6 to S8.9**

(b) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Abbreviations: MDC – Major Diagnostic Category; DRG – Diagnosis Related Group; ECMO – extracorporeal membrane oxygenation; Cat/Sev – catastrophic or severe; CC – complications and comorbidities; ECT – electroconvulsive therapy; Gastroent – gastroenteritis; misc – miscellaneous; O.R. – operating room; URI – upper respiratory tract infection; W – with; W/O – without.

#### Tables S8.10 to S8.13:

- (a) For tables with counts of separations by groups of procedures, a separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.
- (b) For data on the number of procedures, all procedures within a group are counted, even if more than one is reported for a separation.
- (c) These are counts of Australian Classification of Health Interventions (ACHI) procedure codes. It is possible that a single procedure code may represent multiple procedures or that a specific procedure may require the reporting of more than one code. Therefore the number of procedure codes reported does not necessarily equal the number of separate procedures performed.

Table S8.1: Same-day acute separations, by principal diagnosis in ICD-10-AM chapters, public hospitals, states and territories, 2008-09

Principal d	iagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	6,971	11,139	6,725	2,279	1,629	446	428	312	29,929
C00-D48	Neoplasms	29,390	39,655	23,989	13,754	10,809	2,380	1,247	751	121,975
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	10,674	16,243	6,253	5,152	3,990	869	961	224	44,366
E00-E90	Endocrine, nutritional and metabolic diseases	8,878	14,941	5,533	5,748	3,000	1,307	652	824	40,883
F00-F99	Mental and behavioural disorders	14,201	10,928	7,861	2,917	3,534	1,306	407	693	41,847
G00-G99	Diseases of the nervous system	11,881	18,358	8,886	4,800	4,145	1,314	1,041	280	50,705
H00-H59	Diseases of the eye and adnexa	18,691	17,103	7,359	8,316	5,871	773	984	529	59,626
H60-H95	Diseases of the ear and mastoid process	3,452	4,946	4,579	1,769	1,833	261	233	234	17,307
100-199	Diseases of the circulatory system	20,859	21,888	11,902	6,677	5,527	1,738	1,672	447	70,710
J00-J99	Diseases of the respiratory system	12,379	14,467	11,278	3,062	3,576	1,004	640	700	47,106
K00-K93	Diseases of the digestive system	48,405	52,613	28,939	20,292	6,682	3,622	2,727	1,827	165,107
L00-L99	Diseases of the skin and subcutaneous tissue	7,532	9,931	6,460	3,277	4,800	962	332	338	33,632
M00-M99	Diseases of the musculoskeletal system and connective tissue	18,250	21,651	11,231	7,737	6,932	2,064	1,675	513	70,053
N00-N99	Diseases of the genitourinary system	27,775	32,087	18,083	8,461	7,067	2,515	1,480	996	98,464
O00-O99	Pregnancy, childbirth and the puerperium	20,644	22,014	14,789	5,385	8,786	1,228	769	2,053	75,668
P00-P96	Certain conditions originating in the perinatal period	698	1,785	404	129	281	20	54	22	3,393
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	4,183	3,677	2,040	1,040	835	264	240	54	12,333
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	43,176	59,854	31,557	15,950	9,767	4,183	3,602	1,609	169,698
S00-T98	Injury, poisoning and certain other consequences of external causes	41,523	42,301	37,338	11,363	8,583	2,897	2,971	2,113	149,089
Z00-Z99	Factors influencing health status and contact with health services	304,598	373,661	188,406	111,791	67,098	20,185	26,133	45,030	1,136,902
	Not reported	112	0	0	0	0	0	0	0	112
Total		654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905

Table S8.2: Same-day acute separations, by principal diagnosis in ICD-10-AM chapters, private hospitals, states and territories, 2008-09

Principal d	iagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	1,599	1,840	2,169	871	358	n.p.	n.p.	n.p.	7,019
C00-D48	Neoplasms	52,863	36,963	52,315	17,332	16,737	n.p.	n.p.	n.p.	181,805
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	5,156	6,486	8,963	1,798	1,727	n.p.	n.p.	n.p.	24,799
E00-E90	Endocrine, nutritional and metabolic diseases	8,743	6,998	7,927	3,246	2,482	n.p.	n.p.	n.p.	30,766
F00-F99	Mental and behavioural disorders	33,488	32,531	27,023	11,869	496	n.p.	n.p.	n.p.	110,161
G00-G99	Diseases of the nervous system	7,424	6,870	7,551	3,984	2,122	n.p.	n.p.	n.p.	28,971
H00-H59	Diseases of the eye and adnexa	59,937	34,085	41,041	11,545	10,838	n.p.	n.p.	n.p.	162,769
H60-H95	Diseases of the ear and mastoid process	5,787	4,559	4,064	2,318	2,472	n.p.	n.p.	n.p.	20,052
100-199	Diseases of the circulatory system	19,460	14,285	10,762	5,447	3,897	n.p.	n.p.	n.p.	56,609
J00-J99	Diseases of the respiratory system	5,478	3,305	4,160	1,432	1,160	n.p.	n.p.	n.p.	16,037
K00-K93	Diseases of the digestive system	108,403	101,411	83,128	34,957	24,455	n.p.	n.p.	n.p.	360,957
L00-L99	Diseases of the skin and subcutaneous tissue	7,329	7,557	5,972	3,013	2,836	n.p.	n.p.	n.p.	27,585
M00-M99	Diseases of the musculoskeletal system and connective tissue	31,339	28,860	23,025	15,376	12,943	n.p.	n.p.	n.p.	117,025
N00-N99	Diseases of the genitourinary system	33,154	22,284	21,304	8,571	6,113	n.p.	n.p.	n.p.	94,872
O00-O99	Pregnancy, childbirth and the puerperium	11,333	20,139	17,784	6,387	925	n.p.	n.p.	n.p.	57,577
P00-P96	Certain conditions originating in the perinatal period	56	201	73	75	41	n.p.	n.p.	n.p.	467
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	2,039	1,276	1,412	584	458	n.p.	n.p.	n.p.	5,967
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	32,743	38,326	27,643	12,545	6,998	n.p.	n.p.	n.p.	122,458
S00-T98	Injury, poisoning and certain other consequences of external causes	8,048	6,401	6,895	2,338	3,729	n.p.	n.p.	n.p.	28,529
Z00-Z99	Factors influencing health status and contact with health services	129,580	154,863	176,813	99,253	53,094	n.p.	n.p.	n.p.	626,174
	Not reported	0	2,369	0	0	0	n.p.	n.p.	n.p.	2,369
Total		563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968

Table S8.3: Same-day acute separations, for the top 20 principal diagnoses, public hospitals, states and territories, 2008-09

Principa	l diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z49	Care involving dialysis	268,348	251,004	133,266	71,835	57,300	14,084	23,364	43,398	862,599
Z51	Other medical care	3,902	74,646	25,436	24,114	1,116	2,856	984	348	133,402
H26	Other cataract	13,031	11,830	4,544	4,994	3,745	592	784	352	39,872
R07	Pain in throat and chest	9,916	12,274	8,171	3,521	3,070	959	1,300	365	39,576
R10	Abdominal and pelvic pain	9,156	14,573	7,222	3,735	1,298	875	709	412	37,980
Z45	Adjustment and management of implanted device	1,934	11,233	7,142	1,466	440	898	691	85	23,889
C44	Other malignant neoplasms of skin	4,714	6,186	5,548	2,324	2,284	511	163	113	21,843
K92	Other diseases of digestive system	6,932	6,114	2,836	2,491	222	393	133	165	19,286
Z08	Follow-up examination after treatment for malignant neoplasms	4,941	6,135	3,535	2,192	1,353	391	166	62	18,775
E11	Type 2 diabetes mellitus	3,732	5,764	2,514	2,467	1,185	412	294	428	16,796
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	4,191	5,069	2,860	2,251	547	195	152	91	15,356
A09	Other gastroenteritis and colitis of infectious and unspecified origin	3,269	6,133	2,519	1,094	540	228	197	123	14,103
K21	Gastro-oesophageal reflux disease	4,410	3,988	2,309	2,270	249	310	245	156	13,937
K02	Dental caries	3,187	4,288	2,882	908	909	161	112	347	12,794
G56	Mononeuropathies of upper limb	3,594	3,731	2,177	1,200	1,372	237	115	56	12,482
120	Angina pectoris	2,683	4,003	2,406	1,324	1,188	346	287	69	12,306
D50	Iron deficiency anaemia	3,051	4,355	1,535	1,522	763	354	169	96	11,845
K29	Gastritis and duodenitis	3,989	3,400	2,033	1,461	173	173	97	170	11,496
Z30	Contraceptive management	2,695	3,731	1,456	1,676	1,391	370	62	100	11,481
R19	Other symptoms and signs involving the digestive system and abdomen	3,718	3,530	1,390	2,134	29	313	117	135	11,366
Other		292,879	347,255	211,831	104,920	85,571	24,680	18,107	12,478	1,097,721
Total (A	Il principal diagnoses)	654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905

Table S8.4: Same-day acute separations, for the top 20 principal diagnoses, private hospitals, states and territories, 2008-09

Principa	al diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Z51	Other medical care	33,821	47,959	61,474	22,321	16,778	n.p.	n.p.	n.p.	188,679
Z49	Care involving dialysis	24,627	34,163	53,877	52,502	19,433	n.p.	n.p.	n.p.	184,614
H26	Other cataract	33,004	20,778	15,704	6,550	6,338	n.p.	n.p.	n.p.	86,546
K01	Embedded and impacted teeth	17,525	17,320	13,692	10,458	5,164	n.p.	n.p.	n.p.	65,775
Z31	Procreative management	16,433	13,106	11,301	4,900	4,159	n.p.	n.p.	n.p.	51,365
C44	Other malignant neoplasms of skin	13,320	10,825	13,204	4,296	5,803	n.p.	n.p.	n.p.	49,100
R10	Abdominal and pelvic pain	10,079	16,429	9,830	3,772	1,561	n.p.	n.p.	n.p.	42,631
O04	Medical abortion	7,030	16,048	14,385	4,772	88	n.p.	n.p.	n.p.	42,371
K21	Gastro-oesophageal reflux disease	11,784	11,315	10,699	3,865	2,703	n.p.	n.p.	n.p.	41,355
Z45	Adjustment and management of implanted device	5,095	15,290	11,498	3,720	2,680	n.p.	n.p.	n.p.	39,113
Z12	Special screening examination for neoplasms	12,537	10,527	9,333	3,622	1,224	n.p.	n.p.	n.p.	38,038
D12	Benign neoplasm of colon, rectum, anus and anal canal	12,649	5,635	10,841	3,571	2,954	n.p.	n.p.	n.p.	36,361
M23	Internal derangement of knee	10,740	8,144	7,293	4,246	4,156	n.p.	n.p.	n.p.	36,359
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	11,634	10,216	8,243	2,965	2,080	n.p.	n.p.	n.p.	35,709
K92	Other diseases of digestive system	9,563	7,383	6,877	2,094	1,532	n.p.	n.p.	n.p.	28,344
R19	Other symptoms and signs involving the digestive system and abdomen	8,459	7,445	6,302	2,648	1,500	n.p.	n.p.	n.p.	27,379
H25	Senile cataract	5,821	3,736	13,608	1,845	1,405	n.p.	n.p.	n.p.	26,416
Z08	Follow-up examination after treatment for malignant neoplasms	8,760	6,468	5,938	2,348	1,639	n.p.	n.p.	n.p.	26,102
184	Haemorrhoids	7,647	8,293	4,747	2,534	1,824	n.p.	n.p.	n.p.	25,878
F32	Depressive episode	8,669	5,995	5,984	3,460	29	n.p.	n.p.	n.p.	25,116
Other		294,762	254,534	235,194	96,452	70,831	n.p.	n.p.	n.p.	985,717
Total (A	All principal diagnoses)	563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968

Table S8.5: Same-day acute separations, by *Medical/Surgical/Other* partition<sup>(a)</sup>, AR-DRG version 5.2, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Surgical DRG	104,184	113,616	53,520	37,176	35,614	6,654	5,071	3,879	359,714
Medical DRG	484,563	596,904	342,872	166,868	119,550	37,868	39,918	54,028	1,842,571
Other DRG	65,525	78,722	37,220	35,855	9,581	4,816	3,259	1,642	236,620
Total	654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905
Private hospitals									
Surgical DRG	229,076	165,527	164,786	64,330	55,531	n.p.	n.p.	2,736	703,403
Medical DRG	156,274	198,729	226,102	120,460	58,056	n.p.	n.p.	3,319	780,637
Other DRG	178,609	167,353	139,136	58,151	40,294	n.p.	n.p.	2,051	598,928
Total	563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	8,106	2,082,968

Note:

<sup>(</sup>a) The type of care is assigned according to the Medical/Surgical/Other partitions of the AR-DRG classification.

Table S8.6: Same-day acute separations, by Major Diagnostic Category, AR-DRG version 5.2, public hospitals, states and territories, 2008-09

Major	Diagnostic Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	46	66	28	70	24	3	3	0	240
01	Diseases and disorders of the nervous system	22,142	29,358	17,261	7,735	7,295	2,101	1,679	668	88,239
02	Diseases and disorders of the eye	23,556	23,013	10,843	10,868	7,320	1,033	1,323	755	78,711
03	Diseases and disorders of the ear, nose, mouth and throat	20,047	27,474	20,042	7,911	7,128	1,455	1,198	1,408	86,663
04	Diseases and disorders of the respiratory system	11,867	14,077	9,575	3,085	3,512	1,176	660	569	44,521
05	Diseases and disorders of the circulatory system	30,469	36,023	20,724	9,547	9,099	2,933	3,104	764	112,663
06	Diseases and disorders of the digestive system	67,631	74,826	39,730	28,661	6,861	4,906	3,673	2,070	228,358
07	Diseases and disorders of the hepatobiliary system and pancreas	4,843	5,842	3,128	1,775	741	556	418	164	17,467
08	Diseases and disorders of the musculoskeletal system and connective tissue	37,404	38,852	26,099	12,445	10,175	3,181	3,207	1,142	132,505
09	Diseases and disorders of the skin, subcutaneous tissue and breast	21,318	26,093	18,560	9,372	9,352	2,217	868	808	88,588
10	Endocrine, nutritional and metabolic diseases and disorders	4,475	7,156	3,304	2,455	1,485	742	401	363	20,381
11	Diseases and disorders of the kidney and urinary tract	287,361	275,658	145,283	79,058	62,761	16,049	24,371	44,080	934,621
12	Diseases and disorders of the male reproductive system	6,111	8,126	3,724	3,684	2,087	695	263	227	24,917
13	Diseases and disorders of the female reproductive system	18,957	22,679	13,352	4,497	6,333	1,480	920	851	69,069
14	Pregnancy, childbirth and puerperium	23,469	24,602	18,726	6,140	9,097	1,414	785	2,489	86,722
15	Newborns and other neonates	2,502	1,922	953	233	334	38	71	48	6,101
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	12,148	19,443	6,963	6,240	4,576	1,180	1,009	391	51,950
17	Neoplastic disorders (haematological and solid neoplasms)	8,230	85,722	30,800	26,567	3,987	2,129	1,346	444	159,225
18	Infectious and parasitic diseases	2,887	3,900	2,829	838	706	217	168	143	11,688
19	Mental diseases and disorders	11,657	9,270	5,635	1,838	2,717	1,103	262	444	32,926
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	2,440	2,289	2,167	1,056	787	187	129	247	9,302
21	Injuries, poisoning and toxic effects of drugs	14,296	16,298	14,054	4,426	3,353	1,168	997	905	55,497
22	Burns	905	610	971	193	179	49	21	48	2,976
23	Factors influencing health status and other contacts with health services	19,126	35,550	18,756	11,018	4,767	3,302	1,371	509	94,399
ED	Error DRGs	385	393	105	187	69	24	1	12	1,176
Total		654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905

Table S8.7: Same-day acute separations, by Major Diagnostic Category, AR-DRG version 5.2, private hospitals, states and territories, 2008-09

Major	Diagnostic Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	4	1	8	0	0	n.p.	n.p.	n.p.	13
01	Diseases and disorders of the nervous system	8,511	7,975	9,462	3,990	2,412	n.p.	n.p.	n.p.	33,494
02	Diseases and disorders of the eye	68,482	38,545	47,342	13,624	12,761	n.p.	n.p.	n.p.	187,118
03	Diseases and disorders of the ear, nose, mouth and throat	42,456	37,211	31,693	20,575	12,977	n.p.	n.p.	n.p.	149,440
04	Diseases and disorders of the respiratory system	1,391	1,769	2,562	824	819	n.p.	n.p.	n.p.	7,688
05	Diseases and disorders of the circulatory system	14,551	8,628	8,319	4,423	3,351	n.p.	n.p.	n.p.	41,862
06	Diseases and disorders of the digestive system	126,435	118,852	99,599	33,403	24,835	n.p.	n.p.	n.p.	412,865
07	Diseases and disorders of the hepatobiliary system and pancreas	1,070	1,167	1,422	418	330	n.p.	n.p.	n.p.	4,532
80	Diseases and disorders of the musculoskeletal system and connective tissue	38,665	33,459	27,775	17,625	15,147	n.p.	n.p.	n.p.	138,917
09	Diseases and disorders of the skin, subcutaneous tissue and breast	32,417	28,433	30,286	12,370	13,048	n.p.	n.p.	n.p.	120,497
10	Endocrine, nutritional and metabolic diseases and disorders	2,749	3,077	3,423	1,874	1,248	n.p.	n.p.	n.p.	12,740
11	Diseases and disorders of the kidney and urinary tract	40,919	44,237	65,329	57,346	23,267	n.p.	n.p.	n.p.	233,186
12	Diseases and disorders of the male reproductive system	13,389	9,663	8,389	5,651	3,112	n.p.	n.p.	n.p.	41,629
13	Diseases and disorders of the female reproductive system	39,123	29,747	26,556	10,857	8,364	n.p.	n.p.	n.p.	118,668
14	Pregnancy, childbirth and puerperium	11,763	20,620	18,073	6,473	929	n.p.	n.p.	n.p.	58,976
15	Newborns and other neonates	497	421	338	153	352	n.p.	n.p.	n.p.	1,798
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	5,531	7,547	10,218	1,935	1,814	n.p.	n.p.	n.p.	27,897
17	Neoplastic disorders (haematological and solid neoplasms)	35,893	51,773	69,234	23,032	17,679	n.p.	n.p.	n.p.	204,417
18	Infectious and parasitic diseases	539	272	612	70	453	n.p.	n.p.	n.p.	1,999
19	Mental diseases and disorders	26,116	27,078	23,070	10,574	491	n.p.	n.p.	n.p.	91,674
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	7,369	5,252	3,934	1,628	3	n.p.	n.p.	n.p.	18,596
21	Injuries, poisoning and toxic effects of drugs	1,888	2,140	2,244	754	965	n.p.	n.p.	n.p.	8,369
22	Burns	25	37	72	4	32	n.p.	n.p.	n.p.	181
23	Factors influencing health status and other contacts with health services	43,688	50,955	39,817	15,195	9,358	n.p.	n.p.	n.p.	162,623
ED	Error DRGs	488	2,750	247	143	134	n.p.	n.p.	n.p.	3,789
Total		563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968

Table S8.8: Same-day acute separations, for the top 20 AR-DRGs version 5.2, public hospitals, states and territories, 2008-09

AR-DRG	1	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
L61Z	Admit for Renal Dialysis	265,788	250,104	131,090	71,678	56,793	14,057	23,088	43,368	855,966
R63Z	Chemotherapy	2,811	72,609	24,842	23,519	67	1,702	979	330	126,859
G44C	Other Colonoscopy, Sameday	17,200	18,073	8,513	10,689	133	1,085	605	382	56,680
C16B	Lens Procedures, Sameday	17,549	16,483	6,148	7,401	5,106	722	991	473	54,873
O66B	Antenatal and Other Obstetric Admission, Sameday	12,644	11,440	12,092	2,900	2,223	761	228	1,064	43,352
Z64B	Other Factors Influencing Health Status, Sameday	6,161	18,168	9,588	4,817	1,630	1,367	906	259	42,896
F74Z	Chest Pain	9,180	11,478	7,646	3,080	2,527	905	1,145	363	36,324
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	9,390	12,263	5,417	6,087	350	591	390	320	34,808
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	7,078	11,602	6,822	3,999	2,976	655	215	164	33,511
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	7,211	12,872	3,219	3,438	2,404	844	345	295	30,628
G67B	Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	7,055	11,343	6,683	1,378	1,764	709	554	256	29,742
Z40Z	Follow Up W Endoscopy	7,685	10,054	5,409	4,018	1,428	491	262	123	29,470
G46C	Complex Gastroscopy, Sameday	10,213	7,415	3,124	4,195	92	309	282	194	25,824
O05Z	Abortion W OR Procedure	5,152	7,195	2,247	1,806	5,729	296	153	1,025	23,603
D40Z	Dental Extractions and Restorations	5,126	8,218	4,491	2,370	1,949	216	256	388	23,014
L41Z	Cystourethroscopy, Sameday	5,576	7,701	3,048	3,305	2,071	606	240	105	22,652
R61C	Lymphoma and Non-Acute Leukaemia, Sameday	3,615	8,902	4,383	2,182	2,913	295	273	86	22,649
X60C	Injuries Age <65	5,469	5,495	7,046	1,311	974	322	303	589	21,509
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	5,088	7,869	4,922	1,027	988	610	499	227	21,230
U60Z	Mental Health Treatment, Sameday, W/O ECT	10,384	3,803	2,663	1,194	1,533	331	150	390	20,448
	Other	233,897	276,155	174,219	79,505	71,095	22,464	16,384	9,148	882,867
Total		654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905

Table S8.9: Same-day acute separations, for the top 20 AR-DRGs version 5.2, private hospitals, states and territories, 2008-09

AR-DRG	1	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
R63Z	Chemotherapy	33,421	47,763	60,103	22,230	16,729	n.p.	n.p.	n.p.	186,560
L61Z	Admit for Renal Dialysis	24,614	34,130	53,839	51,813	19,417	n.p.	n.p.	n.p.	183,813
G44C	Other Colonoscopy, Sameday	47,452	49,572	42,734	15,730	10,707	n.p.	n.p.	n.p.	170,558
C16B	Lens Procedures, Sameday	44,562	27,786	33,004	8,737	8,910	n.p.	n.p.	n.p.	127,970
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	23,966	34,442	22,978	6,257	5,849	n.p.	n.p.	n.p.	95,445
G46C	Complex Gastroscopy, Sameday	36,421	22,681	21,385	7,930	5,084	n.p.	n.p.	n.p.	95,017
D40Z	Dental Extractions and Restorations	25,439	25,341	19,261	14,291	7,744	n.p.	n.p.	n.p.	94,584
U60Z	Mental Health Treatment, Sameday, W/O ECT	25,099	25,970	21,508	10,426	28	n.p.	n.p.	n.p.	87,252
Z64B	Other Factors Influencing Health Status, Sameday	18,177	28,757	22,896	7,735	4,211	n.p.	n.p.	n.p.	83,462
Z40Z	Follow Up W Endoscopy	20,333	18,039	14,493	5,260	4,326	n.p.	n.p.	n.p.	63,926
I18Z	Other Knee Procedures	15,025	13,247	10,453	5,707	6,931	n.p.	n.p.	n.p.	53,881
O05Z	Abortion W OR Procedure	9,817	18,211	16,319	5,686	710	n.p.	n.p.	n.p.	51,168
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	12,918	12,619	11,136	7,209	5,317	n.p.	n.p.	n.p.	51,000
N07Z	Other Uterine and Adnexa Procedures for Non-Malignancy	15,762	12,573	10,083	4,017	3,703	n.p.	n.p.	n.p.	47,661
L41Z	Cystourethroscopy, Sameday	8,242	5,763	5,232	3,388	2,291	n.p.	n.p.	n.p.	26,182
N11B	Other Female Reproductive System OR Procs Age <65 W/O MalignancyW/O CC	10,312	5,256	4,866	1,892	1,541	n.p.	n.p.	n.p.	24,538
J08B	Other Skin Graft and/or Debridement Procedures W/O Catastrophic or Severe CC	7,108	5,219	6,099	850	3,428	n.p.	n.p.	n.p.	23,380
C03Z	Retinal Procedures	11,307	3,932	5,936	205	766	n.p.	n.p.	n.p.	22,513
168C	Non-surgical Spinal Disorders, Sameday	3,859	5,757	3,677	4,516	2,368	n.p.	n.p.	n.p.	21,298
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	9,428	3,977	3,707	1,005	1,012	n.p.	n.p.	n.p.	19,885
	Other	160,697	130,574	140,315	58,057	42,809	n.p.	n.p.	n.p.	552,875
Total		563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968

Table S8.10: Same-day acute separations, by procedure in ACHI chapters, public hospitals, states and territories, 2008-09

Procedure of	chapters	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	6,759	8,963	4,528	3,435	3,374	506	242	126	27,933
110–129	Procedures on endocrine system	56	139	43	21	3	5	0	2	269
160–256	Procedures on eye and adnexa	21,157	21,115	9,164	10,103	6,768	862	1,191	606	70,966
300–333	Procedures on ear and mastoid process	3,045	4,549	4,897	1,864	1,779	239	213	220	16,806
370-422	Procedures on nose, mouth and pharynx	4,160	5,627	5,522	1,734	1,288	215	195	168	18,909
450–490	Dental services	5,563	8,945	4,913	2,629	2,116	233	293	412	25,104
520-570	Procedures on respiratory system	5,234	5,881	3,630	1,662	1,456	487	216	139	18,705
600–777	Procedures on cardiovascular system	11,248	15,320	6,090	5,226	4,067	1,163	1,247	256	44,617
800–817	Procedures on blood and blood-forming organs	2,032	4,865	2,020	1,167	1,414	149	373	71	12,091
850–1011	Procedures on digestive system	67,287	71,617	30,546	33,641	3,396	3,989	2,506	1,598	214,580
1040–1129	Procedures on urinary system	285,159	270,293	141,285	79,242	62,820	15,428	24,035	43,916	922,178
1160–1203	Procedures on male genital organs	5,104	7,044	3,002	3,246	1,863	623	187	161	21,230
1240–1299	Gynaecological procedures	22,102	27,798	14,056	5,987	11,665	1,523	904	1,727	85,762
1330–1347	Obstetric procedures	2,071	2,384	1,566	935	562	149	190	68	7,925
1360–1579	Procedures on musculoskeletal system	22,231	23,650	12,065	7,537	5,633	1,416	1,520	586	74,638
1600–1718	Dermatological and plastic procedures	20,050	27,569	19,342	9,115	8,485	1,561	937	861	87,920
1740–1759	Procedures on breast	2,503	2,426	1,100	1,633	457	175	39	47	8,380
1786–1799	Radiation oncology procedures	392	549	370	190	48	8	4	0	1,561
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	224,826	343,410	149,234	114,765	61,192	20,967	14,363	7,598	936,355
1940–2016	Imaging services	22,885	30,034	13,998	7,622	5,259	2,327	1,666	574	84,365
	Procedures reported <sup>(c)</sup>	733,864	882,178	427,371	291,754	183,645	52,025	50,321	59,136	2,680,294
	Separations with no procedure reported	124,587	125,727	102,639	25,036	27,372	9,736	7,086	6,833	429,016
Total separa	ations	654,272	789,242	433,612	239,899	164,745	49,338	48,248	59,549	2,438,905

Table S8.11: Same-day acute separations, by procedure in ACHI chapters, private hospitals, states and territories, 2008-09

Procedure	chapters	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	11,400	11,658	8,605	7,009	4,548	n.p.	n.p.	n.p.	45,308
110–129	Procedures on endocrine system	49	37	21	7	3	n.p.	n.p.	n.p.	124
160–256	Procedures on eye and adnexa	64,863	36,795	44,693	12,649	11,882	n.p.	n.p.	n.p.	176,910
300-333	Procedures on ear and mastoid process	6,503	4,761	4,412	2,739	2,498	n.p.	n.p.	n.p.	21,796
370-422	Procedures on nose, mouth and pharynx	9,594	5,560	6,359	3,247	2,232	n.p.	n.p.	n.p.	27,735
450-490	Dental services	27,970	26,734	20,674	15,321	8,585	n.p.	n.p.	n.p.	101,973
520-569	Procedures on respiratory system	1,383	1,834	2,195	701	735	n.p.	n.p.	n.p.	7,120
600-767	Procedures on cardiovascular system	14,142	8,615	8,689	3,500	2,575	n.p.	n.p.	n.p.	39,842
800–817	Procedures on blood and blood-forming organs	978	1,485	2,668	412	395	n.p.	n.p.	n.p.	6,229
850-1011	Procedures on digestive system	166,925	156,218	129,943	44,855	32,642	n.p.	n.p.	n.p.	543,156
1040–1129	Procedures on urinary system	48,314	49,002	69,710	59,769	24,403	n.p.	n.p.	n.p.	254,052
1160–1203	Procedures on male genital organs	13,989	10,266	8,077	4,908	3,294	n.p.	n.p.	n.p.	42,037
1240-1299	Gynaecological procedures	48,897	47,760	41,469	16,468	8,742	n.p.	n.p.	n.p.	167,716
1330–1347	Obstetric procedures	770	192	805	113	67	n.p.	n.p.	n.p.	2,024
1360–1579	Procedures on musculoskeletal system	38,660	29,693	24,952	12,784	12,930	n.p.	n.p.	n.p.	124,311
1600–1718	Dermatological and plastic procedures	36,344	30,382	30,183	14,122	14,654	n.p.	n.p.	n.p.	129,893
1740–1759	Procedures on breast	4,071	3,236	4,739	1,375	1,002	n.p.	n.p.	n.p.	14,858
1786–1799	Radiation oncology procedures	347	154	87	36	58	n.p.	n.p.	n.p.	687
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	478,876	396,962	420,527	156,258	113,195	n.p.	n.p.	n.p.	1,612,333
1940–2016	Imaging services	12,177	13,710	7,935	4,802	3,168	n.p.	n.p.	n.p.	43,719
	Procedures reported <sup>(c)</sup>	986,252	835,054	836,743	361,075	247,608	n.p.	n.p.	n.p.	3,361,851
	Separations with no procedure reported	5,078	34,989	17,037	6,510	2,043	n.p.	n.p.	n.p.	72,857
Total separ	rations	563,959	531,609	530,024	242,941	153,881	n.p.	n.p.	n.p.	2,082,968

Table S8.12: Procedure statistics for the top 20 ACHI procedure blocks for same-day acute separations, public hospitals, states and territories, 2008-09

Proced	dure block	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1060	Haemodialysis	267,423	250,270	131,064	71,826	56,835	14,059	23,097	43,612	858,186
1910	Cerebral anaesthesia	180,433	194,059	85,644	68,619	39,540	11,759	8,453	5,407	593,914
1920	Administration of pharmacotherapy	15,204	93,259	33,667	30,316	5,104	4,059	3,487	556	185,652
1893	Transfusion of blood and gamma globulin	14,818	26,738	11,371	7,506	7,293	977	937	233	69,873
905	Fibreoptic colonoscopy	23,046	22,238	8,142	10,182	361	1,195	669	422	66,255
1008	Panendoscopy with excision	20,655	20,563	8,294	11,089	411	882	815	546	63,255
1909	Conduction anaesthesia	17,692	21,604	6,185	4,300	5,925	302	1,128	628	57,764
911	Fibreoptic colonoscopy with excision	18,259	16,948	7,992	10,963	235	987	613	401	56,398
197	Extracapsular crystalline lens extraction by phacoemulsification	16,749	16,102	6,032	8,176	5,140	682	997	476	54,354
1265	Curettage of uterus	14,896	18,002	6,775	3,838	8,090	814	585	1,266	54,266
1620	Excision of lesion of skin and subcutaneous tissue	10,730	15,031	9,322	5,012	4,530	952	340	226	46,143
1089	Examination procedures on bladder	7,087	10,978	4,710	4,866	3,322	823	324	124	32,234
1916	Generalised allied health interventions	6,703	8,653	7,165	3,702	2,498	489	694	385	30,289
1952	Computerised tomography of brain	8,291	10,605	5,645	1,698	1,307	587	662	199	28,994
1259	Examination procedures on uterus	7,287	8,173	4,100	1,553	2,474	466	340	242	24,635
1005	Panendoscopy	5,519	7,446	3,448	3,180	133	384	36	117	20,263
668	Coronary angiography	4,277	3,892	1,817	1,858	2,003	335	768	1	14,951
1635	Repair of wound of skin and subcutaneous tissue	2,105	3,735	5,209	979	470	95	192	331	13,116
1907	Electroconvulsive therapy	1,273	5,470	2,977	644	1,184	806	112	54	12,520
458	Surgical removal of tooth	2,718	4,613	2,113	1,168	1,310	51	241	48	12,262
Other		88,699	123,799	75,699	40,279	35,480	11,321	5,831	3,862	384,970
Separa	tions with no procedure reported	124,587	125,727	102,639	25,036	27,372	9,736	7,086	6,833	429,016
Total s	separations <sup>(b)</sup>	733,864	882,178	427,371	291,754	183,645	52,025	50,321	59,136	2,680,294

Table S8.13: Procedure statistics for the top 20 ACHI procedure blocks for same-day acute separations, private hospitals, states and territories, 2008-09

Proced	lure block	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1910	Cerebral anaesthesia	393,286	311,373	300,746	110,784	87,701	n.p.	n.p.	n.p.	1,242,465
1920	Administration of pharmacotherapy	40,133	54,964	67,965	28,571	19,516	n.p.	n.p.	n.p.	217,645
905	Fibreoptic colonoscopy	65,451	58,592	44,592	13,231	12,188	n.p.	n.p.	n.p.	199,091
1008	Panendoscopy with excision	64,345	50,609	48,411	16,341	10,292	n.p.	n.p.	n.p.	193,856
911	Fibreoptic colonoscopy with excision	59,833	47,270	45,700	20,077	10,206	n.p.	n.p.	n.p.	186,726
1060	Haemodialysis	24,628	34,099	53,686	51,793	19,417	n.p.	n.p.	n.p.	183,625
197	Extracapsular crystalline lens extraction by phacoemulsification	44,361	24,934	32,317	9,908	8,972	n.p.	n.p.	n.p.	125,372
1909	Conduction anaesthesia	43,091	21,990	23,437	5,358	7,517	n.p.	n.p.	n.p.	103,119
1620	Excision of lesion of skin and subcutaneous tissue	22,955	20,886	22,171	9,556	9,649	n.p.	n.p.	n.p.	88,338
1265	Curettage of uterus	21,200	29,137	24,096	8,840	2,738	n.p.	n.p.	n.p.	87,998
458	Surgical removal of tooth	24,104	22,030	17,396	12,138	6,489	n.p.	n.p.	n.p.	83,948
1297	Procedures for reproductive medicine	20,172	12,816	10,827	4,636	4,002	n.p.	n.p.	n.p.	53,898
1005	Panendoscopy	12,085	20,955	8,745	2,293	4,429	n.p.	n.p.	n.p.	49,043
1089	Examination procedures on bladder	11,547	9,626	9,856	5,529	3,233	n.p.	n.p.	n.p.	41,528
1873	Psychological/psychosocial therapies	19,077	1,914	8,761	5,705	0	n.p.	n.p.	n.p.	35,457
1893	Transfusion of blood and gamma globulin	4,783	6,881	18,060	2,304	1,904	n.p.	n.p.	n.p.	34,596
1517	Arthroscopic meniscectomy of knee with repair	8,587	7,492	7,079	3,730	4,620	n.p.	n.p.	n.p.	33,043
1259	Examination procedures on uterus	8,756	8,543	7,125	2,722	2,134	n.p.	n.p.	n.p.	30,531
1916	Generalised allied health interventions	7,808	8,324	3,440	4,050	4,931	n.p.	n.p.	n.p.	28,971
1922	Other procedures related to pharmacotherapy	3,552	7,791	7,765	1,947	1,811	n.p.	n.p.	n.p.	23,150
Other		86,498	74,828	74,568	41,562	25,859	n.p.	n.p.	n.p.	319,451
Separa	tions with no procedure reported	5,078	34,989	17,037	6,510	2,043	n.p.	n.p.	n.p.	72,857
Total s	eparations <sup>(b)</sup>	986,252	835,054	836,743	361,075	247,608	n.p.	n.p.	n.p.	3,361,851

# 9 Overnight acute admitted patient care

This chapter presents information on overnight acute admitted patient care provided by public and private hospitals in Australia. An overnight separation occurs when the patient is admitted and separated on different dates. The information in this chapter is presented for overnight separations for which the care type was reported as *Acute*, *Newborn* (with at least one qualified day) or was *Not reported*. Separations for other care types were excluded (see *Chapter 7*). The data are sourced from the AIHW's National Hospital Morbidity Database (NHMD).

Of all overnight separations, 95.0% were reported as *Acute* (2.3 million of the 2.4 million in the public sector and 1.0 million of the 1.1 million in the private sector).

#### Box 9.1

#### **Definitions**

A summary of terms and classifications relating to admitted patient care can be found in *Chapter 7* (Box 7.1).

The information in this chapter is presented for overnight separations for which the care type was reported as *Acute*, *Newborn* (with at least one qualified day) or was *Not reported*.

## What are the limitations of the data?

The reader should understand that there are important limitations to the data drawn from the NHMD. These limitations are discussed in *Chapter 7* (Box 7.2).

#### What methods were used?

Details of the methods used to extract and interpret NHMD are discussed in *Chapter 7* (Box 7.3).

# How has activity care changed over time?

Between 2004–05 and 2008–09, the number of overnight acute separations (in both sectors combined) increased by an average of 2.5% per year, with an average annual increase of 2.8% in public hospitals and 1.7% in private hospitals (Table 9.1).

## How much activity was there in 2008–09?

In 2008-09 there were 3.3 million overnight acute separations, accounting for 40.9% of separations (Table 9.2). The overnight acute separation rate varied across states and territories, particularly in public hospitals, ranging from 84 per 1,000 population in Tasmania to 178 per 1,000 in the Northern Territory.

Table 9.1: Overnight acute separations, public and private hospitals, 2004-05 to 2008-09

						Change (per cent) <sup>(a)</sup>	
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08
Public hospitals							
Public acute hospitals	2,053,012	2,130,287	2,204,943	2,254,140	2,298,098	2.9	2.0
Public psychiatric hospitals	11,904	12,278	11,686	11,405	9,197	-6.2	-19.4
Total	2,064,916	2,142,565	2,216,629	2,265,545	2,307,295	2.8	1.8
Private hospitals							
Private free-standing day hospital facilities	2,654	2,440	2,423	2,341	1,247	-17.2	-46.7
Other private hospitals	952,408	971,076	984,954	1,014,107	1,021,094	1.8	0.7
Total	955,062	973,516	987,377	1,016,448	1,022,341	1.7	0.6
All hospitals	3,019,978	3,116,081	3,204,006	3,281,993	3,329,636	2.5	1.5

Table 9.2: Overnight acute separations, public and private hospitals, states and territories, 2008-09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute hospitals	801,465	555,365	418,956	212,666	196,599	42,749	35,664	34,634	2,298,098
Public psychiatric hospitals	5,079	491	4	1,381	1,582	660	0	0	9,197
Total	806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295
Separation rate	110.9	101.0	97.4	99.1	115.6	83.8	108.5	177.9	105.0
Private hospitals									
Private free-standing day hospital facilities	0	85	0	1,160	0	n.p.	n.p.	n.p.	1,247
Other private hospitals	260,688	258,788	254,922	114,018	88,856	n.p.	n.p.	n.p.	1,021,094
Total	260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341
Separation rate	35.6	46.1	58.8	53.0	49.8	n.p.	n.p.	n.p.	45.8
All hospitals	1,067,232	814,729	673,882	329,225	287,037	n.p.	n.p.	n.p.	3,329,636
Separation rate	146.5	147.1	156.2	152.1	165.4	n.p.	n.p.	n.p.	150.8

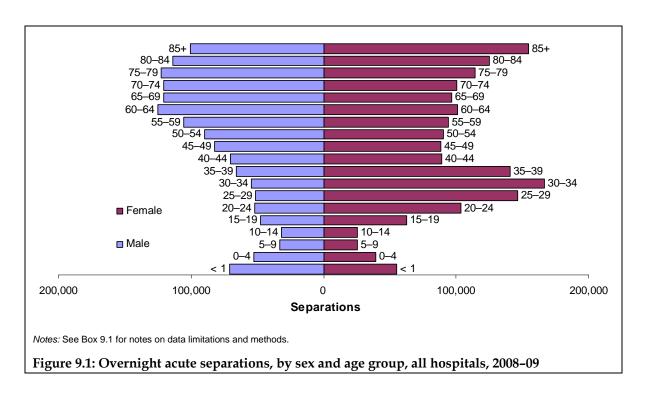
Notes: See Box 9.1 for notes on data limitations and methods.

## Who used these services?

## Sex and age group

Males accounted for less than half (45.8%) of overnight acute separations (Figure 9.2). However, there were more overnight separations for males than females in the age groups from 0 to 19 years and 60 to 84 years. People aged 55 years and over accounted for almost half of all overnight separations.

<sup>(</sup>a) Annual average change, not adjusted for changes in coverage and recategorisation.



## Aboriginal and Torres Strait Islander people

## Box 9.2 Quality of Indigenous status data

The quality of the data provided for Indigenous status in 2008–09 for admitted patient care varied by jurisdiction. See *Chapter 7* and *Appendix 1* for more information on the quality of Indigenous data in the NHMD.

Separations for Aboriginal and Torres Strait Islander people are likely to be underenumerated. It should also be noted that data presented for the six jurisdictions with data of acceptable quality for analysis purposes are not necessarily representative of the jurisdictions excluded.

Nationally, 3.5% of overnight acute separations were for Aboriginal or Torres Strait Islander people (Table 9.3).

In 2008–09, the overnight acute separation rate for *Indigenous Australians* was almost twice the rate for *Other Australians*. South Australia had the highest rate of overnight separations involving *Indigenous Australians*, and Victoria recorded the lowest rate.

Table 9.3: Overnight acute separations per 1,000 population, by Indigenous status, selected states and territories<sup>(a)</sup>, 2008–09

	NSW	Vic	Qld	WA	SA	NT	Total <sup>(a)</sup>
Indigenous Australians	235.0	196.8	264.5	349.1	357.2	350.2	278.3
Other Australians	146.1	148.1	153.6	146.5	164.7	112.2	149.4
Total	147.8	148.4	156.4	152.2	167.5	172.8	152.1

Notes: See Boxes 9.1 and 9.2 for notes on data limitations and methods.

(a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

The separation rates presented in Table 9.3 differ from those presented in Table 9.2 due to differences in the population age groups used for calculating the age-standardised rates.

#### Remoteness area

In 2008–09, people usually resident in *Very remote* areas had 252.5 overnight acute separations per 1,000 population, compared with 150.8 per 1,000 nationwide (Table 9.4). The separation rate ratio (SRR) of 1.67 for this area indicates that the separation rate was 67% higher than the national separation rate. The 95% confidence intervals applying to the SRRs for all areas indicate that the differences in the separation rates were statistically significant (Table 9.4).

Table 9.4: Overnight acute separation statistics, by remoteness area of residence, all hospitals, 2008–09

		Inner	Outer		Very	
	Major cities	regional	regional	Remote	remote	Total <sup>(a)</sup>
Separations	2,090,419	740,573	371,097	66,151	39,339	3,329,636
Separation rate	138.9	166.4	179.1	218.3	252.5	150.8
Standardised separation rate ratio (SRR)	0.92	1.10	1.19	1.45	1.67	
95% confidence interval of SRR	0.92-0.92	1.10–1.11	1.18–1.19	1.44-1.46	1.66–1.69	

Notes: See Box 9.1 for notes on data limitations and methods.

#### Socioeconomic status

Socioeconomic status (SES) groups in this report are based on the Index of Relative Advantage/Disadvantage (from SEIFA 2006) for the area of usual residence (SLA) of the patient. See *Appendix 1* for details.

Each SES group accounted for between 17.0% and 22.7% of total overnight acute separations. Separation rates varied from 127.9 per 1,000 population for patients living in areas classified as being the highest SES group to 169.1 per 1,000 for the lowest (Table 9.5). The 95% confidence intervals applying to the SRRs for all SES groups indicate that the differences in separation rates from the national rate were statistically significant.

Table 9.5: Selected overnight acute separation statistics, by socioeconomic status group, all hospitals, 2008–09

	1—Lowest	2	3	4	5—Highest	Total <sup>(a)</sup>
Separations	755,275	712,221	678,022	610,942	565,322	3,329,636
Separation rate	168.9	156.5	155.2	144.0	127.7	150.8
Standardised separation rate ratio (SRR)	1.12	1.04	1.03	0.95	0.85	
95% confidence interval of SRR	1.12–1.12	1.04-1.04	1.03-1.03	0.95-0.96	0.84-0.85	

<sup>(</sup>a) The total includes separations for which the remoteness area was not able to be categorised.

<sup>(</sup>a) The total includes separations for which the socioeconomic status group was not able to be categorised.

## How did people access these services?

The Mode of admission records the mechanism by which a patient begins an episode of care.

In both public and private hospitals, most overnight separations had a Mode of admission of *Other* (93% overall), the term used to refer to all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 9.6). Public hospitals recorded higher proportions of *Admitted patient transferred from another hospital* than private hospitals (7% and 5%, respectively) (Table 9.6).

Table 9.6: Overnight acute separations, by mode of admission, public and private hospitals, 2008–09

Mode of admission	Public hospitals	Private hospitals	Total
Admitted patient transferred from another hospital	161,697	51,208	212,905
Statistical admission: care type change	8,662	6,272	14,934
Other	2,133,590	964,399	3,097,989
Not reported	3,346	462	3,808
Total	2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

## Why did people receive the care?

The reasons that patients receive admitted patient care are usually described in terms of the principal diagnosis. The principal diagnosis is the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care.

## Principal diagnosis

Overall, half of all overnight acute separations in 2008–09 had a principal diagnosis from one of five ICD-10-AM chapters:

- Diseases of the digestive system
- Diseases of the respiratory system
- Diseases of the circulatory system
- Pregnancy, childbirth and the puerperium
- Injury and poisoning.

The relative distribution of separations by diagnosis chapter varied across public and private hospitals. For *Certain infectious and parasitic diseases* 88% of overnight separations were in public hospitals. For *Diseases of the musculoskeletal system and connective tissue*, the majority of separations were in private hospitals (60%) (Table 9.7).

The most common principal diagnosis (at the 3-character level) reported for overnight separations was *Pain in throat and chest*, accounting for 2.4% of overnight separations in public hospitals and 1.2% in private hospitals. The 20 most common principal diagnoses included several childbirth-related and heart-related conditions, as well as chronic

conditions such as *Type 2 diabetes mellitus* and *Other chronic obstructive pulmonary disease* (Table 9.8). Comparing this table with Table 8.8, it can be seen that the top 20 principal diagnoses for overnight separations and same-day separations are different, suggesting that there are differences in the types of conditions that are most commonly treated on an overnight basis compared with those that are not.

Table 9.7: Overnight acute separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2008–09

		Public	Private	
Principal d	iagnosis chapter	hospitals	hospitals	Total
A00-B99	Certain infectious and parasitic diseases	71,183	10,009	81,192
C00-D48	Neoplasms	125,905	102,015	227,920
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	23,044	7,286	30,330
E00-E90	Endocrine, nutritional and metabolic diseases	59,545	32,041	91,586
F00-F99	Mental and behavioural disorders	128,831	32,381	161,212
G00-G99	Diseases of the nervous system	61,592	52,587	114,179
H00-H59	Diseases of the eye and adnexa	11,006	10,223	21,229
H60-H95	Diseases of the ear and mastoid process	12,420	6,019	18,439
100-199	Diseases of the circulatory system	239,669	102,898	342,567
J00-J99	Diseases of the respiratory system	231,946	71,062	303,008
K00-K93	Diseases of the digestive system	212,958	98,537	311,495
L00-L99	Diseases of the skin and subcutaneous tissue	57,781	12,943	70,724
M00-M99	Diseases of the musculoskeletal system and connective tissue	98,124	149,294	247,418
N00-N99	Diseases of the genitourinary system	114,956	70,215	185,171
O00-O99	Pregnancy, childbirth and the puerperium	256,203	92,846	349,049
P00-P96	Certain conditions originating in the perinatal period	41,069	11,708	52,777
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	12,627	4,231	16,858
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	198,423	50,860	249,283
S00-T98	Injury, poisoning and certain other consequences of external causes	293,214	68,792	362,006
Z00–Z99	Factors influencing health status and contact with health services	56,706	35,393	92,099
	Not reported	93	1,001	1,094
Total		2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

Additional information by state and territory is available in tables S9.1 and S9.1 at the end of this chapter.

Table 9.8: Separations for the top 20 principal diagnoses in 3-character ICD-10-AM groupings with the highest number of overnight acute separations, public and private hospitals, 2008–09

Princip	pal diagnosis	Public hospitals	Private hospitals	Total
R07	Pain in throat and chest	54,582	11,972	66,554
J18	Pneumonia, organism unspecified	45,768	9,202	54,970
G47	Sleep disorders	14,856	39,906	54,762
J44	Other chronic obstructive pulmonary disease	45,164	7,508	52,672
K80	Cholelithiasis	31,955	17,632	49,587
120	Angina pectoris	34,383	15,185	49,568
I21	Acute myocardial infarction	38,859	8,416	47,275
O70	Perineal laceration during delivery	33,691	12,475	46,166
150	Heart failure	31,679	8,865	40,544
R10	Abdominal and pelvic pain	32,345	7,445	39,790
M17	Gonarthrosis [arthrosis of knee]	13,420	25,543	38,963
N39	Other disorders of urinary system	29,089	8,554	37,643
K40	Inguinal hernia	15,139	20,085	35,224
L03	Cellulitis	29,238	5,721	34,959
148	Atrial fibrillation and flutter	23,362	10,419	33,781
E11	Type 2 diabetes mellitus	25,473	8,182	33,655
O34	Maternal care for known or suspected abnormality of pelvic organs	19,732	13,858	33,590
J35	Chronic diseases of tonsils and adenoids	13,533	19,434	32,967
O80	Single spontaneous delivery	24,279	5,588	29,867
T81	Complications of procedures, not elsewhere classified	20,262	9,315	29,577
Other		1,730,486	757,036	2,487,522
Total		2,307,295	1,022,341	3,329,636

Additional information by state and territory is available in tables S9.3 and S9.4 at the end of this chapter.

## How urgent was the care?

Admissions to hospital can be categorised as *Emergency* (required within 24 hours), or *Elective* (required at some stage beyond 24 hours). Urgency of admission is *Not assigned* for some admissions, such as admissions for normal delivery and birth, statistical admissions and planned readmissions for some treatments.

For both the private and public sectors combined, 50% of overnight separations were *Emergency* admissions, 38% were *Elective* admissions and almost 12% had a *Not assigned* status. For overnight separations, 91% of *Emergency* admissions were treated in public hospitals and 61% in private hospitals. In private hospitals, 75% of overnight separations were *Elective* admissions and two out of three of these were for *Surgical* care (Table 9.9).

Table 9.9: Overnight acute separations, by urgency of admission and type of care<sup>(a)</sup>, public and private hospitals, 2008–09

		Public	c hospitals	Private	e hospitals		Total
Urgency of of care	f admission and type	Separations	Per cent (column)	Separations	Per cent (column)	Separations	Per cent (column)
Emergency	1						
	Surgical	210,890	9.1	27,967	2.7	238,857	7.2
	Medical	1,255,407	54.4	116,633	11.4	1,372,040	41.2
	Other	49,896	2.2	9,250	0.9	59,146	1.8
	Total emergency	1,516,193		153,850		1,670,043	
Elective							
	Surgical	322,961	14.0	506,609	49.6	829,570	24.9
	Medical	162,357	7.0	226,703	22.2	389,060	11.7
	Other	19,603	0.8	37,018	3.6	56,621	1.7
	Total elective	504,921		770,330		1,275,251	
Not assigne	ed	285,633	12.4	92,273	9.0	377,906	11.3
Not reporte	ed	548	0.0	5,888	0.6	6,436	0.2
Total		2,307,295	100	1,022,341	100	3,329,636	100

Additional information by state and territory is available in Table S9.5 at the end of this chapter.

## What care was provided?

The care that the patient received can be described in a variety of ways. This section presents information on overnight acute separations describing care by:

- the overall type of care: *Surgical* (involving an operating room procedure), *Medical* (not involving a procedure) and *Other* (involving a non-operating room procedure such as endoscopy)
- Major Diagnostic Categories and Australian Refined Diagnosis Related Groups (AR-DRGs), based on the AR-DRG classification of acute care separations
- the type of surgical or other procedure undertaken.

## Medical, surgical or other care

In this section, separations are grouped according to categories of care, using the Australian Refined Diagnosis Group (AR-DRG) classification. Acute care activity can be classified as *Medical, Surgical* and *Other* care based on the *Medical, Surgical* and *Other* partitions of the AR-DRG classification (see Box 7.1).

*Medical* DRGs accounted for 62% of overnight separations and *Surgical* DRGs accounted for 35% of overnight separations (Table 9.10). For public hospitals, over 71% of overnight separations were for *Medical* care, and for private hospitals, about 56% were for *Surgical* care.

<sup>(</sup>a) The type of care is assigned according to the Medical/Surgical/Other partitions of the AR-DRG classification.

## **Major Diagnostic Categories**

Table 9.10 presents overnight acute separations by Major Diagnostic Categories (MDCs) for public and private hospitals. *Diseases and disorders of the musculoskeletal system and connective tissue* accounted for one in eight overnight acute separations for the combined public and private sectors, with 54% of this activity occurring in public hospitals. For *Diseases and disorders of the kidney and urinary tract*, seven in ten separations were in public hospitals.

Table 9.10: Overnight acute separations, by Major Diagnostic Category, AR-DRG version 5.2, public and private hospitals, 2008–09

Majo	or Diagnostic Category	Public hospitals	Private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	11,751	1,457	13,208
01	Diseases and disorders of the nervous system	146,294	32,062	178,356
02	Diseases and disorders of the eye	16,848	12,517	29,365
03	Diseases and disorders of the ear, nose, mouth and throat	94,721	60,664	155,385
04	Diseases and disorders of the respiratory system	229,240	80,242	309,482
05	Diseases and disorders of the circulatory system	284,678	114,854	399,532
06	Diseases and disorders of the digestive system	248,666	105,610	354,276
07	Diseases and disorders of the hepatobiliary system and pancreas	70,349	29,228	99,577
80	Diseases and disorders of the musculoskeletal system and connective tissue	228,718	193,914	422,632
09	Diseases and disorders of the skin, subcutaneous tissue and breast	91,412	51,374	142,786
10	Endocrine, nutritional and metabolic diseases and disorders	52,204	30,757	82,961
11	Diseases and disorders of the kidney and urinary tract	98,314	38,154	136,468
12	Diseases and disorders of the male reproductive system	20,961	25,575	46,536
13	Diseases and disorders of the female reproductive system	42,368	40,315	82,683
14	Pregnancy, childbirth and puerperium	263,615	94,249	357,864
15	Newborns and other neonates	59,794	18,057	77,851
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	25,404	7,797	33,201
17	Neoplastic disorders (haematological and solid neoplasms)	19,408	11,671	31,079
18	Infectious and parasitic diseases	46,589	10,330	56,919
19	Mental diseases and disorders	97,316	26,330	123,646
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	24,821	6,011	30,832
21	Injuries, poisoning and toxic effects of drugs	91,684	14,594	106,278
22	Burns	5,365	188	5,553
23	Factors influencing health status and other contacts with health services	33,092	12,735	45,827
ED	Error DRGs <sup>(d)</sup>	3,683	3,656	7,339
	Surgical	587,454	567,081	1,154,535
	Medical	1,648,230	407,673	2,055,903
	Other	71,611	47,587	119,198
Tota	ıl	2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

Abbreviation: ECMO—extracorporeal membrane oxygenation; DRG—Diagnosis Related Group; MDC—Major Diagnostic Category. Additional information by state and territory is available in tables S9.6 and S9.7 at the end of this chapter.

### Most common AR-DRGs

In 2008–09, the 20 most common AR-DRGs accounted for about a quarter of overnight acute separations. Childbirth-related AR-DRGs were the two most common overnight separations, and the top 20 included several heart- and respiratory-related AR-DRGs (Table 9.11). Public hospitals provided the majority of separations for childbirth and *Chest pain*. Private hospitals provided the majority of separations for AR-DRGs such as *Sleep apnoea*, *Knee replacement and reattachment* and *Other shoulder procedures*.

Table 9.11: Separations for the top 20 AR-DRGs version 5.2 with the highest number of overnight acute separations, public and private hospitals, 2008–09

AR-DR	G	Public hospitals	Private hospitals	Total
O60B	Vaginal Delivery W/O Catastrophic or Severe CC	101,564	36,766	138,330
O01C	Caesarean Delivery W/O Catastrophic or Severe CC	43,619	28,775	72,394
F74Z	Chest Pain	51,335	7,717	59,052
G67B	Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9 W/O Cat/Sev CC	43,118	8,900	52,018
E63Z	Sleep Apnoea	6,711	34,761	41,472
J64B	Cellulitis (Age >59 W/O Catastrophic or Severe CC) or Age <60	35,834	5,466	41,300
O66A	Antenatal and Other Obstetric Admission	31,203	7,126	38,329
H08B	Laparoscopic Cholecystectomy W/O Closed CDE W/O Cat or Sev CC	19,222	16,688	35,910
104Z	Knee Replacement and Reattachment	12,163	23,008	35,171
D11Z	Tonsillectomy and/or Adenoidectomy	14,840	19,200	34,040
I16Z	Other Shoulder Procedures	5,641	27,552	33,193
G09Z	Inguinal and Femoral Hernia Procedures Age>0	12,548	18,427	30,975
U63B	Major Affective Disorders Age <70 W/O Catastrophic or Severe CC	17,860	12,126	29,986
O60C	Vaginal Delivery Single Uncomplicated W/O Other Condition	24,262	5,586	29,848
P67D	Neonate, AdmWt >2499 g W/O Significant OR Procedure W/O Problem	21,039	8,343	29,382
E62C	Respiratory Infections/Inflammations W/O CC	23,840	4,697	28,537
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	24,533	3,986	28,519
E65B	Chronic Obstructive Airways Disease W/O Catastrophic or Severe CC	23,605	4,636	28,241
F71B	Non-Major Arrhythmia and Conduction Disorders W/O Catastrophic or Severe CC	21,196	6,445	27,641
F62B	Heart Failure and Shock W/O Catastrophic CC	21,243	5,977	27,220
Other		1,751,919	736,159	2,488,078
Total		2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

Abbreviation: Abbreviations: AdmWt—admission weight; CC—complications and comorbidities; Cat/Sev—catastrophic or severe; Gastroent—gastroenterological; Misc—miscellaneous; Sys—system; W—with; W/O—without.

Additional information by state and territory is available in tables S9.8 and S9.9 at the end of this chapter.

#### **Procedures**

A procedure is defined as a clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic risk, requires specialised training, and/or requires special facilities or equipment available only in an acute care setting (HDSC 2006).

Procedures therefore encompass surgical procedures and non-surgical investigative and therapeutic procedures such as X-rays and chemotherapy. Client support interventions that are neither investigative nor therapeutic (such as anaesthesia) are also included.

In 2008–09, 4.7 million procedures were reported for overnight acute separations, about 2.9 million in the public sector and 1.7 million in the private sector. Public hospitals accounted for 63% of the overnight acute separations for which a procedure was reported, although they accounted for 69% of the separations overall (Table 9.12). In public hospitals, 70% of overnight acute separations involved a procedure (1.6 million). In contrast, 88% of overnight acute separations in private hospitals involved a procedure (0.9 million).

Table 9.12: Overnight acute separations<sup>(a)</sup>, by procedure in ACHI chapters, public and private hospitals, 2008–09

Procedure of	chapters	Public hospitals	Private hospitals	Total
1–86	Procedures on nervous system	44,358	41,455	85,813
110-129	Procedures on endocrine system	6,553	6,721	13,274
160-256	Procedures on eye and adnexa	12,300	11,420	23,720
300-333	Procedures on ear and mastoid process	9,487	8,363	17,850
370-422	Procedures on nose, mouth and pharynx	40,618	48,062	88,680
450-490	Dental services	5,664	3,647	9,311
520-570	Procedures on respiratory system	80,176	24,330	104,506
600-777	Procedures on cardiovascular system	138,183	91,838	230,021
800-817	Procedures on blood and blood-forming organs	20,492	15,202	35,694
850-1011	Procedures on digestive system	198,181	142,636	340,817
1040-1129	Procedures on urinary system	73,774	48,016	121,790
1160–1203	Procedures on male genital organs	18,475	26,717	45,192
1240-1299	Gynaecological procedures	46,972	41,087	88,059
1330–1347	Obstetric procedures	179,962	79,405	259,367
1360–1579	Procedures on musculoskeletal system	172,405	169,931	342,336
1600–1718	Dermatological and plastic procedures	97,047	49,351	146,398
1740–1759	Procedures on breast	11,186	20,525	31,711
1786–1799	Radiation oncology procedures	7,657	2,689	10,346
1820-1922	Non-invasive, cognitive and other interventions, n.e.c.	1,345,738	817,965	2,163,703
1940–2016	Imaging services	421,778	109,804	531,582
	Procedures reported	2,931,006	1,759,164	4,690,170
	Separations with no procedure reported	697,694	117,941	815,635
Total overn	ight separations	2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

Abbreviation: n.e.c—not elsewhere classified.

Additional information by state and territory is available in tables \$9.10 and \$9.11 at the end of this chapter.

<sup>(</sup>a) A separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

In 2008–09, *Cerebral anaesthesia* (general anaesthesia) was the most common procedure block reported for overnight acute separations, reflecting that it is a companion procedure for many other procedures. *General allied health interventions*, which include physiotherapy and other rehabilitation procedures or interventions, was the next most frequently reported procedure block (Table 9.13).

Table 9.13: Procedure statistics for the top 20 ACHI procedure blocks with the highest number of overnight acute separations, public and private hospitals, 2008–09

		Public	Private	
Proce	dure block	hospitals	hospitals	Total
1910	Cerebral anaesthesia	616,167	579,243	1,195,410
1916	Generalised allied health interventions	869,047	326,036	1,195,083
1909	Conduction anaesthesia	113,788	117,008	230,796
1893	Transfusion of blood and gamma globulin	125,692	57,418	183,110
1952	Computerised tomography of brain	160,473	19,286	179,759
1912	Postprocedural analgesia	57,796	55,058	112,854
1920	Administration of pharmacotherapy	71,890	28,447	100,337
1963	Computerised tomography of abdomen and pelvis	77,861	16,596	94,457
1340	Caesarean section	56,864	34,214	91,078
1344	Postpartum suture	62,746	23,432	86,178
668	Coronary angiography	40,454	36,413	76,867
1333	Analgesia and anaesthesia during labour and delivery procedure	45,681	27,556	73,237
1334	Medical or surgical induction of labour	47,903	22,942	70,845
1966	Other computerised tomography	51,952	12,335	64,287
1335	Medical or surgical augmentation of labour	46,170	16,232	62,402
2015	Magnetic resonance imaging	46,794	14,438	61,232
738	Venous catheterisation	46,892	12,123	59,015
607	Examination procedures on ventricle	22,416	27,425	49,841
965	Cholecystectomy	26,625	20,167	46,792
412	Tonsillectomy or adenoidectomy	19,865	25,107	44,972
	Other	1,696,164	1,270,598	2,966,762
	Total procedures reported	4,303,240	2,742,074	7,045,314
	Separations with no procedure reported	697,694	117,941	815,635
Total s	separations	2,307,295	1,022,341	3,329,636

Notes: See Box 9.1 for notes on data limitations and methods.

## How long did patients stay?

The lengths of stay for overnight acute separations varied by the type of care received, and between public and private hospitals. Separations with *Surgical DRGs* had longer lengths of stay in public hospitals than in private hospitals, and separations for *Medical DRGs* had longer lengths of stay in private hospitals.

<sup>(</sup>a) As more than one procedure may be reported within each ACHI block, the total number of procedures may not sum to the total of the rows. Additional information by state and territory is available in tables S9.12 and S9.13 at the end of this chapter.

Table 9.14: Patient days and average length of stay, for overnight acute separations, by *Medical/Surgical/Other DRG* partition, public and private hospitals, 2008–09

	Public hos	pitals	Private hos	pitals	Total		
AR-DRG Partition	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay	
Surgical DRG	3,452,269	5.9	2,172,309	3.8	5,624,578	4.9	
Medical DRG	8,551,267	5.2	2,548,013	6.3	11,099,280	5.4	
Other DRG	401,812	5.6	150,357	3.2	552,169	4.6	
Total	12,405,348	5.4	4,870,679	4.8	17,276,027	5.2	

## Who paid for the care?

Over 84% of overnight acute separations from public hospitals were for *Public patients* (mainly funded through the *Australian Health Care Agreements*), and over 83% of overnight acute separations from private hospitals were funded by *Private health insurance* (Table 9.15). The *Department of Veterans' Affairs* funded about 3% of overnight acute separations in public hospitals and 8% in private hospitals.

Table 9.15: Overnight acute separations, by principal source of funds, public and private hospitals, 2008–09

	Public hospitals	Private hospitals	Total
Public patients <sup>(a)</sup>	1,942,018	9,725	1,951,743
Private health insurance	232,039	850,818	1,082,857
Self-funded <sup>(b)</sup>	23,731	38,372	62,103
Workers compensation	13,246	26,183	39,429
Motor vehicle third party personal claim	15,378	2,124	17,502
Department of Veterans' Affairs	66,187	83,599	149,786
Other <sup>(c)</sup>	14,696	11,520	26,216
Total	2,307,295	1,022,341	3,329,636

- (a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.
- (b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.
- (c) 'Other' includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a public patient election status), *Other*, *No charge raised* (in private hospitals) and *Not reported*.

## How was the care completed?

The Mode of separation records the status of the patient at the time of separation and, for some categories, the place to which the person was discharged or transferred

Around 88% of overnight acute separations had a Mode of separation of *Other*, suggesting that most patients go home after their episode of care (Table 9.16). This was particularly the case in private hospitals, where 94% of separations reported a Mode of separation of *Other* compared with 85% in public hospitals.

Table 9.16: Overnight acute separations, by mode of separation, public and private hospitals, 2008–09

Mode of separation	Public hospitals	Private hospitals	Total
Discharge/transfer to an (other) acute hospital	170,212	35,779	205,991
Discharge/transfer to residential aged care service	34,995	6,479	41,474
Discharge/transfer to an (other) psychiatric hospital	4,301	152	4,453
Discharge/transfer to other health care accommodation	8,698	1,487	10,185
Statistical discharge: type change	52,203	10,177	62,380
Left against medical advice/discharge at own risk	25,037	1,349	26,386
Statistical discharge from leave	4,891	58	4,949
Died	39,162	9,951	49,113
Other	1,967,789	956,901	2,924,690
Not reported	7	8	15
Total	2,307,295	1,022,341	3,329,636

# Supplementary tables

The following supplementary tables provide more information on diagnosis and procedure information provided for overnight acute separations, by state and territory.

## Box 9.3: Methods – Chapter 9 Supplementary tables

#### Table S9.5:

(a) The type of care is assigned according to the *Medical/Surgical/Other* partitions of the AR-DRG classification.

#### **Tables S9.6 to S9.9**

(b) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Abbreviations: AdmWt—admission weight; Cat/Sev—catastrophic or severe; CC—complications and comorbidities; CDE—common bile duct exploration; DRG—Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation; Gastroent—gastroenterological; MDC—Major Diagnostic Category; Misc—miscellaneous; Sys—system; URI—upper respiratory tract infection; W—with; W/O—without.

#### Tables S9.10 to S9.13:

- (a) For tables with counts of separations by groups of procedures, a separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.
- (b) For data on the number of procedures, all procedures within a group are counted, even if more than one is reported for a separation.
- (c) These are counts of Australian Classification of Health Interventions (ACHI) procedure codes. It is possible that a single procedure code may represent multiple procedures or that a specific procedure may require the reporting of more than one code. Therefore the number of procedure codes reported does not necessarily equal the number of separate procedures performed.

Table S9.1: Overnight acute separations, by principal diagnosis in ICD-10-AM chapters, public hospitals, states and territories, 2008-09

Principal dia	agnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	27,553	16,389	11,950	6,453	5,085	1,012	995	1,746	71,183
C00-D48	Neoplasms	42,155	33,733	22,060	10,781	11,655	2,709	2,058	754	125,905
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	8,011	6,037	3,787	1,829	2,460	371	316	233	23,044
E00-E90	Endocrine, nutritional and metabolic diseases	18,593	15,188	11,029	5,743	5,637	1,196	901	1,258	59,545
F00-F99	Mental and behavioural disorders	47,675	27,583	20,553	13,619	13,117	3,339	1,782	1,163	128,831
G00-G99	Diseases of the nervous system	19,147	18,708	10,778	5,096	5,565	1,004	766	528	61,592
H00-H59	Diseases of the eye and adnexa	4,280	2,762	1,635	1,163	806	67	145	148	11,006
H60-H95	Diseases of the ear and mastoid process	3,863	3,049	2,108	1,324	1,174	204	179	519	12,420
100-199	Diseases of the circulatory system	86,298	57,998	44,332	18,886	21,069	4,829	4,075	2,182	239,669
J00-J99	Diseases of the respiratory system	83,105	55,030	39,647	20,816	21,693	3,996	3,132	4,527	231,946
K00-K93	Diseases of the digestive system	74,027	52,384	37,735	20,369	18,445	3,852	3,401	2,745	212,958
L00-L99	Diseases of the skin and subcutaneous tissue	19,040	12,135	12,060	6,265	4,401	923	765	2,192	57,781
M00-M99	Diseases of the musculoskeletal system and connective tissue	33,604	24,342	16,519	10,208	8,760	2,034	1,683	974	98,124
N00-N99	Diseases of the genitourinary system	39,373	28,542	20,576	10,728	10,540	1,862	1,785	1,550	114,956
O00-O99	Pregnancy, childbirth and the puerperium	87,593	59,589	52,383	25,563	17,809	4,507	4,463	4,296	256,203
P00-P96	Certain conditions originating in the perinatal period	13,010	10,674	8,049	3,584	3,204	743	1,045	760	41,069
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	4,334	3,269	2,343	1,180	994	240	188	79	12,627
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	71,677	48,927	36,547	15,668	17,873	3,223	2,147	2,361	198,423
S00-T98	Injury, poisoning and certain other consequences of external causes	100,526	66,944	54,887	30,877	23,052	6,157	5,338	5,433	293,214
Z00–Z99	Factors influencing health status and contact with health services	22,587	12,573	9,982	3,895	4,842	1,141	500	1,186	56,706
	Not reported	93	0	0	0	0	0	0	0	93
Tota	ıl	806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295

Table S9.2: Overnight acute separations, by principal diagnosis in ICD-10-AM chapters, private hospitals, states and territories, 2008-09

Principal d	liagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	1,480	2,869	3,761	811	748	n.p.	n.p.	n.p.	10,009
C00-D48	Neoplasms	25,000	27,892	25,335	10,911	9,128	n.p.	n.p.	n.p.	102,015
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1,141	2,190	2,084	798	844	n.p.	n.p.	n.p.	7,286
E00-E90	Endocrine, nutritional and metabolic diseases	7,874	7,464	7,275	4,781	3,139	n.p.	n.p.	n.p.	32,041
F00-F99	Mental and behavioural disorders	9,567	8,446	7,382	3,922	1,731	n.p.	n.p.	n.p.	32,381
G00-G99	Diseases of the nervous system	14,142	13,656	14,596	4,355	4,545	n.p.	n.p.	n.p.	52,587
H00-H59	Diseases of the eye and adnexa	3,122	1,913	1,532	2,276	988	n.p.	n.p.	n.p.	10,223
H60-H95	Diseases of the ear and mastoid process	1,863	1,221	1,338	707	655	n.p.	n.p.	n.p.	6,019
100-199	Diseases of the circulatory system	23,641	29,687	28,673	9,271	8,518	n.p.	n.p.	n.p.	102,898
J00-J99	Diseases of the respiratory system	17,575	16,838	19,366	7,098	6,992	n.p.	n.p.	n.p.	71,062
K00-K93	Diseases of the digestive system	24,239	24,452	26,838	9,933	8,643	n.p.	n.p.	n.p.	98,537
L00-L99	Diseases of the skin and subcutaneous tissue	2,843	3,306	3,690	1,436	1,129	n.p.	n.p.	n.p.	12,943
M00-M99	Diseases of the musculoskeletal system and connective tissue	39,708	37,284	31,668	20,305	13,869	n.p.	n.p.	n.p.	149,294
N00-N99	Diseases of the genitourinary system	19,552	16,052	16,963	7,521	7,024	n.p.	n.p.	n.p.	70,215
O00-O99	Pregnancy, childbirth and the puerperium	25,888	22,245	21,618	11,240	5,797	n.p.	n.p.	n.p.	92,846
P00-P96	Certain conditions originating in the perinatal period	2,876	3,335	2,515	1,813	751	n.p.	n.p.	n.p.	11,708
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	1,494	1,055	854	377	346	n.p.	n.p.	n.p.	4,231
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	8,070	15,175	14,904	5,261	5,426	n.p.	n.p.	n.p.	50,860
S00-T98	Injury, poisoning and certain other consequences of external causes	16,475	15,910	18,819	8,325	6,403	n.p.	n.p.	n.p.	68,792
Z00–Z99	Factors influencing health status and contact with health services	14,138	6,885	5,711	4,037	2,180	n.p.	n.p.	n.p.	35,393
	Not reported	0	998	0	0	0	n.p.	n.p.	n.p.	1,001
Total		260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.3: Overnight acute separations, for the top 20 principal diagnoses, public hospitals, states and territories, 2008-09

Princi	pal diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
R07	Pain in throat and chest	19,243	11,864	12,004	4,057	5,357	805	576	676	54,582
J18	Pneumonia, organism unspecified	16,565	11,569	7,318	4,040	3,589	854	639	1,194	45,768
J44	Other chronic obstructive pulmonary disease	16,989	10,306	8,296	3,309	4,204	943	481	636	45,164
I21	Acute myocardial infarction	13,340	9,586	8,251	2,886	2,864	822	716	394	38,859
120	Angina pectoris	11,524	7,591	7,481	2,904	3,124	943	477	339	34,383
O70	Perineal laceration during delivery	15,035	6,640	6,307	2,353	1,592	468	825	471	33,691
R10	Abdominal and pelvic pain	11,024	8,658	5,736	2,974	2,658	542	382	371	32,345
K80	Cholelithiasis	10,741	8,408	5,888	2,885	2,636	576	452	369	31,955
150	Heart failure	11,849	7,993	4,998	2,798	2,705	599	431	306	31,679
L03	Cellulitis	10,169	6,456	6,039	2,882	2,126	469	394	703	29,238
N39	Other disorders of urinary system	11,382	6,332	5,238	2,557	2,419	353	455	353	29,089
E11	Type 2 diabetes mellitus	7,796	6,335	4,680	2,748	2,494	435	406	579	25,473
O80	Single spontaneous delivery	9,026	3,584	6,622	2,136	1,562	457	395	497	24,279
J45	Asthma	8,400	6,425	3,661	2,108	2,706	269	270	348	24,187
148	Atrial fibrillation and flutter	9,326	5,174	4,068	1,751	2,136	400	335	172	23,362
S52	Fracture of forearm	7,698	5,128	3,684	2,169	1,629	477	587	427	21,799
F20	Schizophrenia	7,047	5,106	4,199	1,946	1,824	520	258	245	21,145
S72	Fracture of femur	7,970	4,744	3,368	2,050	1,540	529	425	136	20,762
T81	Complications of procedures, not elsewhere classified	7,089	4,836	3,488	2,009	1,721	396	346	377	20,262
K35	Acute appendicitis	6,831	4,793	3,648	2,341	1,451	376	457	264	20,161
Other		587,500	414,328	303,986	161,144	147,844	32,176	26,357	25,777	1,699,112
Total (	(All principal diagnoses)	806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295

Table S9.4: Overnight acute separations, for the top 20 principal diagnoses, private hospitals, states and territories, 2008-09

Princi	pal diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
G47	Sleep disorders	11,289	10,428	10,902	2,907	3,550	n.p.	n.p.	n.p.	39,906
M17	Gonarthrosis [arthrosis of knee]	8,056	5,424	5,582	2,891	2,553	n.p.	n.p.	n.p.	25,543
M75	Shoulder lesions	4,710	5,214	4,195	3,631	1,977	n.p.	n.p.	n.p.	20,469
K40	Inguinal hernia	6,484	4,664	4,404	2,045	1,649	n.p.	n.p.	n.p.	20,085
J35	Chronic diseases of tonsils and adenoids	7,092	3,414	4,052	2,263	1,744	n.p.	n.p.	n.p.	19,434
K80	Cholelithiasis	5,032	4,220	4,182	1,775	1,540	n.p.	n.p.	n.p.	17,632
120	Angina pectoris	3,185	4,658	4,592	1,241	992	n.p.	n.p.	n.p.	15,185
M16	Coxarthrosis [arthrosis of hip]	4,089	3,785	2,445	1,462	1,489	n.p.	n.p.	n.p.	13,995
O34	Maternal care for known or suspected abnormality of pelvic organs	3,723	3,047	3,717	1,859	855	n.p.	n.p.	n.p.	13,858
E66	Obesity	3,221	2,602	2,523	2,431	1,328	n.p.	n.p.	n.p.	12,833
O70	Perineal laceration during delivery	4,276	2,888	2,784	1,060	731	n.p.	n.p.	n.p.	12,475
125	Chronic ischaemic heart disease	4,124	3,406	2,802	971	764	n.p.	n.p.	n.p.	12,325
R07	Pain in throat and chest	1,463	3,623	3,695	1,012	1,804	n.p.	n.p.	n.p.	11,972
C61	Malignant neoplasm of prostate	3,481	3,015	2,435	1,018	675	n.p.	n.p.	n.p.	11,125
M23	Internal derangement of knee	2,323	2,617	2,504	1,562	1,507	n.p.	n.p.	n.p.	11,010
C50	Malignant neoplasm of breast	2,679	3,099	2,275	1,056	935	n.p.	n.p.	n.p.	10,506
148	Atrial fibrillation and flutter	1,744	2,867	3,335	961	1,200	n.p.	n.p.	n.p.	10,419
M51	Other intervertebral disc disorders	2,605	2,327	2,851	1,446	767	n.p.	n.p.	n.p.	10,394
J34	Other disorders of nose and nasal sinuses	3,638	2,518	1,460	1,082	1,044	n.p.	n.p.	n.p.	10,227
N40	Hyperplasia of prostate	3,421	2,758	1,945	792	849	n.p.	n.p.	n.p.	10,164
Other		174,053	182,299	182,242	81,713	60,903	n.p.	n.p.	n.p.	712,784
Total (	(All principal diagnoses)	260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.5: Overnight acute separations, by *Medical/Surgical/Other* partition of AR-DRG version 5.2, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Surgical DRG	187,786	153,314	104,898	59,470	51,454	11,976	11,501	7,055	587,454
Medical DRG	593,820	384,398	302,359	148,492	139,781	29,983	23,081	26,316	1,648,230
Other DRG	24,938	18,144	11,703	6,085	6,946	1,450	1,082	1,263	71,611
Total	806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295
Private hospitals									
Surgical DRG	161,183	134,154	126,696	71,263	50,016	n.p.	n.p.	n.p.	567,081
Medical DRG	89,189	109,823	115,051	40,221	34,803	n.p.	n.p.	n.p.	407,673
Other DRG	10,316	14,896	13,175	3,694	4,037	n.p.	n.p.	n.p.	47,587
Total	260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.6: Overnight acute separations, by Major Diagnostic Category, AR-DRG version 5.2, public hospitals, states and territories, 2008-09

Major	Diagnostic Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	4,025	3,079	2,081	997	1,033	223	176	137	11,751
01	Diseases and disorders of the nervous system	52,255	36,456	24,757	13,216	12,639	3,114	2,168	1,689	146,294
02	Diseases and disorders of the eye	6,136	4,166	2,763	1,902	1,266	129	219	267	16,848
03	Diseases and disorders of the ear, nose, mouth and throat	28,814	24,562	16,698	10,147	9,125	1,786	1,630	1,959	94,721
04	Diseases and disorders of the respiratory system	82,891	55,477	39,507	19,362	21,140	3,811	2,777	4,275	229,240
05	Diseases and disorders of the circulatory system	101,515	66,667	56,387	21,730	25,982	5,188	4,379	2,830	284,678
06	Diseases and disorders of the digestive system	87,837	61,615	43,402	23,148	21,646	4,464	3,599	2,955	248,666
07	Diseases and disorders of the hepatobiliary system and pancreas	24,655	18,119	12,369	6,135	5,730	1,253	1,083	1,005	70,349
08	Diseases and disorders of the musculoskeletal system and connective tissue	79,399	54,581	40,118	23,833	18,338	5,009	4,511	2,929	228,718
09	Diseases and disorders of the skin, subcutaneous tissue and breast	30,542	19,802	18,471	9,582	7,717	1,451	1,251	2,596	91,412
10	Endocrine, nutritional and metabolic diseases and disorders	17,361	12,992	9,501	4,768	4,882	1,061	772	867	52,204
11	Diseases and disorders of the kidney and urinary tract	33,821	23,334	18,549	9,090	8,778	1,389	1,663	1,690	98,314
12	Diseases and disorders of the male reproductive system	6,909	5,661	3,323	2,028	1,968	457	393	222	20,961
13	Diseases and disorders of the female reproductive system	13,443	11,747	7,620	3,771	3,804	922	536	525	42,368
14	Pregnancy, childbirth and puerperium	90,186	61,301	53,570	26,401	18,288	4,627	4,572	4,670	263,615
15	Newborns and other neonates	23,377	13,608	10,693	4,446	4,220	1,184	1,211	1,055	59,794
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	8,680	6,568	4,321	2,083	2,608	416	370	358	25,404
17	Neoplastic disorders (haematological and solid neoplasms)	6,612	5,228	3,062	1,719	1,873	442	381	91	19,408
18	Infectious and parasitic diseases	17,727	11,001	8,084	4,344	3,107	715	696	915	46,589
19	Mental diseases and disorders	32,469	23,168	16,822	10,063	10,343	2,474	1,149	828	97,316
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	11,059	3,847	3,733	2,802	1,961	571	569	279	24,821
21	Injuries, poisoning and toxic effects of drugs	31,116	21,732	16,972	9,322	7,563	1,945	1,324	1,710	91,684
22	Burns	1,389	1,053	1,116	639	678	129	42	319	5,365
23	Factors influencing health status and other contacts with health services	13,253	9,100	4,519	1,963	3,114	582	155	406	33,092
ED	Error DRGs <sup>(b)</sup>	1,073	992	522	556	378	67	38	57	3,683
Total		806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295

Table S9.7: Overnight acute separations, by Major Diagnostic Category, AR-DRG version 5.2, private hospitals, states and territories, 2008-09

Major	Diagnostic Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	288	350	530	109	140	n.p.	n.p.	n.p.	1,457
01	Diseases and disorders of the nervous system	7,151	8,672	9,234	3,282	2,568	n.p.	n.p.	n.p.	32,062
02	Diseases and disorders of the eye	3,743	2,391	2,010	2,721	1,176	n.p.	n.p.	n.p.	12,517
03	Diseases and disorders of the ear, nose, mouth and throat	19,019	12,852	12,710	7,010	6,334	n.p.	n.p.	n.p.	60,664
04	Diseases and disorders of the respiratory system	17,122	22,093	24,856	6,400	7,297	n.p.	n.p.	n.p.	80,242
05	Diseases and disorders of the circulatory system	25,086	33,887	32,024	10,111	10,484	n.p.	n.p.	n.p.	114,854
06	Diseases and disorders of the digestive system	23,259	27,295	30,352	10,778	9,410	n.p.	n.p.	n.p.	105,610
07	Diseases and disorders of the hepatobiliary system and pancreas	7,521	7,458	7,653	2,774	2,464	n.p.	n.p.	n.p.	29,228
08	Diseases and disorders of the musculoskeletal system and connective tissue	51,261	47,221	43,467	25,540	18,330	n.p.	n.p.	n.p.	193,914
09	Diseases and disorders of the skin, subcutaneous tissue and breast	12,840	13,027	12,090	6,897	4,255	n.p.	n.p.	n.p.	51,374
10	Endocrine, nutritional and metabolic diseases and disorders	7,909	6,964	7,124	4,325	2,915	n.p.	n.p.	n.p.	30,757
11	Diseases and disorders of the kidney and urinary tract	8,486	10,214	10,061	3,850	3,895	n.p.	n.p.	n.p.	38,154
12	Diseases and disorders of the male reproductive system	8,060	6,767	5,403	2,345	1,909	n.p.	n.p.	n.p.	25,575
13	Diseases and disorders of the female reproductive system	12,382	8,289	9,581	4,446	3,766	n.p.	n.p.	n.p.	40,315
14	Pregnancy, childbirth and puerperium	26,693	22,531	21,752	11,305	5,846	n.p.	n.p.	n.p.	94,249
15	Newborns and other neonates	7,842	3,672	2,885	2,221	805	n.p.	n.p.	n.p.	18,057
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	1,235	2,312	2,235	876	894	n.p.	n.p.	n.p.	7,797
17	Neoplastic disorders (haematological and solid neoplasms)	1,646	3,569	3,398	1,651	1,140	n.p.	n.p.	n.p.	11,671
18	Infectious and parasitic diseases	1,888	2,788	3,290	1,049	872	n.p.	n.p.	n.p.	10,330
19	Mental diseases and disorders	7,627	6,823	5,659	3,503	1,512	n.p.	n.p.	n.p.	26,330
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	2,105	1,578	1,465	521	217	n.p.	n.p.	n.p.	6,011
21	Injuries, poisoning and toxic effects of drugs	3,133	3,554	4,211	1,951	1,043	n.p.	n.p.	n.p.	14,594
22	Burns	30	57	60	10	14	n.p.	n.p.	n.p.	188
23	Factors influencing health status and other contacts with health services	3,885	2,868	2,205	1,085	1,168	n.p.	n.p.	n.p.	12,735
ED	Error DRGs <sup>(b)</sup>	477	1,641	667	418	402	n.p.	n.p.	n.p.	3,656
Total		260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.8: Overnight acute separations, for the top 20 AR-DRGs version 5.2, public hospitals, states and territories, 2008-09

AR-DRG		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
O60B	Vaginal Delivery W/O Catastrophic or Severe CC	35,134	26,608	19,150	9,381	6,535	1,704	1,800	1,252	101,564
F74Z	Chest Pain	17,989	11,239	11,454	3,724	5,045	731	516	637	51,335
O01C	Caesarean Delivery W/O Catastrophic or Severe CC	14,775	10,578	9,076	4,016	3,177	802	651	544	43,619
G67B	Oesophagitis, Gastroent & Misc Digestive System Disorders Age>9 W/O Cat/Sev CC	16,075	9,687	7,834	3,893	3,970	719	541	399	43,118
J64B	Cellulitis (Age >59 W/O Catastrophic or Severe CC) or Age <60	11,432	7,067	8,052	4,158	2,522	540	453	1,610	35,834
O66A	Antenatal and Other Obstetric Admission	10,820	5,937	6,745	3,502	2,171	599	532	897	31,203
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	8,533	6,441	4,384	2,265	1,957	423	279	251	24,533
O60C	Vaginal Delivery Single Uncomplicated W/O Other Condition	9,019	3,583	6,618	2,133	1,562	457	395	495	24,262
E62C	Respiratory Infections/Inflammations W/O CC	9,118	4,763	4,524	2,315	1,733	477	327	583	23,840
E65B	Chronic Obstructive Airways Disease W/O Catastrophic or Severe CC	9,101	4,352	4,545	2,041	2,240	620	245	461	23,605
F62B	Heart Failure and Shock W/O Catastrophic CC	8,357	4,603	3,487	2,005	1,806	473	295	217	21,243
E69C	Bronchitis and Asthma Age <50 W/O CC	8,366	4,900	3,115	1,842	2,300	229	214	272	21,238
F71B	Non-Major Arrhythmia and Conduction Disorders W/O Catastrophic or Severe CC	8,669	4,346	4,051	1,483	1,786	403	288	170	21,196
P67D	Neonate, AdmWt >2499 g W/O Significant OR Procedure W/O Problem	11,708	3,524	3,003	819	1,029	451	242	263	21,039
U67Z	Personality Disorders and Acute Reactions	7,078	3,862	3,399	2,935	2,163	698	181	176	20,492
E65A	Chronic Obstructive Airways Disease W Catastrophic or Severe CC	7,167	5,312	3,637	1,224	1,893	293	189	353	20,068
E62B	Respiratory Infections/Inflammations W Severe or Moderate CC	7,127	4,754	3,002	1,826	1,596	358	269	652	19,584
G07B	Appendicectomy W/O Catastrophic or Severe CC	6,797	4,594	3,370	2,299	1,403	363	420	244	19,490
H08B	Laparoscopic Cholecystectomy W/O Closed CDE W/O Cat or Sev CC	6,425	5,169	3,465	1,797	1,628	323	263	152	19,222
D63B	Otitis Media and URI W/O CC	6,970	3,878	3,825	1,865	1,731	291	234	355	19,149
Total		806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295

Table S9.9: Overnight acute separations, for the top 20 AR-DRGs version 5.2, private hospitals, states and territories, 2008-09

AR-DRG		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
O60B	Vaginal Delivery W/O Catastrophic or Severe CC	10,927	9,394	7,460	4,123	2,419	n.p.	n.p.	n.p.	36,766
E63Z	Sleep Apnoea	10,077	9,438	9,690	1,854	3,016	n.p.	n.p.	n.p.	34,761
O01C	Caesarean Delivery W/O Catastrophic or Severe CC	7,794	6,406	7,433	3,798	1,797	n.p.	n.p.	n.p.	28,775
I16Z	Other Shoulder Procedures	6,988	6,508	6,056	4,520	2,477	n.p.	n.p.	n.p.	27,552
104Z	Knee Replacement and Reattachment	7,418	4,870	5,105	2,378	2,325	n.p.	n.p.	n.p.	23,008
D11Z	Tonsillectomy and/or Adenoidectomy	6,830	3,529	4,154	2,084	1,766	n.p.	n.p.	n.p.	19,200
G09Z	Inguinal and Femoral Hernia Procedures Age>0	5,951	4,351	3,917	1,908	1,530	n.p.	n.p.	n.p.	18,427
H08B	Laparoscopic Cholecystectomy W/O Closed CDE W/O Cat or Sev CC	5,194	3,738	4,043	1,682	1,267	n.p.	n.p.	n.p.	16,688
F42B	Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O Complex DX/Pr	3,641	5,656	3,939	928	948	n.p.	n.p.	n.p.	15,428
N04Z	Hysterectomy for Non-Malignancy	4,227	2,599	3,478	1,553	1,117	n.p.	n.p.	n.p.	13,749
K04Z	Major Procedures for Obesity	3,654	2,916	2,540	2,466	1,271	n.p.	n.p.	n.p.	13,658
103C	Hip Replacement W/O Catastrophic or Severe CC	3,776	3,331	2,429	1,320	1,428	n.p.	n.p.	n.p.	12,928
U63B	Major Affective Disorders Age <70 W/O Catastrophic or Severe CC	3,509	3,284	2,428	1,686	656	n.p.	n.p.	n.p.	12,126
M02B	Transurethral Prostatectomy W/O Catastrophic or Severe CC	3,840	3,205	2,353	946	917	n.p.	n.p.	n.p.	11,686
I10B	Other Back and Neck Procedures W/O Catastrophic or Severe CC	3,626	2,508	2,400	1,663	893	n.p.	n.p.	n.p.	11,416
I18Z	Other Knee Procedures	2,304	2,556	2,273	1,751	1,771	n.p.	n.p.	n.p.	11,157
120Z	Other Foot Procedures	2,936	2,890	1,571	1,557	940	n.p.	n.p.	n.p.	10,356
D10Z	Nasal Procedures	3,465	2,618	1,362	1,379	822	n.p.	n.p.	n.p.	10,122
F15Z	Percutaneous Coronary Intervention W/O AMI W Stent Implantation	2,778	3,018	2,175	1,134	652	n.p.	n.p.	n.p.	10,051
D06Z	Sinus, Mastoid and Complex Middle Ear Procedures	3,066	1,949	1,813	1,066	1,355	n.p.	n.p.	n.p.	9,777
Total		260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.10: Overnight acute separations, by procedure in ACHI chapters, public hospitals, states and territories, 2008-09

Procedure cl	napters	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	15,144	11,943	7,017	4,518	3,322	951	903	560	44,358
110–129	Procedures on endocrine system	2,358	1,798	1,074	537	512	143	99	32	6,553
160–256	Procedures on eye and adnexa	4,182	3,350	1,950	1,528	927	68	147	148	12,300
300–333	Procedures on ear and mastoid process	2,359	2,371	1,814	1,230	918	173	165	457	9,487
370-422	Procedures on nose, mouth and pharynx	10,515	12,771	6,579	4,773	4,054	740	824	362	40,618
450-490	Dental services	1,273	1,299	1,343	642	566	107	134	300	5,664
520-570	Procedures on respiratory system	25,804	22,345	14,089	7,011	6,580	1,513	1,504	1,330	80,176
600-777	Procedures on cardiovascular system	46,440	34,212	25,088	11,845	12,728	2,764	3,263	1,843	138,183
800–817	Procedures on blood and blood-forming organs	7,007	5,186	3,909	1,916	1,577	334	446	117	20,492
850-1011	Procedures on digestive system	66,275	51,644	34,399	19,138	17,806	3,695	3,197	2,027	198,181
1040–1129	Procedures on urinary system	22,489	18,227	13,475	8,093	7,076	1,175	1,466	1,773	73,774
1160–1203	Procedures on male genital organs	5,746	5,469	2,844	1,736	1,765	433	325	157	18,475
1240-1299	Gynaecological procedures	14,752	12,601	8,716	4,640	4,098	1,004	598	563	46,972
1330-1347	Obstetric procedures	60,486	42,240	36,492	19,643	12,631	3,062	3,077	2,331	179,962
1360-1579	Procedures on musculoskeletal system	56,215	42,187	30,966	18,739	13,579	4,195	3,810	2,714	172,405
1600–1718	Dermatological and plastic procedures	27,914	24,179	19,084	11,374	8,379	1,649	1,402	3,066	97,047
1740–1759	Procedures on breast	3,226	2,870	2,182	1,212	1,237	155	194	110	11,186
1786–1799	Radiation oncology procedures	2,727	2,042	1,400	622	550	185	131	0	7,657
1820-1922	Non-invasive, cognitive and other interventions, n.e.c.	460,855	341,142	231,124	128,765	117,414	26,106	22,794	17,538	1,345,738
1940–2016	Imaging services	168,983	104,537	62,965	33,763	31,243	8,028	7,376	4,883	421,778
Separations v	vith no procedure reported	247,476	152,312	140,442	60,874	62,601	13,166	8,063	12,760	697,694
Total		806,544	555,856	418,960	214,047	198,181	43,409	35,664	34,634	2,307,295

Table S9.11: Overnight acute separations, by procedure in ACHI chapters, private hospitals, states and territories, 2008-09

Procedure cl	napters	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	11,466	10,049	8,897	6,151	3,479	n.p.	n.p.	n.p.	41,455
110–129	Procedures on endocrine system	2,492	1,346	1,435	752	505	n.p.	n.p.	n.p.	6,721
160–256	Procedures on eye and adnexa	3,438	2,126	1,753	2,573	1,106	n.p.	n.p.	n.p.	11,420
300–333	Procedures on ear and mastoid process	2,790	1,353	1,807	1,205	856	n.p.	n.p.	n.p.	8,363
370–422	Procedures on nose, mouth and pharynx	15,698	9,723	9,626	6,073	4,835	n.p.	n.p.	n.p.	48,062
450–490	Dental services	1,195	740	718	414	421	n.p.	n.p.	n.p.	3,647
520–570	Procedures on respiratory system	4,923	6,047	8,123	2,019	2,751	n.p.	n.p.	n.p.	24,330
600–777	Procedures on cardiovascular system	22,247	28,134	23,404	8,616	7,283	n.p.	n.p.	n.p.	91,838
800–817	Procedures on blood and blood-forming organs	4,140	3,451	4,056	1,552	1,399	n.p.	n.p.	n.p.	15,202
850-1011	Procedures on digestive system	35,731	34,895	37,305	16,004	12,709	n.p.	n.p.	n.p.	142,636
1040-1129	Procedures on urinary system	12,720	11,083	12,122	5,135	4,974	n.p.	n.p.	n.p.	48,016
1160-1203	Procedures on male genital organs	8,794	6,912	5,296	2,553	1,999	n.p.	n.p.	n.p.	26,717
1240-1299	Gynaecological procedures	12,656	8,398	9,825	4,453	3,833	n.p.	n.p.	n.p.	41,087
1330–1347	Obstetric procedures	22,460	19,118	18,105	9,929	5,096	n.p.	n.p.	n.p.	79,405
1360–1579	Procedures on musculoskeletal system	45,513	41,106	36,993	22,777	16,250	n.p.	n.p.	n.p.	169,931
1600–1718	Dermatological and plastic procedures	13,333	12,631	10,250	7,025	4,131	n.p.	n.p.	n.p.	49,351
1740–1759	Procedures on breast	5,564	4,525	4,145	3,401	1,919	n.p.	n.p.	n.p.	20,525
1786–1799	Radiation oncology procedures	739	627	862	117	308	n.p.	n.p.	n.p.	2,689
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	215,855	203,799	198,829	94,429	72,840	n.p.	n.p.	n.p.	817,965
1940–2016	Imaging services	20,740	33,051	31,117	10,913	10,191	n.p.	n.p.	n.p.	109,804
Separations v	vith no procedure reported	23,969	30,140	35,993	10,345	10,369	n.p.	n.p.	n.p. n.p.	
Total		260,688	258,873	254,922	115,178	88,856	n.p.	n.p.	n.p.	1,022,341

Table S9.12: Procedure statistics for the top 20 ACHI procedure blocks for overnight acute separations, public hospitals, states and territories, 2008–09

	Procedure block	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1916	Generalised allied health interventions	301,660	220,878	147,387	81,045	75,523	17,511	14,284	10,759	869,047
1910	Cerebral anaesthesia	200,352	158,726	109,016	61,014	54,186	12,475	12,170	8,228	616,167
1952	Computerised tomography of brain	65,771	41,430	22,841	12,271	10,954	2,975	2,582	1,649	160,473
1893	Transfusion of blood and gamma globulin	44,009	33,390	19,994	11,785	10,900	2,405	2,075	1,134	125,692
1909	Conduction anaesthesia	35,610	32,718	18,698	12,187	8,612	2,620	1,599	1,744	113,788
1963	Computerised tomography of abdomen and pelvis	34,015	20,726	10,682	4,057	4,955	1,535	903	988	77,861
1920	Administration of pharmacotherapy	25,194	20,494	12,129	5,846	4,886	1,197	1,297	847	71,890
1344	Postpartum suture	23,842	14,885	11,136	5,483	4,108	973	1,517	802	62,746
1912	Postprocedural analgesia	23,482	9,552	8,336	8,590	5,677	1,687	324	148	57,796
1340	Caesarean section	18,945	13,824	11,521	5,530	4,324	1,062	883	775	56,864
1966	Other computerised tomography	19,412	12,708	8,992	4,239	4,228	922	922	529	51,952
1334	Medical or surgical induction of labour	15,749	11,506	9,060	5,163	4,153	920	759	593	47,903
738	Venous catheterisation	15,199	11,117	9,385	4,072	4,311	702	1,163	943	46,892
2015	Magnetic resonance imaging	17,671	12,540	6,963	3,692	3,748	1,046	664	470	46,794
1335	Medical or surgical augmentation of labour	15,976	10,394	9,714	4,655	3,190	764	855	622	46,170
1333	Analgesia and anaesthesia during labour and delivery procedure	14,793	9,981	8,452	6,259	4,174	888	823	311	45,681
668	Coronary angiography	14,283	9,314	7,045	3,442	3,821	1,201	901	447	40,454
569	Continuous ventilatory support	10,389	8,296	5,736	2,610	2,802	656	639	484	31,612
1959	Computerised tomography of spine	11,435	8,969	4,482	2,372	1,564	704	560	417	30,503
965	Cholecystectomy	8,767	7,306	4,759	2,395	2,322	455	391	230	26,625
Other		556,438	430,387	293,132	172,019	140,704	32,010	29,939	21,701	1,676,330
Separ	ations with no procedure reported	247,476	152,312	140,442	60,874	62,601	13,166	8,063	12,760	697,694
Total <sup>(t</sup>	<b>)</b>	1,472,992	1,099,141	739,460	418,726	359,142	84,708	75,250	53,821	4,303,240

Table S9.13: Procedure statistics for the top 20 ACHI procedure blocks for overnight acute separations, private hospitals, states and territories, 2008–09

Proce	dure block	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1910	Cerebral anaesthesia	160,423	140,838	131,993	70,500	51,662	n.p.	n.p.	n.p.	579,243
1916	Generalised allied health interventions		83,310	85,749	30,796	32,341	n.p.	n.p.	n.p.	326,036
1909	Conduction anaesthesia	33,336	32,033	23,072	15,341	9,161	n.p.	n.p.	n.p.	117,008
1893	Transfusion of blood and gamma globulin	12,020	16,310	14,288	6,731	6,131	n.p.	n.p.	n.p.	57,418
1912	Postprocedural analgesia	23,299	4,932	11,194	8,572	6,578	n.p.	n.p.	n.p.	55,058
1828	Sleep study	10,930	9,704	9,939	2,143	3,603	n.p.	n.p.	n.p.	37,177
668	Coronary angiography	8,823	12,551	9,483	2,428	2,282	n.p.	n.p.	n.p.	36,413
1340	40 Caesarean section		7,823	8,750	4,486	2,165	n.p.	n.p.	n.p.	34,214
1920	0 Administration of pharmacotherapy		9,883	7,723	3,748	2,342	n.p.	n.p.	n.p.	28,447
1333	Analgesia and anaesthesia during labour and delivery procedure	8,806	6,019	5,166	4,325	2,183	n.p.	n.p.	n.p.	27,556
607	Examination procedures on ventricle	5,621	10,236	7,584	1,967	1,568	n.p.	n.p.	n.p.	27,425
412	Tonsillectomy or adenoidectomy	8,595	4,452	5,534	3,228	2,199	n.p.	n.p.	n.p.	25,107
1344	Postpartum suture	7,347	5,748	4,798	2,507	1,604	n.p.	n.p.	n.p.	23,432
1334	Medical or surgical induction of labour	6,474	5,182	4,866	3,193	1,746	n.p.	n.p.	n.p.	22,942
1518	Arthroplasty of knee	7,187	4,229	4,987	2,284	1,879	n.p.	n.p.	n.p.	21,497
965	Cholecystectomy	6,116	4,548	4,998	2,021	1,571	n.p.	n.p.	n.p.	20,167
990	Repair of inguinal hernia	6,613	4,585	4,409	2,042	1,588	n.p.	n.p.	n.p.	20,055
986	Division of abdominal adhesions	5,256	4,740	5,076	1,988	1,646	n.p.	n.p.	n.p.	19,421
1952	Computerised tomography of brain	3,095	5,934	6,249	1,384	1,858	n.p.	n.p.	n.p.	19,286
1963	Computerised tomography of abdomen and pelvis	2,554	5,631	5,077	1,472	1,039	n.p.	n.p.	n.p.	16,596
Other		333,142	301,842	282,563	151,158	112,339	n.p.	n.p.	n.p.	1,227,576
Separ	ations with no procedure reported	23,969	30,140	35,993	10,345	10,369	n.p.	n.p.	n.p.	117,941
Total	p)	745,021	680,530	643,498	322,314	247,485	n.p.	n.p.	n.p.	2,638,848

# 10 Elective surgery

This chapter presents information related to access elective surgery. The chapter first presents an overview elective surgery in public and private hospitals, based on information on approximately 1.8 million elective surgery separations, sourced from the National Hospital Morbidity Database (NHMD).

The chapter then presents information on 'elective surgery' as defined in the *National health data dictionary* (HDSC 2006) comprising:

- data for over 595,000 patients admitted from public acute hospital elective surgery
  waiting lists. These data are sourced from the National Elective Surgery Waiting Times
  Data Collection (NESWTDC). The records include information on waiting times, surgical
  specialty of the scheduled doctor and Indicator procedures.
- linked public hospital elective surgery waiting times and admitted patient data for nearly 577,000 records (Table 10.1 and figures 10.8 to 10.15 and 10.19). The linkage allowed demographic and diagnosis information to be analysed in conjunction with information on waiting times, surgical specialty and Indicator procedure from the NESWTDC.

# What data are reported?

## Box 10.1 How is elective surgery defined in this chapter?

The use of the term **Elective surgery** using the Admitted patient care data from the NHMD is not necessarily the same as elective surgery as defined for the National Elective Surgery Waiting Times Data Collection (NESWTDC).

For the NHMD elective surgery was defined as separations:

- with an Urgency of admission of *Elective* (admission could be delayed by at least 24 hours) and
- with a 'surgical procedure' reported, based on the procedures used to define 'surgical' DRGs in Australian Refined Diagnosis Related Groups, version 5.2 (DoHA 2006). Separations for cosmetic surgery or with childbirth-related AR-DRGs were excluded.

Elective surgery separations were also categorised as 'Public elective surgery' or 'Other elective surgery' as follows:

- *Public elective surgery* refers to separations for elective surgery in public hospitals and includes elective surgery separations for *Public patients* in private hospitals.
- *Other elective surgery* refers to separations for elective surgery for patients who were not *Public patients*, in private hospitals.

The procedures defined as surgical differ between those used to define the scope of the NESWTDC and those used to define elective surgery in the NHMD.

For the NESWTDC, elective surgery comprises elective care where the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, with the exclusion of specific procedures frequently done by non-surgical clinicians (HDSC 2006).

## Admitted patient care data for elective surgery

Information on admitted patient care for elective surgery is derived from the NHMD (see *Chapter 7*). The scope of the NHMD is episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free-standing day hospital facilities, and alcohol and drug treatment centres.

As the NHMD includes information on admitted patient care for essentially all public and private hospitals, it can provide an overview of elective surgery that is beyond the scope of the NESWTDC, which is restricted to waiting lists managed by public hospitals only (see below). Rates are calculated for elective surgery for public and private hospitals and for various demographic groups.

The definition used to classify admitted patient care as elective surgery differs from the definition of elective surgery for the purposes of the NESWTDC (see Box 10.1).

## Waiting times data for elective surgery

The scope of the NESWTDC is patients on waiting lists for elective surgery that are managed by public hospitals. This may include *Public patients* treated in private hospitals and *other* patients treated in public hospitals.

The waiting times data presented in this chapter are for patients who complete their wait and are admitted to their surgery on an elective basis. The data are generally used as the main summary measure of elective surgery waiting times. Most patients are admitted after waiting however, some patients are removed from waiting lists for other reasons. Other reasons for removal are that the patient was admitted as an emergency patient for the awaited procedure; was transferred to another hospital's waiting list; had been treated elsewhere; was not contactable; had died or had declined surgery. Information on time spent on waiting lists is also presented for those reasons for removal.

# Linked admitted patient care and elective surgery waiting times data

For 2008–09, all states and territories provided the elective surgery waiting times either pre-linked or linkable to the admitted patient data, so that the information on waiting times could be linked to the information on the surgery that occurred at the end of the wait. Where necessary, the AIHW linked the data with permission of the relevant state or territory and with permission of the AIHW Ethics Committee.

The linked elective surgery and admitted patient data allowed analysis of waiting times for public elective surgery for different population groups (such as Indigenous and Non-Indigenous Australians, across remoteness areas, and across socioeconomic status (SES) groups. Included are estimates of the separation rates for Indicator procedure (see Box 10.2 and *Appendix 1*) and for neoplasm-related diagnoses.

## An example: ear, nose and throat surgery

Figure 10.1 presents data on patients admitted to hospital from elective surgery waiting lists for surgery performed by a doctor whose surgical specialty was *Ear, nose & throat surgery*. The information presented by Indicator procedure and public hospital peer groups is

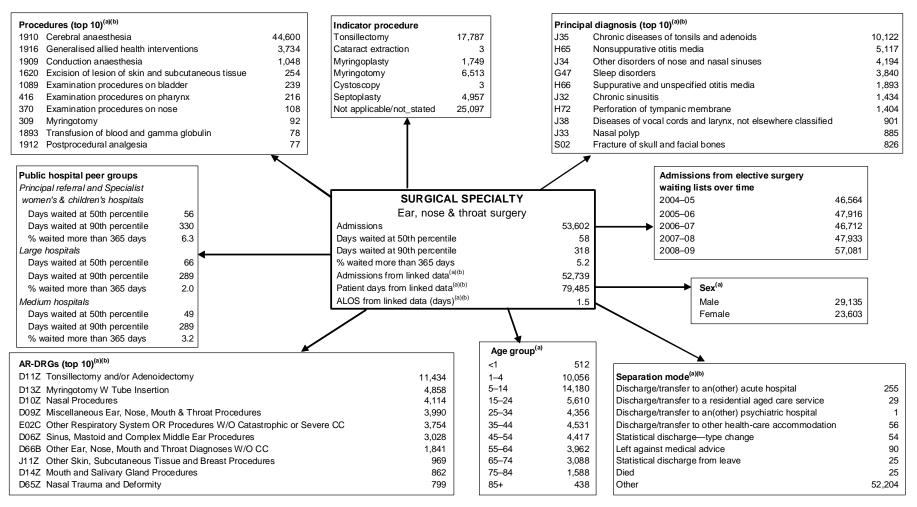
sourced from the NESWTDC. The other information was available for records where the data for elective surgery waiting times could be linked to the NHMD (92% of records with a surgical specialty of Ear, nose & throat surgery).

#### In 2008-09:

- there were 54,000 admissions from elective surgery waiting lists for surgery performed by a doctor whose surgical specialty was *Ear*, *nose* & *throat surgery*
- the median waiting time for these patients was 58 days
- 5.2% of these patients waited more than 365 days for admission
- the most common indicator procedure was tonsillectomy.

## The linked NESWTDC and NHMD records show that:

- these separations accounted for more than 79,000 patient days
- the average length of stay was 1.5 days
- the most common procedure (other than Cerebral anaesthesia, Generalised allied health interventions or Conduction anaesthesia) was Excision of lesion of skin and subcutaneous tissue (Block 1620)
- the most common principal diagnosis reported was *Chronic diseases of tonsils and adenoids* (J35), followed by *Non-suppurative otitis media* (H65)
- the most common AR-DRG reported was Tonsillectomy and/or Adenoidectomy (D11Z)
- the age group with the highest proportion of separations was 5–14 years and there were more separations for males than females
- 99% of these episodes had a separation mode of *Other*, suggesting that these patients went home after separation from hospital.



<sup>(</sup>a) These data are supplied to the National Hospital Morbidity Database.

Abbreviations: CC—complications and comorbidities; Cat—Catastrophic; Sev—severe; OR—operating room; W/O—without; ALOS—average length of stay.

Figure 10.1: Interrelationships of a specialty of surgeon (Ear, nose & throat surgery) with other data elements, elective surgery, all hospitals, 2008-09

<sup>(</sup>b) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.

#### Box 10.2 What are the limitations of the data?

## Limitations of admitted patient care data

- Limitations of data on admitted patient care are discussed in detail in *Chapter 7* and *Appendix 1*.
- The quality of Indigenous status in the NHMD is variable and this data should be used with caution. For more information on the quality of indigenous status data see *Appendix 1*.

## Limitations of the elective surgery waiting times data

#### Coverage

- The data collection covered most public hospitals that undertake elective surgery (see *Appendix* 2). In 2008–09, coverage of the collection was highest for the *Principal referral* and Specialist women's and children's hospitals peer group with 85 hospitals reported in this peer group. The collection covered 34 *Large hospitals*, and 52 *Medium hospitals*. Hospitals that were not included may not undertake elective surgery, may not have had waiting lists, or may have had different waiting list characteristics compared with reporting hospitals. Some smaller remote hospitals may have different patterns of service delivery compared with other hospitals because specialists providing elective surgery services visit these hospitals only periodically.
- Overall coverage of the NESWTDC was about 91% in 2008–09 and ranged from 100% for New South Wales, Tasmania, the Australian Capital Territory and the Northern Territory to 70% in South Australia (see Table S10.2).
- The elective surgery waiting times data collection covers public hospitals only, however some patients treated under contract in Victoria and Tasmania were included.
- Data for the Mersey Community Hospital in Tasmania are also included (see *Appendix* 2). Methods to calculate waiting times have varied across states and territories and over time (see *Appendix* 1)
- In some states and territories, for patients who were transferred from a waiting list managed by one hospital to that managed by another, the time waited on the first list is not included in the waiting time reported to the NESWTDC, There for the number of days waited in those jurisdictions reflected the waiting time on the list managed by the reporting hospital only (*Appendix 1*).
- In 2008–09, New South Wales, Queensland, Tasmania and the Northern Territory did not report removals from waiting lists for transfer to another hospital's waiting list. This could have an effect of increasing the waiting times reported for overall removals for those four jurisdictions relative to others.
- In 2008-09, Western Australia included rural hospitals in the *National Elective Surgery Waiting Times Data Collection* for the first time.

## Limitations of the linked admitted patient care and elective surgery waiting times data

Coverage of the linked data by remoteness area ranged from 62% in *Very remote* areas to 100% in *Major cities* (see discussion of linked data below). Coverage by socioeconomic status (SES) group ranged from 85% for the middle group to 100% for the highest group. These variations in coverage should be considered when interpreting the age-standardised rates presented in the discussion of those data.

#### Box 10.3 What methods were used?

## Analyses of the NHMD and linked NHMD and NESWTDC data

The reader should note the following:

- Elective surgery separations were defined as stated in Box 10.1.
- *Public* and *Other elective surgery* separations are defined as stated in Box 10.1.
- Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.
- Separation rates are age standardised to the Estimated Resident Population 30 June 2001 (see *Appendix* 1).
- Separation rate ratios are calculated as outlined in *Appendix* 1.

## **Analyses of NESWTDC**

Waiting times are calculated by comparing the date on which a patient is added to a waiting list with the date that the patient is removed from that list. Days on which a patient is 'not ready for care' are excluded.

Information on the number of days waited at the 50th and 90th percentiles by patients admitted from waiting lists for elective surgery, the proportion of patients waiting greater than 365 days, and the number of patients admitted is presented by public hospital peer group. Information is also included by the specialty of the surgeon who was to perform the elective surgery and by indicator procedure.

# How has elective surgery activity changed over time?

Between 2004–05 and 2008–09, total elective surgery separations increased from 1.6 million to 1.8 million (Table 10.1). Over that period, there was a 3.2% increase in overall elective surgery separations. While the number of separations per 1,000 population for *Public elective surgery* was relatively stable between 2004–05 and 2008–09, the rate for *Other elective surgery* rose by an average of 2.0% per year. The increase for public elective surgery separations between 2007–08 and 2008–09 was markedly higher than the average annual increase between 2004–05 and 2008–09 (1.7%).

In 2008–09, the separation rate for *Public elective surgery* varied from 22.2 per 1,000 population in Tasmania to 36.9 per 1,000 in South Australia (Table 10.2). The separation rate for *Other elective surgery* ranged from 27.1 per 1,000 in the Northern Territory to 57.1 per 1,000 in Oueensland.

Table 10.1: Separations for public and other elective surgery, 2004-05 to 2008-09

						Change (p	per cent)
						Ave since	Since
	2004–05	2005–06	2006–07	2007–08	2008–09	2004–05	2007–08
Public elective surgery							
Separations	596,849	608,267	617,170	619,522	638,898	1.7	3.1
Separations per 1,000 population <sup>(a)</sup>	29.1	29.2	29.1	28.6	28.9	-0.2	1.1
Other elective surgery							
Separations	983,234	1,016,851	1,051,556	1,120,506	1,152,628	4.1	2.9
Separations per 1,000 population <sup>(a)</sup>	47.6	48.3	49.0	51.1	51.5	2.0	0.8
Total							
Separations	1,580,083	1,625,118	1,668,726	1,740,028	1,791,526	3.2	3.0
Separations per 1,000 population	76.8	77.5	78.1	79.7	80.5	1.2	0.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Table 10.2: Separation statistics for public and other elective surgery, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	TAS	ACT	NT	Australia
Public elective surgery									
Separations	182,392	195,123	107,314	64,195	62,605	11,641	9,993	5,635	638,898
Separations per 1,000 population <sup>(a)</sup>	25.0	35.5	24.6	29.4	36.9	22.2	30.7	29.7	28.9
Other elective surgery									
Separations	358,691	279,135	250,009	124,645	96,484	21,728	16,846	5,090	1,152,628
Separations per 1,000 population <sup>(a)</sup>	48.7	50.0	57.1	56.3	55.2	40.0	50.2	27.1	51.5
Total									
Separations	541,083	474,258	357,323	188,840	159,089	33,369	26,839	10,725	1,791,526
Separations per 1,000 population <sup>(a)</sup>	73.7	85.5	81.7	85.6	92.1	62.2	80.9	56.8	80.5

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

## Who used these services?

Separation rates for elective surgery are one measure of access to elective surgery and can provide indications of whether access is equitable for different population sub-groups. In this section, the rates are presented by the remoteness area of usual residence, by socioeconomic status (SES) group and by Indigenous status.

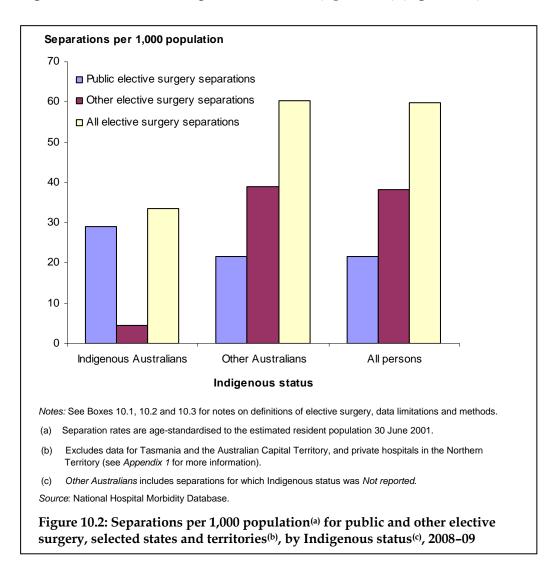
<sup>(</sup>a) Separation rates were age-standardised to the estimated resident population as at 30 June 2001, as detailed in *Appendix 1*. *Source*: National Hospital Morbidity Database

<sup>(</sup>a) Separation rates were age-standardised to the estimated resident population as at 30 June 2001, as detailed in *Appendix 1*. Source: National Hospital Morbidity Database

## **Aboriginal and Torres Strait Islander people**

Excluding data for Tasmania and the Australian Capital Territory, and for private hospitals in the Northern Territory, there were nearly 16,800 separations for elective surgery in 2008–09 for *Indigenous Australians*. Over 87% of these separations were for *Public elective surgery*. The overall rate of separations for elective surgery for *Indigenous Australians* was 34 per 1,000 population, about 56% of the rate for *Other Australians* (60 per 1,000).

The separation rate for *Public elective surgery* for *Indigenous Australians* (29 per 1,000 population) was about 35% higher than the rate for *Other Australians* (21 per 1,000). The separation rate for *Other elective surgery* for *Other Australians* (39 per 1,000) was markedly higher than the rate for *Indigenous Australians* (4 per 1,000) (Figure 10.2).

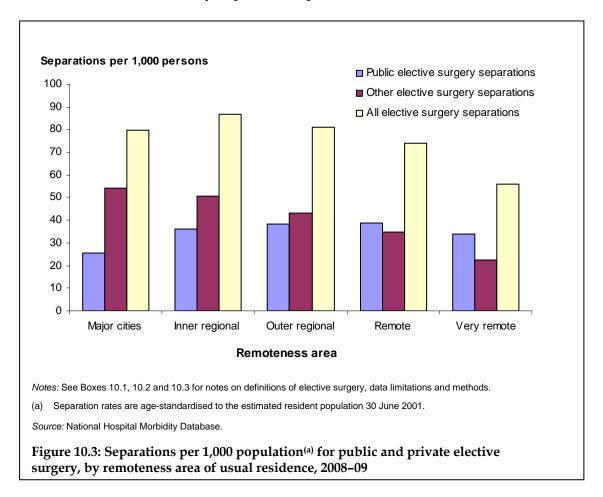


#### Remoteness area of usual residence

The overall separation rate for elective surgery was highest for those living in *Inner regional* areas (87 per 1,000 population) and decreased with increased remoteness to 56 per 1,000 in *Very remote* areas (Figure 10.3).

The rate of *Public elective surgery* separations was lowest for those living in *Major cities* (26 per 1,000) and highest for those living in *Remote* areas (39 per 1,000). The separation rate for *Other* 

*elective surgery* was highest for those living in *Major cities* (54 per 1,000 population) and decreased with increasing remoteness to 22 per 1,000 for *Very remote* areas. This may reflect variations in the availability of private hospital services in the more remote areas of Australia.

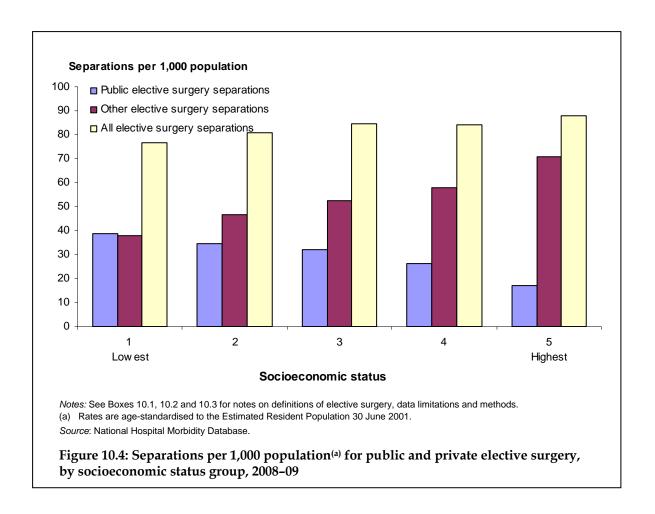


### Socioeconomic status

Figure 10.4 presents separation rates per 1,000 population for elective surgery by SES group (see *Appendix 1*). There was some variation in both public and other elective surgery separations rates.

In 2008–09, the elective surgery separation rate was highest for people living in areas classified as being in the highest SES group (88 per 1,000 population) and tended to decrease with increasing disadvantage to 76 per 1,000 population for people living in areas classified in the lowest SES group.

The separation rate for *Public elective surgery* separations was lowest for people living in areas classified as being in the highest SES group (17 per 1,000 population) and highest for those classified to the lowest SES group (39 per 1,000). The separation rate of *Other elective surgery* was highest for the highest SES group (71 per 1,000) and decreased to 38 per 1,000 for the lowest SES group.



# How has activity changed over time?

Between 2004–05 and 2008–09, the number of admissions for elective surgery from waiting lists increased by an annual average of 2.0% (Table 10.3). However, there was also a rise in the coverage of the NESWTDC over that period, from 87% to 91%, that should be taken into account in interpreting the change.

Over the same period, the proportion of admissions for hospitals in the *Principal referral and Specialist womens' and children's hospitals* peer group increased from 67.7% to 72.5% of admissions from elective surgery waiting lists.

The period from 2007–08 to 2008–09 includes the period in which the Elective Surgery Waiting List Reduction Plan was implemented by the Australian Government and states and territories.

Table 10.3: Waiting list statistics for patients admitted from waiting lists for elective surgery, by public hospital peer group, states and territories, 2008–09

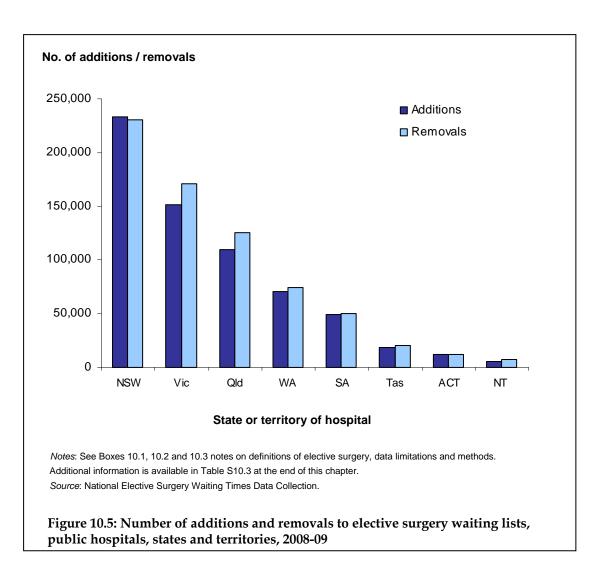
	2004–05	2005–06	2006–07	2007–08	2008–09
Principal referral and Specialist women's & children's ho	spitals				
Number of reporting hospitals	75	78	82	83	85
Estimated coverage of surgical separations (%)	99	99	98	100	100
Number of admissions	372,085	386,203	394,831	401,518	431,675
Large hospitals					
Number of reporting hospitals	36	34	30	35	34
Estimated coverage of surgical separations (%)	82	81	77	80	84
Number of admissions	100,916	97,816	88,433	97,475	91,766
Medium hospitals					
Number of reporting hospitals	59	51	52	51	52
Estimated coverage of surgical separations (%)	62	62	63	64	60
Number of admissions	69,830	63,643	63,658	58,076	62,815
Total					
Number of reporting hospitals	195	191	192	192	195
Estimated coverage of surgical separations (%)	87	87	87	91	91
Number of admissions	549,746	556,951	556,770	565,501	595,009
Admissions per 1,000 population	27.2	27.2	26.7	26.6	27.5

Notes: See Boxes 10.1, 10.2 and 10.3 notes on definitions of elective surgery, data limitations and methods.

Source: National Elective Surgery Waiting Times Data Collection.

## How much activity was there in 2008-09?

Figure 10.5 shows the movement of patients on and off waiting lists in 2008–09. In 2008–09, there were over 651,000 additions to elective surgery waiting lists and 692,000 removals from elective surgery waiting lists. Removals included patient who were admitted for the procedure they were waiting for, or were removed for other reasons.



## Who used these services?

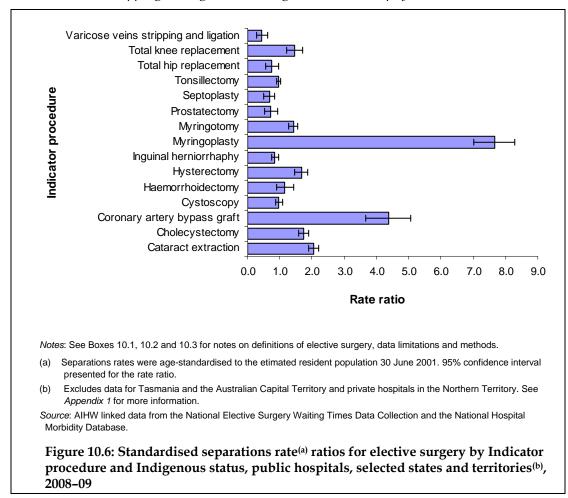
Analysis of the linked NHMD and ESWTDC data provides an opportunity to understand how elective surgery activity for people admitted from waiting lists varied across population groups. The data in this section is presented by Indicator procedure.

#### **Aboriginal and Torres Strait Islander people**

The SRRs presented in Figure 10.6 compare the standardised separation rates for *Indigenous Australians* to the rates for *Other Australians*, and include confidence intervals. An SRR greater than 1.0 indicates that *Indigenous Australians* had a higher separation rate for the Indicator procedure than *Other Australians* admitted for elective surgery from elective surgery waiting lists.

For 12 of the 15 Indicator procedures, the confidence intervals indicate that the rates for *Indigenous Australians* were significantly different from the rates for *Other Australians*. The rates were not significantly different for *Cystoscopy*, *Tonsillectomy* and *Haemorrhoidectomy*.

The highest SRRs were reported for Myringoplasty (7.7) and Coronary artery bypass graft (4.4). Indigenous Australians had lower SRRs for Septoplasty, Total hip replacement, Prostatectomy Varicose veins stripping and ligation and Inguinal herniorrhaphy.



## Remoteness area

Figure 10.7 presents standardised separation rate ratios by Indicator procedure and remoteness area. The SRR for *Coronary artery bypass graft* for people living in *Very remote* areas was about 1.5 times the national rate.

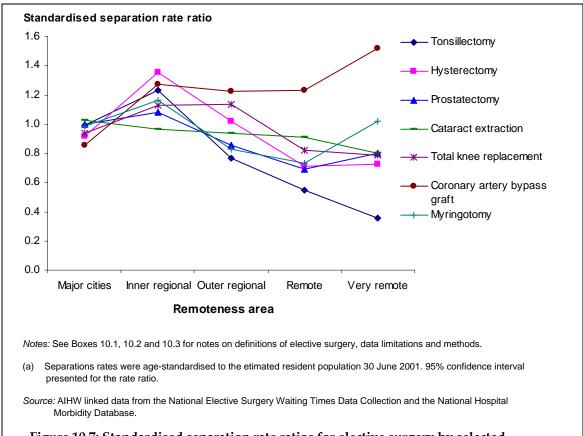


Figure 10.7: Standardised separation rate ratios for elective surgery by selected Indicator procedures and remoteness area of usual residence, public hospitals, 2008–09

### Socioeconomic status

The greatest variation in SRRs by socioeconomic status was for *Coronary artery bypass graft*, with the SRRs ranging from 1.5 for people living in areas classified as being in the lowest SES group (about 50% higher than the overall rate) to 0.5 for the highest SES group (about 50% lower than the overall rate). The SRRs for *Myringotomy* were more evenly distributed among socioeconomic groups, with people living in areas classified as being in the middle SES group having separation rates about 9% higher than the overall rate, and those in the highest SES group having separation rates about 32% lower than the overall rate (Figure 10.8).

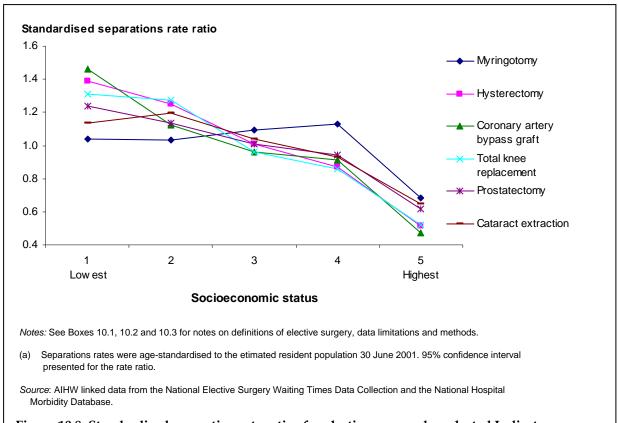


Figure 10.8: Standardised separation rate ratios for elective surgery by selected Indicator procedures and socioeconomic status, public hospitals, 2008-09

## How long did people wait for care?

Information on the number of days waited at the 50th and 90th percentiles by patients admitted from waiting lists for elective surgery, the proportion of patients waiting greater than 365 days, and the number of patients admitted is presented by public hospital peer group. Information is also included by the specialty of the surgeon who was to perform the elective surgery and by indicator procedure.

## How did waiting times for care change over time?

Overall the median waiting times for elective surgery increased from 29 days in 2004–05 to 34 days in 2007–08 and 2008–09. The days waited at the 90th percentile increased from 217 days to 220 days during the same period. In contrast the proportion of patients waiting greater than 365 days decreased from 4.8% in 2004–05 to 2.9% in 2008–09 (Table 10.4).

Table 10.4: Waiting time statistics for patients admitted from waiting lists, by public hospital peer group, 2004–05 to 2008–09

	2004–05	2005–06	2006–07	2007–08	2008-09
Principal referral and Specialist women's & children	n's hospitals				
Number of admissions	372,085	386,203	394,831	401,518	431,675
Days waited at 50 <sup>th</sup> percentile	28	30	30	31	31
Days waited at 90 <sup>th</sup> percentile	203	228	225	233	216
% waited more than 365 days	4.6	4.7	3.4	3.4	3.2
Large hospitals					
Number of admissions	100,916	97,816	88,433	97,475	91,766
Days waited at 50 <sup>th</sup> percentile	29	35	33	39	40
Days waited at 90 <sup>th</sup> percentile	227	251	224	237	227
% waited more than 365 days	4.8	4.6	2.7	2.4	2.5
Medium hospitals					
Number of admissions	69,830	63,643	63,658	58,076	62,815
Days waited at 50 <sup>th</sup> percentile	37	38	39	42	42
Days waited at 90 <sup>th</sup> percentile	272	257	231	238	230
% waited more than 365 days	6.1	3.8	1.7	1.4	1.5
Total					
Number of admissions	549,746	556,951	556,770	565,501	595,009
Admissions per 1,000 population	27.2	27.2	26.7	26.6	27.5
Days waited at 50 <sup>th</sup> percentile	29	32	32	34	34
Days waited at 90 <sup>th</sup> percentile	217	237	226	235	220
% waited more than 365 days	4.8	4.6	3.1	3.0	2.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Additional information by state and territory is available in Table S10.2 at the end of this chapter.

Source: National Elective Surgery Waiting Times Data Collection.

## How did waiting times vary by reason for removal from waiting lists?

Table 10.5 shows the number of admissions from waiting lists, the distribution of days waited and the proportion of admissions where people waited more than 365 days in 2008–09. These data are presented by the Reason for removal from the waiting list.

Overall, the reason for removal with the shortest median waiting time in 2008–09 was *Emergency admission* (3 days), and the longest median waiting time was for *Not contactable/died* (143 days) (Table 10.5).

As was the case with median waiting times, the reason for removal with the shortest waiting time by which 90% of patients were removed was *Emergency admission* (75 days) and the reason for removal with the longest waiting time was *Not contactable/died* (449 days). The length of time by which 90% of patients were removed from waiting lists varied substantially between states and territories in most categories (see Table S10.3 at the end of this chapter).

In 2008–09, the reason for removal with the lowest proportion of patients waiting more than 365 days before removal was *Emergency admission* (0.9%) and the category with the highest proportion was *Not contactable/died* (15.9%).

Table 10.5: Waiting time statistics for patients removed from waiting lists for elective surgery, by reason for removal, 2008–09

Reason for removal	Removals	Days waited at 50th percentile	Days waited at 90th percentile	% waited more than 365 days
Elective admission	595,009	. 34	220	2.9
Emergency admission	6,028	3	75	0.9
Not contactable/died	8,284	143	449	15.9
Treated elsewhere	24,003	93	358	8.9
Surgery not required or declined	47,513	99	378	11.3
Transferred to another hospital's waiting list	6,018	64	307	5.8
Not reported	5,410	74	389	5.8
Total	692,265	37	259	3.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Additional information by state and territory is available in Table S10.3 at the end of this chapter.

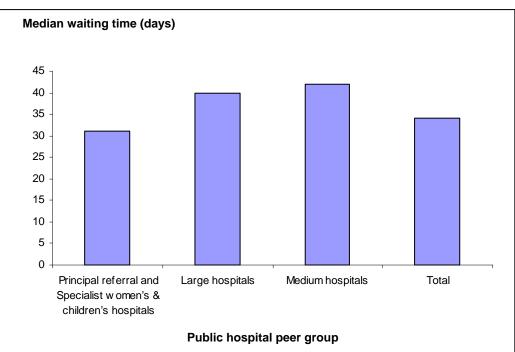
Source: National Elective Surgery Waiting Times Data Collection.

## How did waiting times vary across public hospital peer groups?

Overall, the median waiting time for patients who were admitted from waiting lists was 34 days in 2008–09. In 2008–09, the median waiting time for patients admitted from waiting lists for hospitals in the *Principal referral and Specialist women's and children's hospitals* peer group (31 days) was shorter than for the *Large hospitals* and *Medium hospitals* peer groups (40 days and 42 days respectively) (Figure 10.9).

## How did waiting times vary across states and territories?

In 2008–09, the median waiting time ranged from 27 days in Queensland to 75 days in the Australian Capital Territory (Figure 10.10). See Table S10.2 at the end of this chapter for more information on elective surgry waiting times by hospital peer group and state and territory.

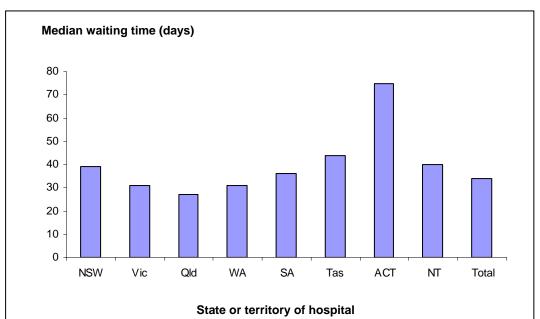


Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Additional information by state and territory is available in Table S10.2 at the end of this chapter.

Source: National Elective Surgery Waiting Times Data Collection.

Figure 10.9: Median waiting time for elective surgery by public hospital peer group, 2008-09



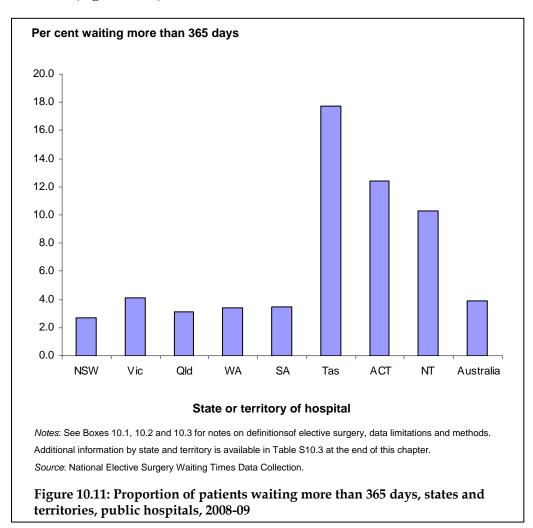
Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

 $\label{eq:Additional information by state and territory is available in Table S10.2 at the end of this chapter.$ 

Source: National Elective Surgery Waiting Times Data Collection.

Figure 10.10: Median waiting time for elective surgery, states or territories, public hospitals, 2008-09

The proportion of patients waiting more than 365 days differed substantially between states and territories in 2008–09. Overall, it ranged from 2.7% in New South Wales to 17.7% in Tasmania (Figure 10.11).



## How did waiting times vary by specialty of surgeon?

The specialty of the surgeon describes the area of clinical expertise held by the doctor who was to perform the elective surgery. Table 10.6 shows the number of admissions from waiting lists, the distribution of days waited and the proportion of admissions where people waited more than 365 days in 2008–09. These data are presented by the specialty of the surgeon who was to perform the surgery.

Ophthalmology, Ear, nose and throat surgery and Orthopaedic surgery were the surgical specialties with the longest median waiting times in 2008–09 (65 days, 58 days and 53 days respectively). Cardio-thoracic surgery had the shortest median waiting time (12 days) (Table 10.7).

*Orthopaedic surgery* and *Ear, nose and throat surgery* and were the specialties with the highest proportion of patients who waited more than 365 days to be admitted (5.6% and 5.2% respectively). *Cardio-thoracic surgery* had the lowest proportion of patients who waited more than 365 days (0.3%).

There was marked variation among the states and territories in the proportion of patients who waited more than 365 days to be admitted for some surgical specialties.

Table 10.6: Waiting time statistics for patients admitted from waiting lists for elective surgery, by specialty of surgeon, public hospitals, 2008–09

Surgical Specialty	Admissions	Days waited at 50th percentile	Days waited at 90th percentile	% waited more than 365 days
Cardio-thoracic surgery	11,835	12	76	0.3
Ear, nose & throat surgery	53,602	58	318	5.2
General surgery	143,550	30	165	2.4
Gynaecology	76,324	28	126	0.9
Neurosurgery	9,916	24	157	1.5
Ophthalmology	68,779	65	306	3.0
Orthopaedic surgery	86,990	53	323	5.6
Plastic surgery	44,329	22	168	3.0
Urology	68,040	27	137	1.8
Vascular surgery	13,215	20	175	3.5
Other	18,429	21	105	1.5
Total	595,009	34	220	2.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Additional information by state and territory is available in Table S10.4 at the end of this chapter.

Source: National Elective Surgery Waiting Times Data Collection.

## How did waiting times vary by Indicator procedure?

Indicator procedures are procedures which are of high volume and are often associated with long waits. Overall, 34.1% of patients admitted for elective surgery had been waiting for one of the 15 Indicator procedures (Table 10.7). There was some variation among the states and territories: the Australian Capital Territory had the highest proportion of admissions for the Indicator procedures (39.3%) and Queensland had the lowest proportion (28.9%). *Cataract extraction* was the highest volume indicator procedure in all jurisdictions.

Nationally, the indicator procedure with the lowest median waiting time in 2008–09 was *Coronary artery bypass graft* (14 days) and the one with the highest median waiting time was *Total knee replacement* (147 days) (Table 10.7).

The length of time by which 90% of patients had been admitted also varied by indicator procedure, from 100 days for *Coronary artery bypass graft* to 373 days for *Varicose veins stripping and ligation*.

The proportions of admissions where patients waited more than 365 days also varied by Indicator procedure.

Median waiting times varied markedly across the states and territories. For more information on the variation between states and territories, please see table S10.5 at the end of this chapter.

Table 10.7: Waiting time statistics for patients admitted from waiting lists for elective surgery, by Indicator procedure, public hospitals, 2008–09

		Days waited at	Days waited at	% waited more
Indicator Procedure	Admissions	50th percentile	90th percentile	than 365 days
Cataract extraction	51,436	84	320	3.6
Cholecystectomy	17,153	47	170	1.8
Coronary artery bypass graft	4,253	14	93	0.4
Cystoscopy	39,422	25	133	1.5
Haemorrhoidectomy	3,974	51	216	3.3
Hysterectomy	9,879	48	171	1.2
Inguinal herniorrhaphy	14,745	52	218	3.0
Myringoplasty	2,000	92	370	10.8
Myringotomy	6,813	44	141	1.2
Prostatectomy	8,108	41	172	2.8
Septoplasty	4,582	128	378	12.6
Tonsillectomy	16,943	85	335	5.7
Total hip replacement	7,939	100	364	9.6
Total knee replacement	11,493	147	393	14.9
Varicose veins stripping & ligation	4,226	87	373	10.6
Not applicable/not stated	392,043	26	168	2.3
Total	595,009	34	220	2.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

Additional information by state and territory is available in Table S10.5 at the end of this chapter.

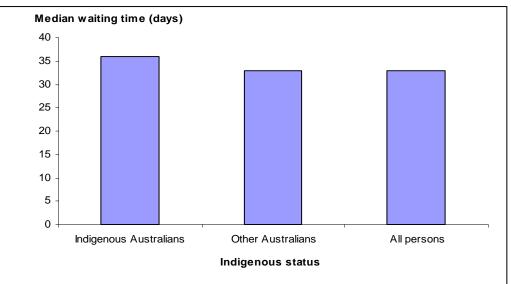
Source: National Elective Surgery Waiting Times Data Collection.

## How did waiting times vary for Indigenous and Non-Indigenous Australians?

For 2008–09, there were over 14,600 admissions from waiting lists for elective surgery for patients identified as Aboriginal and/or Torres Strait Islander persons in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory. Overall, the median waiting time for *Indigenous Australians* was greater than the median waiting time for *Other Australians* (36 days and 33 days respectively, Figure 10.12).

## **Indicator procedures**

Indigenous Australians had higher median waiting times for all ten of the procedures for which there were at least 100 separations for Indigenous Australians. The greatest difference in median waiting times was for Varicose veins stripping and ligation, for which Indigenous Australians waited longer than Other Australians (499 and 342 days, respectively). Hysterectomy, Coronary artery bypass graft and Cholecystectomy had the least variation by Indigenous status (Figure 10.13).

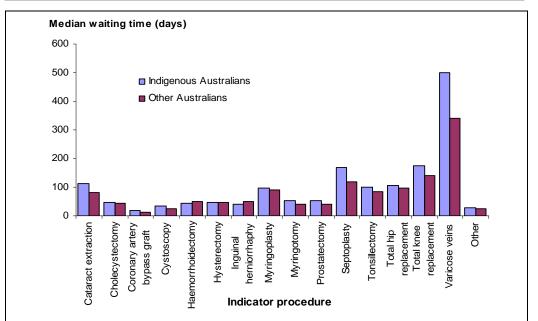


Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

- (a) Other Australians includes separations for which Indigenous status was Not reported.
- (b) Excludes data for Tasmania and the Australian Capital Territory, and private hospitals in the Northern Territory.

Source: AIHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

Figure 10.12: Median waiting times for elective surgery by Indigenous status<sup>(a)</sup>, selected states and territories<sup>(b)</sup>, public hospitals, 2008–09



Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

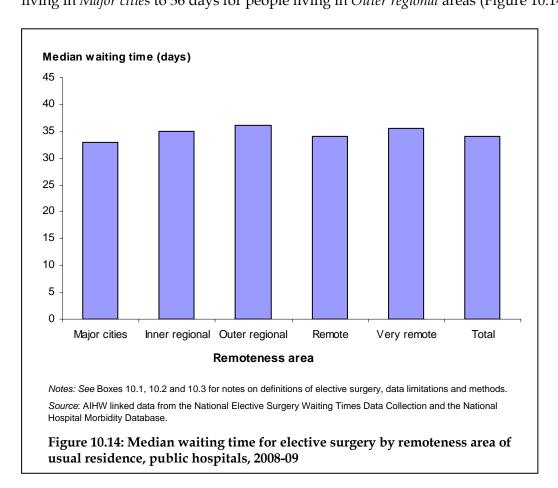
- (a) Other Australians includes separations for which Indigenous status was Not reported.
- (b) Excludes data for Tasmania and the Australian Capital Territory, and private hospitals in the Northern Territory.

Source: AlHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

Figure 10.13 Median waiting time for elective surgery by Indicator procedure and Indigenous status, selected states and territories, public hospitals, 2008-09

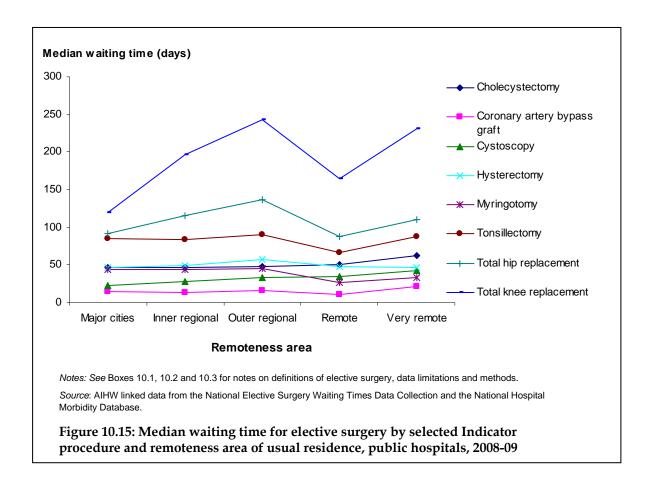
## How did waiting times vary by remoteness area?

Overall, approximately 66% of admissions from waiting lists for elective surgery were for patients residing in *Major cities*, 23% in *Inner regional* areas and 9% in *Outer regional* areas. The median waiting time varied somewhat by remoteness, ranging from 33 days for people living in *Major cities* to 36 days for people living in *Outer regional* areas (Figure 10.14).



#### **Indicator procedures**

There was some variation in the median waiting time for remoteness areas by Indicator procedure. For Indicator procedures (having at least 50 admissions as shown in Figure 10.15 below) in *Remote* and *Very remote* areas, *Total knee replacement* had the greatest variation in waiting times by remoteness area with people from *Outer regional* areas having the highest median waiting time of 243 days, and the lowest in *Major cities* (119 days), followed by *Remote* areas (164 days). *Coronary artery bypass graft* had the least variation by remoteness area (Figure 10.15).



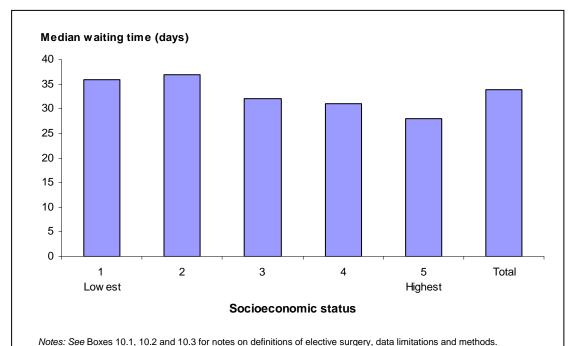
## How did waiting vary by socioeconomic status?

Overall, approximately 25% of admissions from waiting lists were for people living in areas classified as being in the lowest SES group, decreasing to about 13% for people living in areas classified as being in the highest SES group.

Median waiting times varied by socioeconomic status, ranging from 28 days for people living in areas classified as the highest SES group to 37 days for the second lowest SES group (Figure 10.16).

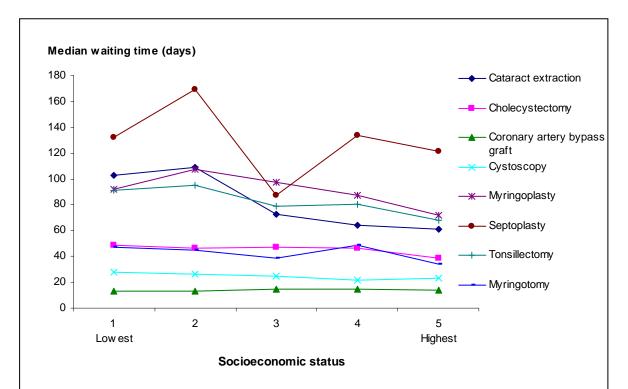
#### **Indicator procedures**

Septoplasty was the Indicator procedure with the greatest variation in waiting times by socioeconomic status, ranging from 170 days for people living in areas classified as being in the second lowest SES group to 88 days for people in the middle SES group. Cholecystectomy, Coronary artery bypass graft and Cystoscopy had the least variation by socioeconomic status group (Figure 10.17).



Source: AlHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

Figure 10.16: Median waiting times for elective surgery by socioeconomic status group, public hospitals, 2008-09



Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

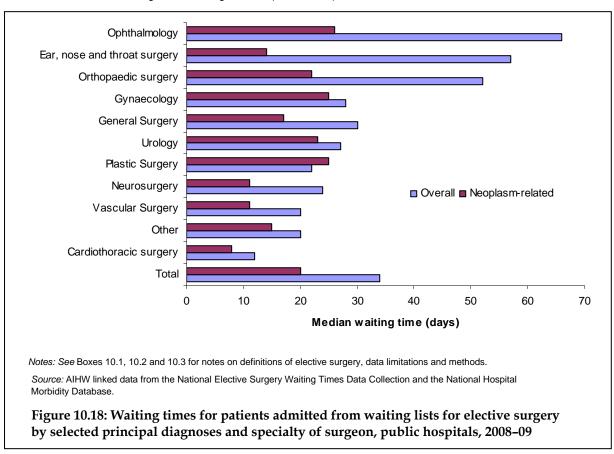
Source: AIHW linked data from the National Elective Surgery Waiting Times Data Collection and the National Hospital Morbidity Database.

Figure 10.17: Median waiting times for elective surgery by selected Indicator procedures and socioeconomic status group, public hospitals, 2008-09

## How did waiting times vary by diagnosis?

There is interest in how long patients for whom elective surgery is more urgent are waiting compared with other patients. The linked data allow diagnosis information to be considered alongside waiting times information. In this way, the waiting times for patients awaiting surgery with neoplasms, for example, can be compared to the waiting times for patients awaiting the same surgery for other conditions.

Figure 10.18 shows that there are shorter waiting times for admissions with a principal diagnosis of a neoplasm compared with other admissions, overall and for most surgical specialties. Neoplasm-related principal diagnoses were defined by ICD-10-AM diagnosis codes included in Chapter II Neoplasms (C00–D48).



Overall, the median waiting times for patients with neoplasm-related principal diagnoses (median 20 days) were 14 days shorter than the median waiting times for patients with other conditions (median 34 days). The largest variation in median waiting time by surgical specialty was for *Ear*, nose and throat surgery for which patients with a neoplasm waited 14 days, compared with 57 days overall. The only specialty with longer median waiting times for neoplasms than for other diagnoses was *Plastic surgery*.

There is also some variation in the waiting times for elective surgery for other principal diagnoses. For example, for *Orthopaedic surgery* waiting times were higher for patients with a principal diagnosis of *Gonarthrosis of the knee*, with a median waiting time of 121 days, compared with a median of 52 days overall.

## **Additional information**

Further detailed information is provided in the following supplementary tables S10.1-S10.5, the accompanying CD and the Internet.

## Supplementary tables

### Box 10.4 Methods - Chapter 10 Supplementary tables

All supplementary tables include data for the Mersey Community Hospital.

#### **Table S10.2:**

- (a) The total number of admissions for Queensland includes 664 admissions that were removed from the waiting list for elective admission before 30 June 2008 and separated before 30 June 2009. It is expected that these admissions would be counterbalanced overall by the number of admissions occurring in a similar way in future reporting periods.
- (b) The number of separations with an Urgency of admission reported as *Elective* and a surgical procedure for public hospitals reporting to the National Elective Surgery Waiting Times Data Collection as a proportion of the number of separations with an Urgency of admission reported as of *Elective* and a surgical procedure for all public hospitals.
- (c) Includes data for hospitals not included in the specified hospital peer groups.
- (d) Crude rate based on the Australian estimated resident population as at 31 December 2008.

#### **Table S10.3:**

(a) The total number of admissions for Queensland includes 664 admissions that were removed from the waiting list for elective admission before 30 June 2008 and separated before 30 June 2009. It is expected that these admissions would be counterbalanced overall by the number of admissions occurring in a similar way in future reporting periods.

Table S10.1: Waiting time statistics for patients admitted from waiting lists, by public hospital peer group, 2004–05 to 2008–09

	2004–05	2005–06	2006–07	2007–08	2008–09
Principal referral and Specialist women's & children's I	nospitals				
Number of reporting hospitals	75	78	82	83	85
Estimated coverage of surgical separations (%) <sup>(a)</sup>	99	99	98	100	100
Number of admissions	372,085	386,203	394,831	401,518	431,675
Days waited at 50th percentile	28	30	30	31	31
Days waited at 90th percentile	203	228	225	233	216
% waited more than 365 days	4.6	4.7	3.4	3.4	3.2
Large hospitals					
Number of reporting hospitals	36	34	30	35	34
Estimated coverage of surgical separations (%) <sup>(a)</sup>	82	81	77	80	84
Number of admissions	100,916	97,816	88,433	97,475	91,766
Days waited at 50th percentile	29	35	33	39	40
Days waited at 90th percentile	227	251	224	237	227
% waited more than 365 days	4.8	4.6	2.7	2.4	2.5
Medium hospitals					
Number of reporting hospitals	59	51	52	51	52
Estimated coverage of surgical separations $(\%)^{(a)}$	62	62	63	64	60
Number of admissions	69,830	63,643	63,658	58,076	62,815
Days waited at 50th percentile	37	38	39	42	42
Days waited at 90th percentile	272	257	231	238	230
% waited more than 365 days	6.1	3.8	1.7	1.4	1.5
Total <sup>(b)</sup>					
Number of reporting hospitals	195	191	192	192	195
Estimated coverage of surgical separations (%) <sup>(a)</sup>	87	87	87	91	91
Number of admissions	549,746	556,951	556,770	565,501	595,009
Admissions per 1,000 population <sup>(c)</sup>	27.2	27.2	26.7	26.6	27.5
Days waited at 50th percentile	29	32	32	34	34
Days waited at 90th percentile	217	237	226	235	220
% waited more than 365 days	4.8	4.6	3.1	3.0	2.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods.

<sup>(</sup>a) This is the number of separations with an Urgency of admission reported as Elective and a surgical procedure for public hospitals reporting to the National Elective Surgery Waiting Times Data Collection as a proportion of the number of separations with an Urgency of admission reported as Elective and a surgical procedure for all public hospitals.

<sup>(</sup>b) Includes data for hospitals not included in the specified hospital peer groups and some private hospitals contracted to do elective surgery.

<sup>(</sup>c) Crude rate based on the Australian estimated resident population as at 31 December of the period in question.

Table S10.2: Waiting time statistics for patients admitted from waiting lists for elective surgery, by hospital peer group, states and territories, 2008–09

	NSW	Vic	Qld <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Total
Principal referral and Specialist wom	en's & child	lren's hos	pitals						
Number of reporting hospitals	29	20	19	6	5	2	2	2	85
Estimated coverage of elective surgical separations (%) <sup>(b)</sup>	100	100	100	100	100	100	100	100	100
Number of admissions	134,856	104,532	98,135	31,125	34,827	12,450	10,104	5,646	431,675
Days waited at 50th percentile	33	28	26	29	39	49	75	38	31
Days waited at 90th percentile	273	201	133	181	208	460	378	243	216
% waited more than 365 days	2.8	3.3	1.9	2.6	2.4	13.6	11	5.0	3.2
Large hospitals									
Number of reporting hospitals	15	8	4	4	2	1			34
Estimated coverage of elective surgical separations (%)(b)	100	70	100	87	100	100			84
Number of admissions	28,391	35,342	7,158	12,485	6,033	2,357			91,766
Days waited at 50th percentile	45	39	37	28	41	n.p.			40
Days waited at 90th percentile	293	188	146	178	263	n.p.			227
% waited more than 365 days	2.1	1.9	1.1	1.4	4.8	n.p.			2.5
Medium hospitals									
Number of reporting hospitals Estimated coverage of elective	35	3	8	4	1	1			52
surgical separations (%)(b)	100	26	89	78	21	100			60
Number of admissions	30,299	7,816	4,634	14,650	n.a.	2,124			62,815
Days waited at 50th percentile	59	42	29	32	n.a.	n.p.			42
Days waited at 90th percentile	300	132	123	152	n.a.	n.p.			230
% waited more than 365 days	1.6	1.5	0.9	1.4	n.a.	n.p.			1.5
Total <sup>(c)</sup>									
Number of reporting hospitals	98	31	32	15	8	4	2	5	195
Estimated coverage of elective surgical separations (%) <sup>(b)</sup>	100	78	98	85	70	100	100	100	91
Number of admissions	199,384	147,690	109,940	60,398	44,152	16,931	10,104	6,410	595,009
Admissions per 1,000 population <sup>(d)</sup>	28.3	27.5	25.3	27.4	27.4	33.8	29.0	28.9	27.5
Days waited at 50th percentile	39	31	27	31	36	44	75	40	34
Days waited at 90th percentile	283	194	133	174	207	448	378	256	220
% waited more than 365 days	2.5	2.9	1.8	2.0	2.7	13.1	10.6	5.6	2.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods. See Box 10.4 for footnotes specific to this table.

Table S10.3: Additions to waiting lists and waiting time statistics for patients removed from waiting lists for elective surgery, by reason for removal, states and territories, 2008–09

	NSW	Vic	QId <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Total
Additions	233,440	151,810	109,319	70,660	49,162	18,850	12,290	5,620	651,151
Removals									
Elective admission	199,384	147,690	109,940	60,398	44,152	16,931	10,104	6,410	595,009
Days waited at 50th percentile	39	31	27	31	36	44	75	40	34
Days waited at 90th percentile	283	194	133	174	207	448	378	256	220
% waited more than 365 days	2.5	2.9	1.8	2.0	2.7	13.1	10.6	5.6	2.9
Emergency admission	1,391	826	2,936	303	302	159	56	55	6,028
Days waited at 50th percentile	17	9	0	14	18	37	15	31	3
Days waited at 90th percentile	116	100	14	76	102	524	113	179	75
% waited more than 365 days	1.1	1.1	0.1	0.7	0.3	15.7	0.0	0.0	0.9
Not contactable/died	2,705	2,522	884	498	427	795	176	277	8,284
Days waited at 50th percentile	120	148	83	126	96	314	222	243	143
Days waited at 90th percentile	348	453	524	402	337	1,253	652	1,087	449
% waited more than 365 days	4.3	18.3	16.9	14.1	7.3	43.9	29.5	33	15.9
Treated elsewhere	11,305	4,055	5,004	1,487	861	650	481	160	24,003
Days waited at 50th percentile	88	90	112	68	64	295	146	90	93
Days waited at 90th percentile	306	351	490	345	285	1,041	419	400	358
% waited more than 365 days	2.6	8.6	19.7	7.7	3.7	39.7	14.3	13	8.9
Surgery not required or									
declined	15,819	14,202	6,675	4,470	3,001	1,401	1,066	879	47,513
Days waited at 50th percentile	106	94	59	126	81	306	186	226	99
Days waited at 90th percentile	341	400	380	395	352	1,232	598	1,785	378
% waited more than 365 days	4.3	12.6	11.2	15.1	9.0	44.3	24.6	38	11.3
Transferred to another									
hospital's waiting list	n.a.	623	n.a.	4,984	n.a.	n.a.	403	8	6,018
Days waited at 50th percentile	n.a.	52	n.a.	61	n.a.	n.a.	179	293	64
Days waited at 90th percentile	n.a.	244	n.a.	284	n.a.	n.a.	458	414	307
% waited more than 365 days	n.a.	4.0	n.a.	5.0	n.a.	n.a.	18.6	13	5.8
Not reported	0	1,410	n.a.	2,063	1,704	233	0	0	5,410
Days waited at 50th percentile		63	n.a.	57	98	280			74
Days waited at 90th percentile		360	n.a.	361	420	1,688			389
% waited more than 365 days		9.4	n.a.	9.3	14.1	43			5.8
Total	230,604	171,328	125,439	74,203	50,447	20,169	12,286	7,789	692,265
Days waited at 50th percentile	44	36	28	35	40	57	85	50	37
Days waited at 90th percentile	296	232	163	220	238	547	408	375	259
% waited more than 365 days	2.7	4.1	3.1	3.4	3.5	17.7	12.4	10.3	3.9

Notes: See Boxes 10.1, 10.2 and 10.3 for notes on definitions of elective surgery, data limitations and methods. See Box 10.4 for footnotes specific to this table.

Table S10.4: Waiting time statistics for patients admitted from waiting lists for elective surgery, by specialty of surgeon, states and territories, 2008–09

	NSW	Vic	Qld <sup>(a)</sup>	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Cardio-thoracic surgery									
Admissions	3,778	2,833	2,917	639	1,046	378	232	12	11,835
Days waited at 50th percentile	13	9	11	13	11	15	19	7	12
Days waited at 90th percentile	62	107	74	38	117	107	69	15	76
% waited more than 365 days	0.1	0.7	0.2	0.0	0.3	0.0	0.0	0.0	0.3
Ear, nose & throat surgery									
Admissions	15,660	13,713	10,415	5,606	5,207	1,234	1,014	753	53,602
Days waited at 50th percentile	84	56	31	73	51	56	204	36	58
Days waited at 90th percentile	353	267	158	294	252	268	627	385	318
% waited more than 365 days	6.3	3.2	3.3	5.7	3.4	7.3	33.6	10.8	5.2
General surgery <sup>(b)</sup>									
Admissions	54,526	32,362	27,091	10,731	9,331	5,956	1,569	1,984	143,550
Days waited at 50th percentile	30	32	26	27	34	58	41	47	30
Days waited at 90th percentile	149	176	114	154	175	564	193	225	165
% waited more than 365 days	1.1	2.5	1.1	2.0	1.8	19.6	2.8	4.6	2.4
Gynaecology									
Admissions	27,820	16,096	15,824	3,607	7,814	2,342	1,146	1,675	76,324
Days waited at 50th percentile	30	35	25	29	22	30	56	13	28
Days waited at 90th percentile	139	137	96	117	112	175	211	99	126
% waited more than 365 days	0.7	1.0	0.4	0.7	0.7	4.5	3.6	1.0	0.9
Neurosurgery									
Admissions	3,693	2,884	1,421	690	690	227	311	0	9,916
Days waited at 50th percentile	26	22	18	40	26	35	43		24
Days waited at 90th percentile	168	165	107	167	84	265	217		157
% waited more than 365 days	1.5	1.5	0.8	2.5	0.1	6.2	1.6		1.5
Ophthalmology									
Admissions	23,701	17,888	9,550	9,069	4,537	1,759	1,245	1,030	68,779
Days waited at 50th percentile	135	48	35	49	49	109	115	118	65
Days waited at 90th percentile	344	181	205	200	252	571	318	350	306
% waited more than 365 days	3.5	1.1	1.9	1.2	2.0	26.9	8.1	8.7	3.0
Orthopaedic surgery <sup>(b)</sup>									
Admissions	30,874	19,364	21,159	8,074	5,437	0	1,493	589	86,990
Days waited at 50th percentile	76	51	28	51	68	0	125	36	53
Days waited at 90th percentile	355	301	172	224	334	0	506	315	323
% waited more than 365 days	6.5	6.7	3.0	3.1	7.0		18.5	8.0	5.6

(continued)

Table S10.4 (continued): Waiting time statistics for patients admitted from waiting lists for elective surgery, by specialty of surgeon, states and territories, 2008–09

	NSW	Vic	Qld <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Total
Plastic surgery									
Admissions	9,170	16,125	8,339	4,224	4,261	1,513	569	128	44,329
Days waited at 50th percentile	22	17	26	24	31	17	48	69	22
Days waited at 90th percentile	135	193	147	147	186	126	338	520	168
% waited more than 365 days	0.7	3.7	3.4	1.9	4.4	3.1	9.1	11.7	3.0
Urology									
Admissions	22,607	19,500	9,126	8,476	4,815	2,209	1,192	115	68,040
Days waited at 50th percentile	29	20	32	24	43	43	63	81	27
Days waited at 90th percentile	126	140	116	121	151	181	388	234	137
% waited more than 365 days	1.1	1.9	1.4	1.5	2.2	3.6	11.2	5.2	1.8
Vascular surgery									
Admissions	5,041	3,193	1,979	1,315	843	284	538	22	13,215
Days waited at 50th percentile	17	27	19	28	11	44	25	208	20
Days waited at 90th percentile	104	320	79	222	47	535	382	565	175
% waited more than 365 days	0.3	8.4	1.0	4.2	0.7	12.7	11.9	32	3.5
Other <sup>(c)</sup>									
Admissions	2,514	3,732	2,119	7,967	171	1,029	795	102	18,429
Days waited at 50th percentile	10	26	14	19	26	156	42	30	21
Days waited at 90th percentile	104	82	96	79	75	475	159	137	105
% waited more than 365 days	0.1	0.2	0.6	0.5	0.0	20.0	1.3	2.9	1.5
Total									
Admissions	199,384	147,690	109,940	60,398	44,152	16,931	10,104	6,410	595,009
Days waited at 50th percentile	39	31	27	31	36	44	75	40	34
Days waited at 90th percentile	283	194	133	174	207	448	378	256	220
% waited more than 365 days	2.5	2.9	1.8	2.0	2.7	13.1	10.6	5.6	2.9

Notes: See Boxes 10.1, 10.2, 10.3 and 10.4 for notes on definitions of elective surgery, data limitations and methods.

<sup>(</sup>a) The total number of admissions for Queensland includes 664 admissions that were removed from the waiting list for elective admission before 30 June 2008 and separated before 30 June 2009. It is expected that these admissions would be counterbalanced overall by the number of admissions occurring in a similar way in future reporting periods.

<sup>(</sup>b) For Tasmania admissions for Orthopaedic surgery were included under the category General surgery.

<sup>(</sup>c) Includes specialty of surgeon of Not reported.

Table S10.5: Waiting time statistics for patients admitted from waiting lists for elective surgery, by Indicator procedure, states and territories, 2008-09

	NSW	Vic	Qld <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Total
Cataract extraction									
Admissions	18,612	12,561	6,501	7,043	2,834	2,095	1,057	733	51,436
Days waited at 50th percentile	168	56	42	49	59	197	121	146	84
Days waited at 90th percentile	348	190	224	190	259	570	339	372	320
% waited more than 365 days	3.8	1.0	2.2	8.0	1.3	30.4	8.8	10.2	3.6
Cholecystectomy									
Admissions	6,505	4,116	3,455	1,165	1,014	498	257	143	17,153
Days waited at 50th percentile	53	47	40	32	44	59	85	82	47
Days waited at 90th percentile	189	175	117	149	148	426	226	253	170
% waited more than 365 days	1.8	1.5	0.7	0.9	0.5	14.1	3.5	4.9	1.8
Coronary artery bypass graft									
Admissions	1,040	978	1,277	199	460	179	120	0	4,253
Days waited at 50th percentile	15	15	10	15	17	29	11		14
Days waited at 90th percentile	80	184	74	35	119	142	51		93
% waited more than 365 days	0.0	1.3	0.1	0.0	0.2	0.0	0.0		0.4
Cystoscopy									
Admissions	14,748	11,671	4,366	4,972	1,747	807	782	329	39,422
Days waited at 50th percentile	26	19	33	22	35	36	80	49	25
Days waited at 90th percentile	118	126	145	161	100	158	394	213	133
% waited more than 365 days	0.8	1.2	1.4	2.5	1.1	1.2	12.1	3.0	1.5
Haemorrhoidectomy									
Admissions	1,500	1,167	476	295	293	39	25	179	3,974
Days waited at 50th percentile	51	68	42	30	38	204	84	73	51
Days waited at 90th percentile	191	248	166	178	179	591	164	318	216
% waited more than 365 days	1.6	5.0	2.1	1.4	3.4	30.8	0.0	8	3.3
Hysterectomy									
Admissions	3,795	2,220	2,082	558	669	323	144	88	9,879
Days waited at 50th percentile	50	48	41	56	50	55	77	56	48
Days waited at 90th percentile	215	141	119	160	184	280	235	208	171
% waited more than 365 days	1.6	0.6	0.5	1.1	1.0	4.3	3.5	1.1	1.2
Inguinal herniorrhaphy									
Admissions	5,846	3,730	2,041	1,277	980	510	228	133	14,745
Days waited at 50th percentile	58	52	47	32	48	68	87	80	52
Days waited at 90th percentile	241	214	145	156	217	622	272	206	218
% waited more than 365 days	2.3	3.4	1.2	0.9	1.1	22.7	5.7	1.5	3.0

(continued)

Table S10.5 (continued): Waiting time statistics for patients admitted from waiting lists for elective surgery, by Indicator procedure, states and territories, 2008–09

	NSW	Vic	QId <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Total
Myringoplasty									
Admissions	412	434	472	271	80	40	25	266	2,000
Days waited at 50th percentile	190	82	70	101	153	71	273	82	92
Days waited at 90th percentile	366	316	328	381	451	450	689	593	370
% waited more than 365 days	10.9	6.9	8.1	11.4	16.3	15.0	40.0	16.2	10.8
Myringotomy									
Admissions	560	2,225	1,931	929	787	102	158	121	6,813
Days waited at 50th percentile	45	43	33	58	48	49	119	35	44
Days waited at 90th percentile	195	120	119	212	109	154	353	128	141
% waited more than 365 days	1.1	0.3	1.2	2.5	0.4	1.0	8.9	2.5	1.2
Prostatectomy									
Admissions	2,911	2,330	1,283	742	657	55	113	17	8,108
Days waited at 50th percentile	55	23	40	28	56	51	42	108	41
Days waited at 90th percentile	182	227	121	72	136	109	467	216	172
% waited more than 365 days	2.2	4.8	1.7	0.1	2.4	0.0	13.3	0.0	2.8
Septoplasty									
Admissions	1,385	1,548	676	370	325	69	176	33	4,582
Days waited at 50th percentile	237	86	69	110	106	136	420	105	128
Days waited at 90th percentile	369	353	413	336	337	909	728	1,203	378
% waited more than 365 days	12.3	8.5	12.6	8.6	7.7	29	58.5	30.3	12.6
Tonsillectomy									
Admissions	5,096	4,363	3,384	2,045	1,302	338	308	107	16,943
Days waited at 50th percentile	145	80	48	101	74	113	346	66	85
Days waited at 90th percentile	361	281	168	301	277	244	560	413	335
% waited more than 365 days	8.2	2.6	3.5	5.8	1.8	7.4	46.1	11.2	5.7
Total hip replacement									
Admissions	2,786	1,991	1,306	679	657	289	191	40	7,939
Days waited at 50th percentile	125	107	68	68	102	370	170	59	100
Days waited at 90th percentile	364	348	242	218	374	757	489	391	364
% waited more than 365 days	8.9	9.2	4.0	1.8	11.0	50.5	22.0	12.5	9.6
Total knee replacement									
Admissions	4,793	2,245	1,994	1,048	853	302	204	54	11,493
Days waited at 50th percentile	223	143	86	83	182	493	249	172	147
Days waited at 90th percentile	376	463	343	271	429	825	589	409	393
% waited more than 365 days	14.0	17.1	7.9	4.2	19.0	69.9	37.3	11.1	14.9

(continued)

Table S10.5 (continued): Waiting time statistics for patients admitted from waiting lists for elective surgery, by Indicator procedure, states and territories, 2008–09

	NSW	Vic	QId <sup>(a)</sup>	WA	SA	Tas <sup>(b)</sup>	ACT	NT	Total
Varicose veins stripping & ligation									
Admissions	1,450	1,541	491	161	328	36	181	38	4,226
Days waited at 50th percentile	69	110	55	91	116	104	298	118	87
Days waited at 90th percentile	270	486	275	393	344	584	749	524	373
% waited more than 365 days	2.2	17.0	5.9	12.4	7.9	13.9	35.4	21.1	10.6
Not applicable/not stated									
Admissions	127,945	94,570	78,205	38,644	31,166	11,249	6,135	4,129	392,043
Days waited at 50th percentile	28	25	22	26	29	32	44	25	26
Days waited at 90th percentile	194	172	113	149	172	315	256	181	168
% waited more than 365 days	1.7	2.6	1.5	1.9	2.4	8.4	6.3	3.9	2.3
Total									
Admissions	199,384	147,690	109,940	60,398	44,152	16,931	10,104	6,410	595,009
Days waited at 50th percentile	39	31	27	31	36	44	75	40	34
Days waited at 90th percentile	283	194	133	174	207	448	378	256	220
% waited more than 365 days	2.5	2.9	1.8	2.0	2.7	13.1	10.6	5.6	2.9

Notes: See Boxes 10.1, 10.2, 10.3 and 10.4 for notes on definitions of elective surgery, data limitations and methods.

<sup>(</sup>a) The total number of admissions for Queensland includes 664 admissions that were removed from the waiting list for elective admission before 30 June 2008 and separated before 30 June 2009. It is expected that these admissions would be counterbalanced overall by the number of admissions occurring in a similar way in future reporting periods.

# 11 Sub- and non-acute admitted patient care

This chapter presents information on sub- and non-acute admitted patient care provided by public and private hospitals in Australia, sourced from the AIHW's National Hospital Morbidity Database (NHMD).

# What data are reported?

Sub- and non-acute admitted patient care includes the following categories:

- Rehabilitation care—care in which the clinical intent or treatment goal is to improve the functional status of a patient with an impairment, disability or handicap. It is usually evidenced by a multi-disciplinary rehabilitation plan comprising negotiated goals and indicative time frames which are evaluated by a periodic assessment using a recognised functional assessment measure.
- *Palliative care* care in which the clinical intent or treatment goal is primarily quality of life for a patient with an active, progressive disease with little or no prospect of cure. It is usually evidenced by an interdisciplinary assessment and/or management of the physical, psychological, emotional and spiritual needs of the patient; and a grief and bereavement support service for the patient and their carers/family.
- *Geriatric evaluation and management*—care in which the clinical intent or treatment goal is to maximise health status and/or optimise the living arrangements for a patient with multi-dimensional medical conditions associated with disabilities and psychosocial problems, who is usually (but not always) an older patient.
- Psychogeriatric care care in which the clinical intent or treatment goal is
  improvement in health, modification of symptoms and enhancement in function,
  behaviour and/or quality of life for a patient with an age-related organic brain
  impairment with significant behavioural or late onset psychiatric disturbance or a
  physical condition accompanied by severe psychiatric or behavioural disturbance.
- *Maintenance care* care in which the clinical intent or treatment goal is prevention of deterioration in the functional and current health status of a patient with a disability or severe level of functional impairment.

The term 'Non-acute' has been used throughout the text to refer to both sub-acute and non-acute care.

#### Box 11.1 What are the limitations of the data?

As these data are sourced from the NHMD, when interpreting these data, the data limitations presented in *Chapter 7* and *Appendix 1* should be taken into consideration.

In addition, it should be noted that there is some variation among jurisdictions in the assignment of care types, and this may affect the comparability of the data.

#### Box 11.2 What methods were used?

Readers should note the following:

- (a) In this chapter, separations are included if the care type was reported as *Rehabilitation care, Palliative care, Geriatric evaluation and management, Psychogeriatric care* or *Maintenance care*.
- (b) In some tables in this chapter, the category 'Other non-acute care' includes the care types: *Geriatric evaluation and management, Psychogeriatric care* and *Maintenance care*.
- (c) The overall quality of the data provided for Indigenous status in 2008–09 is considered to be in need of some improvement, being considered acceptable for analysis purposes for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory (see *Appendix 1*).

For details of other methods used in this chapter, see Chapter 7.

# How has activity changed over time?

Between 2004–05 and 2008–09, the number of separations for non-acute care (in all hospitals) increased by 9.7% per year. Over this period, the average rate of increase was higher in private hospitals (17.1%) than in public hospitals (3.9%). In particular, *Rehabilitation care* in private hospitals increased by an average of 18.9% per year between 2004–05 and 2008–09 (Table 11.1).

Table 11.1: Non-acute separations by care type, public and private hospitals, 2004-05 to 2008-09

						Change (per cent)		
	2004–05	2005–06	2006–07	2007–08	2008–09	Ave since 2004–05	Since 2007–08	
Public hospitals								
Rehabilitation	65,513	67,685	70,822	75,446	77,875	4.4	3.2	
Palliative care	20,624	20,342	21,785	21,598	24,262	4.1	12.3	
Maintenance care	12,950	13,915	14,670	14,813	18,307	9.0	23.6	
Psychogeriatric care	4,227	4,583	4,695	4,494	4,394	1.0	-2.2	
Geriatric evaluation and management	20,798	19,750	19,093	19,211	19,637			
Total	124,112	126,275	131,065	135,562	144,475	3.9	6.6	
Private hospitals								
Rehabilitation	69,032	83,842	96,401	115,659	137,946	18.9	19.3	
Palliative care	4,502	5,399	6,488	5,766	5,281	4.1	-8.4	
Maintenance care	1,030	766	780	87	113	-42.4	29.9	
Psychogeriatric care	4,550	10,831	6,138	6,857	6,579	9.7	-4.1	
Geriatric evaluation and management	1,694	2,305	1,636	1,699	2,004	4.3	18.0	
Total	80,808	103,143	111,443	130,068	151,923	17.1	16.8	
Total	204,920	229,418	242,508	265,630	296,398	9.7	11.6	

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

Similar information by hospital type is available on the CD and on the Internet at <www.aihw.gov.au>.

<sup>(</sup>a) Annual average change, not adjusted for changes in coverage and recategoristation of hospitals as public or private.

## How much activity was there in 2008-09?

Overall, 3.6% of separations in 2008–09 were non-acute separations (Table 11.2). However, there was some variation between states and territories in the proportion of separations that were for non-acute care. For public hospitals, the proportion ranged from 1.2% in the Northern Territory to 6.6% in the Australian Capital Territory. Over half of non-acute separations occurred in private hospitals. The proportion of separations that was non-acute in private hospitals ranged from 1.1% in Western Australia to 9.1% in New South Wales.

Table 11.2: Non-acute separations, public and private hospitals, states and territories, 2008-09

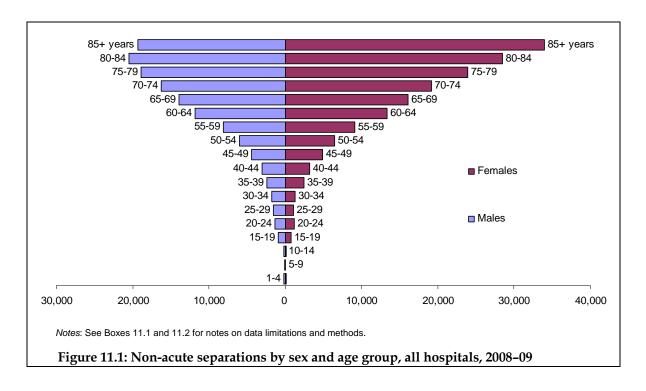
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute hospitals	44,467	34,526	30,036	13,484	11,418	2,145	5,956	1,155	143,187
Public psychiatric hospitals	686	0	403	3	196	0			1,288
Total	45,153	34,526	30,439	13,487	11,614	2,145	5,956	1,155	144,475
Non-acute as a proportion of all public hospital separations	3.0	2.5	3.4	2.9	3.1	2.3	6.6	1.2	3.0
Private hospitals									
Private free-standing day hospital facilities	0	0	1,343	0	0	n.p.	n.p.	n.p.	1,343
Other private hospitals	82,567	20,538	27,462	4,043	12,763	n.p.	n.p.	n.p.	150,580
Total	82,567	20,538	28,805	4,043	12,763	n.p.	n.p.	n.p.	151,923
Non-acute as a proportion of all private hospital separations	9.1	2.5	3.5	1.1	5.0	n.p.	n.p.	n.p.	4.7
All hospitals	127,720	55,064	59,244	17,530	24,377	n.p.	n.p.	n.p.	296,398
Non-acute as a proportion of all hospital separations	5.3	2.5	3.5	2.1	3.9	n.p.	n.p.	n.p.	3.6

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

## Who used these services?

## Sex and age group

Females accounted for more than half (55.9%) of non-acute separations (Figure 11.1). However, there were more non-acute separations for males than females in the age groups from 0 to 34 years. Females accounted for more separations than males in all other age groups. Persons aged 60 years and over accounted for more than three quarters of all non-acute separations.



## **Aboriginal and Torres Strait Islander people**

## Box 11.3 Quality of Indigenous status data

The quality of the data provided for Indigenous status in 2008–09 for admitted patient care varied by jurisdiction. See *Chapter 7* and *Appendix 1* for more information on the quality of Indigenous data in the NHMD.

Separations for Aboriginal and Torres Strait Islander people are likely to be underenumerated. It should also be noted that data presented for the six jurisdictions with data of acceptable quality for analysis purposes are not necessarily representative of the jurisdictions excluded.

Nationally, 1.0% of all non-acute separations reported an Indigenous status of *Aboriginal and/or Torres Strait Islander*. The proportion of separations that were for *Indigenous Australians* varied across the states and territories (Table 11.3).

In 2008–09, there were 11.8 non-acute separations per 1,000 population for *Indigenous Australians*, about 90% of the rate for *Other Australians* (13 per 1,000). *Indigenous Australians* had lower separation rates for *Rehabilitation care* than *Other Australians* (6.0 per 1,000 and 9.6 per 1,000, respectively). *Indigenous Australians* had higher separation rates for *Palliative care* and *Other non-acute care* than *Other Australians*.

Table 11.3: Non-acute separations, by Indigenous status, selected states and territories(a), 2008-09

	NSW	Vic	Qld	WA	SA	NT	Total	Separations per 1,000 population
Indiana Australiana	11011	V IC	Qiu	***		141	iotai	рориналоп
Indigenous Australians								
Rehabilitation	336	83	725	322	64	115	1,645	6.0
Palliative care	98	26	159	85	7	54	429	2.0
Other non-acute care	123	23	300	154	26	192	818	3.7
Total	557	132	1,184	561	97	361	2,892	11.8
Other Australians <sup>(b)</sup>								
Rehabilitation	108,096	27,334	42,144	9,994	19,327	286	207,181	9.6
Palliative care	9,681	6,132	7,247	3,316	1,512	298	28,186	1.3
Other non-acute care	9,386	21,466	8,669	3,659	3,441	210	46,831	2.2
Total	127,163	54,932	58,060	16,969	24,280	794	282,198	13.0
Total	127,720	55,064	59,244	17,530	24,377	1,155	285,090	13.0

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

#### Remoteness area

There was marked variation in the separation rates for non-acute admitted patient care by remoteness area of usual residence. Overall, people usually resident in *Major cities* had much higher rates for *Rehabilitation care* than other areas (11.5 separations per 1,000 population, compared with 9.4 per 1,000 nationwide) (Table 11.4). The separation rate ratios (SRR) and the 95% confidence intervals applying to the SRRs indicate that the differences in the separation rates for *Rehabilitation care* across remoteness areas were statistically significant for both public and private hospitals.

For public hospitals, the rate of *Rehabilitation care* varied from 2.4 per 1,000 population for people residing in *Outer regional* areas to 3.7 per 1,000 for people residing in *Major cities* (Table 11.4). There were more marked variations for private hospitals, with the rate of *Rehabilitation care* ranging from 1.0 per 1,000 in *Very remote* areas to 7.8 per 1,000 in *Major cities*.

<sup>(</sup>a) Excludes data for Tasmania and the Australian Capital Territory and private hospitals in the Northern Territory.

<sup>(</sup>b) Other Australians includes separations for which Indigenous status was Not reported.

Table 11.4: Selected non-acute separation statistics, by remoteness area of usual residence, public and private hospitals, 2008–09

	Major cities	Inner regional	Outer regional	Remote	Very remote	Total <sup>(a)</sup>
Public hospitals						
Rehabilitation						
Separations	57,728	13,478	5,227	673	316	77,875
Separation rate	3.7	2.7	2.4	2.5	2.5	3.4
Standardised separation rate ratio (SRR)	1.10	0.80	0.71	0.74	0.74	
95% confidence interval of SRR	1.10–1.11	0.79-0.82	0.69-0.72	0.68-0.79	0.66-0.82	
Palliative care						
Separations	16,102	5,100	2,599	272	129	24,262
Separation rate	1.0	1.0	1.2	1.0	1.2	1.0
Standardised separation rate ratio (SRR)	1.00	0.94	1.11	0.92	1.15	
95% confidence interval of SRR	0.98-1.01	0.92-0.97	1.06-1.15	0.81-1.03	0.96-1.35	
Other non-acute care						
Separations	27,603	8,806	4,681	542	527	42,338
Separation rate	1.7	1.7	2.1	2.3	5.8	1.8
Standardised separation rate ratio (SRR)	0.97	0.94	1.20	1.28	3.24	
95% confidence interval of SRR	0.96-0.98	0.92-0.96	1.17-1.23	1.17-1.39	2.97-3.52	
Total						
Separations	101,433	27,384	12,507	1,487	972	144,475
Separation rate	6.5	5.4	5.7	5.7	9.5	6.2
Standardised separation rate ratio (SRR)	1.05	0.87	0.91	0.92	1.53	
95% confidence interval of SRR	1.04-1.05	0.86-0.88	0.90-0.93	0.88-0.97	1.44–1.63	
Private hospitals						
Rehabilitation						
Separations	119,074	15,281	2,992	333	54	137,946
Separation rate	7.8	3.1	1.5	1.7	1.0	6.0
Standardised separation rate ratio (SRR)	1.29	0.51	0.24	0.27	0.16	
95% confidence interval of SRR	1.28-1.30	0.50-0.51	0.23-0.25	0.25-0.30	0.12-0.21	
Palliative care						
Separations	3,606	1,305	343	16	9	5,281
Separation rate	0.2	0.3	0.2	0.1	0.1	0.2
Standardised separation rate ratio (SRR)	1.01	1.14	0.70	0.31	0.56	
95% confidence interval of SRR	0.98-1.05	1.07-1.20	0.63-0.77	0.16-0.47	0.19-0.92	
Other non-acute care						
Separations	7,952	607	117	7	4	8,696
Separation rate	0.5	0.1	0.1	0.0	0.1	0.4
Standardised separation rate ratio (SRR)	1.38	0.31	0.17	0.08	0.18	
95% confidence interval of SRR	1.35–1.41	0.29-0.33	0.14-0.20	0.02-0.14	0.00-0.36	
Total						
Separations	130,632	17,193	3,452	356	67	151,923
Separation rate	8.5	3.4	1.7	1.8	1.2	6.6
Standardised separation rate ratio (SRR)	1.28	0.52	0.25	0.26	0.18	
95% confidence interval of SRR	1.28–1.29	0.51-0.52	0.25-0.26	0.24-0.29	0.14-0.22	

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

<sup>(</sup>a) The total includes separations for which the remoteness area was not able to be categorised.

## Socioeconomic status

Socioeconomic status (SES) groups in this report are based on the Index of Relative Advantage/Disadvantage (from SEIFA 2006) for the area of usual residence (SLA) of the patient. See *Appendix 1* for details.

Each socioeconomic status (SES) group accounted for between 15.7% and 28.8% of total non-acute separations. The separation rates varied from 18.8 per 1,000 population for patients living in areas classified as being the highest SES group to 9.7 per 1,000 for the lowest SES group (Table 11.5). The 95% confidence intervals applying to the SRRs for all SES groups indicate that the differences in separation rates from the national rate were statistically significant.

Table 11.5: Selected non-acute separation statistics, by socioeconomic status, all hospitals, 2008-09

	SES group						
	1—Lowest	2	3	4	5—Highest	Total <sup>(a)</sup>	
Rehabilitation							
Separations	30,072	38,809	38,155	40,636	67,902	215,821	
Separation rate	6.3	7.8	8.5	9.7	15.0	9.4	
Standardised separation rate ratio (SRR)	0.67	0.83	0.91	1.03	1.60		
95% confidence interval of SRR	0.67-0.68	0.83-0.84	0.90-0.92	1.02-1.04	1.59-1.61		
Palliative care							
Separations	6,700	5,688	6,315	5,359	5,450	29,543	
Separation rate	1.4	1.1	1.4	1.3	1.2	1.3	
Standardised separation rate ratio (SRR)	1.08	0.89	1.11	1.00	0.93		
95% confidence interval of SRR	1.06-1.11	0.87-0.91	1.08-1.13	0.97-1.02	0.91-0.96		
Other non-acute care							
Separations	9,855	8,793	9,836	10,307	12,134	51,034	
Separation rate	2.0	1.7	2.2	2.5	2.6	2.2	
Standardised separation rate ratio (SRR)	0.92	0.79	1.00	1.13	1.22		
95% confidence interval of SRR	0.90-0.93	0.77-0.80	0.98-1.02	1.11–1.15	1.20-1.24		
Total							
Separations	46,627	53,290	54,306	56,302	85,486	296,398	
Separation rate	9.7	10.6	12.1	13.4	18.8	12.8	
Standardised separation rate ratio (SRR)	0.76	0.83	0.94	1.05	1.47		
95% confidence interval of SRR	0.75-0.76	0.82-0.84	0.94-0.95	1.04-1.06	1.46-1.48		

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

<sup>(</sup>a) The total includes separations for which the socioeconomic status group was not able to be categorised.

## How did people access these services?

The Mode of admission records the mechanism by which an admitted patient begins an episode of care.

About half of all non-acute separations had a Mode of admission of *Other*, the term used to refer to all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 11.6). *Statistical admission: care type change* was the most common admission mode for non-acute separations in public hospitals. This indicates that the clinical intent of the patient's care had changed (for example from acute care to rehabilitation), within the one hospital. Public hospitals also recorded higher proportions of *Admitted patient transferred from another hospital* than private hospitals.

Table 11.6: Non-acute separations, by mode of admission, public and private hospitals, 2008-09

Mode of admission	Public hospitals	Private hospitals	Total
Admitted patient transferred from another hospital	43,871	36,135	80,006
Statistical admission: care type change	58,585	10,286	68,871
Other	41,576	105,487	147,063
Not reported	443	15	458
Total	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

## Why did people receive the care?

The reasons that patients receive admitted patient care are usually described in terms of the principal diagnosis. The principal diagnosis is the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care.

#### Principal diagnosis

Overall, four out of five non-acute separations had a principal diagnosis from the ICD-10-AM chapter — Factors influencing health status and contact with health services. A principal diagnosis within Factors influencing health status and contact with health services was reported for over 92% of non-acute separations in private hospitals and 69% in public hospitals (Table 11.7).

Care involving use of rehabilitation procedures accounted for 73% of principal diagnoses reported for non-acute separations (at the 3-character level). This diagnosis is required to be reported as the principal diagnosis for *Rehabilitation* care and lies within the chapter *Factors* influencing health status and contact with health services.

The second most common principal diagnosis chapter reported for non-acute separations was *Neoplasms*, which includes both benign and malignant tumours, and was particularly associated with separations for *Palliative care* (see below).

Table 11.7: Non-acute separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2008–09

Principal di	agnosis chapter	Public hospitals	Private hospitals	Total
A00-B99	Certain infectious and parasitic diseases	661	33	694
C00-D48	Neoplasms	17,851	4,000	21,851
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	213	24	237
E00-E90	Endocrine, nutritional and metabolic diseases	922	67	989
F00-F99	Mental and behavioural disorders	6,025	4,798	10,823
G00-G99	Diseases of the nervous system	2,317	1,625	3,942
H00-H59	Diseases of the eye and adnexa	28	3	31
H60-H95	Diseases of the ear and mastoid process	30	1	31
100-199	Diseases of the circulatory system	3,992	282	4,274
J00-J99	Diseases of the respiratory system	2,950	222	3,172
K00-K93	Diseases of the digestive system	1,482	154	1,636
L00-L99	Diseases of the skin and subcutaneous tissue	431	14	445
M00-M99	Diseases of the musculoskeletal system and connective tissue	1,199	79	1,278
N00-N99	Diseases of the genitourinary system	1,147	92	1,239
O00-O99	Pregnancy, childbirth and the puerperium	86	3	89
P00-P96	Certain conditions originating in the perinatal period	89	0	89
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	22	1	23
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1,968	323	2,291
S00-T98	Injury, poisoning and certain other consequences of external causes	3,498	92	3,590
Z00–Z99	Factors influencing health status and contact with health services	99,510	140,019	239,529
	Not reported	54	91	145
Total non-a	cute separations	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

The 10 most common principal diagnoses reported for *Palliative care* and *Other non-acute care* are presented in tables 11.8 and 11.9.

For *Palliative care*, 9 of the top 10 principal diagnoses were for malignant neoplasms, and these accounted for 45% of principal diagnoses for *Palliative care* separations (Table 11.8).

For *Other non-acute care*, about 60% of separations had one of the top 10 principal diagnoses, which included *Care involving use of rehabilitation procedures* and *Mental and behavioural disorders* (such as *Alzheimer's disease* and *Depressive disorder*) (Table 11.9).

Table 11.8: Separations for the top 10 principal diagnoses in 3-character ICD-10-AM groupings for *Palliative care* separations, public and private hospitals, 2008–09

Princi	pal diagnosis	Public hospitals	Private hospitals	Total
C34	Malignant neoplasm of bronchus and lung	3,054	597	3,651
C79	Secondary malignant neoplasm of other sites	1,741	498	2,239
C78	Secondary malignant neoplasm of respiratory and digestive organs	1,346	471	1,817
C61	Malignant neoplasm of prostate	938	217	1,155
C25	Malignant neoplasm of pancreas	872	175	1,047
C18	Malignant neoplasm of colon	848	192	1,040
C50	Malignant neoplasm of breast	835	198	1,033
C71	Malignant neoplasm of brain	628	143	771
C16	Malignant neoplasm of stomach	474	102	576
150	Heart failure	482	60	542
	Other	13,044	2,628	15,672
Total	Palliative care separations	24,262	5,281	29,543

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

Table 11.9: Separations for the top 10 principal diagnoses in 3-character ICD-10-AM groupings for *Other non-acute care* separations, public and private hospitals, 2008–09

Princip	pal diagnosis	Public hospitals	Private hospitals	Total
Z75	Problems related to medical facilities and other health care	15,747	1,214	16,961
<b>Z</b> 50	Care involving use of rehabilitation procedures	2,952	0	2,952
G30	Alzheimer's disease	743	1,499	2,242
F32	Depressive episode	1,089	1,089	2,178
Z54	Convalescence	1,458	559	2,017
F33	Recurrent depressive disorder	266	1,311	1,577
Z74	Problems related to care-provider dependency	1,310	4	1,314
S72	Fracture of femur	863	9	872
F31	Bipolar affective disorder	486	339	825
F03	Unspecified dementia	797	25	822
	Other	16,627	2,647	19,274
Total C	other non-acute separations	42,338	8,696	51,034

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

# Additional diagnoses

For *Rehabilitation care*, the principal diagnosis is required to be reported as *Care involving use of rehabilitation procedures*, and the first additional diagnosis is usually the reason for that care.

The ten most common first additional diagnoses reported for *Rehabilitation care* separations included musculoskeletal conditions, injuries and follow-up care for orthopaedic conditions (Table 11.10). The top 10 first additional diagnoses accounted for almost 50% of rehabilitation separations in private hospitals and for less than 29% in public hospitals.

These figures may indicate that public hospitals provided rehabilitation care for a greater variety of conditions than private hospitals.

Table 11.10: Separations for the top 10 first additional diagnoses in 3-character ICD-10-AM groupings for *Rehabilitation care* separations, public and private hospitals, 2008–09

Princip	al diagnosis	Public hospitals	Private hospitals	Total
M17	Gonarthrosis [arthrosis of knee]	2,320	25,996	28,316
M16	Coxarthrosis [arthrosis of hip]	1,384	12,782	14,166
S72	Fracture of femur	6,779	6,114	12,893
163	Cerebral infarction	4,995	3,155	8,150
Z96	Presence of other functional implants	310	5,106	5,416
M25	Other joint disorders, not elsewhere classified	248	4,754	5,002
S32	Fracture of lumbar spine and pelvis	1,874	2,646	4,520
M54	Dorsalgia	484	3,696	4,180
M48	Other spondylopathies	455	3,274	3,729
Z47	Other orthopaedic follow-up care	3,535	53	3,588
	Other	55,491	69,027	125,861
Total R	ehabilitation care separations	77,875	136,603	215,821

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

# How urgent was the care?

Admissions to hospital can be categorised as *Emergency* (required within 24 hours), or *Elective* (required at some stage beyond 24 hours). Urgency of admission is *Not assigned* for some admissions, such as admissions for normal delivery and birth, statistical admissions and planned readmissions for some treatments.

In 2008–09, about 65% of non-acute admitted patients were reported as *Elective* admissions (treatment could be delayed by at least 24 hours). The proportion of *Elective* admissions varied between public and private hospitals, accounting for about 91% of non-acute separations in private hospitals and 37% in public hospitals. Almost 31% of non-acute separations had a *Not assigned* Urgency of admission (Table 11.11).

Table 11.11: Non-acute separations, by urgency of admission, public and private hospitals, 2008-09

	Public	c hospitals	Private hospitals			Total
Urgency of admission	Separations	Per cent (column)	Separations	Per cent (column)	Separations	Per cent (column)
Emergency	13,128	9.1	756	0.5	13,884	4.7
Elective	53,423	37.0	137,880	90.8	191,303	64.5
Not assigned	77,915	53.9	13,286	8.7	91,201	30.8
Not reported	9	0.0	1	0.0	10	0.0
Total	144,475	100	151,923	100	296,398	100

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

# What care was provided?

The care that the patient received can be described in a variety of ways. This section presents information on overnight acute separations describing care by:

- the overall type of care: *Surgical* (involving an operating room procedure), *Medical* (not involving a procedure) and *Other* (involving a non-operating room procedure such as endoscopy)
- 'Care type', which reflects the clinical intent or treatment goal of an episode
- the type of surgical or other procedure undertaken.

## Medical, surgical or other care

Acute care activity can be classified as *Medical*, *Surgical* and *Other* care, based on the *Medical*, *Surgical* and *Other* partitions of the AR-DRG classification (see Box 7.1).

As the AR-DRG classification relates to acute care, the *Medical/Surgical/Other* categories have not been applied to non-acute care.

# Care type

For public and private sectors combined, about 73% of non-acute separations were for *Rehabilitation care* and, therefore, most of the data in this chapter relates to *Rehabilitation care* (Table 11.12).

Table 11.12: Non-acute separations, by type of non-acute care, public and private hospitals, 2008–09

Care type	Public hospitals	Private hospitals	Total
Rehabilitation	77,875	137,946	215,821
Palliative care	24,262	5,281	29,543
Geriatric evaluation and management	18,307	113	18,420
Psychogeriatric care	4,394	6,579	10,973
Maintenance care	19,637	2,004	21,641
Total	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

#### Procedures and other interventions

A procedure is defined as a clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic risk, requires specialised training, and/or requires special facilities or equipment available only in an acute care setting (HDSC 2006).

Procedures classified to the ACHI procedure chapter — *Non-invasive, cognitive and other interventions, not elsewhere classified* accounted for 99.4% of non-acute separations for which a procedure was reported (Table 11.13). This chapter includes anaesthesia, allied

health interventions (which include physiotherapy and other rehabilitation-related procedures), dialysis and chemotherapy.

In public hospitals, about 20% of non-acute separations did not report a procedure, and for private hospitals about 9% did not report a procedure.

Table 11.13: Non-acute separations<sup>(a)</sup>, by procedure in ACHI chapters, public and private hospitals, 2008–09

Procedure of	hapter	Public hospitals	Private hospitals	Total
1–86	Procedures on nervous system	299	198	497
110–129	Procedures on endocrine system	16	4	20
160–256	Procedures on eye and adnexa	42	13	55
300–333	Procedures on ear and mastoid process	77	13	90
370-422	Procedures on nose, mouth and pharynx	56	14	70
450-490	Dental services	132	15	147
520-570	Procedures on respiratory system	654	119	773
600–777	Procedures on cardiovascular system	734	179	913
800–817	Procedures on blood and blood-forming organs	71	17	88
850-1011	Procedures on digestive system	1,252	326	1,578
1040–1129	Procedures on urinary system	2,313	452	2,765
1160–1203	Procedures on male genital organs	26	8	34
1240–1299	Gynaecological procedures	34	9	43
1330–1347	Obstetric procedures	32	2	34
1360–1579	Procedures on musculoskeletal system	763	282	1,045
1600–1718	Dermatological and plastic procedures	1,098	174	1,272
1740–1759	Procedures on breast	25	3	28
1786–1799	Radiation oncology procedures	458	34	492
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	113,984	137,351	251,335
1940–2016	Imaging services	11,700	2,266	13,966
	Total procedures	133,766	141,479	275,245
	Separations with no procedure reported	29,204	14,381	43,585
Total non-ad	cute separations	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

In 2009–09, General allied health interventions was the most frequently reported procedure block for non-acute separations (Table 11.14), which lies within the chapter Non-invasive, cognitive and other interventions, not elsewhere classified (see Table 11.13). General allied health interventions includes physiotherapy and other rehabilitation procedures or interventions. The 20 most frequently reported procedures for non-acute separations in hospitals are presented in Table 11.14.

<sup>(</sup>a) A separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows

Table 11.14: Procedure statistics for the top 20 ACHI procedures for non-acute separations, public and private hospitals, 2008–09

Procedure	code and description	Public hospitals	Private hospitals	Total
95550-03	Allied health intervention, physiotherapy	91,223	122,375	213,599
95550-02	Allied health intervention, occupational therapy	70,233	62,147	132,747
95550-01	Allied health intervention, social work	62,241	16,262	78,503
95550-00	Allied health intervention, dietetics	36,482	8,579	45,061
96153-00	Hydrotherapy	459	36,258	36,717
95550-05	Allied health intervention, speech pathology	25,486	8,405	33,891
95550-11	Allied health intervention, other	4,778	14,412	19,190
95550-09	Allied health intervention, pharmacy	8,511	3,432	11,943
95550-12	Allied health intervention, pastoral care	8,681	1,784	10,465
95550-10	Allied health intervention, psychology	5,669	3,127	8,796
95550-04	Allied health intervention, podiatry	6,809	1,526	8,335
96129-00	Exercise therapy, total body	0	6,515	6,515
56001-00	Computerised tomography of brain	4,964	706	5,670
13706-02	Administration of packed cells	2,771	1,002	3,773
92514-99	General anaesthesia, ASA 99	1,830	801	2,631
95550-14	Allied health intervention, diabetes education	2,157	263	2,420
95550-08	Allied health intervention, prosthetics and orthotics	1,763	236	1,999
96023-00	Ageing assessment	1,336	659	1,995
96175-00	Mental/behavioural assessment	1,500	427	1,927
95550-13	Allied health intervention, music therapy	1,091	260	1,351
	Separations with no procedure reported	29,204	14,381	43,585
Total proc	edures	371,214	301,843	675,752

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

A separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

# How long did patients stay?

Non-acute separations may involve same-day or overnight episodes. Overall, the average length of stay for non-acute care is much higher than the average length of stay for acute care, and was higher in public hospitals than in private hospitals (Table 11.15). For example, the average length of stay for *Rehabilitation care* was 18.1 days in public hospitals, compared to 5.6 days in private hospitals.

Table 11.15: Patient days and average length of stay for non-acute separations, by care type, public and private hospitals, 2008–09

	Public hospitals		Private hospitals			Total	
Care type	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay	
Rehabilitation	1,413,375	18.1	771,272	5.6	2,184,647	10.1	
Palliative care	285,300	11.8	63,024	11.9	348,324	11.8	
Geriatric evaluation and management	383,355	20.9	738	6.5	384,093	20.9	
Psychogeriatric care	195,157	44.4	34,880	5.3	230,037	21.0	
Maintenance care	766,560	39.0	68,661	34.3	835,221	38.6	
Total	3,043,747	21.1	938,575	6.2	3,982,322	13.4	

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

# Who paid for the care?

Over 78% of non-acute separations from public hospitals were for *Public patients*, and just under 78% of non-acute separations from private hospitals were funded by *Private health insurance* (Table 11.16). The *Department of Veterans' Affairs* funded about 7% of non-acute separations in public hospitals and 13% in private hospitals.

Table 11.16: Non-acute separations, by principal source of funds, public and private hospitals, 2008–09

Funding source	Public hospitals	Private hospitals	Total
Public patients <sup>(a)</sup>	113,145	3,712	116,857
Private health insurance	18,594	118,160	136,754
Self-funded <sup>(b)</sup>	534	5,043	5,577
Workers compensation	610	3,483	4,093
Motor vehicle third party personal claim	1,119	868	1,987
Department of Veterans' Affairs	9,947	19,946	29,893
Other <sup>(c)</sup>	526	711	1,237
Total	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

<sup>(</sup>a) 'Public patients' includes separations with a funding source of Australian Health Care Agreements, Reciprocal health care agreements, Other hospital or public authority (with a public patient election status) and No charge raised (in public hospitals). The majority of separations with a funding source of No charge raised in public hospitals were in Western Australia, reflecting that some public patient services were funded through the Medicare Benefit Schedule.

<sup>(</sup>b) Tasmania was unable to identify all patients whose funding source may have been *Self-funded*, therefore the number of separations in this category may be underestimated and others may be overestimated.

<sup>(</sup>c) 'Other' includes separations with a funding source of *Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority* (without a public patient election status), *Other, No charge raised* (in private hospitals) and *Not reported.* 

# How was the care completed?

The Mode of separation records the status of the patient at the time of separation and, for some categories, the place to which the person was discharged or transferred.

In 2008–09, the most common Mode of separation for non-acute separations was *Other* (75%), which includes discharge to usual residence/own accommodation/welfare institution. Almost 6% of separations ended with *Discharged or transferred to a residential aged care service* (Table 11.17).

Table 11.17: Non-acute separations, by mode of separation, public and private hospitals, 2008-09

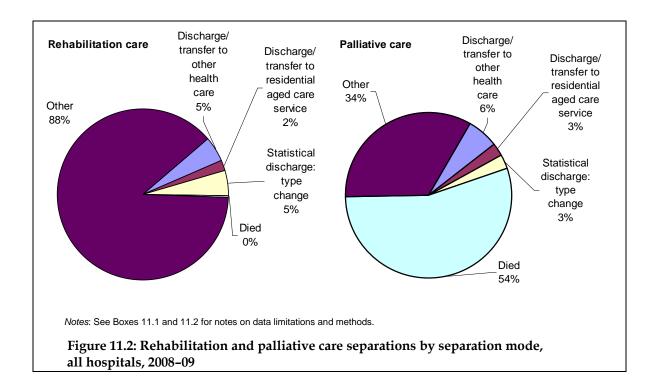
Separation mode	Public hospitals	Private hospitals	Total
Discharge/transfer to an(other) acute hospital	12,356	2,855	15,211
Discharge/transfer to residential aged care service <sup>(a)</sup>	15,204	1,729	16,933
Discharge/transfer to an(other) psychiatric hospital	213	7	220
Discharge/transfer to other health-care accommodation	2,848	242	3,090
Statistical discharge: type change	14,622	2,002	16,624
Left against medical advice/discharge at own risk	984	145	1,129
Statistical discharge from leave	1,057	44	1,101
Died	15,816	3,193	19,009
Other <sup>(b)</sup>	81,373	141,706	223,079
Not reported	2	0	2
Total	144,475	151,923	296,398

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

There was some variation in the Mode of separation by type of non-acute care. For *Rehabilitation care*, 88% of separations reported a Mode of separation of *Other*, compared with 32% of separations for *Palliative care*. Nearly 57% of *Palliative care* separations had a Mode of separation of *Died* (Figure 11.2).

<sup>(</sup>a) The separation mode Discharge/transfer to residential aged care service excludes where this was the usual place of residence.

<sup>(</sup>b) The separation mode *Other* includes discharge to usual residence/own accommodation/welfare institution (including prisons, hostels and group homes providing primarily welfare services).



# Supplementary tables

The following supplementary tables provide more information on principal diagnoses and procedures, by state and territory.

# Box 11.4 Methods-Chapter 11 supplementary tables Tables S11.3 to S11.4:

- (a) For tables with counts of separations by groups of procedures, a separation is counted once for the group if it has at least one procedure reported within the group. As more than one procedure can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.
- (b) For data on the number of procedures, all procedures within a group are counted, even if more than one is reported for a separation.
- (c) These are counts of Australian Classification of Health Interventions (ACHI) procedure codes. It is possible that a single procedure code may represent multiple procedures or that a specific procedure may require the reporting of more than one code. Therefore, the number of procedure codes reported does not necessarily equal the number of separate procedures performed.

Table S11.1: Non-acute separations, by principal diagnosis in ICD-10-AM chapters, public hospitals, states and territories, 2008-09

Principal d	liagnosis chapter	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	189	223	118	33	9	1	81	7	661
C00-D48	Neoplasms	6,966	4,368	3,872	813	917	237	458	220	17,851
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	82	59	34	12	7	0	16	3	213
E00-E90	Endocrine, nutritional and metabolic diseases	177	374	145	66	31	15	101	13	922
F00-F99	Mental and behavioural disorders	1,640	2,645	820	573	229	18	90	10	6,025
G00-G99	Diseases of the nervous system	404	1,152	307	255	79	12	96	12	2,317
H00-H59	Diseases of the eye and adnexa	15	7	2	3	0	0	1	0	28
H60-H95	Diseases of the ear and mastoid process	6	11	5	5	1	0	2	0	30
100-199	Diseases of the circulatory system	897	1,740	725	299	73	19	227	12	3,992
J00-J99	Diseases of the respiratory system	748	1,150	534	200	83	22	189	24	2,950
K00-K93	Diseases of the digestive system	412	550	233	91	46	12	122	16	1,482
L00-L99	Diseases of the skin and subcutaneous tissue	116	175	63	17	7	8	37	8	431
M00-M99	Diseases of the musculoskeletal system and connective tissue	228	640	104	73	42	10	98	4	1,199
N00-N99	Diseases of the genitourinary system	299	458	167	79	27	8	106	3	1,147
O00-O99	Pregnancy, childbirth and the puerperium	30	0	4	12	0	0	40	0	86
P00-P96	Certain conditions originating in the perinatal period	1	0	0	1	1	0	86	0	89
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	10	4	3	2	2	0	1	0	22
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	409	1,039	214	107	68	9	98	24	1,968
S00-T98	Injury, poisoning and certain other consequences of external causes	775	2,009	300	160	62	172	233	12	3,723
Z00–Z99	Factors influencing health status and contact with health services	31,698	17,922	22,789	10,686	9,930	1,602	3,874	787	99,288
	Not reported	71	0	0	0	0	0	0	0	71
Total non-a	acute separations	45,173	34,526	30,439	13,487	11,614	2,145	5,956	1,155	144,495

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

Table S11.2: Non-acute separations, by principal diagnosis in ICD-10-AM chapters, private hospitals, states and territories, 2008-09

Principal d	liagnosis chapter	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00-B99	Certain infectious and parasitic diseases	0	3	11	16	1	n.p.	n.p.	n.p.	33
C00-D48	Neoplasms	268	435	1,378	1,730	177	n.p.	n.p.	n.p.	4,000
D50-D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1	0	6	16	1	n.p.	n.p.	n.p.	24
E00-E90	Endocrine, nutritional and metabolic diseases	5	1	19	36	5	n.p.	n.p.	n.p.	67
F00-F99	Mental and behavioural disorders	1	4,687	52	58	0	n.p.	n.p.	n.p.	4,798
G00-G99	Diseases of the nervous system	8	1,490	60	57	8	n.p.	n.p.	n.p.	1,625
H00-H59	Diseases of the eye and adnexa	0	0	0	0	3	n.p.	n.p.	n.p.	3
H60-H95	Diseases of the ear and mastoid process	0	0	0	0	1	n.p.	n.p.	n.p.	1
100-199	Diseases of the circulatory system		16	100	139	9	n.p.	n.p.	n.p.	282
J00-J99	Diseases of the respiratory system	18	17	78	96	10	n.p.	n.p.	n.p.	222
K00-K93	Diseases of the digestive system	50	11	47	33	10	n.p.	n.p.	n.p.	154
L00-L99	Diseases of the skin and subcutaneous tissue	1	3	5	4	1	n.p.	n.p.	n.p.	14
M00-M99	Diseases of the musculoskeletal system and connective tissue	18	8	17	28	5	n.p.	n.p.	n.p.	79
N00-N99	Diseases of the genitourinary system	10	7	30	28	14	n.p.	n.p.	n.p.	92
O00-O99	Pregnancy, childbirth and the puerperium	2	0	0	0	1	n.p.	n.p.	n.p.	3
P00-P96	Certain conditions originating in the perinatal period	0	0	0	1	0	n.p.	n.p.	n.p.	1
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	45	185	38	43	8	n.p.	n.p.	n.p.	323
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	12	16	21	35	5	n.p.	n.p.	n.p.	92
S00-T98	Injury, poisoning and certain other consequences of external causes	82,115	13,568	26,943	1,723	12,504	n.p.	n.p.	n.p.	140,019
Z00-Z99	Factors influencing health status and contact with health services	82,567	20,538	28,805	4,043	12,763	n.p.	n.p.	n.p.	0
	Not reported	0	91	0	0	0	n.p.	n.p.	n.p.	91
Total non-a	acute separations	165,134	41,076	57,610	8,086	25,526	n.p.	n.p.	n.p.	151,923

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods.

Table S11.3: Non-acute separations, by procedures by ACHI chapter, public hospitals, states and territories, 2008-09

Procedure	chapter	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	92	35	36	69	22	1	42	2	299
110–129	Procedures on endocrine system	7	3	2	3	0	0	1	0	16
160–256	Procedures on eye and adnexa	21	4	5	9	0	0	0	3	42
300–333	Procedures on ear and mastoid process	20	15	23	12	6	1	0	0	77
370-422	Procedures on nose, mouth and pharynx	19	9	12	8	3	1	3	1	56
450-490	Dental services	27	7	72	10	13	0	2	1	132
520-569	Procedures on respiratory system	170	126	143	95	49	6	44	21	654
600-767	Procedures on cardiovascular system	244	117	107	114	47	5	84	16	734
800-817	Procedures on blood and blood-forming organs	16	16	16	6	1	3	11	2	71
850-1011	Procedures on digestive system	416	214	256	123	113	23	73	34	1,252
1040–1129	Procedures on urinary system	719	478	301	300	142	192	145	36	2,313
1160–1203	Procedures on male genital organs	16	3	2	2	1	0	0	2	26
1240-1299	Gynaecological procedures	20	2	4	7	1	0	0	0	34
1330–1347	Obstetric procedures	20	0	3	8	0	0	1	0	32
1360–1579	Procedures on musculoskeletal system	249	167	84	150	57	15	35	6	763
1600–1718	Dermatological and plastic procedures	239	486	205	87	39	13	20	9	1,098
1740–1759	Procedures on breast	6	2	4	8	1	3	1	0	25
1786–1799	Radiation oncology procedures	206	78	106	15	8	5	40	0	458
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	39,302	28,431	18,238	11,454	9,369	1,548	5,063	579	113,984
1940–2016	Imaging services	4,146	2,741	1,939	1,206	644	150	808	66	11,700
	Total procedures	45,955	32,934	21,558	13,686	10,516	1,966	6,373	778	133,766
	Separations with no procedure reported	5,445	5,939	12,095	1,937	2,163	421	790	549	29,339
Total non-a	cute separations	45,153	34,526	30,439	13,487	11,614	2,145	5,956	1,155	144,475

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods. See Box 11.4 for footnotes specific to this table.

Table S11.4: Non-acute separations, by procedures by ACHI chapter, private hospitals, states and territories, 2008-09

Procedure	Procedure chapter		Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86	Procedures on nervous system	67	31	48	38	7	n.p.	n.p.	n.p.	198
110–129	Procedures on endocrine system	0	0	2	2	0	n.p.	n.p.	n.p.	4
160–256	Procedures on eye and adnexa	5	1	2	2	2	n.p.	n.p.	n.p.	13
300-333	Procedures on ear and mastoid process	4	2	5	2	0	n.p.	n.p.	n.p.	13
370-422	Procedures on nose, mouth and pharynx	1	0	4	5	4	n.p.	n.p.	n.p.	14
450-490	Dental services	5	3	1	3	2	n.p.	n.p.	n.p.	15
520-569	Procedures on respiratory system	27	23	39	26	4	n.p.	n.p.	n.p.	119
600-767	Procedures on cardiovascular system	33	19	71	35	12	n.p.	n.p.	n.p.	179
800–817	Procedures on blood and blood-forming organs	1	4	8	3	0	n.p.	n.p.	n.p.	17
850-1011	Procedures on digestive system	68	36	106	81	16	n.p.	n.p.	n.p.	326
1040–1129	Procedures on urinary system	80	33	161	136	28	n.p.	n.p.	n.p.	452
1160-1203	Procedures on male genital organs	3	0	3	1	1	n.p.	n.p.	n.p.	8
1240-1299	Gynaecological procedures	1	0	0	3	3	n.p.	n.p.	n.p.	9
1330-1347	Obstetric procedures	1	0	0	0	1	n.p.	n.p.	n.p.	2
1360–1579	Procedures on musculoskeletal system	98	41	73	51	11	n.p.	n.p.	n.p.	282
1600–1718	Dermatological and plastic procedures	56	19	45	37	12	n.p.	n.p.	n.p.	174
1740–1759	Procedures on breast	0	0	1	1	0	n.p.	n.p.	n.p.	3
1786–1799	Radiation oncology procedures	2	1	28	0	0	n.p.	n.p.	n.p.	34
1820-1922	Non-invasive, cognitive and other interventions, n.e.c.	80,448	14,951	23,073	3,029	12,674	n.p.	n.p.	n.p.	137,351
1940–2016	Imaging services	547	358	779	368	105	n.p.	n.p.	n.p.	2,266
	Total procedures	81,447	15,522	24,449	3,823	12,882	n.p.	n.p.	n.p.	141,479
	Separations with no procedure reported	2,081	5,575	5,681	941	81	n.p.	n.p.	n.p.	14,388
Total non-a	acute separations	82,567	20,538	28,805	4,043	12,763	n.p.	n.p.	n.p.	151,923

Notes: See Boxes 11.1 and 11.2 for notes on data limitations and methods. See Box 11.4 for footnotes specific to this table.

# **Appendix 1: Technical appendix**

This appendix covers:

- · definitions and classifications used
- the presentation of data in this report
- information on the quality of the data (where this may affect interpretation)
- analysis methods.

# **Definitions**

If not otherwise indicated, data elements were defined according to the 2008–09 definitions in the *National health data dictionary, version 14* (HDSC 2009) (summarised in the *Glossary*).

# **Data presentation**

For the majority of tables in this report, data are presented by the state or territory of the hospital, not by the state or territory of usual residence of the patient. The exceptions are for tables presenting information on potentially preventable hospitalisations and selected procedures, which are based on data on the state or territory of usual residence. In addition, the state or territory of usual residence of the patient is reported against the state or territory of hospitalisation in *Chapter 7*.

Except as noted below, the totals in tables include data only for those states and territories for which data were available, as indicated in the tables. For example, for some tables and figures dealing with Indigenous status, data have been presented only for selected states and territories, and the totals in these tables do not include the data for the other states and territories (*chapters 3, 7, 8, 9, 10 and 11*).

Throughout the publication, percentages may not add up to 100.0 because of rounding. Percentages and population rates printed as 0.0 or 0 may denote less than 0.05 or 0.5, respectively.

# Suppression of data

Other exceptions relate to tables in which data were not published for confidentiality reasons (for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory), or because only one public hospital was represented in the cell, or because a proportion related to a small number of events and was therefore not very meaningful.

Private hospital data are suppressed for a particular diagnosis, procedure or AR-DRG where:

- there are fewer than three reporting units,
- there are three or more reporting units and one contributed more than 85% of the total separations, or
- there are three or more reporting units and two contributed more than 90% of the total separations.

Data on the length of stay have been suppressed if there were fewer than 10 separations in the category being presented (50 separations for the average length of stay by selected AR-DRG analysis in *Chapter 3*). Data on elective surgery waiting times were suppressed if there were fewer than 10 elective surgery admissions in the category being presented. The abbreviation 'n.p.' has been used in these tables to denote these suppressions. For these tables, the totals include the suppressed information.

# State or territory of usual residence

For tables presented by the state or territory of usual residence of the patient, the totals include unknown residence area (within a known state), overseas residents and unknown state of residence.

# Indigenous status

For statistical analyses by Indigenous status (for example, age-standardised separation rates and rate ratios), admitted patient care data are included only for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (public hospitals only), for which the quality of Indigenous identification is considered acceptable for the purpose of analysis. Further information on the quality of Indigenous identification in hospital data is included later in this appendix.

# Population rates

### Standardised separation rate

Unless noted otherwise (see below), population rates (separation rates) presented in this report are age-standardised, calculated using the direct standardisation method and 5-year age groups. The total Australian population for 30 June 2001 was used as the standard population against which expected rates were calculated. The Australian Bureau of Statistics' population estimates for 30 June 2008 and for 31 December 2008 (see tables A1.1, A1.2 and A1.3 accompanying this report on the Internet) were used for the observed rates as detailed below:

- Standard separation rates (by hospital state and by residence state) were directly age standardised, using the estimated resident populations as at 31 December 2008. The estimated resident populations use a highest age group of 85 years and over.
- Separation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2008 and the estimated resident populations as at 30 June 2008. As the projected estimates use a highest age group of 65 years and over and population data for June 2008, standardised rates calculated for analyses by Indigenous status are not directly comparable to the rates presented elsewhere.
- Separation rates by remoteness areas and by quintiles of socioeconomic advantage/ disadvantage (see SEIFA below) were directly age-standardised, using the estimated resident populations as at 30 June 2008. The estimated resident populations use a highest age group of 85 years and over.

• The crude population rates presented in some tables (for example, average available beds per 1,000 population) were calculated using the population estimates for 31 December 2008.

## Standardised separation rate ratios

For some tables reporting comparative separation rates, standardised separation rate ratios (SRRs) are presented. The ratios are calculated by dividing the age-standardised separation rate for a population of interest (an observed rate) by the age-standardised separation rate for a comparison population (the expected rate). In these tables, a 95% confidence interval for the SRR has also been presented.

The calculations are as follows:

Standardised separation rate ratio (SRR) = observed rate/expected rate Standard error (SRR) =  $\sqrt{\text{(observed rate/expected rate)}}$ 95% confidence interval (SRR) = SRR  $\pm$  1.96  $\pm$  standard error (SRR)

A confidence interval for the separation rate can be obtained by multiplying the upper and lower 95% confidence levels for the SRR by the crude rate for the population.

A standardised separation ratio of 1.0 indicates that the population of interest (for example, *Indigenous Australians*) had a separation rate similar to that of the comparison group (for example, *Other Australians*). An SRR of 1.2 indicates that the population of interest had a rate that was 20% greater than that of the comparison population and an SRR of 0.8 indicates a rate 20% smaller. If the 95% confidence interval of the SRR contains 1.0, the rate for the population of interest is not significantly different (at the 95% confidence level) from that of the comparison population. Similarly, if the 95% confidence interval does not contain 1.0, then there is a significant difference (at the 95% confidence level).

The populations used for the observed and expected rates vary in this report, for example:

- For Indigenous status, the rate ratio is equal to the separation rate for *Indigenous Australians* divided by the separation rate for *Other Australians* (*Other Australians* includes Indigenous status not reported).
- For analyses by residence state or territory, remoteness areas and socioeconomic status, the rate ratio is equal to the separation rate for the residence state or territory, remoteness area or socioeconomic status group divided by the separation rate for Australia.

# **Counting public hospitals**

Different counts of hospitals are used this report, depending on the type of information being presented and the way in which the hospitals were reported to the National Hospital Morbidity Database (NHMD) and the National Public Hospital Establishments Database (NPHED). In summary, two counts of hospitals are used (Table A1.4):

• In the cost per casemix-adjusted separation analysis (*Chapter 3*), entities for which there was expenditure information were reported as hospitals. A small number of hospitals in the NPHED with incomplete expenditure information were omitted. In some jurisdictions, hospitals exist in networks, and expenditure data were available only for these networks, so the networks are the entities counted as hospitals for these tables.

• In *Chapter 4*, hospitals are generally counted as they were reported to the NPHED. These entities are usually 'physical hospitals' (buildings or campuses) but may encompass some outpost locations such as dialysis units. Conversely hospitals on the one 'campus' can be reported as separate entities to this database if, for example, they are managed separately and have separate purposes, such as specialist women's services and specialist children's services. Although most of the hospitals counted in this way report separations to the NHMD, some small hospitals do not have separations every year.

Table A1.4: Numbers of public hospitals reported in this report, states and territories, 2008-09

Hospitals	NSW	Vic	Qld	WA	SA	Tas	ACT <sup>(a)</sup>	NT	Total
Chapter 3 (expenditure data)	227	95	170	94	80	28	2	5	702
Chapter 4	227	149	170	94	80	28	3	5	756

Note:

Data on numbers of hospitals should therefore be interpreted taking these notes into consideration. Changes in the numbers of hospitals over time can be due to changes in administrative or reporting arrangements rather than changes in the number of hospital campuses or buildings.

Counts of private hospitals can also vary, depending on the source of the information. Therefore, there may be discrepancies between counts of private hospitals from the ABS Private Health Establishments Collection presented in *Chapter 4* and the lists of private hospitals contributing to the NHMD. The states and territories provided the latter information, which may not correspond with the way in which private hospitals report to the Private Health Establishments Collection.

# Non-admitted patient emergency department care data analyses

The coverage of the National Non-admitted Patient Emergency Department Care (NNAPEDC) episode-level data is calculated as the number of presentations reported to the NNAPEDCD divided by the number of accident and emergency occasions of service reported to the National Public Hospital Establishments Database (NPHED) as a percentage. This may underestimate the NNAPEDCD coverage because some accident and emergency occasions of service are for other than emergency presentations. As accident and emergency occasions of service may have been under-enumerated for some jurisdictions, coverage may also be overestimated. The coverage has been adjusted to 100% for jurisdictions where the number of presentations reported to the NNAPEDCD exceeded the number of accident and emergency occasions of service reported to the NPHED.

Patients who present to the emergency department with a Type of visit of *Return visit*, *Planned, Pre-arranged admission* or *Patient in transit* do not necessarily undergo the same processes as *Emergency presentations*, and their waiting times may rely on factors outside the control of the emergency department. Therefore, waiting time statistics (including the proportion ending in admission) and emergency department presentation length statistics are not presented in this report for patients with a Type of visit other than *Emergency presentation* (or *Not reported* for South Australia).

<sup>(</sup>a) The count of hospitals for the Australian Capital Territory includes a small mothercraft hospital for which admitted patient data were not reported. The expenditure for this hospital is included in the total reported for the Australian Capital Territory in Chapter 3, but is not included in the cost per casemix-adjusted separation analysis presented in Chapter 4.

The median and 90th percentile waiting time are determined from the time elapsed between presentation in the emergency department to commencement of service. The calculation is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia). In addition, presentations were excluded if the waiting time was missing or invalid, or the patient *Did not wait to be attended by a health care professional*, or was *Dead on arrival*.

The proportion of presentations seen on time was determined as the proportion of presentations in each Triage category with a waiting time less than or equal to the maximum waiting time stated in the National Triage Scale definition. The calculation is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia). In addition, presentations were excluded if the waiting time was missing or invalid, the patient *Did not wait to be attended by a health care professional*, or was *Dead on arrival*, or the Triage category was *Not reported*.

The proportion of presentations ending in admission is determined as the proportion of all emergency presentations with an Episode end status of *Admitted to this hospital*. The calculation is restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia).

The calculations of median duration of service event, median duration of non-admitted patient episode and median time in emergency department are restricted to presentations with a Type of visit of *Emergency presentation* (or *Not reported* for South Australia). The calculations also exclude presentations with an Episode end status of *Did not wait*, *Left at own risk*, or *Dead on arrival* and only include those presentations for which the emergency department Service commencement time, emergency department Episode end time and emergency department Physical departure time were all valid and occurred in sequence.

# Limitations of the emergency department care data

When interpreting the data presented, the reader should note the following:

- The proportion of accident and emergency occasions of service for which detailed episode-level data were available was 100% for *Principal referral and Specialist women's and children's hospitals* and *Large hospitals* (peer group A and B hospitals), but only about 80% for all hospitals.
- Certain issues of definition have not been resolved, so comparability across jurisdictions
  may be limited. Development and implementation of standard data definitions is
  ongoing.
- There is variation between jurisdictions in the point at which the emergency department presentation is recorded as completed for those patients subsequently admitted within the emergency department and/or elsewhere in the hospital. This will affect the comparability of presentation length statistics across jurisdictions.
- For Victoria and Tasmania, the conclusion of the non-admitted patient episode is reported as the time of physical departure for patients admitted to short stay wards within the emergency department.
- New South Wales were unable to supply valid waiting time data for approximately 25,000 records, the majority of which were referrals to a GP clinic co-located with the emergency department. These records were therefore not used to derive waiting time statistics or presentation length statistics.

Approximately 5,000 records for Western Australia had the recorded emergency
department Physical departure time occurring before the recorded emergency
department Episode end time or the recorded emergency department Episode end time
occurring before the emergency department Service commencement time. These records
were therefore not used in deriving emergency department presentation length statistics.

# Admitted patient care data analyses

Records for 2008–09 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2008 to 30 June 2009. Data on patients who were admitted on any date before 1 July 2008 are included, provided that they also separated between 1 July 2008 and 30 June 2009. 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.

### Limitations of the admitted patient care data

When interpreting the data presented, the reader should note the following:

- Coverage for the NHMD is essentially complete. For 2008–09, all public hospitals were
  included except for a small mothercraft hospital in the Australian Capital Territory.
  Private hospital data were not provided for private freestanding day facilities in the
  Australian Capital Territory and the Northern Territory, and for one private freestanding
  day facility in Tasmania.
- Hospitals may be re-categorised as public or private between or within years. *Appendix* 2 presents information on coverage, hospital amalgamations, and re-categorisation as public and/or public.
- In 2008–09, there were 67 separations that did not have sex reported as male or female, and 6 separations for which date of birth was not reported (age could not be calculated).
- States and territories vary in the classification of patients to care types, and varied in whether or not they reported separations for *Newborns* with no qualified days and records for *Hospital boarders* and *Posthumous organ procurement*.
- Data on state of hospitalisation should be interpreted with caution because of crossborder flows of patients. This is particularly the case for the Australian Capital Territory. In 2008–09, about 22% of separations for Australian Capital Territory hospitals were for patients who resided in New South Wales.

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 reporting period (1 July 2008 to 30 June 2009), this means that not all patient days reported will have occurred in that year. It is expected, however, that patient days for patients who separated in 2008–09, but who were admitted before 1 July 2008, will be counterbalanced overall by the patient days for patients in hospital on 30 June 2009 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. Information on some aspects of the quality and comparability of the data are presented below. The notes above and those in Box 7.1

should be used to guide interpretation of the data, as should the additional notes presented in *Chapter 1* of *Australian hospital statistics* 2002–03 (AIHW 2004a).

### **Newborn episodes of care**

*Newborn* care episodes can include 'qualified days' which are considered to be the equivalent of acute care days. In this report, *Newborn* episodes with at least one qualified day have been included in all tables reporting separations. Records for *Newborn* episodes with no qualified days do not meet admission criteria for all purposes, so they have been excluded from this report, except as specified in *Chapter 7*.

The number of patient days reported in this publication for *Newborn* episodes is equal to the number of qualified days, so for newborns with a mixture of qualified and unqualified days the number of patient days reported is less than the actual length of stay for the episode.

For 2008–09, private hospitals in Victoria did not report most *Newborn* episodes with no qualified days, therefore the count of newborns will be underestimated.

In South Australia, qualified and unqualified newborn care are defined as separate episodes of care, but for the purposes of all reporting, including the supply of data to the NHMD, separate episodes occurring within a single stay in hospital are bundled together. South Australia does not require private hospitals to provide records for newborns with no qualified days.

For Tasmania, where a newborn's qualification status was considered qualified at any point during the episode of care, the entire episode was reported as qualified days. As a consequence, the average length of stay for *Newborn* episodes with qualified days only in Tasmanian public hospitals is not directly comparable with that in other states.

Information on reporting practices for *Newborn* episodes before 2008–09 is available in previous *Australian hospital statistics* publications (AIHW 2002, 2003, 2004a, 2005a, 2006a, 2007a, 2008a, 2009).

# Counts of separations by groups of diagnoses, procedures and external causes

For tables with counts of separations by groups of diagnoses, procedures or external causes, a separation is counted once for the group if it has at least one diagnosis/procedure/ external cause reported within the group. As more than one diagnosis, procedure or external cause can be reported for each separation, the data are not additive and therefore the totals in the tables may not equal the sum of counts in the rows.

### **Counts of procedures**

For data on the number of procedures, all procedures within a group are counted, even if more than one is reported for a separation.

#### Standard admitted patient care data analyses

For *chapters* 7, 8, 9, 10 and 11 and relevant tables in *Chapter* 2, the counts of separations do not include separations for *Newborns without qualified days* and records for *Hospital boarders* or *Posthumous organ procurement*, and the patient days are also not included for those records. In addition, patient days for *Newborns* that were not 'qualified days' are excluded from the counts of patient days. For more information on these exclusions, see below.

### Acute admitted patient care data analyses

For *chapters 7, 8* and *9,* and for tables in the report that include cost weight information, separations are included only for *Acute care, Newborns* with at least one qualified day and where care type was *Not reported.* Patient days for *Newborns* that were not 'qualified days' are excluded from the counts of patient days.

### Same-day acute admitted patient care data analyses

For *Chapter 8*, records are included if the patient had a care type of *Acute*, *Newborn with qualified days*, or the care type was *Not reported*, and the patient was admitted and separated on the same day.

As a separation may be generated by a transfer between hospitals, or a change in the type of care provided, these data may include records for patients whose stay in hospital was longer than one day but involved more than one separation.

#### Overnight acute admitted patient care data analyses

For *Chapter 9*, records are included if the patient had a care type of *Acute, Newborn with qualified days*, or the care type was *Not reported*, and the patient was admitted and separated on different dates.

### Medical/Surgical/Other split

Acute separations (as above) have been categorised as *Medical*, *Surgical* or *Other* based on the AR-DRG recorded for the separation. *Surgical* DRGs are those with a second character of 0, 1, 2, or 3, *Medical* DRGs are those with a second character of 6, 7, 8, or 9 and *Other* is assigned for DRGs with a second character of 4 or 5.

### Sub- and Non-acute admitted patient care data analyses

For *Chapter 11*, records are included if the patient had a care type of *Rehabilitation care*, *Palliative care*, *Geriatric evaluation and management*, *Psychogeriatric care* or *Maintenance care*. Both same-day and overnight separations for non-acute care are included.

### Public patient analyses

For Australian hospital statistics from 2002–03 to 2007–08, 'Patient election status' and 'Funding source' were used in combination to categorise separations as *Public patients* and *Private patients* as described in *Appendix 1* of *Australian hospital statistics* 2007–08.

For 2008–09, the funding source for the separation is presented alone.

Throughout the report, the category *Public patients* includes separations for which the funding source was reported as:

- Australian Health Care Agreements
- Reciprocal health care agreements
- No charge raised in public hospitals
- Other hospital or public authority with a patient election status of *Public* (regardless of hospital sector).

In tables presenting information by funding source, the category *Other* includes separations for which the funding source was reported as:

- Other compensation
- Department of Defence
- Correctional facility
- Other hospital or public authority with a patient election status of Private or Not reported
- No charge raised (in private hospitals)
- Other
- Not reported.

# ICD-10-AM codes used for selected analyses

A number of tables in this report use ICD-10-AM/ACHI codes to define diagnoses and procedures. The codes are presented in Table A1.5 (accompanying this report on the Internet and CD) and relate to:

- statistics on selected procedures (Chapter 3)
- statistics on selected potentially preventable hospitalisations (Chapter 7)
- statistics on renal failure hospitalisations (Internet and CD only).

# National elective surgery waiting times data analyses

### **Elective surgery care and elective surgical separations**

The definition of elective surgery care for the purposes of the National Elective Surgery Waiting Times Data Collection (NESWTDC), and the definition of separations for elective surgery in the National Hospital Morbidity Database (NHMD) differ. In particular, the procedures defined as surgical differ between those used to define the scope of the NESWTDC and those used to define elective surgery separations in the NHMD.

- For the NESWTDC, elective surgery comprises elective care where the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, with the exclusion of specific procedures frequently done by non-surgical clinicians (HDSC 2006).
- For the NHMD, separations have been classified as elective surgery separations if:
  - they had an *Elective* Urgency of admission (admission could be delayed by at least 24 hours) and
  - a 'surgical procedure' was reported, based on the procedures used to define 'surgical' DRGs in Australian Refined Diagnosis Related Groups, version 5.2 (DoHA 2006).
  - separations for cosmetic surgery were excluded
  - separations with childbirth-related *Surgical DRGs* were excluded.
- Elective surgery separations were also categorised as 'Public' or 'Other':
  - 'Public' elective surgery refers to separations for elective surgery in public hospitals and includes elective surgery separations for public patients (defined as described above) in private hospitals.
  - 'Other' elective surgery separations refers to separations for elective surgery for private patients in private hospitals.

# Median and 90th percentile waiting times

The 50th percentile (the median or the middle value in a group of data arranged from lowest to highest value for days waited) represents the number of days within which 50% of patients were admitted for the awaited procedure; half the waiting times will have been shorter, and half the waiting times longer, than the median.

The 90th percentile data represent the number of days within which 90% of patients were admitted. The 50th and 90th percentiles have been rounded to the nearest whole number of days.

# Public hospital peer groups

The AIHW worked with the National Health Ministers' Benchmarking Working Group (NHMBWG) and the National Health Performance Committee (NHPC) to develop a national public hospital peer group classification for use in presenting data on costs per casemix-adjusted separation. The aim was to allow more meaningful comparison of the data than comparison at the jurisdiction level would allow. This classification is currently under review.

The peer groups were designed to explain variability in the average cost per casemix-adjusted separation. They also group hospitals into broadly similar groups in terms of their range of admitted patient activity and geographical location. Selected characteristics of the hospitals assigned to each peer group for 2008–09 are presented in *chapters 3* and 4. The peer group names are broadly descriptive of the types of hospitals included in each category.

The peer group classification is summarised in Table A1.6. Details of the derivation of the peer groups are in *Appendix 11* of *Australian hospital statistics 1998–99* (AIHW 2000). From 2001–02, the method was adjusted slightly, replacing the rural, remote and metropolitan area (RRMA) classification with the 2001 ASGC remoteness area classification for the geographical component of the peer grouping.

A flow chart can be found in *Australian hospital statistics* 2002–03 (Figure A4.1 in that report) (AIHW 2004a) to illustrate the assignment of peer groups for almost all hospitals. However, on the advice of jurisdictions, hospitals may be assigned a different peer group due to special circumstances, such as the opening or closing of a hospital during the year.

Although not specifically designed for purposes other than the cost per casemix-adjusted separation analysis, the peer group classification is recognised as a useful way to categorise hospitals for other purposes, including the presentation of other data. For example, the classification has been used to present emergency department presentations data in *Chapter 5* and elective surgery waiting times data in *Chapter 10*. They have also been used to specify the scopes for national minimum data sets (NMDSs), for example, as noted in *Appendix 2* for the Non-admitted patient emergency department care NMDS and the Outpatient care NMDS.

The peer group to which each public hospital was assigned for 2008–09 is included in Table A2.2 (accompanying this report on the Internet and CD). In some cases, the establishments defined as hospitals for the cost per casemix-adjusted separation analysis differ from those defined as hospitals for the elective surgery waiting times data or those defined for counts of hospitals presented in *chapters* 3 and 4. In these cases, their peer groups may also differ, and these differences are indicated in Table A2.2.

Table A1.6: Public hospital peer group classification

Peer group	Subgroup	Code	Definition
Principal referral and Specialist women's and children's hospitals	Principal referral	A1	Major city hospitals with >20,000 acute casemix-adjusted separations, and Regional hospitals with >16,000 acute casemix-adjusted separations per annum.
	Specialist women's and children's	A2	Specialised acute women's and children's hospitals with >10,000 acute casemix-adjusted separations per annum.
Large hospitals	Major city	B1	Major city acute hospitals treating more than 10,000 acute casemix-adjusted separations per annum.
	Regional and Remote	B2	Regional acute hospitals treating >8,000 acute casemix-adjusted separations per annum, and Remote hospitals with >5,000 casemix-adjusted separations.
Medium hospitals	Group 1	C1	Medium acute hospitals in Regional and Major city areas treating between 5,000 and 10,000 acute casemix-adjusted separations per annum.
	Group 2	C2	Medium acute hospitals in Regional and Major city areas treating between 2,000 and 5,000 acute casemix-adjusted separations per annum, and acute hospitals treating <2,000 casemix-adjusted separations per annum but with >2,000 separations per annum.
Small acute hospitals	Regional	D1	Small Regional acute hospitals (mainly small country town hospitals), acute hospitals treating <2,000 separations per annum, and with less than 40% non-acute and outlier patient days of total patient days.
	Remote	D3	Small Remote hospitals (<5,000 acute casemix-adjusted separations but not 'multi-purpose services' and not 'small non-acute'). Most are <2,000 separations.
Sub-acute and non-acute hospitals	Small non-acute	D2	Small non-acute hospitals, treating <2,000 separations per annum, and with more than 40% non-acute and outlier patient days of total patient days.
	Multi-purpose services	E2	
	Hospices	E3	
	Rehabilitation	E4	
	Mothercraft	E5	
	Other non-acute	E9	For example, geriatric treatment centres combining rehabilitation and palliative care, with a small number of acute patients.
Unpeered and other hospitals		G	Prison medical services, dental hospitals, special circumstance hospitals, Major city hospitals with <2,000 acute casemix-adjusted separations, hospitals with <200 separations etc.
Psychiatric hospitals		F	

Note: Only the peer groups above the dashed line are included in the cost per casemix-adjusted separation analyses presented in Chapter 3.

# Data on geographical location

Data on geographical location are collected on hospitals in the NPHED and on the area of usual residence of patients in the NHMD and the NAPEDCD. These data have been provided as state or territory and Statistical Local Area (SLA, a small area unit within the Australian Bureau of Statistics (ABS) Australian Standard Geographical Classification (ASGC)) and/or postcode, and have been aggregated to remoteness areas.

The ASGC's remoteness structure categorises geographical areas in Australia into remoteness areas, described in detail on the ABS website <www.abs.gov.au>.

The classification is as follows:

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

# Geographical location of hospital

The remoteness area of each public hospital was determined on the basis of its SLA. For 2008–09, the geographical location was updated to align with the ABS's ASGC Remoteness Structure 2006. Data on the remoteness area of hospitals are presented in *Chapter 4*.

### Geographical location of usual residence of the patient

Information on the area of usual residence of the patient is supplied by the states and territories for the NHMD and the NAPEDCD. The *National health data dictionary* specifies that these data should be provided as the state or territory and the SLA of usual residence. Not all states and territories were able to provide information on the area of usual residence in the form of an SLA code. New South Wales, Victoria, Western Australia, the Australian Capital Territory and the Northern Territory were able to provide SLA codes both for patients usually resident in the jurisdiction and for patients not usually resident in the jurisdiction. Queensland, South Australia and Tasmania provided SLA codes for patients usually resident in the jurisdiction.

Where necessary, the AIHW mapped the supplied area of residence data for each separation or emergency department presentation to 2008 SLA codes and to remoteness area categories based on the ABS's ASGC Remoteness Structure 2006. This was undertaken on a probabilistic basis as necessary, using ABS concordance information describing the distribution of the population by postcode, remoteness areas and SLAs (for 2008 and previous years).

Because of the probabilistic nature of this mapping, the SLA and remoteness area data for individual records may not be accurate; however, the overall distribution of records by geographical areas is considered useful.

For the NHMD, most separations included data on the area of usual residence. The mapping process identified some missing or invalid codes, but about 99.5% of records were assigned 2008 SLA codes. For the remaining 0.5% of records, about 53% were for overseas residents, 8% were of no fixed abode, and the remainder not reported.

For the NAPEDCD, most presentations included data on the area of usual residence with about 98.6% of records assigned 2008 SLA codes. For the remaining 2% of records, about 23% were for overseas residents, 2% were of no fixed abode, and the remainder not reported.

#### Remoteness area of usual residence

Data based on the area of usual residence for admitted patients are presented by remoteness area in *chapters 3, 4, 7, 8, 9, 10* and *11*.

For 2008–09 and 2007–08, the patients' area of residence data was mapped to the ABS's ASGC Remoteness Structure 2006. For 2001–02 to 2006–07, the AIHW mapped the patients' area of residence data to the ABS's ASGC Remoteness Structure 2001.

The data presented by remoteness areas using the ABS's ASGC Remoteness Structure 2006 in this report and the 2007–08 report are not comparable to the data presented by remoteness areas using the ABS's ASGC Remoteness Structure 2001 in *Australian hospital statistics* reports for 2001–02 to 2006–07 because of differences in the underlying calculation of the Accessibility/Remoteness Index of Australia (ARIA) scores used to determine remoteness areas. Therefore, caution should be used when making comparisons over time as the remoteness areas categories presented are not directly comparable.

#### Socioeconomic status

The Socio-Economic Indexes For Areas 2006 (termed SEIFA 2006 (ABS 2008b)) are generated by the ABS using a combination of 2006 Census data such as income, education, health problems/disability, access to Internet, occupation/unemployment, wealth and living conditions, dwellings without motor vehicles, rent paid, mortgage repayments, and dwelling size. Composite scores are averaged across all people living in areas and defined for areas based on the Census collection districts. However, they are also compiled for higher levels of aggregation including SLA. The SEIFAs are described in detail on the ABS website <a href="https://www.abs.gov.au">www.abs.gov.au</a>.

The SEIFA Index of Relative Advantage and Disadvantage is one of the ABS's SEIFA indexes. The relative advantage and disadvantage scores indicate the collective socioeconomic status of the people living in an area, with reference to the situation and standards applying in the wider community at a given point in time. A relatively disadvantaged area is likely to have a high proportion of relatively disadvantaged people. However, such an area is also likely to contain people who are not disadvantaged, as well as people who are relatively advantaged.

Separation rates by socioeconomic status were generated by the AIHW by using the SEIFA Index of Relative Advantage and Disadvantage scores for the SLA of usual residence of the patient reported for each separation. The *Lowest SES* group represents the areas containing the 20% of the population with the least advantage/most disadvantage, and the *Highest SES* group represents the areas containing the 20% of the population with the least disadvantage/most advantage.

# **Quality of Indigenous status data**

## Indigenous identification in hospital separations data-quality report

The 2010 AIHW report *Indigenous identification in hospital separations data-quality report*, (AIHW 2010c) presented the latest findings on the quality of Indigenous identification in hospital separations data in Australia, based on studies of Indigenous identification in public hospitals conducted during 2007 and 2008.

The results of the studies indicated that, overall, the quality of Indigenous identification in hospital separations data had improved since last assessed. However, the quality of Indigenous identification still varied substantially between jurisdictions. The results supported expanding national reporting to include data for New South Wales, Victoria, Queensland, South Australia, Western Australia, and the Northern Territory (public

hospitals only). Levels of Indigenous identification were estimated to be 80% or higher for those jurisdictions.

An estimated 89% of Indigenous patients were correctly identified in Australian public hospital admission records in 2007–2008. In other words, 11% of Indigenous patients were not identified, and the 'true' number of hospital admissions for Indigenous persons was about 12% higher than reported.

# **Quality 2008–09**

Overall, the quality of the Indigenous status data provided for admitted patients in 2008–09 is considered to be in need of some improvement, being considered acceptable for analysis purposes only for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory.

The quality of the Indigenous status data provided for 2008–09 for emergency department presentations also varied by jurisdiction. Most states and territories advised that the Indigenous status data collected in an emergency department setting could be less accurate than the data collected for admitted patients.

The data presented on Indigenous status in *chapters 3, 5, 7, 8, 9, 10* and *11* should therefore be used with caution.

The following information has been provided by the states and territories to provide some insight into the quality of Indigenous status data in both the NHMD and the NNAPEDCD.

#### **New South Wales**

The New South Wales Health Department (NSW Health) conducted an audit of the admitted patient data collection in March/April 2007 in 20 hospitals, involving face-to-face interviews with almost 3,000 patients. The audit resulted in a completeness rating of Indigenous identification of 82% in metropolitan hospitals to 100% in remote hospitals, with a state average of 89%. The audit is being repeated during May/ June 2010 to check on current completeness of Indigenous identification.

Indigenous status is a mandatory data item collected at all facilities that provide data for the NSW Health Emergency Department Data Collection. NSW Health noted that for 2008–09, approximately 10% of emergency department records were missing Indigenous status data, despite the information being recorded on the patient administration system. The high level of non-reporting resulted from difficulties in the implementation of new systems. NSW Health is working to correct the information. NSW Health considers that Indigenous status identification in its emergency department data is acceptable.

#### Victoria

The Victorian Department of Health reports that, despite data quality improvement in recent years, Indigenous status admitted patient data for 2008–09 should still be considered to undercount the number of Aboriginal and Torres Strait Islander patients. For Victoria, the quality of Indigenous status data in emergency department data is improving but is less accurate than that of admitted patients in public hospitals.

#### Queensland

Queensland Health noted that for 2008-09, Indigenous status was not reported for 5.5% of admitted patient separations (1.9% of public hospital separations and 9.4% of private

hospital separations). The level of non-reporting of Indigenous status had decreased slightly for both public and private hospitals compared to the previous financial year.

Queensland Health also noted that the available evidence continued to suggest that the number of Indigenous separations is significantly understated in the Queensland hospital morbidity data due to non-reporting as well as mis-reporting of Indigenous status.

Queensland Health advised that efforts continue to be made to address these data quality issues, and that improving the completeness and coverage of Indigenous status reporting is now a key performance indicator for Queensland Health Service Districts.

Queensland Health noted that, for 2008–09 emergency department data, Indigenous status was not reported in 1.6% of cases. This is a slight improvement from the 1.9% level of non-reporting that existed in the 2007–08 data. Efforts will continue to be made to ensure that reporting of Indigenous status is as complete and accurate as possible.

#### Western Australia

The Western Australian Department of Health regards its Indigenous status admitted patient data as being of good quality. Quality improvement activities, including cross-referencing between metropolitan and country hospitals, continue to enhance the accuracy of this data element.

#### South Australia

The South Australian Department of Health considers its admitted patient data on Indigenous status for 2008–09 to be suitable for inclusion in national statistical reports. It is known that standards for identification are better in country hospitals than metropolitan hospitals. The department conducts annual training programs on the collection of admitted patient data, and the programs include instructions on the correct way to ask and record the response to the Indigenous status question. In 2010–11, the Department intends to run specialised training programs for frontline staff. A 30% loading has been applied to casemix payments for Indigenous separations in public hospitals for a number of years, which acts as an incentive for improved identification.

South Australia reported that the quality of Indigenous status data is higher for admitted patients than non-admitted emergency department patients, as evidenced by the higher proportion of emergency department episodes for which Indigenous status was *Not reported*. However, there had been an improvement in data quality. In 2008–09 Indigenous status was *Not reported* in 7.3% of emergency department presentations (Table 5.4), compared with 17.7% in 2005–06.

#### Tasmania

The Tasmanian Department of Health and Human Services reports that the quality and the level of Indigenous status identification, across public hospital information collections, is of a high standard. However, as with all data collections, there is constant and continued work on maintaining and improving, where needed, the collection of this data element. The department is continuing to monitor and implement actions to improve the coverage and quality of Indigenous data in the private sector.

#### **Australian Capital Territory**

The Australian Capital Territory Health Department has undertaken extensive work in recent years to address the quality of its Indigenous reporting and will be looking to substantiate the current level of Indigenous data quality in the coming year.

### **Northern Territory**

The Northern Territory Department of Health and Families reported that the quality of its 2008–09 Indigenous status data for both admitted patients and emergency department patients, is considered to be acceptable. The department retains historical reporting of Indigenous status and individual client systems receive a report (for follow up) of individuals who have reported their Indigenous status as Aboriginal on one occasion and as Torres Strait Islander on another. All management and statistical reporting, however, is based on a person's most recently reported Indigenous status.

# ICD-10-AM/ACHI

Diagnosis, procedure and external cause data for 2008–09 were reported to the NHMD by all states and territories using the sixth edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) (NCCH 2008), incorporating the *Australian classification of health interventions* (ACHI).

The tables and figures presented in *chapters 7, 8, 9, 10* and *11* use the codes and abbreviated descriptions of the ICD-10-AM/ACHI classification. Full descriptions of the categories are available in the ICD-10-AM publication (NCCH 2008).

# **Diagnoses**

The ICD-10-AM disease classification is hierarchical, with a small number of summary disease chapters that are divided into a large number of more specific disease groupings (represented by 3-character codes). Most of the 3-character disease groupings can be divided into an even larger number of very specific disease categories represented by 4- and 5-character codes.

Most of the information about principal diagnoses in *chapters 7, 8, 9, 10* and *11* is presented using two methods of grouping records based on the ICD-10-AM disease classification:

- ICD-10-AM disease chapters these 20 groups provide information aggregated at the ICD-10-AM chapter level
- 3-character ICD-10-AM groupings 2,067 categories describe the diseases at a specific level. Detailed information is presented for the 20 groupings with the highest number of separations. Summary information is provided for all the groups (for which separations were reported) on the CD and Internet at <www.aihw.gov.au>.

#### **External causes**

The external cause classification (Chapter 20 of ICD-10-AM) is hierarchical, consisting of 373 three-character categories. The information in *Chapter 7* is presented by categorising the ICD-10-AM external cause codes into 16 groups to provide an overview of the reported

external causes. Additional information on External causes of injury and poisoning, Place of occurrence and Activity when injured is available on the Internet at <www.aihw.gov.au>.

#### **Procedures**

One or more procedures can be reported for each separation, but procedures are not undertaken for all hospital admissions, so only some of the separation records include procedure data.

The procedure classification is divided into chapters by anatomical site and within each chapter by a 'superior' to 'inferior' (head to toe) approach. These subchapters are further divided into more specific procedure blocks, beginning with the least invasive procedure through to the most invasive. The blocks, which are numbered sequentially, group the very specific procedure codes.

The procedure information is presented using three methods of grouping procedures based on the ACHI procedure classification:

- ACHI procedure chapters these 20 groups provide information aggregated at the ACHI chapter level
- ACHI procedure blocks—these 1,598 categories describe procedures at a specific level. Detailed information is presented for the 10 groups with the highest number of separations and summary information is provided for all the groups (for which separations were reported) on the Internet at <www.aihw.gov.au>
- ACHI procedures there are over 6,200 individual procedures. *Chapter* 11 presents information for the 20 procedures with the highest number of non-acute care separations.

# Quality of coded data

The comparability of the coded diagnosis, procedure and external cause data can be affected by variations in the quality of the coding, the numbers of diagnoses/procedures reported and can also be influenced by state-specific coding standards.

The quality of coded diagnosis, procedure and external cause data can be assessed using coding audits in which, in general terms, selected records are independently recoded and the resulting codes compared with the codes originally assigned for the separation. There are no national standards for this auditing, so it is not possible to use information on coding audits to make quantitative assessments of data quality on a national basis.

The quality and comparability of the coded data can, however, be gauged by information provided by the states and territories on the quality of the data, by the numbers of diagnosis and procedure codes reported and by assessment of apparent variation in the reporting of additional diagnoses.

### State-specific coding standards

The Australian Coding Standards were developed for use in both public and private hospitals with the aim of satisfying sound coding convention according to the ICD-10-AM/ACHI. Although all states and territories instruct their coders to follow the Australian Coding Standards, some jurisdictions also apply state-specific coding standards

to deal with state-specific reporting requirements. These standards may be in addition to or instead of the relevant Australian Coding Standard, and may affect the comparability of ICD-10-AM coded data.

For example, there are variations in coding standards between jurisdictions with regard to the reporting of external cause codes and place of occurrence codes. The Australian Coding Standard requires a place of occurrence code to be reported if an external cause code in the range V00–Y89 has been reported, and requires an activity when injured code to be recorded if the external cause code is in the range V00–Y34. The Western Australian coding standard requires the mandatory recording of a place of occurrence and activity when injured code for all records with a diagnosis code in the range S00–T98, regardless of the external cause code reported. The Victorian coding standard does not require the recording of external cause, place of occurrence or activity when injured for separations where the care type is *Rehabilitation care*.

### State and territory comments on the quality of the data

The following information has been provided by the states and territories to provide some insight into the quality of the coded data in the NHMD.

#### **New South Wales**

For New South Wales, hospitals perform formal audits on ICD-10-AM coded data at a local level. Data edits are monitored regularly and consistent errors are identified and rectified by individual hospitals. An external audit was conducted of clinical coding at selected public hospitals throughout NSW for the period from January to June 2009. The report on its findings is not yet finalised.

## Victoria

Victoria continues to conduct state-wide external audits across public sites. These audits review the ICD-10-AM/ACHI coding and the application of Australian Coding Standards along with some key demographic data. A total of 10,000-13,000 cases are audited with each audit cycle. The overall results show, in recent years, a change in DRGs of under 10% indicating a high quality of coding.

#### Queensland

Hospitals in Queensland conduct their own coding quality audits, and ICD-10-AM validations are automatically conducted as part of the general processing of morbidity data in the corporate data collection.

In addition, the Statistical Standards Unit continued its program of clinical coding audits during 2008–09. These audits are providing a better corporate level understanding of coding quality. The Unit also provided hospitals with access to Performance Indicators for Coding Quality 2008 (PICQ2008TM) under a state-wide license and supported a state-wide coding website which allows access to standardised advice, information and support for all Queensland Health coders.

#### Western Australia

The Western Australian Department of Health conducts regular audits of hospital medical records and inpatient data-reporting processes. This Clinical Information Audit Program aims to provide assurances of data quality and integrity, promoting confidence in the use of health information by hospitals and throughout the system. The results of these audits for

2008–09 admitted patient cases from teaching and non-teaching hospitals indicate that the quality of the coded data is very good. The National Centre for Classification in Health's PICQ software and in-house quality activities were also applied to all cases received by the department.

#### South Australia

The Department of Health, South Australia, performed a major audit of coding practices in major metropolitan hospitals on random samples of 2004–05 data. The purpose of the audit was to ascertain the level of coding accuracy and the impact on AR-DRG assignment. The audit found that coding practices in major metropolitan hospitals had improved significantly since the last major audit (conducted in 2002), with almost all hospitals reporting a reduction in their DRG error rate. In addition, the department conducts regular targeted desktop audits of coded data. Results are reported to all South Australian Coders in a quarterly newsletter, and individual hospitals are notified if a problem exists, and where coding needs to be corrected.

The Department plans to conduct another major audit of coding practices in 2010–11, covering both major metropolitan and country hospitals.

#### **Tasmania**

In Tasmania, hospitals continue to conduct coding quality improvement activities using the Australian Coding Benchmark Audit tool and PICQ. Validation of ICD-10-AM data also occurs routinely as the data are processed from the hospitals. A State-wide Coding Auditor/Educator position is currently been implemented that will undertake the responsibility of managing all coding audits and resulting from those, education in relation to findings from them. Also the position will manage changes/updates to coding classifications and grouping systems.

### **Australian Capital Territory**

For 2008–09, the Australian Capital Territory Health Department reported high quality ICD-10-AM/ACHI coded data. Validation checks are performed routinely as data is processed centrally. Coding standard activities are also conducted within hospitals utilising the PICQ tool.

#### **Northern Territory**

The Northern Territory maintained coding quality activities through the Coders' Forum, internal coding auditing and the use of DRG error reporting.

### Number of procedure codes

Table A1.7 presents information on the number of procedure codes reported to the NHMD. Ideally, the number of procedures recorded for a patient should reflect the procedures undertaken and not be restricted by administrative or technical limitations.

There were marked differences between the states and territories in the maximum number of procedures reported, ranging from 25 for South Australia to 99 for Western Australia. However, with the exception of the Northern Territory, the average number of procedure codes per separation in the public sector varied little among the jurisdictions, as was the case in the private sector. The AIHW requested a maximum of 50 codes, so this may have restricted the number of codes reported by New South Wales, Queensland, Tasmania and

the Australian Capital Territory. The proportion of separations for which no procedures were reported was higher in the public sector (23.6%) than in the private sector (6.3%).

In recent years, the proportion of records for which five or more procedures were reported has increased in both sectors. In the public sector, 8.1% of records had five or more procedure codes in 2008–09, compared with 7.2% in 2003–04 (AIHW 2005a). In the private sector, 7.2% of records had five or more procedure codes in 2008–09, compared with 8.2% in 2003–04.

Table A1.7: Proportion of separations<sup>(a)</sup>, by mean number of procedure codes<sup>(b)</sup> reported, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
				Pe	r cent				
Public hospitals									
No procedure reported	25.1	20.6	28.9	18.8	24.6	24.6	17.7	21.1	23.6
One procedure code only	31.5	37.5	33.0	35.4	33.2	34.4	42.5	55.1	34.7
Two procedure codes only	17.8	18.4	17.1	20.7	17.5	18.0	17.0	11.2	18.0
Three procedure codes only	11.3	10.1	9.2	11.6	11.0	9.7	10.3	5.4	10.4
Four procedure codes only	5.8	5.0	4.7	5.7	5.6	4.9	5.0	2.7	5.3
Five or more procedure codes	8.6	8.4	7.2	7.9	8.0	8.5	7.5	4.4	8.1
Private hospitals									
No procedure reported	3.4	8.7	7.2	4.9	4.9	n.p.	n.p.	n.p.	6.3
One procedure code only	21.2	23.7	27.3	33.1	25.0	n.p.	n.p.	n.p.	24.8
Two procedure codes only	35.8	35.2	35.0	30.7	34.0	n.p.	n.p.	n.p.	34.8
Three procedure codes only	24.0	19.1	17.8	16.6	20.3	n.p.	n.p.	n.p.	19.9
Four procedure codes only	7.9	6.4	6.2	7.1	7.5	n.p.	n.p.	n.p.	7.0
Five or more procedure codes	7.6	6.9	6.7	7.6	8.3	n.p.	n.p.	n.p.	7.2

#### Notes:

### Number of diagnosis codes

The NHMD contains data on principal diagnoses and additional diagnoses. Additional diagnoses include comorbidities (coexisting conditions) and/or complications which may contribute to longer lengths of stay, more intensive treatment or the use of greater resources. Ideally, the number of additional diagnoses recorded for a patient should be related to the person's clinical condition and not be restricted by administrative or technical limitations.

The AIHW requested that the states and territories report a maximum of 50 diagnosis codes, but some report more. Table A1.8 presents information on the number of diagnosis codes (principal and additional) reported to the NHMD. There are differences between the states and territories in the maximum number of diagnoses reported. For example, in the public sector, South Australia reported a maximum of 25 diagnoses and Queensland a maximum of 73. For both public and private sectors, the average number of diagnosis codes per separation varied little among the jurisdictions.

<sup>(</sup>a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.

<sup>(</sup>b) Includes separations for which no procedure codes were reported

Overall, the average number of codes reported for the public sector was slightly higher than for the private sector. In the public sector, 17% of records had five or more diagnosis codes, but in the private sector less than 10% of records fell into this category. It may be that more complicated cases were treated in public hospitals, or there may have been differences in coding practices.

Table A1.8: Proportion of separations<sup>(a)</sup>, by number of diagnosis codes<sup>(b)</sup> reported, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Per cent				
Public hospitals									
One diagnosis code only	38.7	37.7	32.9	35.2	40.2	43.2	47.0	39.3	37.4
Two diagnosis codes only	21.7	26.1	26.2	23.8	22.5	22.9	19.1	32.6	24.2
Three diagnosis codes only	12.9	13.0	14.5	15.0	12.9	12.6	11.5	8.9	13.3
Four diagnosis codes only	8.3	7.6	8.5	8.4	7.7	7.6	6.8	5.8	8.0
Five or more diagnosis codes	18.3	15.5	18.0	17.5	16.6	13.8	15.6	13.3	17.0
Private hospitals									
One diagnosis code only	36.2	38.2	34.0	33.9	33.2	n.p.	n.p.	n.p.	35.5
Two diagnosis codes only	27.3	31.1	30.6	30.0	33.3	n.p.	n.p.	n.p.	30.1
Three diagnosis codes only	17.9	15.0	16.3	18.7	16.1	n.p.	n.p.	n.p.	16.7
Four diagnosis codes only	8.6	7.2	8.7	7.5	7.5	n.p.	n.p.	n.p.	8.0
Five or more diagnosis codes	10.0	8.0	10.5	9.9	9.9	n.p.	n.p.	n.p.	9.6

#### Notes:

### Apparent variation in reporting of additional diagnoses

A measure of apparent variation among Australian states and territories in the reporting and coding of additional diagnoses is the proportion of separations in the lowest resource split for adjacent AR-DRGs, standardised to the national distribution of adjacent AR-DRGs to take into account differing casemixes (Coory & Cornes 2005).

Table A1.13 shows that there is variation among jurisdictions, and by sector, in the proportion of separations grouped to the lowest resource split for adjacent AR-DRGs.

For the Northern Territory, data for some measures were suppressed because of limitations with direct standardisation for groups that report a limited range of AR-DRGs (see the discussion of relative stay indexes below).

### Method

An adjacent AR-DRG is a set of AR-DRGs that is split on a basis supplementary to the principal diagnoses and procedures that are used to define the adjacent AR-DRG grouping. For many adjacent AR-DRGs, this split is based on the inclusion of significant additional

<sup>(</sup>a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.

<sup>(</sup>b) Codes reporting external causes of injury and poisoning are not included.

<sup>(</sup>c) For 2008–09 there were 259 records in public hospitals and 3,461 records in private hospitals for which no diagnosis codes were reported.

diagnoses, also known as complications or comorbidities (CCs). Adjacent AR-DRGs are signified in the AR-DRG classification by having the first three characters in common. The allocation of a fourth character code is hierarchical, with the highest resource use level being assigned an A and the lowest resource use level being assigned the lowest letter in the sequence.

Table A1.9: Standardised proportion in lowest resource level AR-DRG<sup>(a)</sup> for selected adjacent AR-DRGs<sup>(b)</sup>, public and private hospitals, states and territories, 2008–09

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
All adjacent AR-DRGs spli	t by complicati	ons only							
Public hospitals	0.68	0.66	0.70	0.68	0.67	0.72	0.68	0.65	0.68
Private hospitals	0.72	0.72	0.72	0.72	0.71	n.p.	n.p.	n.p.	0.72
Adjacent AR-DRGs with a	moderate com	plication a	s the lowes	st resource	level AR-D	ORG			
Public hospitals	0.57	0.55	0.61	0.57	0.56	0.61	0.58	0.54	0.57
Private hospitals	0.57	0.57	0.57	0.57	0.55	n.p.	n.p.	n.p.	0.57
Adjacent DRGs with a seve	ere or catastro	phic comp	lication as	the lowest	resource I	evel AR-DI	RG		
Public hospitals	0.73	0.71	0.74	0.74	0.73	0.78	0.74	0.70	0.73
Private hospitals	0.80	0.80	0.79	0.80	0.79	n.p.	n.p.	n.p.	0.80
Adjacent AR-DRGs classif	ied as major m	edical con	ditions						
Public hospitals	0.63	0.55	0.63	0.65	0.60	0.68	0.63	0.63	0.61
Private hospitals	0.64	0.66	0.62	0.63	0.67	n.p.	n.p.	n.p.	0.65
Adjacent AR-DRGs for vag	jinal and caesa	rean deliv	ery						
Public hospitals	0.39	0.33	0.43	0.36	0.37	0.38	0.37	0.40	0.38
Private hospitals	0.35	0.35	0.38	0.37	0.34	n.p.	n.p.	n.p.	0.36

Notes:

The underlying assumption of this analysis is that variation in the proportions of separations assigned to individual AR-DRGs within an adjacent AR-DRG is caused by variation in the reporting and coding of additional diagnoses that are relevant to the split of the adjacent AR-DRG. A corollary of this assumption is that any variation seen was not caused by age, diagnosis, socioeconomic status or other factors. This assumption is less likely to be valid when comparing hospital sectors which have differing casemixes, or the smaller jurisdictions because of differing population profiles and the limitations of the standardisation method.

The data were directly standardised by scaling the distribution of adjacent AR-DRGs in each jurisdiction/sector to the same distribution as the national total. The resulting proportions of separations in the lowest resource AR-DRG within the adjacent AR-DRG are comparable.

This analysis concentrates on differences in the reporting of additional diagnoses that are significant in AR-DRG assignment within the adjacent AR-DRG groupings. The analysis covers five groups of adjacent AR-DRGs:

1. all applicable adjacent AR-DRGs (that is, excluding adjacent AR-DRGs with other factors affecting partitioning)

<sup>(</sup>a) Separations for which the care type was reported as Acute, or Newborn with qualified days, or was Not reported.

<sup>(</sup>b) AR-DRG version 5.2.

- 2. adjacent DRGs where the lowest split was without CCs
- 3. adjacent DRGs where the lowest split was without severe or catastrophic CCs
- 4. major medical conditions: adjacent AR-DRGs E61 *Pulmonary embolism*, F62 *Heart failure and shock*, T60 *Septicaemia* these adjacent AR-DRGs are selected because admission for these conditions is seen to be relatively non-discretionary and less likely than for other AR-DRGs to be influenced by variation in admission practices
- 5. vaginal and caesarean deliveries.

The above categories overlap; in particular, Vaginal and caesarean deliveries is a subset of the second category, and Major medical conditions is a subset of the third category.

See Table A1.10 (accompanying this report on the Internet and CD) for additional detail on this analysis and the list of AR-DRGs included.

# **Condition onset flag data**

The data element 'Episode of admitted patient care – condition onset flag' was mandated for national collection for the first time for the 2008–09 reporting period.

The condition onset flag is a means of differentiating those conditions which arise during, or arose before, an admitted patient episode of care. It is reported for each diagnosis, external cause, place of occurrence, and activity when injured ICD-10-AM code.

A better understanding of those conditions arising during the episode of care may inform prevention strategies particularly in relation to complications of medical care.

Conditions which arise during the episode of care can include:

- conditions resulting from misadventure during medical or surgical care during the episode of admitted patient care.
- abnormal reactions to, or later complication of, surgical or medical care arising during the episode of admitted patient care.
- conditions arising during the episode of admitted patient care that may not be related to surgical or medical care (for example, pneumonia).

### Quality of the Condition onset flag data for 2008–09

The quality of the Condition onset flag data for 2008–09 was not considered to be sufficient for analytical purposes and presentation in the body of this report. This was for three main reasons:

- The data were not provided for all separations, with major gaps for public hospitals for New South Wales, and for private hospitals for New South Wales, Tasmania, the Australian Capital Territory and the Northern Territory.
- There was variation in the proportion of separations for which there was a report of a condition with onset during the episode of care, among states and territories for both the public and private sectors. Although some variation could be expected, it was considered that further investigation of the data quality was warranted at this stage.
- There were unexpected reports of condition with onset during the episode of care, such as for congenital conditions and conditions such as cancer. Although the numbers of

these reports were small, it was considered that further investigation of the data quality was warranted at this stage.

#### Coverage

For public hospitals, Condition onset flag was provided for over 99% of separations for all states and territories except New South Wales (Table A1.7).

For New South Wales, Condition onset flag was provided for about 29% of separations in public hospitals. Only some of the NSW Area Health Services provided data.

For private hospitals, Condition onset flag was provided for over 95% of separations for Victoria, Queensland, Western Australia and South Australia.

Table A1.11: Provision of Condition onset flag, public and private hospitals, states and territories, 2008–09

State/territory	Separations <sup>(a)</sup> with onset flag reported <sup>(b)</sup> (%)	Separations <sup>(a)</sup> with onset flag reported <sup>(b)</sup> (%)
New South Wales	29.1	0.0
Victoria	100.0	99.9
Queensland	100.0	100.0
Western Australia	100.0	100.0
South Australia	99.9	96.8
Tasmania	47.7	14.8
Australian Capital Territory	100.0	56.6
Northern Territory	100.0	0.0
Total	78.2	69.5

#### Notes:

## Proportion of separations for which there was a report of a condition with onset during the episode of care

For separations for which Condition onset flag was provided, about 7.8% of public hospital separations and about 4.5% of private hospital separations reported at least one condition that arose during the episode of care (tables A1.12 and A1.13).

#### **Public hospitals**

About 7.8% of public hospital separations reported at least one condition that arose during the episode of care (Table A1.12). There was marked variation between states and territories, with the overall proportion ranging from 3.5% to 9.4%. Differences in casemix between states and territories may account for some of this variation. However, this variation may indicate that there are differences in the allocation of Condition onset flags.

The proportion of same-day separations that recorded a condition with onset during the episode was 0.7%, with state/territory proportions ranging from 0.4% to 1.0% (Table A1.12).

a) Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.

b) The proportion of separations for which Condition onset flag was reported may include records where the flag was provided for some diagnoses and not for others.

For New South Wales, Condition onset flag data were only reported for public hospitals for three NSW Area Health Services.

About 15.5% of public hospital overnight separations recorded a diagnosis with onset during the episode of care. There was some variation by jurisdiction, ranging from 5.9% to 21.1%. For overnight separations with an *Elective* urgency of admission, the proportion reported with a condition with onset during the episode ranged from 5.7% to 21.8%.

Table A1.12: Proportion of separations<sup>(a)</sup> with condition onset during episode of care, by same-day/overnight status and Urgency of admission, public hospitals, 2008–09

	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Total
Same-day separations									
Emergency	1.3	1.1	0.4	0.6	0.7	0.5	8.0	1.0	0.9
Elective	1.8	1.5	0.6	0.6	0.6	0.6	0.6	1.2	0.8
Not assigned	0.4	0.2	0.2	0.1	1.2	0.1	1.4	0.1	0.3
Not reported			0.0				0.0		0.0
Total	1.0	0.9	0.4	0.4	0.7	0.4	0.7	0.6	0.7
Overnight separations									
Emergency	11.6	13.3	9.8	9.4	4.1	7.5	17.5	13.2	12.1
Elective	17.0	17.0	15.1	20.3	5.7	10.9	21.8	17.2	18.3
Not assigned	27.2	30.5	22.8	19.2	12.7	19.0	36.4	23.5	26.5
Not reported			35.7				0.0		1.0
Total	15.2	15.8	12.8	13.2	5.9	10.5	21.1	16.0	15.5
Total	8.1	9.1	6.3	6.6	3.5	4.1	9.4	7.6	7.8

Note:

#### **Private hospitals**

For private hospitals, data are presented only for the six states and territories for which any Condition onset flag data were provided.

About 4.5% of private hospital separations reported at least one condition that arose during the episode of care (Table A1.13). There was marked variation between states and territories, with the overall proportion ranging from 2.7% to 6.0%. Differences in casemix may account for some of this variation. However, as for public hospitals, this variation may indicate that there are differences in the allocation of Condition onset flags.

The proportion of same-day separations that recorded a condition with onset during the episode was 0.3%, with state/territory proportions ranging from 0.1% to 1.1% (Table A1.13).

About 12.7% of private hospital overnight separations recorded a diagnosis with onset during the episode of care. There was some variation by jurisdiction, ranging from 5.4% to 17.1%. For overnight separations with an *Elective* urgency of admission, the proportion reported with a condition with onset during the episode ranged from 5.7% to 21.8%.

<sup>(</sup>a) Proportion of separations is calculated for separations for which the Condition onset flag was reported only. Proportions by state or territory have been presented in random order, which is not necessarily the same as in Table A1.13.

Table A1.13: Proportion of separations<sup>(a)</sup> with condition onset during episode of care, by same-day/overnight status and Urgency of admission, private hospitals, reporting states and territories, 2008–09

	State A	State B	State C	State D	State E	State F	Total
Same-day separations							
Emergency	0.7	0.8	6.3	0.6	0.1	0.8	0.6
Elective	0.4	0.3	1.0	0.2	0.1	0.2	0.3
Not assigned	0.5	1.3	2.9	0.1	0.1	0.1	0.2
Not reported							
Total	0.4	0.3	1.1	0.2	0.1	0.2	0.3
Overnight separations							
Emergency	12.6	19.8	11.5	11.1	12.2	9.0	12.8
Elective	9.9	15.0	11.1	12.2	2.0	8.1	11.7
Not assigned	31.9	31.4	21.4	15.2	51.0	14.3	21.4
Not reported							
Total	11.3	17.1	12.7	12.1	5.4	9.1	12.7
Total	4.4	6.0	5.7	4.1	2.7	3.1	4.5

Notes:

#### Diagnoses reported with onset during the episode of care

Table A1.14 presents information on the number and proportion of additional diagnoses that were reported as arising during the episode of care, by ICD-10-AM disease chapter for public and private hospitals. These data are included only for separations for which the Condition onset flag was reported. It should be noted that some diseases or conditions are coded using more than one code, so the count of additional diagnosis codes is not a count of conditions.

For public hospitals, the disease chapters with the highest proportion of additional diagnoses that arose during the episode of care were *Pregnancy*, *childbirth* and the puerperium (20.5%), Certain conditions originating in the perinatal period (15.2%), Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (14.9%) and Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (14.0%).

For private hospitals, the disease chapters with the highest proportions of additional diagnoses that arose during the episode of care were *Symptoms*, *signs* and abnormal clinical and laboratory findings, not elsewhere classified (15.9%), Certain infectious and parasitic diseases (15.6%) and Injury, poisoning and certain other consequences of external causes (14.5%).

Some diseases or disorders are not expected to arise during the episode of care, such as diseases or disorders in the chapters *Neoplasms* and *Congenital malformations, deformations and chromosomal abnormalities*. Therefore it is not expected that additional diagnoses would be reported with onset during the episode of care for these chapters. However, there were some diagnoses in these chapters that were reported as having onset during the episode of care. These may indicate data quality issues that the AIHW will consider with states and territories before publication of future condition onset data.

<sup>(</sup>a) Proportion of separations is calculated for separations for which the Condition onset flag was reported only. Proportions by state or territory have been presented in random order, which is not necessarily the same as in Table A1.12.

Table A1.14: Conditions (additional diagnoses) with onset during the episode of care, by ICD-10-AM disease chapter, public and private hospitals, selected states and territories<sup>(a)</sup>, 2008–09

		Pι	ıblic hospital	s	Pr	ivate hospita	ls
Diagnosis	chapter	Condition with onset during episode	Total additional diagnoses	% with onset during episode <sup>(b)</sup>	Condition with onset during episode	Total additional diagnoses	% with onset during episode <sup>(b)</sup>
A00-B99	Certain infectious and parasitic diseases	45,291	344,063	13.2	12,595	80,948	15.6
C00-D48	Neoplasms	648	694,463	0.1	382	672,659	0.1
D50-D89	Diseases of the blood and blood- forming organs and certain disorders involving the immune mechanism	28,792	205,402	14.0	6,898	70,514	9.8
E00-E90	Endocrine, nutritional and metabolic diseases	64,165	722,543	8.9	12,505	195,118	6.4
F00-F99	Mental and behavioural disorders	11,028	423,487	2.6	2,725	181,983	1.5
G00-G99	Diseases of the nervous system	8,155	244,324	3.3	2,353	111,119	2.1
H00-H59	Diseases of the eye and adnexa	4,229	125,578	3.4	1,062	130,751	0.8
H60-H95	Diseases of the ear and mastoid process	1,173	46,578	2.5	328	24,338	1.3
100-199	Diseases of the circulatory system	71,063	949,778	7.5	25,643	371,239	6.9
J00-J99	Diseases of the respiratory system	38,374	428,183	9.0	10,784	124,289	8.7
K00-K93	Diseases of the digestive system	38,320	624,229	6.1	13,132	650,019	2.0
L00-L99	Diseases of the skin and subcutaneous tissue	22,217	192,500	11.5	5,987	72,235	8.3
M00-M99	Diseases of the musculoskeletal system and connective tissue	11,634	284,432	4.1	4,369	328,254	1.3
N00-N99	Diseases of the genitourinary system	32,009	653,027	4.9	9,781	340,181	2.9
O00-O99	Pregnancy, childbirth and the puerperium	106,626	520,311	20.5	26,723	217,845	12.3
P00-P96	Certain conditions originating in the perinatal period	16,300	107,556	15.2	1,747	20,738	8.4
Q00-Q99	Congenital malformations, deformations and chromosomal abnormalities	165	54,067	0.3	36	13,683	0.3
R00-R99	Symptoms, signs and abnormal clinical and laboratory findings, n.e.c.	131,552	882,445	14.9	50,120	315,918	15.9
S00-T98	Injury, poisoning and certain other consequences of external causes	62,200	795,264	7.8	21,396	147,318	14.5
Z00–Z99	Factors influencing health status and contact with health services	25,001	2,772,792	0.9	3,229	1,359,771	0.2
Total		718,942	11,071,022	6.5	211,795	5,428,920	3.9

#### Notes:

<sup>(</sup>a) For public hospitals, data are included for all states and territories. For private hospitals, data are included for the six jurisdictions that provided Condition onset flag information.

<sup>(</sup>b) Proportions are of separations for which the Condition onset flag ws reported.

#### High-volume diagnoses with onset during the episode of care

Table A1.15 presents the 20 most common diagnoses (at the 3-character level of the ICD-10-AM classification) reported as having onset during the episode of care, for public and private hospitals. This table provides some evidence that the Condition onset flag data were reported as would be expected and that the data have potential to be useful for analysis purposes in the future.

Six of the top 20 diagnoses were related to childbirth episodes, including perineal lacerations and postpartum haemorrhage. Seven were categorised as signs or symptoms, such as nausea, retention of urine, pain, headache and fever. Four were for infectious diseases and two were for complications of medical or surgical care.

Table A1.15: The 20 most common diagnoses with onset during the episode of care<sup>(a)</sup>, selected states and territories<sup>(b)</sup>, public and private hospitals, 2008–09

	Public	Private	(b)
Diagnosis	hospitals	hospitals <sup>(b)</sup>	Total <sup>(b)</sup>
E87 Other disorders of fluid, electrolyte and acid-base balance	33,462	7,067	40,529
195 Hypotension	22,456	8,440	30,896
T81 Complications of procedures, not elsewhere classified	20,460	10,347	30,807
R11 Nausea and vomiting	14,228	9,617	23,845
N39 Other disorders of urinary system	14,559	4,943	19,502
K59 Other functional intestinal disorders	13,913	5,264	19,177
B96 Other bacterial agents as the cause of diseases classified to other chapters	13,767	4,881	18,648
O70 Perineal laceration during delivery	13,773	4,062	17,835
O92 Other disorders of breast and lactation associated with childbirth	9,356	5,116	14,472
O99 Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	10,934	2,426	13,360
R00 Abnormalities of heart beat	10,174	2,926	13,100
I48 Atrial fibrillation and flutter	8,602	4,350	12,952
D64 Other anaemias	8,883	3,323	12,206
R33 Retention of urine	8,361	3,793	12,154
O72 Postpartum haemorrhage	10,513	1,583	12,096
R07 Pain in throat and chest	8,268	2,779	11,047
O68 Labour and delivery complicated by fetal stress [distress]	8,138	2,052	10,190
E86 Volume depletion	8,310	1,433	9,743
R50 Fever of unknown origin	6,967	2,722	9,689
A09 Diarrhoea and gastroenteritis of presumed infectious origin	6,510	1,954	8,464

Notes:

<sup>(</sup>a) The diagnosis was reported with a Condition onset flag of Condition with onset during the episode of admitted patient care.

<sup>(</sup>b) For public hospitals, data are included for all states and territories. For private hospitals, data are included for the six jurisdictions that provided Condition onset flag information. Proportions are of separations for which the Condition onset flag was reported only.

## Australian Refined Diagnosis Related Groups (AR-DRGs)

Australian Refined Diagnosis Related Groups (AR-DRGs) is an Australian admitted patient classification system which provides a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources expected to be used by the hospital. This system categorises acute admitted patient episodes of care into groups with similar conditions and similar expected use of hospital resources, based on information in the hospital morbidity record such as the diagnoses, procedures and demographic characteristics of the patient. This report uses AR-DRG version 5.2 (DoHA 2006) to classify separations, and the most recent cost weights based on version 5.1 (Round 12, 2007–08).

The AR-DRG classification is partly hierarchical, with 23 Major Diagnostic Categories (MDCs), divided into *Surgical DRG*, *Medical DRG* and *Other DRG* partitions, and then into 665 individual AR-DRGs.

The MDCs are mostly defined by body system or disease type, and correspond with particular medical specialties. In general, episodes are assigned to MDCs on the basis of the principal diagnosis. Some episodes involving procedures that are particularly resource intensive may be assigned to the *Pre-MDC* category (AR-DRGs A01Z-A41B), irrespective of the principal diagnosis (including most organ and bone marrow transplants). Episodes that contain clinically atypical or invalid information are assigned *Error DRGs* (AR-DRGs 901Z–903Z and 960Z–963Z), even if they were assigned to an MDC. (*Error DRGs* are included within *Other* DRG in the Surgical/Medical/Other DRG partition.)

Episodes are assigned to AR-DRGs within MDCs, mainly on the basis of the procedure codes (in the *Surgical DRG* partition) or the diagnosis codes (in the *Medical DRG* partition). Additional variables including the patient's age, complicating diagnoses/procedures and/or patient clinical complexity level, the length of stay, and the mode of separation are also used for AR-DRG assignment.

Following receipt of the data from states and territories, the AIHW regrouped the data to ensure that the same grouping method was used for all data. The AR-DRGs that resulted from this regrouping are reported here, and may differ slightly from the AR-DRGs derived by the states and territories.

The information in *chapters 7, 8* and 9 is presented using the three levels of the AR-DRG classification:

- the *Surgical/Medical/Other DRG* partitions are used to provide information on the overall type of care
- MDCs these 23 groups are used to provide information at a high level of aggregation
- AR-DRGs detailed information is presented for the 20 AR-DRGs having the largest number of separations.

#### AR-DRG versions

For 2008–09, each separation in the NHMD was classified to AR-DRG version 5.2 (DoHA 2006) on the basis of demographic and clinical characteristics of the patient. AR-DRG version 5.2 has been used throughout this report as cost weights for AR-DRG version 6.0 are not yet available.

Each AR-DRG version is based on a specific edition of the ICD-10-AM/ACHI. However, AR-DRGs can be mapped from other ICD-10-AM/ACHI editions (Table A1.16).

Table A1.16: ICD-10-AM and AR-DRG versions, 2004-05 to 2008-09

Year	ICD-10-AM edition	Relevant AR-DRG version	AR-DRG version reported
2004–05	Fourth edition	Version 5.1	Version 5.1
2005–06	Fourth edition	Version 5.1	Version 5.1
2006–07	Fifth edition	Version 5.2	Version 5.1
2007–08	Fifth edition	Version 5.2	Version 5.1
2008–09	Sixth edition	Version 6.0	Version 5.2

For AR-DRG-based time series comparisons, AR-DRG version 5.1 was used for the years 2004–05 to 2007–08 and AR-DRG version 5.2 was used for 2008–09. For the purpose of these analyses, the coded clinical data for 2004–05 were mapped forward to the fourth edition of the ICD-10-AM and then grouped to AR-DRG version 5.1 and the ICD coded data for 2006–07 and 2007–08 were mapped backward to the fourth edition of the ICD-10-AM and then grouped to AR-DRG version 5.1. Due to the mapping necessary to generate the AR-DRG versions, the data presented in these tables may not be comparable for a small number of AR-DRGs.

Similarly, the AIHW's AR-DRG online data cubes (<www.aihw.gov.au>) present AR-DRG versions 4.0, 4.1 and 4.2 based on the relevant AR-DRG versions for 1997–98 to 2001–02, and for the years 2002–03 to 2004–05 the supplied third and fourth edition ICD-10-AM codes were mapped backwards to second edition codes to group the data for those years to AR-DRG version 4.2. Similarly, for the AR-DRG version 5.0/5.1/5.2 cube, which covers the years 1998–99 to 2008–09, the data for 1998–99 to 2001–02 based on earlier editions of the ICD-10-AM were mapped forwards to the third edition codes and then grouped to AR-DRG version 5.0.

#### AR-DRG cost weights and cost estimates

Cost weights and cost estimates are prepared by the Australian Government Department of Health and Ageing through the National Hospital Cost Data Collection (NHCDC) (DoHA 2009). The NHCDC estimates the average cost of each AR-DRG and the cost weight is the average cost for that AR-DRG divided by the average cost across all AR-DRGs (\$3,907 for the public sector, and \$2,895 for the private sector in 2007–08). Separate cost weights are usually estimated for the public and private sectors because of the differences in the range of costs recorded in public and private hospitals.

The latest available cost weights (at the time of publication of this report) were for version 5.1 AR-DRGs for 2007–08 (DoHA 2009). When the NHCDC 2008–09 results become available, updated information using those data will be provided in the tables accompanying this report on the Internet at <www.aihw.gov.au>.

The cost by volume estimates presented in the supplementary 'APC-DRG Additional Tables (Part 2)' (accompanying this report on the Internet) are calculated by applying the AR-DRG version 5.1 2007–08 national public and private sector estimated average costs to the AR-DRG version 5.2 data for 2008–09.

#### Average cost weight

Average cost weight information provides a guide to the expected resource use for separations, with a value of 1.00 representing the average cost for all separations.

The average cost weight for a hospital (or group of hospitals) is calculated as the sum of the average cost weights for each separation, divided by the total number of separations for the hospital. It represents in a single number the overall relative expected use of resources by a hospital. For example, a hospital with an average cost weight of 1.08 has an 8% more costly casemix than the national average (equal to 1.00).

## **Analysis methods**

#### Cost per casemix-adjusted separation analysis

The cost per casemix-adjusted separation (*Chapter 3*) is an indicator of the efficiency of public acute care hospitals. It is a measure of the average recurrent expenditure for each admitted patient, adjusted using AR-DRG cost weights for the resources expected to be used for the separation. A synopsis of the methods used in this analysis is presented below, and more detail is available in *Australian hospital statistics* 2000–01 (AIHW 2002).

#### **Definition**

The formula used to calculate the cost per casemix-adjusted separation is:

Recurrent expenditure x IFRAC

Total separations x Average cost weight

#### where:

- recurrent expenditure is as defined by the recurrent expenditure data elements in the *National health data dictionary* (HDSC 2009)
- IFRAC (admitted patient cost proportion) is the estimated proportion of total hospital expenditure that relates to admitted patients
- total separations excludes *Newborns without qualified days* and records that do not relate to admitted patients (*Hospital boarders* and *Posthumous organ procurement*)
- average cost weight is a single number representing the relative expected resource use for the separations (see above).

#### Matters affecting the interpretation of cost per casemix-adjusted separation

#### The inclusion of non-acute care

The formula used to calculate the cost per casemix-adjusted separation includes all admitted patient separations and their associated costs. It is appropriate to include the acute care separations, which comprise almost 98% of the total for the hospitals included in the analysis (see Table A1.16, accompanying this report on the internet), as cost weights are available for acute care. However, the 2% of separations that are not acute care are also included and, as there are no cost weights for these separations, the average cost weight for the acute separations for each hospital is used. This method may affect the estimates of cost-weighted

separations (see below) for each state and territory, depending on the proportion of non-acute separations for the state or territory. Non-acute separations (including rehabilitation care) generally have higher costs per separation than acute care separations because, although their daily costs are lower, these episodes typically involve longer lengths of stay.

For 2008–09, estimates of expenditure for acute care for admitted patients (acute care IFRACs) were available for some jurisdictions, and the effect of limiting the analysis to acute care is presented below.

#### The inclusion of psychiatric care

The validity of comparisons of average cost weights is also limited by differences in the extent to which each jurisdiction's psychiatric care services are integrated into its public hospital system. For example, in Victoria, almost all public psychiatric hospitals are mainstreamed into acute hospital services, and psychiatric patient data are therefore included in the acute hospital reports. Cost weights are not as useful as measures of resource requirements for acute psychiatric care because the relevant AR-DRGs are less homogeneous than for other acute care.

## Cost per acute care casemix-adjusted separation and cost per non-psychiatric acute care casemix-adjusted separation

As cost weights are available only for acute care separations, the cost per casemix-adjusted separation analysis applies these cost weights to all separations. A more accurate estimate of cost could be obtained by restricting the analysis to acute, or acute non-psychiatric separations and expenditure.

New South Wales, Victoria and Western Australia provided estimates of expenditure on acute care for admitted patients, so estimates of the cost per casemix-adjusted acute care separation are presented for these jurisdictions (Table A1.17). Separations were included only if their care type was *Acute*, *Newborn with at least one qualified day* or for which the care type was *Not reported*.

Hospitals were excluded from the analysis if the estimated cost per day was more than \$1,000 (as this would be considered unreasonably high for non-acute care types) or if the same IFRACS were reported for acute care (and non-psychiatric acute care) as for all care types (where they reported more than 1,000 patient days for non-acute separations).

For 2008–09, using these criteria, the analysis excluded 35 hospitals for New South Wales, 2 hospitals for Victoria and 8 hospitals for Western Australia.

The estimated cost per acute care casemix-adjusted separation (excluding depreciation) for the selected hospitals was:

- \$4,431 in New South Wales, 0.2% greater than the cost per casemix-adjusted separation for all separations
- \$3,975 in Victoria, 10.5% less than for all separations
- \$4,796 in Western Australia, 4.7% less than for all separations (Figure A1.1 and Table A1.18).

The estimated cost per non-psychiatric acute care casemix-adjusted separation (excluding depreciation) for the selected hospitals was:

• \$4,629 in New South Wales, 4.6% greater than the cost per casemix-adjusted separation for all separations

- \$3,896 in Victoria, 12.3% less than for all separations
- \$4,856 in Western Australia, 3.5% less than for all separations.

Table A1.18: Cost per casemix-adjusted separation (\$) for acute and non-psychiatric acute separations, subset of selected public acute hospitals<sup>(a)</sup>, New South Wales, Victoria and Western Australia, 2008–09

	NSW	Vic	WA
Cost per casemix-adjusted separation excluding depreciation (\$)	4,424	4,441	5,031
Cost per casemix-adjusted acute separation excluding depreciation <sup>(b)</sup> (\$)	4,431	3,975	4,796
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	0.20%	-10.50%	-4.70%
Cost per casemix-adjusted acute non-psychiatric separation excluding depreciation $^{(c)}$ ( $\$$ )	4,629	3,896	4,856
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	4.60%	-12.30%	-3.50%
Cost per casemix-adjusted separation including depreciation (\$)	4,583	4,613	5,169
Cost per casemix-adjusted acute separation including depreciation <sup>(b)</sup> (\$)	4,590	4,129	4,928
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	0.20%	-10.50%	-4.70%
Cost per casemix-adjusted acute non-psychiatric separation including depreciation (s)	4,796	4,047	4,989
Percentage this exceeds cost per casemix-adjusted separation for subset hospitals	4.60%	-12.30%	-3.50%

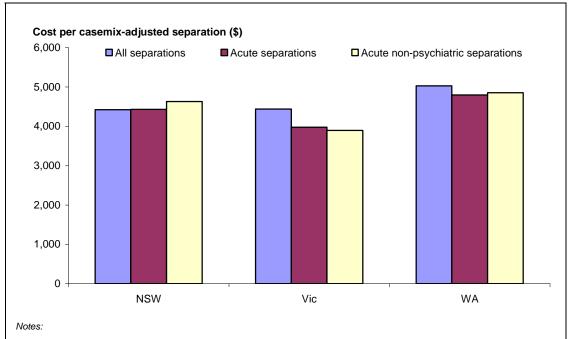
#### Notes:

The estimated cost per acute care casemix-adjusted separation, including depreciation and cost per non-psychiatric acute casemix-adjusted separation, including depreciation is available in Table A1.19 accompanying this report on the Internet.

<sup>(</sup>a) Excludes psychiatric hospitals, sub-acute, non-acute and unpeered hospitals or services. This subset excludes hospitals where the IFRAC was equal to the acute IFRAC and more than 1,000 non-acute patient days were recorded. Also excludes hospitals where the apparent cost of non-acute patients exceeded \$1,000 per day and more than \$1,000,000 of expenditure on non-acute patient days was reported.

<sup>(</sup>b) Separations where the care type is Acute, Newborn with qualified days, or Not reported. Details of acute and non-acute separations and patient days are presented in Table A1.17.

<sup>(</sup>c) Separations where the care type is Acute, Newborn with qualified days, or Not reported, and excludes records for which psychiatric care days were reported. Psychiatric separations are those with psychiatric care days.



- (a) Analysis excludes psychiatric hospitals, sub-acute, non-acute and unpeered hospitals or services. The subset excludes hospitals where the IFRAC was equal to the acute IFRAC and more than 1,000 non-acute patient days were recorded. Also excludes hospitals where the apparent cost of non-acute patients exceeded \$1,000 per day and more than \$1,000,000 of expenditure on non-acute patient days was reported.
- (b) All separations excludes records for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement.
- (c) Acute separations includes separations where the care type is Acute, Newborn with qualified days, or Not reported. Cost includes adjustment for private patient medical costs: \$296 for New South Wales, \$127 for Victoria and \$212 for Western Australia.
- (d) Non-psychiatric acute separations are acute separations, excluding those that reported psychiatric care days.

Figure A1.1: Comparison of costs per casemix-adjusted separations for all separations, acute separations and non-psychiatric acute separations, subset of selected public acute hospitals<sup>(a)</sup>, New South Wales, Victoria and Western Australia, 2008–09

### Cost per casemix-adjusted separation, including capital

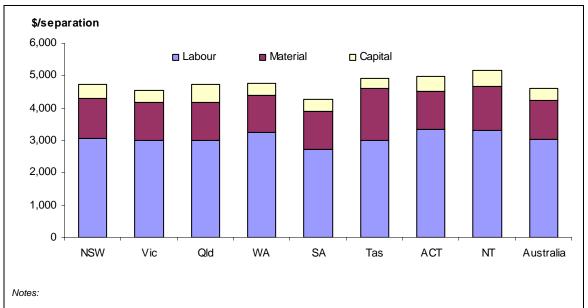
The cost per casemix-adjusted separation analysis includes recurrent expenditure and depreciation for those states that reported it (see *Chapter 3*).

The Steering Committee for the Review of Government Service Provision (SCRGSP) reported 'total costs per casemix-adjusted separation' by state and territory for 2007–08 (SCRGSP 2010). It was defined as the recurrent cost per casemix-adjusted separation plus the capital costs (depreciation and the user cost of capital of buildings and equipment) per casemix adjusted separation.

'Depreciation is defined as the cost of consuming an asset's services. It is measured by the reduction in value of an asset over the financial year. The user cost of capital is the opportunity cost of the capital invested in an asset, and is equivalent to the return foregone from not using the funds to deliver other government services or to retire debt. Interest payments represent a user cost of capital, so are deducted from capital costs in all jurisdictions to avoid double counting' (SCRGSP 2010).

Excluding the user cost of capital for land, the total cost per casemix-adjusted separation ranged from \$4,281 in South Australia to \$5,165 in the Northern Territory (SCRGSP 2010) (Figure A1.2).

Further details about the SCRGSP calculation of total cost per casemix-adjusted separation are available in the *Report on government services* 2010 (SCRGSP 2010).



- (a) 'Labour' includes medical and non-medical labour costs. 'Material' includes other non-labour recurrent costs, such as repairs and maintenance.
- (b) 'Capital' includes depreciation and the user cost of capital for buildings and equipment that is associated with the delivery of admitted patient services in the public hospitals as described in the data for recurrent cost per casemix-adjusted separation. 'Capital cost' excludes the user cost of capital associated with land.
- (c) Variation across jurisdictions in the collection of capital-related data suggests the data are only indicative. The capital cost per casemix adjusted separation is equal to the capital cost adjusted by the inpatient fraction, divided by the number of casemix-adjusted separations.

Source: SCRGSP 2010.

Figure A1.2: Cost per casemix-adjusted separation including capital, public hospitals, 2007–08

### Relative stay index analysis

Relative stay indexes (RSIs) have been identified as indicators of efficiency and are presented in *Chapter 3*. They are calculated as the number of 'observed patient days' for separations in selected AR-DRGs, divided by the number of 'expected patient days', standardised for casemix (based on national figures). An RSI greater than 1.0 indicates that an average patient's length of stay is higher than expected given the casemix for the group of separations of interest. An RSI of less than 1.0 indicates that the length of stay was less than expected.

The standardisation for casemix (based on AR-DRG version 5.2 and the age of the patient for each separation) allows comparisons to be made that take into account variation in types of services provided, but does not take into account other influences on length of stay, such as Indigenous status.

The RSI method includes acute care separations only, and excludes separations for patients who died or were transferred within 2 days of admission, or with a length of stay greater than 120 days. Excluded from the analysis were:

- AR-DRGs for rehabilitation (such as *Z60A Rehabilitation with catastrophic/severe complications or comorbidities*)
- predominantly same-day AR-DRGs (such as R63Z Chemotherapy and L61Z Admit for renal dialysis)
- AR-DRGs with a length of stay component in the definition (see Table A1.19 accompanying this report on the Internet)
- Error AR-DRGs.

Comparisons with RSIs presented in *Australian hospital statistics* 2003–04 (AIHW 2005a) and earlier reports should be made with caution, because the indexes for earlier years were calculated using AR-DRG version 4 and, for reports after 2003–04, the RSIs were calculated using AR-DRG versions 5.0/5.1/5.2.

#### RSI standardisation methods—direct and indirect relative stay indexes

The two methods for standardisation of the length of stay data used in this report are analogous to direct and indirect age-standardisation methods.

#### Indirect relative stay index

The indirect relative stay index method applies the national average length of stay (ALOS) for each AR-DRG (version 5.0/5.1/5.2) to the relevant population of interest (number of separations for each AR-DRG in the hospital group) to derive the expected number of patient days. This method is generally used when rate information (ALOS for each AR-DRG in this analysis) for the population of interest is unknown or subject to fluctuation because of small population sizes. It provides a measure of efficiency for a hospital, or group of hospitals, based on their actual activity.

However, an indirectly standardised rate compares a group with a 'standard population rate' so, using this method, rates for different groups are not strictly comparable because each group has a different casemix to which the national ALOS data have been applied. Therefore, the indirectly standardised data for hospital groups should be compared with the national average of 1.00.

#### Direct relative stay index

For the direct relative stay index method, the ALOS of each AR-DRG for the group of interest is multiplied by the national population (total number of separations in each AR-DRG) to derive the expected number of patient days. This method provides a measure of efficiency for a hospital, or group of hospitals, and is suitable if all or most AR-DRGs are represented in a hospital group.

Direct standardisation methods are generally used where the populations and their characteristics are stable and reasonably similar, for example for total separations for New South Wales and Victoria. Groups can be compared using the directly standardised rates as the activity of each group is weighted using the same set of weights, namely the national casemix.

However, the ALOS data for AR-DRGs which are not represented in a group need to be estimated. The method in this report uses the assumption that the missing AR-DRGs for the hospital group had a relative length of stay that was the same as that for the reported AR-DRGs for the hospital group, weighted by the national distribution of the reported AR-DRGs in the group. Also, this method can scale up AR-DRGs to have an impact that does not reflect their relative volume in a hospital group, which can be particularly problematic if the low-volume AR-DRGs are atypical.

Due to the issues with the direct relative stay index detailed above, this report mainly presents RSI information using the indirect standardised method. However, the direct standardised method has also been presented in *Chapter 3*. This allows comparison between the two methods and more direct comparison for those jurisdictions and sectors for which the data are presented. Data for the direct standardised method in the public sector in the Northern Territory are suppressed in Table 3.14, because of problems with using the direct standardisation for hospital groups that reported a limited range of AR-DRGs. For public hospitals in the Northern Territory, less than 500 of the 635 DRGs used in the national RSI analysis are represented, so results are likely to have been affected by estimation of the missing ALOS data.

Table A1.21, accompanying this report on the Internet and CD, shows the number of AR-DRGs represented in each cell in Table 3.14, so that the number of AR-DRGs for which ALOS was estimated can be derived. For those jurisdictions and sectors for which RSI statistics are presented in Table 3.14, there were between 569 and 634 AR-DRGs represented, meaning that ALOS data was estimated for up to 96 AR-DRGs.

# Appendix 2: Hospitals databases: characteristics and coverage

This appendix includes information on the National Hospital Morbidity Database, the National Public Hospital Establishments Database, the National Elective Surgery Waiting Times Data Collection, the National Non-admitted Patient Emergency Department Care Database and the National Outpatient Care Database. Also included is information on the hospitals contributing to each of the databases.

## **Public and private hospitals**

There is some variation between jurisdictions in whether hospitals that predominantly provide public hospital services, and that are privately owned and/or operated, are reported as public or private hospitals. A selection of these hospitals is listed in Table A2.1 with information on whether they are reported as public or private hospitals. These categorisations are the practices used for this report, and reports produced by other agencies may categorise these hospitals differently.

For example, Peel and Joondalup hospitals are private hospitals that predominantly treat public patients under contract to the Department of Health (Western Australia). From 2006–07, two new reporting units (public hospitals) were created to cover the public health services of these two hospitals, whereas in previous years all activity was reported for the private hospitals. The Hawkesbury District Health Service was categorised as a private hospital in *The state of our public hospitals, June 2005 report* (DoHA 2005) and *Australian hospital statistics* 2002–03 (AIHW 2004a). However, it has been categorised as a public hospital in AIHW reports since 2003–04 and in *The state of our public hospitals*, since the June 2006 report (DoHA 2006).

Table A2.1: Selected hospitals included in this report that predominantly provide public hospital services that were privately owned and/or operated, 2008–09

Hospital	How reported
Hawkesbury District Health Service, NSW	Public hospital
Mildura Base Hospital, Victoria	Public hospital
Noosa Hospital, Qld	Public hospital
Joondalup Hospital, WA	Public hospital for services provided under the contract and a private hospital for services provided to private patients
Peel Hospital, WA	Public hospital for services provided under the contract and a private hospital for services provided to private patients
Southern Districts War Memorial Private Hospital, SA	Public hospital for services provided under the contract and a private hospital for services provided to private patients
May Shaw District Nursing Centre, Tas	Public hospital
Toosey Hospital, Tas	Public hospital
Mersey Community Hospital	Private hospital for admitted patient data; included with public hospitals for elective surgery waiting times, emergency department, outpatient care and other non-admitted patient care.

Other changes in hospital ownership or management arrangements can also affect whether hospital activity is reported as public or private. For example, between 2003–04 and 2004–05, two private hospitals in Western Australia were purchased by the Western Australian Department of Health and were amalgamated with two existing public hospitals. Hence, the activity associated with the former private hospitals is now included in the activity reporting of the two public hospitals.

#### **Mersey Community Hospital**

The Mersey Community Hospital in Tasmania, was a public hospital from 2004–05 until the end of October 2007. It was taken over by the Australian Government in November 2007, predominantly providing public hospital services between November 2007 and June 2009. Mersey Community Hospital was reported as a private hospital in this report for that period, however, data for elective surgery waiting times, emergency department, outpatient care and other non-admitted patient services are included with data for Tasmanian public hospitals. This reflects the fact that the Mersey Community Hospital maintained elective surgery waiting lists for its patients and provided emergency department, outpatient care and other non-admitted patient services, as public hospitals do.

## The National Hospital Morbidity Database

The National Hospital Morbidity Database (NHMD) is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals. The database contains data relating to admitted patients in almost all hospitals, including public acute hospitals, public psychiatric hospitals, private acute hospitals, private psychiatric hospitals and private free-standing day hospital facilities. Public sector hospitals that are not included are those not within the jurisdiction of a state or territory health authority (hospitals operated by the Department of Defence or correctional authorities, for example, and hospitals located in offshore territories).

The data supplied are based on the National Minimum Data Set (NMDS) for Admitted patient care and 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, classified using the sixth edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) (NCCH 2008) is presented in *Appendix 1*.

### NHMD data for this report

The data presented in this report are for patients treated between 1 July 2008 and 30 June 2009. Almost all public hospitals were included for 2008–09. The exception was a mothercraft hospital in the Australian Capital Territory. Western Australia estimated that about 3,000 separations were not reported to the NHMD. Table A2.2 presents a summary of the coverage of the NHMD by state and territory (accompanying this report on the CD and Internet at <www.aihw.gov.au>).

The great majority of private hospitals were also included. Most of the private facilities that did not report to the NHMD were free-standing day hospital facilities. For 2008–09, data were not provided for private day hospital facilities in the Australian Capital Territory and the Northern Territory, and for a small private hospital in Victoria. Victoria estimated that its data were essentially complete. Counts of private hospital separations presented in this report are therefore likely to be underestimates of the actual counts.

Tables A2.3 and A2.4 (accompanying this report on the Internet at <www.aihw.gov.au>) list the public and private hospitals that contributed to the NHMD for 2008–09. For public hospitals, also included in the Internet tables is information on their average available bed numbers, their peer group (see *Appendix 1*) and the statistical local area and remoteness area of their location. The list of private hospitals includes information on whether each was a private free-standing day hospital facility.

There is some variation between states in what is regarded as a hospital, how facilities are licensed and how this affects the collection. For example between 2001 and 2002–03, the coverage of the Queensland and Victorian collections expanded to include private facilities providing same-day services. The apparent increase for some types of separations in the private sector was affected by the registration of relevant facilities as hospitals for the first time in Queensland in 2001 and in Victoria in 2002–03. These facilities had previously been categorised as non-hospital facilities and were therefore out of scope for the NHMD.

#### Coverage estimates for private hospital separations

As noted above, not all private hospital separations are included in the NHMD, so the counts of private hospital separations presented in this report may be slight underestimates.

Over recent years, at the national level there have been slightly fewer separations reported to the NHMD (particularly for private free-standing day hospital facilities) than to the Australian Bureau of Statistics (ABS) Private Health Establishments Collection (ABS 2010) (Table A2.5). The latter collection includes all private acute and psychiatric hospitals licensed by state and territory health authorities and all private free-standing day hospital facilities approved by the Department of Health and Ageing. In 2008–09, the difference was 107,563 separations (3.3%).

Table A2.5: Differences between private hospital separations on the NHMD and reported to the ABS Private Health Establishments Collection, 2004–05 to 2008–09

Year		Private free-standing day facilities		Other private hospitals		
_	Separations	Per cent	Separations	Per cent	Separations	Per cent
2004–05	1,214	0.2	40,286	1.8	39,072	1.4
2005–06	32,437	5.9	46,457	2.0	78,894	2.8
2006–07	60,852	10.7	48,316	2.0	109,168	3.7
2007–08	n.a.	n.a.	n.a	n.a.	n.a.	n.a.
2008-09	36,102	5.0	71,461	2.8	107,563	3.3

Note: Private Health Establishments Collection data were not collected for 2007-08.

Source: ABS Private Health Establishments Collection data (PHEC) and National Hospital Morbidity Database (NHMD).

For individual states (tables A2.6a to A2.6o accompanying this report on the CD and Internet at <www.aihw.gov.au>), the patterns of differences between number of separations reported to the NHMD compared with the ABS Private Health Establishments Collection varied. This

reflects the omission of some private hospitals from the NHMD. However, there are differences even when both collections are reported to be complete. The discrepancies may have been due to the use of differing definitions (for example, differing counting rules for *Newborn* episodes of care) or different interpretations of definitions, differing definitions of what is a hospital, or differences in the quality of the data provided for different purposes.

## The National Public Hospital Establishments Database

The National Public Hospital Establishments Database (NPHED) holds establishment-level data for each public hospital in Australia, including public acute hospitals, psychiatric hospitals, drug and alcohol hospitals, and dental hospitals in all states and territories. The collection covers hospitals within the jurisdiction of the state and territory health authorities only. Hence, public hospitals not administered by the state and territory health authorities (hospitals operated by the Department of Health and Ageing, Department of Defence or correctional authorities, for example, and hospitals located in offshore territories) are not included. Public hospitals are categorised by the AIHW into peer groups, as described in *Appendix* 1.

The collection is based on the NMDS for Public hospital establishments. Information is included on hospital resources (beds, staff and specialised services), recurrent expenditure (including depreciation), non-appropriation revenue and services to non-admitted patients. Summary information on data quality and comparability is presented in *Chapter 4*.

### NPHED data for this report

Essentially all public hospitals were included for 2008–09. Table A2.2 (accompanying this report on the Internet) lists the public hospitals that contributed to the NPHED for 2008–09. Also included is information on their average available bed numbers, their peer group and the statistical local area and remoteness area of their location.

## The National Non-admitted Patient Emergency Department Care Database

The National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) is a compilation of episode-level data for emergency department presentations in public hospitals. The database is based on the NMDS for Non-admitted patient emergency department care, as defined in the *National health data dictionary, version 14* (HDSC 2008). It includes data on the type and length of emergency department visit, triage category, waiting times, patient demographics, arrival mode and episode end status.

The NNAPEDCD covers public hospitals that were classified as peer groups A (*Principal referral and Specialist Women's and children's hospitals*) and B (*Large hospitals*) in *Australian hospital statistics* 2007–08 (AIHW 2009a). The peer group classification was developed for the cost per casemix-adjusted separation analysis based on admitted patient activity (see *Appendix* 1). The use of this classification as an interim measure to define the scope of this

collection is under review. Data were also provided by some states and territories for hospitals in peer groups other than A and B, as described below.

#### NNAPEDCD data for this report

The data presented in this report are for patients completing an episode in an emergency department between 1 July 2008 and 30 June 2009.

For 2008–09, all states and territories were able to provide data for all public hospitals in peer groups A and B that have emergency departments.

Some states and territories also provided episode-level data for public hospitals that were classified to peer groups other than A or B, and these data have been included in this chapter. Data were also provided for:

- 19 Medium hospitals, 17 Small hospitals and 6 Unpeered/Other hospitals in New South Wales
- 6 Medium hospitals in Victoria
- 4 Medium hospitals in Queensland
- 3 Medium hospitals and 2 Small remote acute hospitals in Western Australia
- 1 Medium hospital in South Australia
- 1 Medium hospital in Tasmania
- 3 *Small remote acute hospitals* in the Northern Territory.

The data reported for Tasmania included data for the Mersey Community Hospital.

The estimated overall coverage was 80% of all public hospitals accident and emergency occasions of service, including the Mersey Community Hospital.

Summary information on the quality and comparability of the data is included in *Chapter 5*.

The list of public hospitals that contributed to the NPHED (Table A2.4 accompanying this report on the Internet) includes information on which hospitals were also included in the NNAPEDCD for 2008–09.

All states and territories provided hospital-level data on accident and emergency occasions of service for the NPHED. These data have wider coverage than data provided for the NNAPEDCD, as detailed in *Chapter 5*.

## The National Elective Surgery Waiting Times Data Collection

The National Elective Surgery Waiting Times Data Collection (NESWTDC) provides episode-level data on patients waiting for elective surgery on waiting lists managed by public acute hospitals.

The data supplied are based on the NMDS for Elective surgery waiting times (removals and census), as defined in the *National health data dictionary, version 14* (HDSC 2008). Included is information on the length of time waited, the surgical specialty and indicator procedures. For some states and territories, the data are provided linked to the NHMD data on the admitted patient episode of care for which the patient was waiting. Elective surgery census data are not reported in *Australian hospital statistics*.

#### **NESWTDC** data for this report

The data presented in this report are for patients admitted for elective surgery between 1 July 2008 and 30 June 2009.

As noted above, the data collection covers public acute hospitals. However, some public patients treated under contract in private hospitals in Victoria and Tasmania were also included. In addition, data for the Mersey Community Hospital are included with the Tasmanian data.

All public hospitals that undertake elective surgery are generally included, but some are not. Based on the proportions of elective surgery admissions that were covered by the NESWTDC, national coverage was about 91%, and ranged from 99% in Queensland, 98% in New South Wales, Australian Capital Territory and South Australia to about 72% in Tasmania. Coverage for Victoria, Northern Territory and Western Australia was 83%, 81% and 75% respectively. Coverage was highest for *Principal referral and Specialist women's and children's hospitals* at 100%, and progressively lower for the *Large hospitals* and *Medium hospitals* groups (see Table S5.2).

The list of public hospitals that contributed to the NPHED (Table A2.4 accompanying this report on the Internet) includes information on which hospitals were also included in the NESWTDC for 2008–09.

## The National Outpatient Care Database

The National Outpatient Care Database (NOCD) includes counts of individual occasions of service and group sessions by outpatient clinic type for selected public hospitals.

The data supplied are based on the NMDS for Outpatient care, as defined in the National health data dictionary, version 14 (HDSC 2008). They include data on the number of individual occasions of service and group sessions, by clinic type and establishment.

The scope for the Outpatient care NMDS for 2008–09 was for services provided to non-admitted, non-emergency patients registered for care in outpatient clinics of public hospitals that were classified as either peer group A (*Principal referral and specialist women's and children's hospitals*) or B (*Large hospitals*) in *Australian hospital statistics* 2007–08 (AIHW 2009a).

### NOCD data for this report

The data presented in this report are for patients treated between 1 July 2008 and 30 June 2009. Summary information on the quality and comparability of the data is included in Chapter 6.

For 2008–09, all states and territories were able to provide summary data to the NOCD for all public hospitals in peer groups A and B that managed outpatient clinic services. Some states and territories also provided outpatient care data for public hospitals which were classified to other peer groups, and these data have been included in this chapter:

- New South Wales provided data for two Medium hospitals
- Victoria provided data for one Medium hospital
- Western Australia provided data for six Medium hospitals, two Small remote acute hospitals, one Small non-acute hospital and one Mothercraft hospital

- South Australia provided data for one *Medium hospital*
- Tasmania provided data for 1 *Medium hospital*, the Mersey Community Hospital.

Coverage was about 79% of individual public hospital outpatient clinic occasions of service overall and about 63% for group occasions of service (including the Mersey Community Hospital).

The list of public hospitals that contributed to the NPHED (Table A2.4 accompanying this report on the Internet) includes information on which hospitals were also included in the NOCD for 2008–09.

All states and territories also provided hospital-level data on outpatient clinic occasions of service for the NPHED. These data have wider coverage than data provided for the NOCD, as detailed in *Chapter 6*.

## Appendix 3: National Hospital Cost Data Collection

The National Hospital Cost Data Collection (NHCDC) was established to produce annual updates of Australian Refined Diagnosis Related Group (AR-DRG) cost weights and estimated average costs, as incorporated into tables in *Chapters 3, 4, 7, 8* and 9. This report uses the cost data for acute admitted patients only. Unless otherwise specified, the cost weight data in this report applies cost weight data for AR-DRG version 5.1 (DoHA 2009) to the AR-DRGs reported in version 5.2.

The NHCDC is a voluntary collection of hospital cost and activity data covering the financial year before the collection period, and is coordinated by the Department of Health and Ageing. Both public and private hospital data are included, with the results separately reported for the two sectors. The latest data available at the time of publication of this report were for the 2007–08 financial year (Round 12) for public hospitals and private hospitals (DoHA 2009).

The NHCDC involves arrangements whereby the hospital data are collected by the individual hospitals, and checked and validated by state/territory/private sector coordinators before being passed on to the Department of Health and Ageing. The production and publication of the final cost weights and associated tables follow extensive quality assurance procedures undertaken by the department, and endorsement of the results by the states and territories.

The participating hospitals include both patient costing and cost modelling sites. Cost modelling refers to a process where estimates of costs are produced at the level of each AR-DRG. Cost modelling is a 'top down' approach where costs from the hospitals' general ledgers are allocated to acute admitted patients using a series of allocation statistics. Patient costing is a 'bottom up' approach where the costs of each service provided to an individual patient are measured or estimated to obtain the total cost of treating individual patients.

In 2007–08, 241 public hospitals and 109 private hospitals were included in the collection. Although the coverage of public hospitals was approximately 47% of all public hospitals, the total number of separations was approximately 89% of total acute separations within the year. The coverage of private hospitals was approximately 48% of all private hospitals and the total number of acute separations was approximately 72% (DoHA 2009). The average cost per separation was estimated at \$3,907 for public hospitals and \$2,895 for private hospitals for 2007–08. The public hospitals' estimate includes an estimate for depreciation.

Further information is provided in the NHCDC report for 2007–08 (DoHA 2009). Cost weights and associated tables for each round of the NHCDC can be obtained from the Department of Health and Ageing on the Casemix website at <www.health.gov.au>.

## **Appendix 4: Service Related Groups**

### Introduction

The Service Related Group (SRG) classification is based on Australian Refined Diagnosis Related Group (AR-DRG) aggregations and categorises admitted patient episodes into groups representing clinical divisions of hospital activity. SRGs are used to assist in the planning of services, analysing and comparing hospital activity, examining patterns of service needs and access, and projecting potential trends in services. For this purpose the AR-DRG system was not considered appropriate as it contains too many classes. Both the Major Diagnostic Categories (MDC) and the *International statistical classification of diseases and related health problems*, 10th revision, Australian modification (ICD-10-AM) were also considered unsuitable as they generally relate to body systems rather than services.

An example illustrating the assignment of selected procedures to SRGs is shown below. These examples illustrate the differences between categorising procedures on the basis of ICD-10-AM chapters, MDCs and SRGs.

Procedure	ICD-10-AM chapter	MDC	SRG	
Extraction of wisdom teeth	Diseases of the digestive	MDC 3	Dentistry	
	system	Ear nose and throat		
Endoscopic retrograde	Diseases of the digestive	MDC 6	Gastroenterology	
cholangiopancreatography (ERCP)	system	Digestive system		
Excision of haemorrhoids	Diseases of the digestive	MDC 6	Colorectal surgery	
	system	Digestive system		

For the *Australian hospital statistics* 2001–02 to 2004–05 reports, this analysis used a method based on AR-DRG version 4.2, originally developed by the New South Wales Department of Health and the Commonwealth Department of Health and Ageing.

The methodology used in *Australian hospital statistics* 2005–06 to 2007–08 (AIHW 2007a, 2008a, 2009a) and this report for assigning SRGs based on AR-DRG versions 5.0 and 5.1 was developed by the New South Wales Department of Health (unpublished). For more information on the methodology used to assign SRGs, see Table A4.6 (accompanying this report in the CD and Internet versions).

SRGs were allocated using the data in the National Hospital Morbidity Database. The method largely involves aggregations of AR-DRG information. However, the assignment of some separations to SRGs is based on other information, such as procedures, diagnoses and care types. Separations with non-acute care are allocated to separate SRG categories according to the type of care because the main service type of these separations cannot be ascertained from their diagnoses or procedures. For public hospitals, separations may also have been assigned to certain specialist SRGs depending on whether or not the hospital had a specialist neurosurgery, perinatology (neonatal intensive care unit) or cardiothoracic unit, as appropriate, as reported to the National Public Hospital Establishments Database (see *Chapter 4*). An 'unallocated' SRG is assigned for separations with an *Error DRG* (see *Chapter 12*). The classification also incorporates non-specialist SRGs, which are used for smaller

hospitals that do not have the specialist services or specialist equipment. There are 50 SRGs as presented in *Chapter 4*.

## State and territory overview

Tables A4.1 to A4.5 (accompanying this report on the CD and Internet at <a href="https://www.aihw.gov.au">www.aihw.gov.au</a>) present more detailed SRG information by state and territory.

Table A4.1 contains the number of establishments with more than 50 separations and the number of establishments with more than 360 patient days in each SRG by state and territory and by remoteness area for public hospitals only. This has been included as an indicative measure of the number of specialty units. The best indicative measure of the number of units varies between SRGs and between uses of the measure. For example, for *Maintenance* (SRG 87), 87 hospitals provided more than 50 separations a year and 275 hospitals provided more than 360 patient days, and for *Gastroenterology* (SRG 15) these measures were 342 and 207 hospitals respectively. *Cardiothoracic surgery* (SRG 42) showed no difference between the two different measures, with 30 units under both measures.

*Cardiology* (SRG 11) and *Respiratory medicine* (SRG 24) had the greatest number of establishments, with more than 50 separations at 380 hospitals each. *Respiratory medicine* (SRG 24) and *Maintenance* (SRG 87) had the greatest number of establishments with more that 360 patient days a year, with 315 and 275 hospitals respectively.

Tables A4.2 and A4.3 contain the number of separations in each SRG category by state and territory for all public and private hospitals respectively. *Renal dialysis* (SRG 23) had the largest number of separations in public hospitals with over 857,000, followed by *Obstetrics* (SRG 72) with 311,000. In the private sector, *Diagnostic gastrointestinal endoscopy* (SRG 16) recorded the highest number of separations with almost 330,000, followed by *Orthopaedics* (SRG 49) with 280,000.

Tables A4.4 and A4.5 summarise the number of patient days in each sector by SRG and state and territory. In the public sector, *Acute psychiatry* (SRG 82) recorded the highest number of patient days with 1,471,000, followed by *Rehabilitation* (SRG 84, 1,457,000). For private hospitals, *Orthopaedics* (SRG 49) recorded the highest number of patient days (790,000 days), followed by *Rehabilitation* (SRG 84, 776,000).

# Appendix 5: Potentially preventable hospitalisations

The selected potentially preventable hospitalisations (PPHs) are those conditions where hospitalisation is thought to be avoidable if timely and adequate non-hospital care had been provided. Separation rates for PPHs therefore have potential as indicators of the quality or effectiveness of non-hospital care. A high rate of potentially preventable hospitalisation may indicate an increased prevalence of the conditions in the community or poorer functioning of the non-hospital care system. On the other hand, a high rate of PPHs may indicate an appropriate use of the hospital system to respond to greater need. It is important to note that the list of PPHs is not comprehensive—there are other hospital admissions which may be preventable. The ICD-10-AM code specifications and the categories included for PPHs may therefore be subject to change in future reports.

The three broad categories of PPHs that have been used in this report include *Vaccine-preventable*, *Acute* and *Chronic* (see *Chapter 7* for descriptions of these categories). PPH categories have been sourced from *The Victorian ambulatory care sensitive conditions study* (Department of Human Services Victoria 2002).

A full description of all conditions presented in these tables, including ICD-10-AM codes, can be found in Table A1.5 accompanying this report on the CD and Internet.

Tables A5.1, A5.2 and A5.3, (accompanying this report on the CD and Internet at <www.aihw.gov.au>) present a range of statistics for PPHs by the state or territory of residence (Table A5.1), remoteness area of usual residence of the patient (Table A5.2) or the socioeconomic status group (Table A5.3; see *Appendix 1* for information on geographical data). These tables include separation rates, standardised separation rate ratio (SRR) against the national total and the 95% confidence interval of the SRR. Statistics are presented for the total PPH rate, the rates for each of the three broad PPH categories as well as rates for individual conditions.

There were about 690,000 selected PPHs in Australia in 2008–09 (Table A5.1), 8.5% of all separations, which translates to a rate of 30.6 per 1,000 population. The rates ranged from 23.0 per 1,000 population in the Australian Capital Territory to 47.8 per 1,000 population in the Northern Territory. The separation rate for *Vaccine-preventable* PPHs in the Northern Territory was 3.2 times the national rate, and the separation rate for the Australian Capital Territory was 0.7 times the national rate.

Table A5.2 highlights that separation rates were higher for the more remote areas for most PPHs. For example, the rate for *Congestive Cardiac Failure* in *Major cities* and *Inner regional* was 1.8 and 1.9 per 1,000 separations, respectively, 2.3 for *Outer regional*, 3.1 for *Remote* and 3.7 for *Very remote* areas.

Table A5.3 presents these data by socioeconomic status (SES) group (see *Appendix 1*). Overall, total PPHs had higher SRRs for patients living in areas classified as being in the lowest SES group with a rate of 1.2 compared to 0.7 in the highest SES group.

The PPH category with highest variation between SES groups was *Diabetes complications* with SRRs ranging 0.55 for for patients living in areas classified as being in the highest SES group to 1.34 for the lowest SES group.

# Appendix 6: The state of our public hospitals, June 2010 report

The State of Our Public Hospitals, June 2010 report is to be published by the Australian Government Department of Health and Ageing. It is the responsibility of the Commonwealth under Part 3 of the 2003–2008 Australian Health Care Agreements to publish this report.

The State of Our Public Hospitals, June 2010 report is expected to present a range of data on public and private hospitals relating to the years 2008–09 financial year, using data supplied to the Department by the states and territories, and some previously published data, including data in *Australian hospital statistics*.

There may be some statistics on public hospitals in *The State of Our Public Hospitals, June 2010 report* that could differ from statistics presented in *Australian hospital statistics 2008–09*. While these statistics are both based on the same data sources, differences result from minor variations in the analysis methods used to derive particular statistics.

Notes on any differences between the two reports will be published on the *Australian hospital* statistics 2008–09 Internet site after *The State of Our Public Hospitals, June 2010 report* is published.

## **Glossary**

For further information on the terms used in this report, refer to the definitions in use in the *National health data dictionary version* 14 (HDSC 2008). Each definition contains an identification number from the Metadata Online Registry (METeOR). METeOR is Australia's central repository for health, community services and housing assistance metadata, or 'data about data'. It provides definitions for data for health and community services-related topics, and specifications for related national minimum data sets (NMDSs), such as the NMDSs which form the basis of this report. METeOR can be viewed on the AIHW website at <www.aihw.gov.au>.

Accident and emergency occasion of service

A non-admitted patient occasion of service reported to the National Public Hospital

Establishments Database with a Type of non-admitted patient occasion of service type of Emergency

services.

Activity when injured The type of activity being undertaken by a person at the time of injury.

METeOR identifier: 333849

Acute Having a short and relatively severe course.

Acute care See Care type.

Acute care hospital See Establishment type.

Additional diagnosis Conditions or complaints either coexisting with the principal diagnosis or arising during the

episode of care.

METeOR identifier: 333832

Adjustment A summarising procedure for a statistical measure in which the effects of differences in

composition of the populations being compared have been minimised by statistical methods.

Administrative and clerical

staff

Administrative and clerical staff—Staff engaged in administrative and clerical duties. Medical staff and nursing staff, diagnostic and health professionals and any domestic staff primarily or partly engaged in administrative and clerical duties are excluded. Civil engineers and computing staff

are included in this category.

METeOR identifier: 270496 See Full-time equivalent staff.

Administrative expenditure 
All expenditure incurred by establishments (but not central administrations) of a management

expense/administrative support nature, such as any rates and taxes, printing, telephone,

stationery and insurance expenses (including workers compensation).

METeOR identifier: 270107

Admitted patient A patient who undergoes a hospital's formal admission process to receive treatment and/or care.

This treatment and/or care is provided over a period of time and can occur in hospital and/or in

the person's home (for hospital-in-the-home patients).

METeOR identifier: 268957

 $Admitted\ patient\ cost$ 

proportion

The ratio of admitted patient costs to total hospital costs, also known as the inpatient fraction or

IFRAC.

Adverse event An incident in which harm resulted to a person receiving health care.

Age-standardisation A set of techniques used to remove, as far as possible, the effects of differences in age when

comparing two or more populations.

Alcohol and drug treatment

ontra

See Establishment type.

Arrival mode – transport The mode of transport by which the person arrives at the emergency department.

Australian Classification of Health Interventions (ACHI) ACHI was developed by the National Centre for Classification in Health (NCCH). The 6th edition was used for the 2008–09 procedures data for admitted patients in Australian hospitals.

Australian Refined Diagnosis Related Groups (AR-DRGs) An Australian system of diagnosis related groups (DRGs). DRGs provide a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital services.

METeOR identifier: 374151

Available beds The average number of beds which are immediately available for use by an admitted patient

within the establishment.

METeOR identifier: 270133

Average length of stay

The average number of patient days for admitted patient episodes. Patients admitted and

separated on the same day are allocated a length of stay of 1 day.

Capital expenditure Expenditure on large-scale fixed assets (for example, new buildings and equipment with a useful

life extending over a number of years).

METeOR identifier: 270516

Care type The care type defines the overall nature of a clinical service provided to an admitted patient

during an episode of care (admitted care), or the type of service provided by the hospital for

boarders or posthumous organ procurement (other care).

Admitted patient care consists of the following categories:

Acute care

Rehabilitation care

Palliative care

Geriatric evaluation and management

Psychogeriatric care Maintenance care Newborn care

Other admitted patient care

Other admitted patient care is where the principal clinical intent does not meet the criteria for any

of the above.

Other care includes the following:

Posthumous organ procurement

Hospital boarder

METeOR identifier: 270174

Casemix The range and types of patients (the mix of cases) treated by a hospital or other health service.

Casemix classifications (such as AR-DRGs) provide a way of describing and comparing hospitals

and other services for management purposes.

Chronic Persistent and long-lasting.

Clinical urgency A clinical assessment of the urgency with which a patient requires elective hospital care.

METeOR identifier: 270008

Compensable patient An individual who is entitled to receive or has received a compensation payment with respect to

an injury or disease.

METeOR identifier: 270100

before, an admitted patient episode of care. Having this information can provide an insight into the kinds of conditions patients already have when entering hospital and what arises during the episode of care. A better understanding of those conditions arising during the episode of care may

inform prevention strategies particularly in relation to complications of medical care.

Cost weight

The costliness of an AR-DRG relative to all other AR-DRGs such that the average cost weight for all separations is 1.00. A separation for an AR-DRG with a cost weight of 5.0, therefore, on average, costs 10 times as much as a separation with a cost weight of 0.5.

There are separate cost weights for AR-DRGs in the public and private sectors, reflecting the differences in the range of costs in the different sectors. In this report, average cost weights using public cost weights are based on AR-DRG version 5.1 2007–08 public sector estimated cost weights (DoHA 2009). These were applied to AR-DRG version 5.1/5.2 DRGs for 2004–05 to 2008–09 reference years.

Department of Veterans' Affairs patient A person whose charges for the hospital admission are met by the Department of Veterans' Affairs (DVA). These patients include eligible veterans and war widows/widowers. The data are supplied by the states and territories and the eligibility to receive hospital treatment as a DVA patient may not necessarily have been confirmed by the DVA.

METeOR identifier: 270092

Diagnosis related group (DRG)

A widely used casemix classification system used to classify admissions into groups with similar clinical conditions (related diagnoses) and similar resource usage. This allows the activity and performance of hospitals to be compared on a common basis. In Australian acute hospitals, *Australian Refined DRGs* are used.

METeOR identifier: 270195

Diagnostic and allied health professionals

Diagnostic and health professionals–Qualified staff (other than qualified medical and nursing staff) engaged in duties of a diagnostic, professional or technical nature (but also including diagnostic and health professionals whose duties are primarily or partly of an administrative nature). This category includes all allied health professionals and laboratory technicians (but excludes civil engineers and computing staff).

METeOR identifier: 270495 See Full-time equivalent staff.

Domestic and other staff

Domestic and other staff — Domestic staff are staff engaged in the provision of food and cleaning services including domestic staff primarily engaged in administrative duties such as food services manager. Dieticians are excluded. This category also includes all staff not elsewhere included (primarily maintenance staff, trades people and gardening staff).

METeOR identifier: 270498 See Full-time equivalent staff.

Domestic services expenditure

The cost of all domestic services, including electricity, other fuel and power, domestic services for staff, accommodation and kitchen expenses, but not including salaries and wages, food costs or equipment replacement and repair costs.

METeOR identifier: 270283

Drug supplies expenditure

The cost of all drugs, including the cost of containers.

METeOR identifier: 270282

Elective care

Care that, in the opinion of the treating clinician, is necessary and for which admission can be delayed for at least 24 hours.

METeOR identifier: 335023

Elective surgery

Elective care in which the procedures required by patients are listed in the surgical operations section of the Medicare Benefits Schedule, with the exclusion of specific procedures frequently done by non-surgical clinicians and some procedures for which the associated waiting time is strongly influenced by factors other than the supply of services.

METeOR identifier: 335036

Elective surgical separation

Separation for which the urgency of admission was reported as Elective (admission could be delayed by at least 24 hours) and where the assigned Diagnosis Related Group was Surgical (excluding childbirth-related DRGs), and the principal diagnosis was not Z41 (cosmetic surgery).

Emergency department waiting time to service delivery

The time elapsed for each patient from presentation to the emergency department to commencement of service by a treating medical officer or nurse. It is calculated by deducting the date and time the patient presents from the date and time of the service event.

Enrolled nurses — Enrolled nurses are second level nurses who are enrolled in all states except

Victoria where they are registered by the state registration board to practise in this capacity. Includes general enrolled nurse and specialist enrolled nurse (e.g. mothercraft nurses in some

states).

METeOR identifier: 270497

See Full-time equivalent staff.

Episode end status The status of the patient at the end of the non-admitted patient emergency department occasion of

service

METeOR identifier: 322641

Episode of care The period of admitted patient care between a formal or statistical admission and a formal or

statistical separation, characterised by only one care type (see Care type and Separation).

METeOR identifier: 270174 (Care type)

METeOR identifier: 268956 (Episode of admitted patient care)

Error DRGs AR-DRGs to which separations are grouped if their records contain clinically inconsistent or

invalid information.

Establishment type Type of establishment (defined in terms of legislative approval, service provided and patients

treated) for each separately administered establishment. Establishment types include:

Acute care hospitals Psychiatric hospitals

Alcohol and drug treatment centres

Hospices

METeOR identifier: 269971

External cause The environmental event, circumstance or condition as the cause of injury, poisoning and other

adverse effect.

METeOR identifier: 333853

Full-time equivalent staff Full-time equivalent staff units are the on-job hours paid for (including overtime) and hours of

paid leave of any type for a staff member (or contract employee, where applicable) divided by the number of ordinary time hours normally paid for a full-time staff member when on the job (or contract employee, where applicable) under the relevant award or agreement for the staff member (or contract employee occupation, where applicable). For more detailed information see the

glossary entries for the staffing categories:

Salaried medical officers

Registered nurses Enrolled nurses Student nurses

Other personal care staff

Diagnostic and allied health professionals

Administrative and clerical staff

Domestic and other staff METeOR identifier: 270543

Funding source for hospital

patient

Expected principal source of funds for an admitted patient episode or non-admitted patient

service event.

METeOR identifier: 339080

Geriatric evaluation and management

See Care type.

Group session A service provided to two or more patients, but excludes services provided to two or more family

members, which are treated as services provided to an individual.

HASAC (Health and Allied Services Advisory Council) ratio For hospitals where the IFRAC is not available or is clearly inconsistent with the data, admitted

patient costs are estimated by the HASAC ratio (see Appendix 1).

. .

Hospice See Establishment type.

Hospital A health-care facility established under Commonwealth, state or territory legislation as a hospital

or a free-standing day procedure unit and authorised to provide treatment and/or care to patients.

METeOR identifier: 268971

Hospital boarder See Care type.

Hospital-in-the-home care Provision of care to hospital admitted patients in their place of residence as a substitute for

hospital accommodation. Place of residence may be permanent or temporary.

METeOR identifier: 270305

IFRAC (inpatient fraction) A measure used to calculate the cost per casemix-adjusted separation. It is the ratio of admitted

patient costs to total hospital costs, also known as the admitted patient cost proportion ratio (see

Appendix 1)

Indicator procedure A procedure which is of high volume, and is often associated with long waiting periods. Elective

surgery waiting time statistics for indicator procedures give a specific indication of waiting time

for these in particular areas of elective care provision.

METeOR identifier: 334984

Indigenous status A measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin.

This is in accord with the first two of three components of the Commonwealth definition below:

An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the

community in which he or she lives.

METeOR identifier: 291036

Inpatient See Admitted patient.

METeOR identifier: 268957

Interactive data cubes A multidimensional representation of data which provides fast retrieval from multiple layers of

information.

International Classification

of Diseases (ICD)

The World Health Organization's internationally accepted classification of diseases and related health conditions. The 10th revision, Australian modification (ICD-10-AM) is currently in use in

Australian hospitals for admitted patients.

Inter-hospital contracted care An episode of care for an admitted patient whose treatment and/or care is provided under an

arrangement (either written or verbal) between a hospital purchaser (contracting hospital) and a provider of an admitted service (contracted hospital), and for which the activity is recorded by

both hospitals.

METeOR identifier: 270409

Length of stay The length of stay of an overnight patient is calculated by subtracting the date the patient is

admitted from the date of separation and deducting days the patient was on leave. A same-day

patient is allocated a length of stay of 1 day.

METeOR identifier: 269982

Licensed bed A bed in a private hospital, licensed by the relevant state or territory health authority.

Maintenance care See Care type.

Major diagnostic categories

(MDCs)

A high level of groupings of patients used in the AR-DRG classification. They correspond

generally to the major organ systems of the body.

METeOR identifier: 270400

Medical and surgical supplies expenditure

The cost of all consumables of a medical or surgical nature (excluding drug supplies) but not

including expenditure on equipment repairs.

METeOR identifier: 270358

Mode of admission The mechanism by which a person begins an episode of admitted patient care.

Mode of separation Status at separation of person (discharge/transfer/death) and place to which person is released

(where applicable).

METeOR identifier: 270094

National health data dictionary (NHDD)

A publication that contains a core set of uniform definitions relating to the full range of health

services and a range of population parameters.

Newborn care See Care type.

Non-admitted patient A patient who receives care from a recognised non-admitted patient service/clinic of a hospital.

METeOR identifier: 268973

Non-admitted patient occasion of service

Occurs when a patient attends a functional unit of the hospital for the purpose of receiving some form of service, but is not admitted. A visit for administrative purposes is not an occasion of

service.

METeOR identifier: 270506

Number of days of hospitalin-the-home care The number of hospital-in-the-home days occurring within an episode of care for an admitted

oatient.

METeOR identifier: 270305

Occasion of service Non-admitted patient occasion of service.

Other care See Care type.

Other personal care staff — includes attendants, assistants or home assistance, home companions,

family aides, ward helpers, warders, orderlies, ward assistants and nursing assistants engaged primarily in the provision of personal care to patients or residents, who are not formally qualified

or undergoing training in nursing or allied health professions.

METeOR identifier: 270171 See Full-time equivalent staff.

Other recurrent expenditure Recurrent expenditure not included elsewhere in any of the recurrent expenditure categories.

METeOR identifier: 270126

Other revenue All other revenue received by the establishment that is not included under patient revenue or

recoveries (but not including revenue payments received from state or territory governments). This includes revenue such as investment income from temporarily surplus funds and income

from charities, bequests and accommodation provided to visitors.

METeOR identifier: 364799

Outpatient See Non-admitted patient.

METeOR identifier: 268973

Outpatient clinic service An examination, consultation, treatment or other service provided to non-admitted non-

emergency patients in a specialty unit or under an organisational arrangement administered by a

hospital.

METeOR identifier: 327310

Outpatient clinic type The nature of services which are provided by Outpatient clinic services.

METeOR identifier: 291073

Overnight-stay patient A patient who, following a clinical decision, receives hospital treatment for a minimum of 1 night

(that is, who is admitted to and separated from the hospital on different dates).

Palliative care See Care type.

Patient days The total number of days for patients who were admitted for an episode of care and who

separated during a specified reference period. A patient who is admitted and separated on the

same day is allocated 1 patient day.

Patient election status Accommodation chargeable status elected by patient on admission. The categories are:

> Public: A patient admitted to a hospital who has agreed to be treated by doctors of the hospital's choice and to accept shared accommodation. This means the patient is not charged. Private: A patient admitted to a hospital who decides to choose the doctor(s) who will treat them and/or to have private ward accommodation. They are charged for medical services, food and accommodation.

METeOR identifier: 326619

Patient presentation at emergency department The presentation of a patient at an emergency department occurs following the arrival of the patient at the emergency department. It is the earliest occasion of being registered clerically, or

METeOR identifier: 270393

Patient revenue Revenue received by, and due to, an establishment in respect of individual patient liability for

accommodation and other establishment charges.

METeOR identifier: 364797

Patient transport The direct cost of transporting patients, excluding salaries and wages of transport staff.

METeOR identifier: 270048

METeOR identifier: 270049

Payments to visiting medical

officers

All payments made to visiting medical officers for medical services provided to hospital (public)

patients on a sessionally paid or fee-for-service basis.

Peer group Groupings of hospitals into broadly similar groups in terms of their volume of admitted patient

activity and their geographical location.

Percentile Any one of 99 values that divide the range of probability distribution or sample into 100 intervals

of equal probability or frequency.

Performance indicator A statistic or other unit of information that reflects, directly or indirectly, the extent to which an

> expected outcome is achieved or the quality of processes leading to that outcome. The place where the external cause of injury, poisoning or adverse effect occurred.

Place of occurrence of external cause

METeOR identifier: 361677

Posthumous organ procurement

See Care type.

Potentially preventable hospitalisation (selected) Those conditions where hospitalisation is thought to be avoidable if timely and adequate non-

hospital care is provided.

Pre-MDC (Pre-major diagnostic category)

Twelve AR-DRGs to which separations are grouped, regardless of their principal diagnoses, if they involve procedures that are particularly resource-intensive (transplants, tracheostomies or extra-

corporeal membrane oxygenation without cardiac surgery).

Principal diagnosis The diagnosis established after study to be chiefly responsible for occasioning an episode of

admitted patient care.

METeOR identifier: 361034

Private hospital A privately owned and operated institution, catering for patients who are treated by a doctor of

their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. Acute care and psychiatric hospitals are included, as are private free-standing day hospital facilities. See also Establishment type.

Procedure A clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic

risk, requires specialised training and/or requires special facilities or equipment available only in

the acute care setting.

METeOR identifier: 361687

Psychiatric hospital See Establishment type.

Psychogeriatric care See Care type.

Public hospital A hospital controlled by a state or territory health authority. Public hospitals offer free diagnostic

services, treatment, care and accommodation to all eligible patients. See also Establishment type.

Public patient

Public patient: includes separations with a Funding source of *Australian Health Care Agreements*, *Reciprocal health care agreements*, *Other hospital or public authority* (with a *Public* patient election status) and *No charge raised* (in public hospitals).

Qualified days

The number of qualified days within newborn episodes of care. Days within newborn episodes of care are either qualified or unqualified. This definition includes all babies who are 9 days old or less. A newborn day is qualified (acute) when a newborn meets at least one of the following criteria:

is the second or subsequent live born infant of a multiple birth, whose mother is currently an admitted patient

is admitted to an intensive care facility in a hospital, being a facility approved by the Australian Government Health Minister for the purpose of the provision of special care

remains in hospital without its mother

is admitted to the hospital without its mother. METeOR identifier: 268957 (Admitted patient) and

METeOR identifier: 270033 (Newborn qualification status)

Recoveries

All revenue received that is in the nature of a recovery of expenditure incurred. This includes income from provision of meals and accommodation to hospital staff, income from the use of hospital facilities for private practice and some recoveries relating to inter-hospital services.

METeOR identifier: 364805

Recurrent expenditure

Expenditure on goods and services which are used up during the year; for example, salaries and wages expenditure and non-salary expenditure such as payments to visiting medical officers.

METeOR identifier: 269132

Registered nurses

Registered nurses – Registered nurses include persons with at least a three year training certificate and nurses holding post graduate qualifications. Registered nurses must be registered with the state/territory registration board. This is a comprehensive category and includes community mental health, general nurse, intellectual disability nurse, midwife (including pupil midwife), psychiatric nurse, senior nurse, charge nurse (now unit manager), supervisory nurse and nurse educator. This category also includes nurses engaged in administrative duties no matter what the extent of their engagement, for example, directors of nursing and assistant directors of nursing.

METeOR identifier: 270500 See Full-time equivalent staff.

Rehabilitation care

See Care type.

Relative stay index (RSI)

The actual number of patient days for acute care separations in selected AR–DRGs divided by the expected number of patient days adjusted for casemix. An RSI greater than 1 indicates that an average patient's length of stay is higher than would be expected given the jurisdiction's casemix distribution. An RSI of less than 1 indicates that the number of patient days used was less than would have been expected. See *Appendix 1* for further information.

Remoteness area

A classification of the remoteness of a location using the Australian Standard Geographical Classification Remoteness Structure (2006), based on the Accessibility / Remoteness Index of Australia (ARIA) which measures the remoteness of a point based on the physical road distance to the nearest urban centre. The categories are:

Major cities
Inner regional
Outer regional
Remote
Very remote
Migratory.

Removal from waiting list

The reason a patient is removed from an elective surgery waiting list. The reason-for-removal categories are:

Admitted as an elective patient for awaited procedure in this hospital or another hospital

Admitted as an emergency patient for awaited procedure in this hospital or another hospital

Could not be contacted (includes patients who have died while waiting whether or not the cause of death was related to the condition requiring treatment)

Treated elsewhere for awaited procedure, but not as a patient of this hospital's waiting list

Surgery not required or declined

Transferred to another hospital's waiting list

Not known.

METeOR identifier: 269959

Repairs and maintenance expenditure

The costs incurred in maintaining, repairing, replacing and providing additional equipment, maintaining and renovating buildings and minor additional works.

METeOR identifier: 269970

Salaried medical officers

Salaried medical officer — Medical officers employed by the hospital on a full time or part time salaried basis. This excludes visiting medical offices engaged on an honorary, sessional or fee for service basis. This category includes salaried medical officers who are engaged in administrative duties regardless of the extent of that engagement (for example, clinical superintendent and medical superintendent).

METeOR identifier: 270494 See Full-time equivalent staff.

Same-day patient

An admitted patient who is admitted and separates on the same date.

Separation

An episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care.

Separation rate

The total number of episodes of care for admitted patients divided by the total number of persons in the population under study.

Often presented as a rate per 1,000 or 10,000 members of a population. Rates may be crude or standardised (see *Appendix 1*).

Separation rate ratio

The separation rate for one population divided by the separation rate of another.

Separations

The total number of episodes of care for admitted patients, which can be total hospital stays (from admission to discharge, transfer or death), or portions of hospital stays beginning or ending in a change of type of care (for example, from acute to rehabilitation) that cease during a reference period.

METeOR identifier: 270407

Service related group (SRG)

A classification based on Australian Refined Diagnostic Related Group (AR-DRG) aggregations for categorising admitted patient episodes into groups representing clinical divisions of hospital activity.

Specialised service

A facility or unit dedicated to the treatment or care of patients with particular conditions or characteristics, such as an intensive care unit.

Student nurses Student nurse – A person employed by a health establishment who is currently studying in years

one to three of a three-year certificate course. This includes any person commencing or undertaking a three-year course of training leading to registration as a nurse by the State or Territory registration board. This includes full-time general student nurse and specialist student nurse, such as mental deficiency nurse, but excludes practising nurses enrolled in post-basic

training courses.

METeOR identifier: 270499 See Full-time equivalent staff.

Superannuation employer

contributions

Contributions paid on behalf of establishment employees either by the establishment or a central

administration such as a state health authority.

METeOR identifier: 270371

Surgical procedure A procedure used to define surgical Australian Refined Diagnosis Related Groups' version 5.2

(DoHA 2006).

Surgical specialty The area of clinical expertise held by the doctor who will perform the surgery of interest.

METeOR identifier: 270146

Training nurse — Training nurse — Training nurse includes any person commencing or undertaking a 1-year

course of training leading to registration as an enrolled nurse on the state/territory registration

board (includes all trainee nurses).

METeOR identifier: 270493

Triage category Used in the emergency departments of hospitals to indicate the urgency of the patient's need for

medical and nursing care. Patients are triaged into one of five categories on the National Triage Scale. The triage category is allocated by an experienced registered nurse or medical practitioner.

METeOR identifier: 270078

*Type of non-admitted patient* 

occasion of service

A broad classification of services provided to non-admitted patients, including emergency, dialysis, pathology, radiology and organ imaging, endoscopy, other medical/surgical/diagnostic,

mental health, drug and alcohol, dental, pharmacy, allied health, community health, district

nursing and other outreach.

METeOR identifier: 270395, 270502-270514 (Type of non-admitted patient occasion of service)

Visiting medical officer A medical practitioner appointed by the hospital to provide medical services for hospital (public)

patients on an honorary, sessionally paid or fee-for-service basis.

METeOR identifier: 270049

Waiting time at admission The time elapsed for a patient on the elective surgery waiting list from the date they were added to

the waiting list for the procedure to the date they were admitted to hospital for the procedure.

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