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Australian Institute of
Health and Welfare

Admitted patient care

2015–16



Australian hospital statistics



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**Australian Institute of
Health and Welfare**

*Authoritative information and statistics
to promote better health and wellbeing*

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Australian hospital statistics

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Foreword

I am pleased to present *Admitted patient care 2015–16: Australian hospital statistics*, an authoritative annual report that provides a comprehensive range of performance information and other statistics about activity in Australia’s public and private hospitals.

This report presents information on admitted patient care between 1 July 2015 and 30 June 2016, as well as comparative information for the previous 4 years. Timely provision of this information by state and territory health authorities has allowed it to be reported within 11 months of the end of the reference period.

For the first time, this report includes information about:

- urgency of admission by patient funding source
- separations reported with a care type of *Mental health care*
- international comparisons of the proportion of selected procedures that are performed laparoscopically (and are therefore less invasive than other approaches)
- waiting times for patients who were admitted from public hospital elective surgery waiting lists, by patient funding source
- chronic diseases that affect admitted patients.

Reports on some other aspects of Australia’s hospitals for 2015–16 have already been published in *Emergency department care 2015–16: Australian hospital statistics*, *Elective surgery waiting times 2015–16: Australian hospital statistics* and *Staphylococcus aureus bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics*.

Reports on care provided for non-admitted patients and hospital resources for 2015–16 will be released later in 2017, together with a shorter companion report – *Australia’s hospitals 2015–16, at a glance*.

The *Australian hospital statistics* reports are based on the Australian Institute of Health and Welfare’s (AIHW) comprehensive national hospitals databases. These databases are also the source of data for nationally agreed hospital performance indicators reported on the AIHW’s *MyHospitals* website. As well, the Steering Committee for the Review of Government Service Provision uses these data for its *Report on government services*.

The AIHW is committed to working with stakeholders to improve the national statistical information base on hospitals and its relevance to contemporary public policy debate on hospital service delivery. We look forward to continuing to work with data users and data providers to improve the quality and usefulness of the national data collections and to enhance the presentation of information in our hospitals products.

Barry Sandison

Director

May 2017

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- Jenny Hargreaves (AIHW) (Chair)
- Karen Chudleigh (Australian Capital Territory Health Directorate)
- Sue Cornes (Queensland Department of Health)
- James Downie (Independent Hospital Pricing Authority)
- James Eynstone-Hinkins (Australian Bureau of Statistics)
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Abbreviations

ABS	Australian Bureau of Statistics
ACHI	Australian Classification of Health Interventions
ACS	Australian Coding Standard
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ALOS	average length of stay
ACSQHC	Australian Commission on Safety and Quality in Health Care
AR-DRG	Australian Refined Diagnosis Related Group
ASGS	Australian Statistical Geography Standard
ASNHC DSS	Admitted subacute and non-acute hospital care Data set specification
CHADx	Classification of Hospital-Acquired Diagnoses
COF	condition onset flag
CVS	continuous ventilatory support
HITH	hospital-in-the-home
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian modification
ICU	intensive care unit
IHPA	Independent Hospital Pricing Authority
MDC	major diagnostic category
METeOR	Metadata Online Registry
NCCC	National Casemix and Classification Centre
NESWTDC	National Elective Surgery Waiting Times Data Collection
NHA	National Healthcare Agreement
NHCDC	National Hospital Cost Data Collection
NHMD	National Hospital Morbidity Database
NHPC	National Health Performance Committee
NHPF	National Health Performance Framework
NMDS	national minimum data set
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PPH	potentially preventable hospitalisation

Qld	Queensland
RSI	relative stay index
SA	South Australia
SA2	Statistical Area level 2
SEIFA	Socio-Economic Indexes for Areas
SES	socioeconomic status
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Symbols

..	not applicable
<	less than
n.a.	not available
n.e.c.	not elsewhere classified
n.p.	not published

Summary

How much admitted patient care was provided?

In 2015–16, there were about 10.6 million separations (episodes of admitted patient care) in Australia’s public and private hospitals—about 59% of these occurred in public hospitals.

Between 2011–12 and 2015–16, the number of separations rose by 3.5% on average each year—by 3.3% for public hospitals, and by 3.7% for private hospitals.

Almost 30 million days of patient care were reported for admitted patients—20.2 million in public hospitals and 9.7 million in private hospitals. Between 2011–12 and 2015–16, the number of patient days rose by about 1.9% on average each year, or about 1.4% each year after adjusting for a change in definitions for reporting care type.

Who used these services and why did they receive care?

In 2015–16, 41% of separations and 48% of patient days were for people aged 65 and over. About 4.6% of separations (483,000) were for Aboriginal and Torres Strait Islander people, who were hospitalised at about 2.5 times the rate for other Australians.

In 2015–16, diseases of the digestive system accounted for about 10% of separations (over 1.0 million) and injuries or poisoning accounted for a further 7% of separations.

How were patient admissions funded?

In 2015–16, in public hospitals 83% of separations (5.2 million) were for public patients. Around 14% of separations (872,000) were for patients who used private health insurance to fund all or part of their admission.

In public hospitals, a large proportion of separations were emergency admissions (41% for public patients and 49% for private health insurance patients), while in private hospitals separations were more likely to be elective or other planned care (94% and 95%, respectively).

Between 2011–12 and 2015–16, the number of public patient separations rose by an average of 2.9% each year (and accounted for 50% of separations in 2015–16), compared with 5.5% on average each year for patients who used private health insurance to fund all or part of their admission (42% in 2015–16).

What services and procedures were reported?

In 2015–16, public hospitals accounted for the majority of childbirth separations (75%), medical separations (73%) and emergency admissions (92%). Private hospitals accounted for 60% of surgical separations and 56% of specialist mental health separations.

There were 2.2 million separations involving elective surgery—33% of these were in public hospitals and 67% in private hospitals.

The median waiting time for public hospital elective surgery was 38 days overall—42 days for public patients and 20 days for patients who used private health insurance to fund all or part of their admission. There can be significant variations in waiting times depending on the type of procedure.

What was the safety and quality of the care?

In 2015–16, a hospital-acquired diagnosis was reported for about 889,000 separations—about 9.8% of public hospital separations (630,000 separations) and 6.6% of private hospital separations (260,000). Commonly reported diagnoses included *Hypotension* (almost 85,000 separations), *Nausea and vomiting* (56,000) and *Urinary tract infections* (24,000).

1 Introduction

Admitted patient care 2015–16: Australian hospital statistics focuses on care provided by public and private hospitals for admitted patients. It continues the Australian Institute of Health and Welfare's (AIHW) series of *Australian hospital statistics* reports, which describe the characteristics and activity of Australia's hospitals.

This report presents information on care provided to admitted patients in Australia's public and private hospitals for the period 1 July 2015 to 30 June 2016. It includes information on overall activity, length of stay, reason for admission and procedures performed. It also includes comparative information for the previous 4 reporting periods.

Reports on some other aspects of Australia's hospitals for 2015–16 have already been published in:

- *Emergency department care 2015–16: Australian hospital statistics* (AIHW 2016d)
- *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c)
- *Staphylococcus aureus bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics* (AIHW 2017).

Reports on care provided for non-admitted patients and on hospital resources for 2015–16 will be published later in 2017. A shorter companion report, aimed at a general readership – *Australia's hospitals 2015–16: at a glance* – will also be released, providing a summary of all hospitals-related information for 2015–16.

The AIHW also reports information on hospital funding and expenditure in its *Health expenditure Australia* series (AIHW 2016e and earlier).

This introductory chapter presents information on what is covered in this report, what data are reported, and where to go for more information.

1.1 What's in this report?

Structure of this report

This introduction provides contextual information on the data used in this report, as well as their limitations, along with descriptions of the key terms used.

Chapters 2 to 8 contain short, self-contained sections on specific topics within the broad chapter topic. The data presented address, where possible, the following issues:

- changes in activity over time
- the level of activity in 2015–16
- where to go for more information.

Most chapters contain data for both public and private hospitals, allowing comparisons to be made, including on the numbers of separations, patient days, and separations per 1,000 population.

The chapters address broad topics about admitted patient care:

- ‘Chapter 2 – How much activity was there?’ – presents information on the overall numbers of separations and patient days.
- ‘Chapter 3 – Who used these services?’ – presents information on the age, sex and Indigenous status of the patients and the remoteness and socioeconomic status of their area of usual residence.
- ‘Chapter 4 – Why did people receive care?’ – presents information on the patients’ mode of arrival, urgency of admission and reason for admission.
- ‘Chapter 5 – What services were provided?’ – presents information on the type of care provided to the patient, including the broad categories of service, diagnosis related groups, intensive care, rehabilitation care and palliative care.
- ‘Chapter 6 – What procedures were performed?’ – presents information on procedures or other interventions carried out, with a focus on surgery.
- ‘Chapter 7 – Costs and funding’ – presents estimates of the relative costs of care and information about who paid for the care.
- ‘Chapter 8 – What was the safety and quality of the care?’ – presents information on selected aspects of safety and quality.

Appendix A provides summary information on the National Hospital Morbidity Database (NHMD) and issues affecting the quality and comparability of the data.

Appendix B includes notes on definitions and classifications, the presentation of data, the population estimates used to calculate population rates and analysis methods.

Appendix C presents information on the performance indicators included in this report.

The Glossary provides definitions for many of the common terms used in this report.

National hospital performance indicators

Performance measurement is an important way in which we assess the health of our population and the success of health services and of the health system (AIHW 2016b).

This report presents selected performance indicators specified in the National Health Performance Framework (NHPF) and the National Healthcare Agreement (NHA). Further information on the NHPF and NHA hospital performance indicators is available in Appendix C.

Hospitals-related performance indicators included in this report

This report presents hospital performance indicator information for:

- Average length of stay for selected Australian Refined Diagnosis Related Groups (AR-DRGs) – see ‘Chapter 2 How much activity was there?’
- Relative stay index – see ‘Chapter 2 How much activity was there?’
- Rates of services: hospital procedures – see ‘Chapter 6 What procedures were performed?’
- Adverse events treated in hospitals – see ‘Chapter 8 What was the safety and quality of the care?’

- Falls resulting in patient harm in hospitals – see ‘Chapter 8 What was the safety and quality of the care?’
- Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital) – see ‘Chapter 8 What was the safety and quality of the care?’.

Other performance indicators

In Chapter 4, information is also presented for the following indicators that are not related to hospital performance, but are based on hospital data:

- Hospitalisations for injury or poisoning
- Selected potentially preventable hospitalisations
- Hospital patient days used by those eligible and waiting for residential aged care.

International hospital performance indicators

This report presents selected international indicators that are reported by the Organisation for Economic Co-operation and Development (OECD) (OECD 2016) including:

- in ‘Chapter 2 How much activity was there?’:
 - length of hospital stay
 - hospital discharge rates
- in ‘Chapter 6 What procedures were performed?’:
 - proportion of cataract surgeries that were performed on a same-day basis
 - proportion of tonsillectomies that were performed on a same-day basis
 - proportion of cholecystectomies that were laparoscopic procedures
 - proportion of inguinal herniorrhaphies that were laparoscopic procedures
 - proportion of appendicectomies that were laparoscopic procedures
 - caesarean sections per 100 live births
 - cardiac procedures per 100,000 population
 - hip and knee replacements per 100,000 population.

1.2 What data are reported?

This report draws on data from the NHMD to present an overview of admitted patient care in Australia’s hospitals.

The NHMD is based on data provided to the AIHW by state and territory health authorities for the National minimum data set (NMDS) for Admitted patient care. The AIHW collect and report the NHMD under the auspices of the Australian Health Ministers’ Advisory Council, through the National Health Information Agreement. The NHMD contains episode-level records from admitted patient morbidity data collection systems in Australian public and private hospitals and include administrative, demographic and clinical data.

Administrative data provide information on:

- how patients were admitted
- how patient care ended

- length of stay in hospital
- principal source of funding for the episode.

Demographic data provide information about the patient, including their:

- age
- sex
- Indigenous status
- remoteness area of usual residence
- socioeconomic status (SES) of area of usual residence.

Clinical data provide information on:

- why patients required care, including the principal and additional diagnoses, and external causes of injury or poisoning
- the types of care provided, including overall care type, procedures or interventions performed and the diagnosis related group for each separation.

Most of the data collected were as specified in the NMDS for Admitted patient care. Terms relevant to admitted patient care data are summarised in Box 1.1. See Appendix B and the Glossary for more information and more terms relating to admitted patient care.

More information about the NHMD is in Appendix A and in the Data Quality Statement accompanying this report online at <www.aihw.gov.au>.

What are the limitations of the data?

States and territories are primarily responsible for the quality of the data they provide. However, the AIHW undertakes extensive validations on receipt of data, checking for valid values, logical consistency and historical consistency. Where possible, data in individual data sets are checked with data from other data sets. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these queries. Except as noted, the AIHW does not adjust data to account for possible data errors or missing or incorrect values.

Where possible, variations in reporting have been noted in the text. Comparisons between states and territories and reporting years should be made with reference to the accompanying notes in the chapters and in the appendixes. The AIHW takes active steps to improve the consistency of these data over time.

For specific limitations of the data see Box 1.2.

Box 1.1: Summary of terms and classifications relating to admitted patient care

An **admitted patient** is a patient who undergoes a hospital's formal admission process to receive treatment and/or care. Statistics on admitted patients are compiled when an admitted patient 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 care). '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.

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

Patient day (or **day of patient care**) means the use 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 (number of patient days) 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 (for example, went home for part of a day with the intention of return). A same-day patient is allocated a length of stay of 1 day.

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. An additional diagnosis is reported if the condition affects patient management. For 2015–16, *Supplementary codes for chronic conditions* were reported for selected chronic conditions that the patient had on admission that did not meet the criteria for inclusion as additional diagnoses. These supplementary codes are not included in the assignment of diagnosis related groups and are not included in the body of this report. See Appendix A for more information.

In 2015–16, diagnoses, chronic conditions and external causes of injury were recorded using the 9th edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) (ACCD 2014).

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. As such, procedures encompass surgical procedures and non-surgical investigative and therapeutic procedures, such as X-rays. Patient support interventions that are neither investigative nor therapeutic (such as anaesthesia) are also included. In 2015–16, procedures were recorded using the 9th edition of the *Australian Classification of Health Interventions* (ACHI) (ACCD 2015).

Australian Refined Diagnosis Related Groups (AR-DRGs) is a classification system developed to 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.

Box 1.2: Limitations of the data

Variation in data on hospital services

Although there are national standards for data on hospital services, there are some variations in how hospital services are defined and counted, between public and private hospitals, among the states and territories, and over time.

For example, admission practices for some services, such as chemotherapy and endoscopy, vary. 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.

In addition, some services are provided by hospitals in some jurisdictions, and by non-hospital health services in other jurisdictions. The national data on hospital care does not include care provided by non-hospital providers, such as community health centres.

Changes in coverage and in administrative and reporting arrangements may affect the comparability of data on admitted patient care activity over time. For example, between 2011–12 and 2015–16, changes in coverage, data supply or policy over this period for New South Wales, Victoria, Queensland and Western Australia may affect the interpretation of these data. See Appendix A for more information.

Implementation of the *Mental health* care type

The care type *Mental health* was introduced from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute care*, *Rehabilitation care*, *Psychogeriatric care* and *Geriatric evaluation and management*). As a result, information presented by care type for 2015–16 will not be comparable with data for earlier periods.

Before 1 July 2015, admitted patient mental health care was identified as those separations for which one or more specialised psychiatric care days were reported that the person received care within a designated psychiatric unit, METeOR id.552375) or for which the principal diagnosis was either clinically or statistically relevant to mental health (*Mental health services in Australia, Classification codes*, AIHW 2016f).

All states and territories provided some separations with the care type *Mental health* in 2015–16. However, there were variations among jurisdictions, and across hospital sectors in the numbers of separations reported with a mental health care type compared with the number of separations with specialised psychiatric care days, and with the number of separations with a mental health-related principal diagnosis. Queensland statistically discharged and readmitted a number of long stay patients in *Public psychiatric hospitals* on 1 July 2015 to record the change in care type, resulting in increases in separations (about 1,300) and patient days (about 492,000) between 2014–15 and 2015–16 that would not have been recorded without the new care type implementation. This effect will not be repeated in 2016–17. See Appendix A for more information.

Other issues to consider

When interpreting the data presented, the following issues should also be noted:

- Cross-border flows – data on state or territory of hospitalisation should be interpreted with caution because of cross-border flows of patients (that is, for patients who do not usually live in that state or territory). This is particularly important for the Australian Capital Territory, for which about 17% of separations in 2015–16 were for patients who lived in New South Wales.

(continued)

Box 1.2: Limitations of the data (continued)

- Victorian hospitals – information presented for Victoria includes Albury Base Hospital (based in New South Wales) as part of the Albury Wodonga Health Service.
- Historical care type changes – revised definitions for care types were introduced from 1 July 2013. As a result, information presented by care type from 2013–14 onwards may not be comparable with data presented for earlier periods.
- Indigenous identification – in 2011–12, it was estimated that 88% of Indigenous patients were correctly identified in Australian public hospitals (AIHW 2013). Therefore, caution should be exercised when interpreting these data.

See appendixes A and B for more information.

1.3 What methods are used?

This section gives a brief description of methods. See Appendix B for more information.

Types of hospitals

In some sections of this report, hospital types have been aggregated to hospital sector, where:

- *Public hospitals* include *Public acute* and *Public psychiatric hospitals*
- *Private hospitals* include *Private free-standing day hospital facilities* and *Other private hospitals* (which also include private psychiatric hospitals).

Hospitals are also presented using the AIHW's hospital peer group classification (AIHW 2015b).

Changes over time

Time series data in this report show average annual changes from 2011–12 to 2015–16, and annual change between 2014–15 and 2015–16.

Annual change rates are not adjusted for any changes in data coverage and/or recategorisation of the hospital as public or private, except where noted in the text.

Indigenous status

In tables presenting information on Indigenous status, *Other Australians* includes separations for which the Indigenous status of the patient was not reported.

Age-standardised rates

Age-standardisation of rates enables valid comparison across years and/or jurisdictions without being affected by the differences in age distributions.

Separations per 1,000 population and patient days per 1,000 population are reported as directly age-standardised rates based on the Australian population as at 30 June of the year of interest. The Australian population as at 30 June 2001 was used as the reference population. See Appendix B for more information.

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 the category was higher than the national average (or, in the case of Indigenous status, higher than for other Australians).

Suppression of private hospital information

The data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory have been suppressed to preserve commercial confidentiality. As a result, any comparisons of private hospital activity by jurisdiction in the text do not include Tasmania, the Australian Capital Territory and the Northern Territory.

AR-DRG versions used

Information by AR-DRGs is presented using AR-DRG version 7.0; this version was used by the Independent Hospital Pricing Authority in its National Efficient Price Determination 2015–16.

What is not reported?

The number of individual patients who were admitted to hospital is not reported because it is not routinely possible to identify multiple episodes of care for individuals, within hospitals, or across hospitals or jurisdictions.

The length of stay (in hours) for same-day separations is not reported because the time of admission and separation are not provided.

Records for newborn episodes that did not have qualified days (see Glossary) do not meet admission criteria for all purposes, and the reporting of this activity varies among jurisdictions. Therefore, *Newborns without qualified days* have been excluded from this report, except as noted in 'Chapter 4 Why did people receive care?'.

For some states and territories, the data provided for the NHMD include records for other hospital activity such as *Hospital boarders* (for example, when a child accompanies a parent in hospital, but does not require care) and *Posthumous organ procurement*. These records were provided on an optional basis as they do not represent admitted patient care, and are excluded from counts of separations in this report.

1.4 Additional information

This report is available at <www.aihw.gov.au/hospitals> in PDF format and all tables are available as downloadable Excel spread sheets.

The website also includes additional information in Excel spread sheets on diagnoses, procedures and AR-DRGs for admitted patients. Some of the information presented in this report is presented in more detail online. For example, counts of separations presented in 10-year age groups in this report may be presented in 5-year age groups in the online table.

MyHospitals website

Admitted patient information for individual public hospitals is available on the AIHW's *MyHospitals* website at <www.myhospitals.gov.au/>.

The information includes:

- Healthcare-associated *Staphylococcus aureus* infections
- Cancer surgery waiting times in public hospitals
- Costs of acute admitted patients in public hospitals
- Length of stay in public hospitals.

Although the peer groupings used in this report (see Appendix C) and on the *MyHospitals* website are founded on the same peer grouping classification (AIHW 2015b) there are some differences in the names and the groupings. For example, *Principal referral hospitals* are described as *Major hospitals* on the *MyHospitals* web site. For an explanation of these differences, see <www.myhospitals.gov.au/about-the-data>.

Interactive data cubes

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

- principal diagnoses for 1993–94 to 1997–98 (using ICD-9-CM to classify diagnoses), and for 1998–99 to 2015–16 (using ICD-10-AM to classify diagnoses)
- AR-DRGs from 1997–98 to 2015–16, presented using the relevant version of AR-DRGs for each reporting period
- procedures from 1997–98 to 2015–16, presented using the relevant ACHI edition to classify procedures for each reporting period.

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 procedures cubes include information on numbers of procedures by age group, sex, year of separation and whether the procedure was undertaken on a same-day basis.

Updates

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

2 How much activity was there?

This chapter presents an overview of admitted patient care provided in Australia's public and private hospitals. The main measure of activity is the number of separations, or episodes of admitted patient care. Because episodes can vary in length from 'same-day' to many days or weeks, another useful measure of activity is patient days, or the total number of days of care provided to patients – a measure of activity that is independent of length of stay.

The information in the chapter includes:

- the number of separations in Australian public and private hospitals, and by state and territory, over time and for 2015–16, presented by same-day/overnight status, by broad type of care and by state of usual residence, as well as separations per 1,000 population (age-standardised) – to enable comparisons across years and/or jurisdictions without being affected by the differences in age distributions
- the number of patient days – for public and private hospitals, and by state and territory, and per 1,000 population, over time and for 2015–16
- the average length of stay (ALOS) – the proportion of same-day separations affects the overall ALOS, so the ALOS for overnight separations is presented separately. Two related performance indicators are also presented:
 - *Average length of stay for selected AR-DRGs* (which compares ALOS for specific types of care)
 - *Relative stay index* (which compares length of stay overall, taking into account the different casemixes of states and territories and the public and private sectors).

International comparisons are presented using OECD indicators for hospital separation rates and ALOS.

Key findings

Separations

In 2015–16 there were about 10.6 million separations in Australia's public and private hospitals. About 59% of these (6.3 million) occurred in public hospitals.

Private hospitals accounted for about 45% of same-day acute separations (2.7 million).

Between 2011–12 and 2015–16, the number of separations rose by 3.5% on average each year; by 3.3% for public hospitals and by 3.7% for private hospitals.

In 2015–16 there were 415 separations per 1,000 population, compared with 394 per 1,000 in 2011–12.

Patient days

About 29.8 million days of patient care were reported for admitted patients – 20.2 million in public hospitals and 9.7 million in private hospitals. Between 2011–12 and 2015–16, the number of days of patient care increased by about 1.9% on average each year.

In 2015–16, the average length of stay for an overnight separation was 5.5 days, overall. It was 5.7 days in public hospitals and 5.2 days in private hospitals.

Public hospital peer groups

In 2015–16, about 36% of separations and 35% of patient days in public hospitals occurred in the 30 *Principal referral hospitals*.

2.1 Separations

This section presents information on the number of separations for admitted patient care in Australia's public and private hospitals by type of hospital and by type of care, over time and in 2015–16.

Counts of separations are presented separately for same-day and overnight separations. 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.

Changes over time

Between 2011–12 and 2015–16, the overall number of hospital separations rose by an average of 3.5% per year from 9.3 million to 10.6 million (Table 2.1). This was greater than the average growth in population over this period (1.6%). The average annual rate of growth in separations was higher for private hospitals (3.7%) than for public hospitals (3.3%).

Private hospitals accounted for between 40% and 41% of separations between 2011–12 and 2015–16.

From 2014–15 to 2015–16, separations rose by 4.4%, and the increase in separations was higher in public hospitals (4.9%) than in private hospitals (3.8%).

Between 2014–15 and 2015–16, separations in *Public psychiatric hospitals* increased by 18.5%. This, in part, would have been impacted by the introduction on 1 July 2015 of the care type *Mental health*. After adjusting for the number of Queensland separations that had a separation mode of *Statistical discharge: type change*, separations in *Public psychiatric hospitals* are estimated to have increased by 8.2% between 2014–15 and 2015–16. See Box 1.2 for more information.

Table 2.1: Separations, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Public acute hospitals	5,498,510	5,516,399	5,702,106	5,967,265	6,256,986	3.3	4.9
Public psychiatric hospitals ^(a)	12,982	13,797	12,764	13,073	15,495	4.5	18.5
<i>Total public hospitals</i>	<i>5,511,492</i>	<i>5,530,196</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>3.3</i>	<i>4.9</i>
Private hospitals							
Private free-standing day hospital facilities	843,930	854,843	875,529	940,703	959,743	3.3	2.0
Other private hospitals	2,896,742	2,984,218	3,106,376	3,229,326	3,367,544	3.8	4.3
<i>Total private hospitals</i>	<i>3,740,672</i>	<i>3,839,061</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>3.7</i>	<i>3.8</i>
All hospitals	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

(a) Following the *Mental health* care type implementation on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, which impacted on the increase in separations overall for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

States and territories

Between 2011–12 and 2015–16, the number of public hospital separations increased at a greater rate than the national average (3.3%) in Queensland, Tasmania and the Northern Territory (Table 2.2). Over the same period, above-average increases in the number of private hospital separations (for jurisdictions whose private hospital data could be reported) were recorded in New South Wales and Queensland.

Between 2014–15 and 2015–16, the largest increase in public hospital separations was in the Northern Territory (12.2%, mostly due to a 12.0% increase in care involving dialysis – from 66,000 separations in 2014–15 to 74,000 separations in 2015–16).

The decrease in the number of same-day separations for public hospitals between 2011–12 and 2012–13 reflects a change in Victoria's public hospital emergency department admission policy (tables 2.3 and 2.4).

Same-day and overnight separations

Between 2011–12 and 2015–16, the number of same-day separations increased at a greater rate than overnight separations (4.2% and 2.3% average per year, respectively) (Table 2.3). The rate of increase for same-day separations being higher in private hospitals (4.4%) than in public hospitals (4.1%).

The apparent large increase in same-day separations for *Public psychiatric hospitals* would have been impacted by the introduction of the *Mental health* care type on 1 July 2015 (see Box 1.2).

In 2015–16, same-day separations accounted for 60% of all separations, an increase from 58% in 2011–12.

For overnight separations, the average annual rate of increase was higher for public hospitals (2.4%), than for private hospitals (2.1%).

The majority of overnight separations reported for *Private free-standing day hospital facilities* were for *Sleep apnoea*.

Table 2.2: Separations for public and private hospitals, states and territories, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales^(a)							
Public hospitals	1,660,602	1,716,790	1,771,521	1,813,998	1,861,163	2.9	2.6
Private hospitals	1,070,140	1,082,499	1,099,811	1,184,539	1,261,170	4.2	6.5
<i>All hospitals</i>	<i>2,730,742</i>	<i>2,799,289</i>	<i>2,871,332</i>	<i>2,998,537</i>	<i>3,122,333</i>	<i>3.4</i>	<i>4.1</i>
Victoria^(a)							
Public hospitals	1,543,773	1,429,453	1,509,766	1,587,951	1,669,562	2.0	5.1
Private hospitals	917,810	943,381	978,912	1,009,337	1,021,913	2.7	1.2
<i>All hospitals</i>	<i>2,461,583</i>	<i>2,372,834</i>	<i>2,488,678</i>	<i>2,597,288</i>	<i>2,691,475</i>	<i>2.3</i>	<i>3.6</i>
Queensland^(a)							
Public hospitals	1,001,215	1,044,011	1,087,073	1,202,798	1,293,125	6.6	7.5
Private hospitals	901,188	933,661	984,057	1,032,957	1,072,557	4.4	3.8
<i>All hospitals</i>	<i>1,902,403</i>	<i>1,977,672</i>	<i>2,071,130</i>	<i>2,235,755</i>	<i>2,365,682</i>	<i>5.6</i>	<i>5.8</i>
Western Australia^(a)							
Public hospitals	588,143	606,809	595,884	600,723	630,739	1.8	5.0
Private hospitals	432,314	447,673	468,986	480,740	497,498	3.6	3.5
<i>All hospitals</i>	<i>1,020,457</i>	<i>1,054,482</i>	<i>1,064,870</i>	<i>1,081,463</i>	<i>1,128,237</i>	<i>2.5</i>	<i>4.3</i>
South Australia							
Public hospitals	407,315	413,756	415,778	422,295	438,831	1.9	3.9
Private hospitals	289,980	298,159	309,836	315,856	321,748	2.6	1.9
<i>All hospitals</i>	<i>697,295</i>	<i>711,915</i>	<i>725,614</i>	<i>738,151</i>	<i>760,579</i>	<i>2.2</i>	<i>3.0</i>
Tasmania							
Public hospitals	99,632	106,358	114,033	119,506	122,604	5.3	2.6
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	97,455	94,712	96,968	100,784	108,041	2.6	7.2
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	113,357	118,307	123,847	132,283	148,416	7.0	12.2
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
All hospitals							
Public hospitals	5,511,492	5,530,196	5,714,870	5,980,338	6,272,481	3.3	4.9
Private hospitals	3,740,672	3,839,061	3,981,905	4,170,029	4,327,287	3.7	3.8
All hospitals	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

(a) There were changes in coverage, policies or practices between 2011–12 and 2015–16 for New South Wales, Victoria, Queensland and Western Australia that may affect the interpretation of these data. For example, the decrease in the number of separations for public hospitals between 2011–12 and 2012–13 mostly reflects a change in Victoria's public hospital emergency department admission policy. See Appendix A for more information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 2.3: Same-day and overnight separations, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Same-day separations							
Public acute hospitals	2,805,701	2,782,780	2,933,355	3,121,406	3,295,226	4.1	5.6
Public psychiatric hospitals ^{(a)(b)}	1,092	900	730	1,001	1,656	11	65.4
Total public hospitals	2,806,793	2,783,680	2,934,085	3,122,407	3,296,882	4.1	5.6
Private free-standing day hospital facilities	842,699	853,412	873,915	938,817	953,917	3.1	1.6
Other private hospitals	1,725,357	1,789,245	1,884,102	1,988,489	2,097,603	5.0	5.5
Total private hospitals	2,568,056	2,642,657	2,758,017	2,927,306	3,051,520	4.4	4.2
All hospitals	5,374,849	5,426,337	5,692,102	6,049,713	6,348,402	4.2	4.9
Overnight separations							
Public acute hospitals	2,692,809	2,733,619	2,768,751	2,845,859	2,961,760	2.4	4.1
Public psychiatric hospitals ^{(a)(b)}	11,890	12,897	12,034	12,072	13,839	3.9	14.6
Total public hospitals	2,704,699	2,746,516	2,780,785	2,857,931	2,975,599	2.4	4.1
Private free-standing day hospital facilities ^(a)	1,231	1,431	1,614	1,886	5,826	47.5	208.9
Other private hospitals	1,171,385	1,194,973	1,222,274	1,240,837	1,269,941	2.0	2.3
Total private hospitals	1,172,616	1,196,404	1,223,888	1,242,723	1,275,767	2.1	2.7
All hospitals	3,877,315	3,942,920	4,004,673	4,100,654	4,251,366	2.3	3.7

(a) Due to the low and variable numbers of same-day separations in *Public psychiatric hospitals* and overnight separations in *Private free-standing day hospital facilities*, caution should be used in interpreting the average rates of change.

(b) Following the implementation of the *Mental health* care type on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, which impacted on separations overall for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Type of care

This section presents changes in the numbers of separations by broad type of care and hospital sector over time to provide more information on which types of care are increasing.

For public hospitals, the largest increases in separations between 2011–12 and 2015–16 were for same-day acute medical separations (4.3% per year) and same-day subacute and non-acute care (6.1% per year) (Table 2.4). For private hospitals, subacute and non-acute separations increased by an average of 9.7% per year between 2011–12 and 2015–16.

The care type *Mental health* was introduced from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute care* or as *Subacute and non-acute care*). Therefore, information presented by broad type of care for 2015–16 will not be comparable with data presented for earlier periods. For example, *Overnight acute care* in public hospitals increased by just 0.2% between 2014–15 and 2015–16, compared with an increase of 2.8% between 2013–14 and 2014–15.

Table 2.4: Separations, by type of care, public and private hospitals, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
<i>Acute^(b)</i>	5,329,166	5,334,794	5,523,256	5,783,039	5,939,718	2.7	2.7
<i>Same-day</i>	2,777,380	2,751,061	2,899,623	3,086,074	3,238,657	3.9	4.9
Surgical ^(c)	380,896	384,522	400,044	410,876	421,071	2.5	2.5
Medical	2,124,657	2,095,861	2,220,435	2,375,676	2,511,901	4.3	5.7
Other ^(d)	271,827	270,678	279,144	299,522	305,685	3.0	2.1
<i>Overnight</i>	2,551,786	2,583,733	2,623,633	2,696,965	2,701,061	1.4	0.2
Surgical ^(c)	569,998	573,306	589,020	598,507	614,613	1.9	2.7
Medical	1,692,339	1,714,517	1,733,107	1,792,067	1,768,694	1.1	-1.3
Other ^(d)	289,449	295,910	301,506	306,391	317,754	2.4	3.7
<i>Subacute and non-acute^(e)</i>	181,926	195,323	191,536	197,222	199,603	2.3	1.2
Same-day	29,324	32,589	34,440	36,313	37,222	6.1	2.5
Overnight	152,602	162,734	157,096	160,909	162,381	1.6	0.9
<i>Mental health^(f)</i>	..	..	..	..	133,143	..	..
Same-day	..	..	..	..	21,002	..	..
Overnight	..	..	..	..	112,141	..	..
<i>Total public hospitals^(g)</i>	5,511,492	5,530,196	5,714,870	5,980,338	6,272,481	3.3	4.9
Private hospitals							
<i>Acute^(b)</i>	3,498,822	3,583,706	3,710,951	3,844,817	3,806,645	2.1	-1.0
<i>Same-day</i>	2,395,166	2,458,748	2,561,321	2,682,155	2,654,001	2.6	-1.0
Surgical ^(c)	805,857	818,013	837,326	885,424	902,768	2.9	2.0
Medical	874,300	918,050	977,547	1,018,469	965,007	2.5	-5.2
Other ^(d)	715,009	722,685	746,448	778,262	786,226	2.4	1.0
<i>Overnight</i>	1,103,656	1,124,958	1,149,630	1,162,662	1,152,644	1.1	-0.9
Surgical ^(c)	581,552	593,205	613,262	623,054	641,261	2.5	2.9
Medical	388,878	397,398	403,441	409,307	380,004	-0.6	-7.2
Other ^(d)	133,226	134,355	132,927	130,301	131,379	-0.3	0.8
<i>Subacute and non-acute^(e)</i>	241,791	255,351	270,949	325,211	349,726	9.7	7.5
Same-day	172,847	183,908	196,694	245,150	265,105	11.3	8.1
Overnight	68,944	71,443	74,255	80,061	84,621	5.3	5.7

(continued)

Table 2.4 (continued): Separations, by type of care, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Private hospitals (continued)							
<i>Mental health</i> ^(f)	..	..	..	..	170,909	..	..
Same-day	..	..	..	..	132,413	..	..
Overnight	..	..	..	..	38,496	..	..
<i>Total private hospitals</i> ^(g)	3,740,672	3,839,061	3,981,905	4,170,029	4,327,287	3.7	3.8
Total	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

- (a) There were changes in coverage, policies or practices between 2011–12 and 2015–16 for New South Wales, Victoria, Queensland and Western Australia that may affect the interpretation of these data. For example, the decrease in the number of same-day separations for public hospitals between 2011–12 and 2012–13 mostly reflects a change in Victoria’s public hospital emergency department admission policy. See Appendix A for more information.
- (b) Acute admitted patient care includes separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. Between 2011–12 and 2014–15, the majority of *Mental health* care was probably assigned to the *Acute* care type.
- (c) *Surgical* separations are defined as acute care separations with a surgical procedure reported, based on the procedures used to define ‘surgical’ DRGs in AR-DRG, version 7.0 (NCCC 2012).
- (d) *Other* separations are those classified as acute care but not involving a surgical (or operating room) procedure. This can include non-operating room procedures such as endoscopy.
- (e) *Subacute and non-acute* care includes *Rehabilitation*, *Palliative*, *Geriatric evaluation and management*, *Psychogeriatric* and *Maintenance* care types.
- (f) The *Mental health* care type was introduced on 1 July 2015.
- (g) The totals include separations with a care type of *Other* admitted patient care.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How much activity was there in 2015–16?

In 2015–16, about 59% of separations (6.3 million) occurred in public hospitals (Table 2.5). Public hospitals accounted for about 70% of overnight separations and 52% of same-day separations.

For the 4.3 million separations from private hospitals, about 22% of separations (960,000) occurred in *Private free-standing day hospital facilities* and the remainder were in *Other private hospitals* (that can provide overnight care).

In 2015–16, overnight separations made up more than 47% of separations in public hospitals and 29% in private hospitals.

The proportion of overnight separations that were in public hospitals varied among states and territories, ranging from 65% in Queensland to 76% in New South Wales.

For public hospitals, the proportion of separations that were same-day separations ranged from 48% in New South Wales and Queensland to 70% in the Northern Territory. For *Private free-standing day hospital facilities* and *Other private hospitals* combined, the proportion of separations that were same-day from 67% in Victoria to 74% in New South Wales (for jurisdictions whose private hospital data could be reported).

Cross-border flows

For 2015–16, about 97% of separations (10.3 million) were for people who were hospitalised in their state or territory of residence (Table 2.6). However, in the Australian Capital Territory, about 82% of hospital separations were for Australian Capital Territory residents, with most of the remainder being for residents of New South Wales (17%).

Table 2.5: Separation statistics, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations									
Public hospitals									
Public acute hospitals	1,854,272	1,668,242	1,292,391	627,258	436,777	121,589	108,041	148,416	6,256,986
Public psychiatric hospitals	6,891	1,320	734	3,481	2,054	1,015	..	..	15,495
<i>Total public hospitals</i>	<i>1,861,163</i>	<i>1,669,562</i>	<i>1,293,125</i>	<i>630,739</i>	<i>438,831</i>	<i>122,604</i>	<i>108,041</i>	<i>148,416</i>	<i>6,272,481</i>
Private hospitals									
Private free-standing day hospital facilities	265,393	224,902	229,714	150,580	73,736	n.p.	n.p.	n.p.	959,743
Other private hospitals	995,777	797,011	842,843	346,918	248,012	n.p.	n.p.	n.p.	3,367,544
<i>Total private hospitals</i>	<i>1,261,170</i>	<i>1,021,913</i>	<i>1,072,557</i>	<i>497,498</i>	<i>321,748</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,327,287</i>
<i>Public acute and private hospitals</i>	<i>3,115,442</i>	<i>2,690,155</i>	<i>2,364,948</i>	<i>1,124,756</i>	<i>758,525</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>10,585,288</i>
All hospitals	3,122,333	2,691,475	2,365,682	1,128,237	760,579	n.p.	n.p.	n.p.	10,599,768
Overnight separations									
Public hospitals									
Public acute hospitals	1,001,545	704,464	587,706	287,416	226,724	58,170	51,633	44,102	2,961,760
Public psychiatric hospitals	6,200	1,305	731	2,889	1,717	997	..	..	13,839
<i>Total public hospitals</i>	<i>1,007,745</i>	<i>705,769</i>	<i>588,437</i>	<i>290,305</i>	<i>228,441</i>	<i>59,167</i>	<i>51,633</i>	<i>44,102</i>	<i>2,975,599</i>
Private hospitals									
Private free-standing day hospital facilities	4,008	2	1	1,813	0	n.p.	n.p.	n.p.	5,826
Other private hospitals	320,071	337,342	322,234	145,003	92,710	n.p.	n.p.	n.p.	1,269,941
<i>Total private hospitals</i>	<i>324,079</i>	<i>337,344</i>	<i>322,235</i>	<i>146,816</i>	<i>92,710</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1,275,767</i>
<i>Public acute and private hospitals</i>	<i>1,325,624</i>	<i>1,041,808</i>	<i>909,941</i>	<i>434,232</i>	<i>319,434</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,238,524</i>
All hospitals	1,331,824	1,043,113	910,672	437,121	321,151	n.p.	n.p.	n.p.	4,251,366

(continued)

Table 2.5 (continued): Separation statistics, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Same-day separations									
Public hospitals									
Public acute hospitals	852,727	963,778	704,685	339,842	210,053	63,419	56,408	104,314	3,295,226
Public psychiatric hospitals	691	15	3	592	337	18	..	..	1,656
<i>Total public hospitals</i>	<i>853,418</i>	<i>963,793</i>	<i>704,688</i>	<i>340,434</i>	<i>210,390</i>	<i>63,437</i>	<i>56,408</i>	<i>104,314</i>	<i>3,296,882</i>
Private hospitals									
Private free-standing day hospital facilities	261,385	224,900	229,713	148,767	73,736	n.p.	n.p.	n.p.	953,917
Other private hospitals	675,706	459,669	520,609	201,915	155,302	n.p.	n.p.	n.p.	2,097,603
<i>Total private hospitals</i>	<i>937,091</i>	<i>684,569</i>	<i>750,322</i>	<i>350,682</i>	<i>229,038</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>3,051,520</i>
<i>Public acute and private hospitals</i>	<i>1,789,818</i>	<i>1,648,347</i>	<i>1,455,007</i>	<i>690,524</i>	<i>439,091</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>6,346,764</i>
All hospitals	1,790,509	1,648,362	1,455,010	691,116	439,428	n.p.	n.p.	n.p.	6,348,402
Same-day separations as percentage of total									
Public hospitals									
Public acute hospitals	46.0	57.8	54.5	54.2	48.1	52.2	52.2	70.3	52.7
Public psychiatric hospitals	10.0	1.1	0.4	17.0	16.4	1.8	..	..	10.7
<i>Total public hospitals</i>	<i>45.9</i>	<i>57.7</i>	<i>54.5</i>	<i>54.0</i>	<i>47.9</i>	<i>52.2</i>	<i>52.2</i>	<i>70.3</i>	<i>52.7</i>
Private hospitals									
Private free-standing day hospital facilities	98.5	100.0	100.0	98.8	100.0	n.p.	n.p.	n.p.	99.4
Other private hospitals	67.9	57.7	61.8	58.2	62.6	n.p.	n.p.	n.p.	62.3
<i>Total private hospitals</i>	<i>74.3</i>	<i>67.0</i>	<i>70.0</i>	<i>70.5</i>	<i>71.2</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>70.5</i>
<i>Public acute and private hospitals</i>	<i>57.4</i>	<i>61.3</i>	<i>61.5</i>	<i>61.4</i>	<i>57.9</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>60.0</i>
All hospitals	57.3	61.2	61.5	61.3	57.8	n.p.	n.p.	n.p.	59.9

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 2.6: Separations, by state or territory of usual residence, public and private hospitals, states and territories, 2015–16

State or territory of usual residence	State or territory of hospitalisation									Separations per 1,000 population
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	
Public hospitals										
New South Wales	1,825,454	34,604	13,440	730	1,321	294	18,028	435	1,894,306	228.7
Victoria	4,088	1,619,864	3,214	724	1,742	384	340	516	1,630,872	256.2
Queensland	12,054	1,769	1,265,252	653	455	271	256	888	1,281,598	257.8
Western Australia	714	733	673	624,282	298	79	55	3,403	630,237	237.6
South Australia	844	2,762	662	269	427,225	62	65	3,245	435,134	230.0
Tasmania	332	2,174	416	121	52	121,307	26	38	124,466	215.5
Australian Capital Territory	3,866	278	300	28	54	24	89,084	34	93,668	242.9
Northern Territory	212	367	618	332	1,447	13	17	139,443	142,449	638.6
Other Australian territories ^(a)	1,846	2,347	0	342	6,014	0	1	0	10,550	n.a.
Not elsewhere classified/not reported ^(b)	11,753	4,664	8,550	3,258	223	170	169	414	29,201	n.a.
<i>Total</i>	<i>1,861,163</i>	<i>1,669,562</i>	<i>1,293,125</i>	<i>630,739</i>	<i>438,831</i>	<i>122,604</i>	<i>108,041</i>	<i>148,416</i>	<i>6,272,481</i>	<i>247.5</i>
Private hospitals										
New South Wales	1,240,557	10,359	40,275	223	1,826	n.p.	n.p.	n.p.	1,302,721	154.2
Victoria	9,190	1,005,194	1,907	206	1,523	n.p.	n.p.	n.p.	1,018,241	158.3
Queensland	4,558	1,180	1,027,120	339	269	n.p.	n.p.	n.p.	1,033,686	203.1
Western Australia	827	601	432	496,072	147	n.p.	n.p.	n.p.	498,265	186.7
South Australia	540	896	414	82	310,894	n.p.	n.p.	n.p.	312,897	155.5
Tasmania	327	2,117	344	46	74	n.p.	n.p.	n.p.	92,651	153.9
Australian Capital Territory	3,317	329	266	22	53	n.p.	n.p.	n.p.	42,479	109.6
Northern Territory	623	549	1,000	127	1,260	n.p.	n.p.	n.p.	17,462	83.8
Other Australian territories ^(a)	12	39	1	246	5,699	n.p.	n.p.	n.p.	5,997	n.a.
Not elsewhere classified/not reported ^(b)	1,219	649	798	135	3	n.p.	n.p.	n.p.	2,888	n.a.
<i>Total</i>	<i>1,261,170</i>	<i>1,021,913</i>	<i>1,072,557</i>	<i>497,498</i>	<i>321,748</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,327,287</i>	<i>167.3</i>
All hospitals	3,122,333	2,691,475	2,365,682	1,128,237	760,579	n.p.	n.p.	n.p.	10,599,768	414.8

(a) Includes Cocos (Keeling) Islands, Christmas Island and Jervis Bay Territory.

(b) Includes *Resident overseas, At sea and No fixed address*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

2.2 Separation rates

This section presents separation rates (separations per 1,000 population) for public and private hospitals, over time and for 2015–16. The separation rates presented in this report are age-standardised to eliminate the effect of differences in population age structures over periods of time or across geographic areas.

Changes over time

The number of separations per 1,000 population increased from 394 in 2011–12 to 415 in 2015–16, an average increase of 1.3% per year. The rates increased for all types of hospitals.

Separation rates for all hospitals (particularly for *Public psychiatric hospitals*) for 2015–16 were affected by the introduction of the *Mental health* care type from 1 July 2015 (see Box 1.2). Therefore, the data reported for 2015–16 may not be comparable with previous years.

The number of overnight separations per 1,000 population was relatively stable between 2011–12 and 2015–16. The number of same-day separations per 1,000 population increased for both public and private hospitals.

Table 2.7: Separations per 1,000 population, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Public acute hospitals	235.6	231.2	233.9	239.7	246.9	1.2	3.0
Public psychiatric hospitals	0.6	0.6	0.6	0.6	0.7	2.9	16.9
<i>Total public hospitals</i>	<i>236.2</i>	<i>231.8</i>	<i>234.4</i>	<i>240.2</i>	<i>247.5</i>	<i>1.2</i>	<i>3.0</i>
Same-day separations	120.1	116.4	120.1	125.1	129.7	1.9	3.7
Overnight separations	116.1	115.4	114.3	115.1	117.8	0.4	2.3
Private hospitals							
Private free-standing day hospital facilities	35.7	35.3	35.2	37.0	37.0	0.9	0.0
Other private hospitals	122.2	123.1	125.3	127.4	130.3	1.6	2.3
<i>Total private hospitals</i>	<i>157.9</i>	<i>158.4</i>	<i>160.5</i>	<i>164.4</i>	<i>167.3</i>	<i>1.5</i>	<i>1.8</i>
Same-day separations	108.5	109.1	111.2	115.5	118.1	2.1	2.2
Overnight separations	49.4	49.3	49.3	48.9	49.3	–0.1	0.7
All hospitals							
Same-day separations	228.6	225.5	231.3	240.6	247.8	2.0	3.0
Overnight separations	165.5	164.7	163.6	164.0	167.1	0.2	1.9
Total	394.1	390.2	394.9	404.6	414.8	1.3	2.5

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Separation rates in 2015–16

In 2015–16, there were about 248 separations per 1,000 population in public hospitals and 167 per 1,000 in private hospitals (Table 2.8).

For public hospitals, separation rates ranged from 212 per 1,000 in Tasmania to 667 in the Northern Territory.

For private hospitals, separation rates ranged from 150 per 1,000 in New South Wales to 211 in Queensland (for jurisdictions whose private hospital data could be reported).

Table 2.8: Separations per 1,000 population, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute hospitals	223.7	262.2	260.0	236.4	230.9	210.1	280.1	666.9	246.9
Public psychiatric hospitals	0.9	0.2	0.2	1.3	1.3	2.0	..	..	0.7
<i>Total public hospitals</i>	<i>224.7</i>	<i>262.4</i>	<i>260.2</i>	<i>237.8</i>	<i>232.2</i>	<i>212.0</i>	<i>280.1</i>	<i>666.9</i>	<i>247.5</i>
Private hospitals									
Private free-standing day hospital facilities	31.5	35.0	44.8	56.6	35.2	n.p.	n.p.	n.p.	37.0
Other private hospitals	118.0	123.8	165.8	129.8	125.0	n.p.	n.p.	n.p.	130.3
<i>Total private hospitals</i>	<i>149.5</i>	<i>158.8</i>	<i>210.6</i>	<i>186.4</i>	<i>160.1</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>167.3</i>
All hospitals	374.2	421.2	470.7	424.1	392.3	n.p.	n.p.	n.p.	414.8

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Same-day separations

The number of same-day separations may not be comparable among the states and territories due to variations in admission practices, and these data should be interpreted with caution.

In 2015–16, there were about 248 same-day separations per 1,000 population (Table 2.9) – 130 per 1,000 for public hospitals and 118 per 1,000 for private hospitals.

Rates of same-day separations in public hospitals ranged from 103 per 1,000 in New South Wales to 465 per 1,000 in the Northern Territory.

For private hospitals, rates of same-day separations ranged from 107 per 1,000 in Victoria to 147 per 1,000 in Queensland (for jurisdictions whose private hospital data could be reported).

Table 2.9: Same-day separations per 1,000 population, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	102.5	151.4	141.3	128.0	111.2	107.3	147.6	465.0	129.7
Private hospitals	110.8	107.3	147.1	131.4	113.6	n.p.	n.p.	n.p.	118.1
All hospitals	213.2	258.7	288.4	259.3	224.8	n.p.	n.p.	n.p.	247.8

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Overnight separations

In 2015–16, there were about 167 overnight separations per 1,000 population (Table 2.10) – 118 per 1,000 for public hospitals and 49 per 1,000 for private hospitals.

Rates of overnight separations in public hospitals ranged from 105 per 1,000 in Tasmania to 202 per 1,000 in the Northern Territory.

For private hospitals, rates of overnight separations ranged from 39 per 1,000 in New South Wales to 64 per 1,000 in Queensland (for jurisdictions whose private hospital data could be reported).

Table 2.10: Overnight separations per 1,000 population, public and private hospitals, states and territories, 2015–16

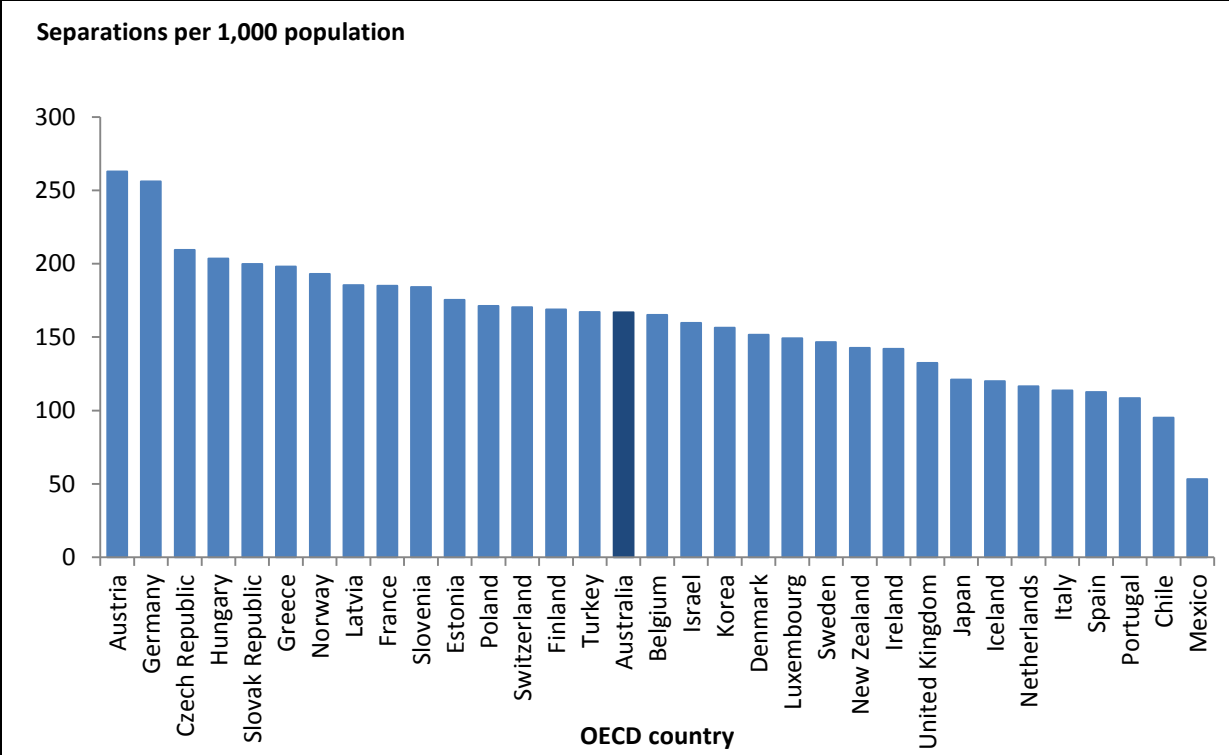
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	122.2	111.0	118.9	109.8	121.0	104.7	132.5	202.0	117.8
Private hospitals	38.8	51.5	63.5	55.0	46.5	n.p.	n.p.	n.p.	49.3
All hospitals	161.0	162.5	182.4	164.8	167.5	n.p.	n.p.	n.p.	167.1

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How does Australia compare?

OECD indicator: Hospital discharge rates

The number of overnight separations per 1,000 population in Australia for 2015–16 was in the middle of the range reported for other OECD countries in recent years (Figure 2.1) (OECD 2016). The comparability of international separation rates is likely to be affected by differences in definitions of hospitals, collection periods and admission practices.



Note: Data collection periods vary for OECD countries (2014, 2012, 2011 and 2010).

Figure 2.1: Overnight separations per 1,000 population, Australia (2015–16) and selected OECD countries

Where to go for more information:

More information on separation rates is available in:

- ‘Chapter 3 Who used these services?’ – by Indigenous status, remoteness and socioeconomic status of area of usual residence
- ‘Chapter 4 Why did people receive care?’ – for potentially preventable hospitalisations
- ‘Chapter 5 What services were provided?’ – for rehabilitation care, palliative care and selected procedures
- ‘Chapter 6 What procedures were performed?’ – for emergency and elective admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

2.3 Patient days

This section presents information on the number of days of patient care (patient days) provided to admitted patients in Australia's public and private hospitals, over time and in 2015–16.

Changes over time

Between 2011–12 and 2015–16, the number of patient days increased by 1.9% on average each year, from 27.7 million to 29.8 million (Table 2.11).

Between 2011–12 and 2015–16, the number of patient days in private hospitals increased by 2.5%, accounting for about 32% of all patient days over this period.

Separation records from public psychiatric hospitals often include some with very long individual lengths of stay, including some as long as several years. These extended lengths of stay are reflected in the number of patient days recorded for *Public psychiatric hospitals*. The pattern of these separations varies over time and patient day counts can therefore vary markedly for these hospitals.

The large increase in patient days for *Public psychiatric hospitals* between 2014–15 and 2015–16 is mainly due to the introduction of the new *Mental health* care type from 1 July 2015 (see Box 1.2). Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* on 1 July 2015 to record the change in care type, resulting in the reporting of a large number of patient days that would not have been included in 2015–16 if this change had not occurred.

After adjusting for additional patient days reported by Queensland in association with the introduction of the *Mental health* care type, nationally patient days increased by 1.4% on average each year between 2011–12 and 2015–16.

Table 2.11: Patient days, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Public acute hospitals	18,251,270	18,178,567	18,200,554	18,720,308	19,207,927	1.3	2.6
Public psychiatric hospitals ^(a)	739,766	644,289	623,518	643,390	976,416	7.2	51.8
<i>Total public hospitals</i>	<i>18,991,036</i>	<i>18,822,856</i>	<i>18,824,072</i>	<i>19,363,698</i>	<i>20,184,343</i>	<i>1.5</i>	<i>4.2</i>
Private hospitals							
Private free-standing day hospital facilities	843,930	854,933	875,545	940,870	960,603	3.3	2.1
Other private hospitals	7,897,279	8,013,743	8,180,639	8,448,971	8,701,444	2.5	3.0
<i>Total private hospitals</i>	<i>8,741,209</i>	<i>8,868,676</i>	<i>9,056,184</i>	<i>9,389,841</i>	<i>9,662,047</i>	<i>2.5</i>	<i>2.9</i>
All hospitals	27,732,245	27,691,532	27,880,256	28,753,539	29,846,390	1.9	3.8

(a) Due to the low and variable numbers of separations for *Public psychiatric hospitals*, which can include some very long stay patients for whom relatively large numbers of patient days are reported, caution should be used in interpreting the average rates of change. In addition, following the *Mental health* care type implementation on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in a large increase in patient days overall for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

States and territories

Between 2011–12 and 2015–16, the numbers of public hospital patient days increased in most states and territories; however they decreased in South Australia by 2.3% on average each year (Table 2.12).

For private hospitals, the numbers of patient days increased at a higher rate than the national average (2.5%) for New South Wales (3.2%) and Queensland (2.8%) over the same period (for jurisdictions whose private hospital data could be reported).

The decrease in patient days for Victorian public hospitals between 2011–12 and 2012–13, and for Western Australia’s public hospitals between 2012–13 and 2013–14, reflect changes in those jurisdictions’ emergency department admission policies.

Between 2014–15 and 2015–16, the increase in public hospital patient days in Queensland may, in part reflect both the introduction of the *Mental health* care type (see Box 1.2), and a change in admission practices for chemotherapy patients at some hospitals.

Patient days in 2015–16

In 2015–16, public hospitals accounted for 68% of patient days (20.2 million) (Table 2.13). After adjusting for separations in Queensland that were statistically discharged for a change in care type on 1 July 2015 (and for which patient days would not have been included otherwise), public hospitals accounted for 67% of patient days.

For jurisdictions whose private hospital data could be reported, the proportion of patient days that were in private hospitals ranged from 29% in New South Wales to 41% in Queensland (after adjusting as above).

Where to go for more information:

More information on patient days is available in:

- Section 2.8 – ‘What types of public hospitals provide admitted patient care?’
- ‘Chapter 5 What services were provided?’ – for rehabilitation care and palliative care
- ‘Chapter 6 What procedures were performed?’ – for emergency and elective admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

Table 2.12: Patient days for public and private hospitals, states and territories, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales^(a)							
Public hospitals	6,434,979	6,387,047	6,465,446	6,616,974	6,708,339	1.0	1.4
Private hospitals	2,452,877	2,464,339	2,487,934	2,651,820	2,778,833	3.2	4.8
<i>All hospitals</i>	<i>8,887,856</i>	<i>8,851,386</i>	<i>8,953,380</i>	<i>9,268,794</i>	<i>9,487,172</i>	<i>1.6</i>	<i>2.4</i>
Victoria^(a)							
Public hospitals	4,782,281	4,629,716	4,690,977	4,840,236	4,967,532	1.0	2.6
Private hospitals	2,261,615	2,310,738	2,376,811	2,432,231	2,476,379	2.3	1.8
<i>All hospitals</i>	<i>7,043,896</i>	<i>6,940,454</i>	<i>7,067,788</i>	<i>7,272,467</i>	<i>7,443,911</i>	<i>1.4</i>	<i>2.4</i>
Queensland^(a)							
Public hospitals	3,262,934	3,295,250	3,308,998	3,524,825	4,052,756	5.6	15.0
Private hospitals	2,177,232	2,219,627	2,282,019	2,378,372	2,431,184	2.8	2.2
<i>All hospitals</i>	<i>5,440,166</i>	<i>5,514,877</i>	<i>5,591,017</i>	<i>5,903,197</i>	<i>6,483,940</i>	<i>4.5</i>	<i>9.8</i>
Western Australia^(a)							
Public hospitals	1,856,812	1,920,265	1,828,364	1,807,878	1,836,151	-0.3	1.6
Private hospitals	901,524	906,675	938,189	947,984	988,625	2.3	4.3
<i>All hospitals</i>	<i>2,758,336</i>	<i>2,826,940</i>	<i>2,766,553</i>	<i>2,755,862</i>	<i>2,824,776</i>	<i>0.6</i>	<i>2.5</i>
South Australia							
Public hospitals	1,679,153	1,600,110	1,508,854	1,513,227	1,530,868	-2.3	1.2
Private hospitals	634,321	639,419	642,097	644,376	643,975	0.4	-0.1
<i>All hospitals</i>	<i>2,313,474</i>	<i>2,239,529</i>	<i>2,150,951</i>	<i>2,157,603</i>	<i>2,174,843</i>	<i>-1.5</i>	<i>0.8</i>
Tasmania							
Public hospitals	353,640	359,760	380,908	392,138	401,157	3.2	2.3
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	326,778	327,728	332,798	344,014	358,674	2.4	4.3
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	294,459	302,980	307,727	324,406	328,866	2.8	1.4
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
All hospitals							
Public hospitals	18,991,036	18,822,856	18,824,072	19,363,698	20,184,343	1.5	4.2
Private hospitals	8,741,209	8,868,676	9,056,184	9,389,841	9,662,047	2.5	2.9
All hospitals	27,732,245	27,691,532	27,880,256	28,753,539	29,846,390	1.9	3.8

(a) There were changes in coverage, policies or practices over this period for New South Wales, Victoria, Queensland and Western Australia that affect the interpretation of these data. See Appendix A for more information.

(b) Following the *Mental health* care type implementation on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in a large increase in patient days overall for *Public hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 2.13: Patient days, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld ^(a)	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute hospitals	6,388,073	4,920,455	3,607,049	1,753,676	1,472,514	378,620	358,674	328,866	19,207,927
Public psychiatric hospitals	320,266	47,077	445,707	82,475	58,354	22,537	..	..	976,416
<i>Total public hospitals</i>	<i>6,708,339</i>	<i>4,967,532</i>	<i>4,052,756</i>	<i>1,836,151</i>	<i>1,530,868</i>	<i>401,157</i>	<i>358,674</i>	<i>328,866</i>	<i>20,184,343</i>
Private hospitals									
Private free-standing day hospital facilities	266,240	224,915	229,714	150,580	73,736	n.p.	n.p.	n.p.	960,603
Other private hospitals	2,512,593	2,251,464	2,201,470	838,045	570,239	n.p.	n.p.	n.p.	8,701,444
<i>Total private hospitals</i>	<i>2,778,833</i>	<i>2,476,379</i>	<i>2,431,184</i>	<i>988,625</i>	<i>643,975</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>9,662,047</i>
<i>Public acute and private hospitals</i>	<i>9,166,906</i>	<i>7,396,834</i>	<i>6,038,233</i>	<i>2,742,301</i>	<i>2,116,489</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>28,892,511</i>
All hospitals	9,487,172	7,443,911	6,483,940	2,824,776	2,174,843	n.p.	n.p.	n.p.	29,846,390

(a) Following the *Mental health* care type implementation on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in a large increase in patient days overall for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

2.4 Patient day rates

This section presents patient day rates for public and private hospitals, over time and for 2015–16.

The patient day rates presented in this report (patient days per 1,000 population) are age-standardised to eliminate the effect of differences in population age structures over periods of time or across geographic areas (for example, for states and territories).

Changes over time

Between 2011–12 and 2015–16, overall patient days per 1,000 population fluctuated for *Public acute hospitals* (with an overall tendency to fall over time) and for *Other private hospitals*. Over the same period, patient days per 1,000 population rose by about 0.9% per year for *Private free-standing day hospital facilities* (Table 2.14).

The increase in patient days between 2014–15 and 2015–16 (particularly for *Public psychiatric hospitals*) is mainly due to the introduction of the new *Mental health* care type from 1 July 2015 (see Box 1.2).

Table 2.14: Patient days per 1,000 population, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Public acute hospitals	767.1	747.1	731.6	736.1	741.5	–0.8	0.7
Public psychiatric hospitals ^(a)	33.2	28.2	26.5	27.4	41.8	6.0	52.6
<i>Total public hospitals</i>	<i>800.2</i>	<i>775.3</i>	<i>758.1</i>	<i>763.5</i>	<i>783.4</i>	<i>–0.5</i>	<i>2.6</i>
Private hospitals							
Private free-standing day hospital facilities	35.7	35.3	35.2	37.0	37.0	0.9	0.1
Other private hospitals	326.9	323.8	323.0	326.0	328.8	0.1	0.8
<i>Total private hospitals</i>	<i>362.6</i>	<i>359.1</i>	<i>358.3</i>	<i>363.0</i>	<i>365.8</i>	<i>0.2</i>	<i>0.8</i>
All hospitals	1,162.9	1,134.4	1,116.3	1,126.5	1,149.1	–0.3	2.0

(a) Due to the low and variable numbers of separations in *Public psychiatric hospitals*, caution should be used in interpreting the average rates of change. In addition, following the implementation of the *Mental health* care type on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in increases in separations and patient days for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Patient day rates in 2015–16

In 2015–16, there were 1,149 patient days per 1,000 population overall (Table 2.15). The patient day rate varied among states and territories, from 1,060 in Western Australia to 1,292 in Queensland (for jurisdictions whose private hospital data could be reported).

For public hospitals, it ranged from 669 days per 1,000 in Tasmania to 1,600 per 1,000 in the Northern Territory.

For private hospitals, it ranged from 309 per 1,000 in South Australia to 473 per 1,000 in Queensland (for jurisdictions whose private hospital data could be reported).

Table 2.15: Patient days per 1,000 population, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld ^(a)	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public acute hospitals	748.4	754.0	720.5	659.2	736.8	627.9	930.9	1,600.1	741.5
Public psychiatric hospitals	42.1	8.0	98.4	31.2	35.0	41.4	..	..	41.8
<i>Total public hospitals</i>	<i>790.6</i>	<i>761.9</i>	<i>818.9</i>	<i>690.3</i>	<i>771.8</i>	<i>669.4</i>	<i>930.9</i>	<i>1,600.1</i>	<i>783.4</i>
Private hospitals									
Private free-standing day hospital facilities	31.6	35.0	44.8	56.6	35.2	n.p.	n.p.	n.p.	37.0
Other private hospitals	290.5	338.2	428.2	312.6	273.8	n.p.	n.p.	n.p.	328.8
<i>Total private hospitals</i>	<i>322.1</i>	<i>373.3</i>	<i>473.0</i>	<i>369.2</i>	<i>309.0</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>365.8</i>
All hospitals	1,112.6	1,135.2	1,291.9	1,059.5	1,080.7	n.p.	n.p.	n.p.	1,149.1

(a) Following the implementation of the *Mental health* care type on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* on 1 July 2015 to record the change in care type, resulting in the reporting of a larger number of patient days than expected for *Public psychiatric hospitals*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

Information on data limitations and methods is available in appendixes A and B.

2.5 Length of stay

This section presents information on the average length of stay (ALOS) for admitted patient care in Australia's public and private hospitals, over time and in 2015–16.

The ALOS is calculated as the total number of patient days reported for the hospital (or group of hospitals), divided by the number of separations. This section presents 2 measures for ALOS—the ALOS for all separations and the ALOS excluding same-day separations.

Changes over time

Between 2011–12 and 2015–16, the overall ALOS for public and private hospitals combined decreased by an average of 1.6% per year (Table 2.16) from 3.0 days to 2.8 days. The increase in average length of stay for *Public psychiatric hospitals* between 2014–15 and 2015–16 is mainly due to the introduction of the new *Mental health* care type from 1 July 2015 (see Box 1.2). Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* on 1 July 2015 to record the change in care type, resulting in the reporting of a large number of patient days that would not have been included in 2015–16 if this change had not occurred.

For overnight separations, the ALOS in all hospitals combined fell from 5.8 days to 5.5 days, an average annual decrease of 1.1%. For *Public acute hospitals*, the ALOS excluding same-day separations decreased by an average of 1.5% per year.

Length of stay in 2015–16

In 2015–16, the overall ALOS was 2.8 days, and was longer in public hospitals (3.2 days) than in private hospitals (2.2 days) (Table 2.17).

The ALOS for overnight separations was also longer in public hospitals (5.7 days) than in private hospitals (5.2 days). The ALOS for overnight separations varied across states and territories, for public hospitals, it ranged from 5.1 days in the Northern Territory to 5.9 days in the Australian Capital Territory.

For Queensland, the implementation of the new *Mental health* care type contributed to the increase in the ALOS for *Public psychiatric hospitals* between 2014–15 and 2015–16, due to the statistical discharge and readmission of all long stay patients in *Public psychiatric hospitals* (see Box 1.2).

How does Australia compare?

OECD indicator: Length of stay

The OECD presents comparative information on the ALOS for overnight separations as an indicator of efficiency. The comparability of international ALOS may be affected by differences in definitions of hospitals, collection periods and admission practices.

The ALOS for overnight separations in Australia for 2015–16 was 5.5 days, which was lower than the OECD average length of stay of 7.5 days (Figure 2.2) (OECD 2016).

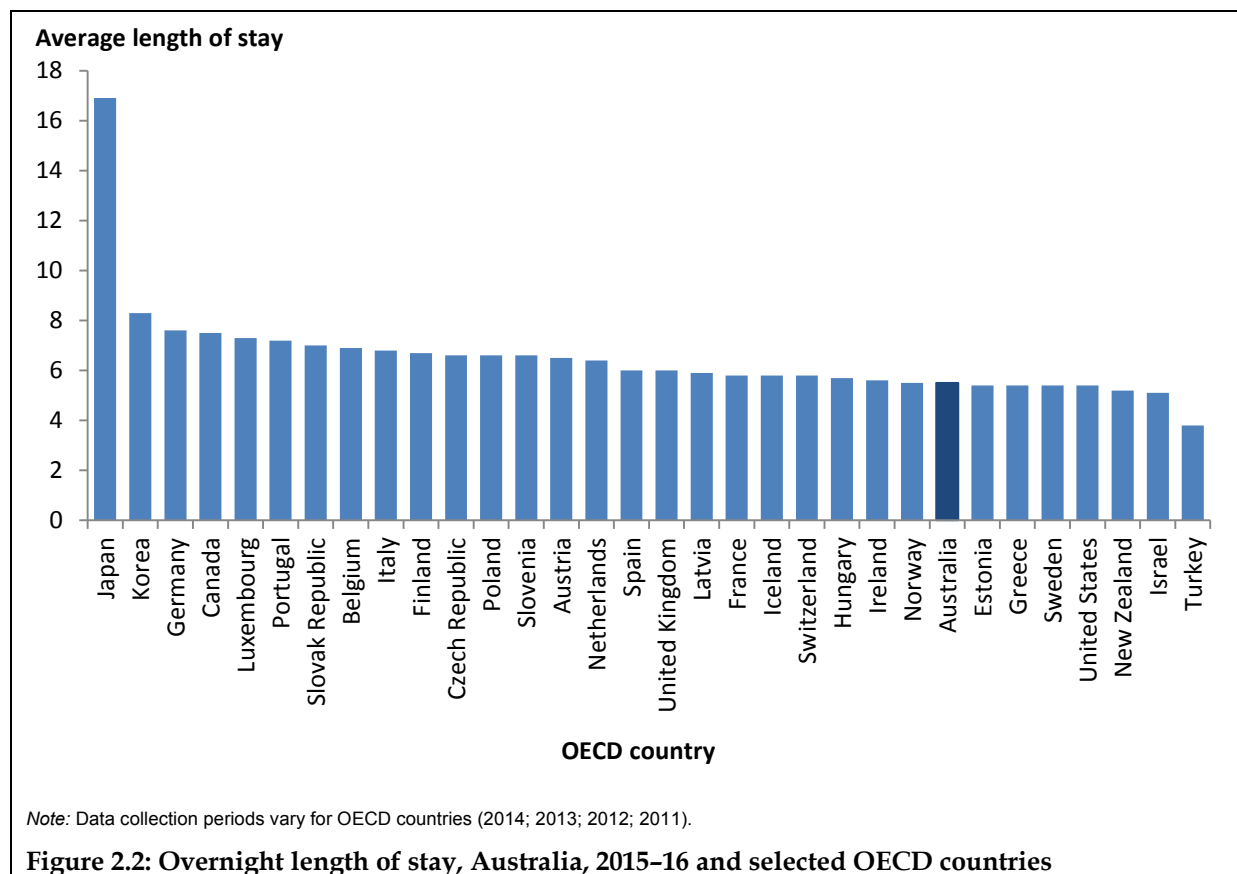
Table 2.16: Average length of stay, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Average length of stay (days)							
Public acute hospitals	3.3	3.3	3.2	3.1	3.1	-1.9	-2.1
Public psychiatric hospitals ^(a)	57	46.7	48.8	49.2	63.0	2.5	28.0
<i>Total public hospitals</i>	3.4	3.4	3.3	3.2	3.2	-1.7	-0.6
Private free-standing day hospital facilities ^(b)	1.0	1.0	1.0	1.0	1.0	0.0	0.1
Other private hospitals	2.7	2.7	2.6	2.6	2.6	-1.3	-1.2
<i>Total private hospitals</i>	2.3	2.3	2.3	2.3	2.2	-1.1	-0.8
All hospitals	3.0	3.0	2.9	2.8	2.8	-1.6	-0.6
Average length of stay, excluding same-day separations (days)							
Public acute hospitals	5.8	5.6	5.5	5.5	5.4	-1.5	-1.8
Public psychiatric hospitals ^(a)	63.5	52.7	54.4	56.2	74.2	3.9	31.9
<i>Total public hospitals</i>	6.0	5.8	5.7	5.7	5.7	-1.3	-0.1
Private free-standing day hospital facilities ^(b)	1.0	1.1	1.0	1.1	1.1	3.5	5.4
Other private hospitals	5.3	5.2	5.2	5.2	5.2	-0.3	-0.1
<i>Total private hospitals</i>	5.3	5.2	5.1	5.2	5.2	-0.4	-0.4
All hospitals	5.8	5.6	5.5	5.5	5.5	-1.1	-0.2

(a) Separations from *Public psychiatric hospitals* include some with very long individual lengths of stay, including some as long as several years. The pattern of these separations can vary over time and the average length of stay can therefore fluctuate markedly for these hospitals. In addition, following the implementation of the *Mental health* care type on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in an apparent increase in separations and a larger increase in patient days for *Public psychiatric hospitals*.

(b) The average length of stay, excluding same-day separations for *Private free-standing day hospital facilities* is based on a small number of records.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.



Where to go for more information:

More information on average length of stay is available in:

- Section 2.6—‘Performance indicator: Average length of stay for selected AR-DRGs’
- Section 2.7—‘Performance indicator: Relative stay indexes’
- Section 2.8—‘What types of public hospitals provide admitted patient care?’
- ‘Chapter 4 Why did people receive care?’—by care type
- ‘Chapter 5 What services were provided?’—for rehabilitation care and palliative care
- ‘Chapter 6 What procedures were performed?’—for emergency and elective admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

Table 2.17: Average length of stay statistics, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld ^(a)	WA	SA	Tas	ACT	NT	Total
Average length of stay (days)									
Public hospitals									
Public acute hospitals	3.4	2.9	2.8	2.8	3.4	3.1	3.3	2.2	3.1
Public psychiatric hospitals ^(b)	46.5	35.7	607.2	23.7	28.4	22.2	..	..	63.0
<i>Total public hospitals</i>	3.6	3.0	3.1	2.9	3.5	3.3	3.3	2.2	3.2
Private hospitals									
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	2.5	2.8	2.6	2.4	2.3	n.p.	n.p.	n.p.	2.6
<i>Total private hospitals</i>	2.2	2.4	2.3	2.0	2.0	n.p.	n.p.	n.p.	2.2
<i>Public acute and private hospitals</i>	2.9	2.7	2.6	2.4	2.8	n.p.	n.p.	n.p.	2.7
All hospitals	3.0	2.8	2.7	2.5	2.9	n.p.	n.p.	n.p.	2.8
Average length of stay, excluding same-day separations (days)									
Public hospitals									
Public acute hospitals	5.5	5.6	4.9	4.9	5.6	5.4	5.9	5.1	5.4
Public psychiatric hospitals ^(b)	51.5	36.1	609.7	28.3	33.8	22.6	..	..	70.4
<i>Total public hospitals</i>	5.8	5.7	5.7	5.2	5.8	5.4	5.9	5.1	5.4
Private hospitals									
Private free-standing day hospital facilities ^(c)	1.2	n.p.	n.p.	1.0	..	n.p.	n.p.	n.p.	1.1
Other private hospitals	5.7	5.3	5.2	4.4	4.5	n.p.	n.p.	n.p.	5.2
<i>Total private hospitals</i>	5.7	5.3	5.2	4.3	4.5	n.p.	n.p.	n.p.	5.2
<i>Public acute and private hospitals</i>	5.6	5.5	5.0	4.7	5.3	n.p.	n.p.	n.p.	5.3
All hospitals	5.8	5.6	5.5	4.9	5.4	n.p.	n.p.	n.p.	5.5

(a) Following the implementation of the *Mental health* care type on 1 July 2015, Queensland statistically discharged and readmitted all long stay patients in *Public psychiatric hospitals* to record the change in care type, resulting in an apparent increase in separations and a larger increase in patient days for *Public psychiatric hospitals*.

(b) Separations from *Public psychiatric hospitals* include some with very long individual lengths of stay, including some as long as several years.

(c) Average lengths of stay, excluding same-day separations for *Private free-standing day hospital facilities* in Victoria and Queensland are not shown as they are based on a small number of records.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

2.6 Performance indicator: Average length of stay for selected AR-DRGs

'Average length of stay for selected AR-DRGs' is presented as an indicator of *Efficiency and sustainability* under the National Health Performance Framework (NHPF) (see Appendix C).

The selected AR-DRGs (Table 2.18) 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
- 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.

Due to changes in the AR-DRG classification between versions 5.2, 6.0, 6.0x and 7.0, the data presented here are not comparable with the data presented in previous reports. For more information, see *Admitted patient care 2013–14: Australian hospital statistics* (AIHW 2015a).

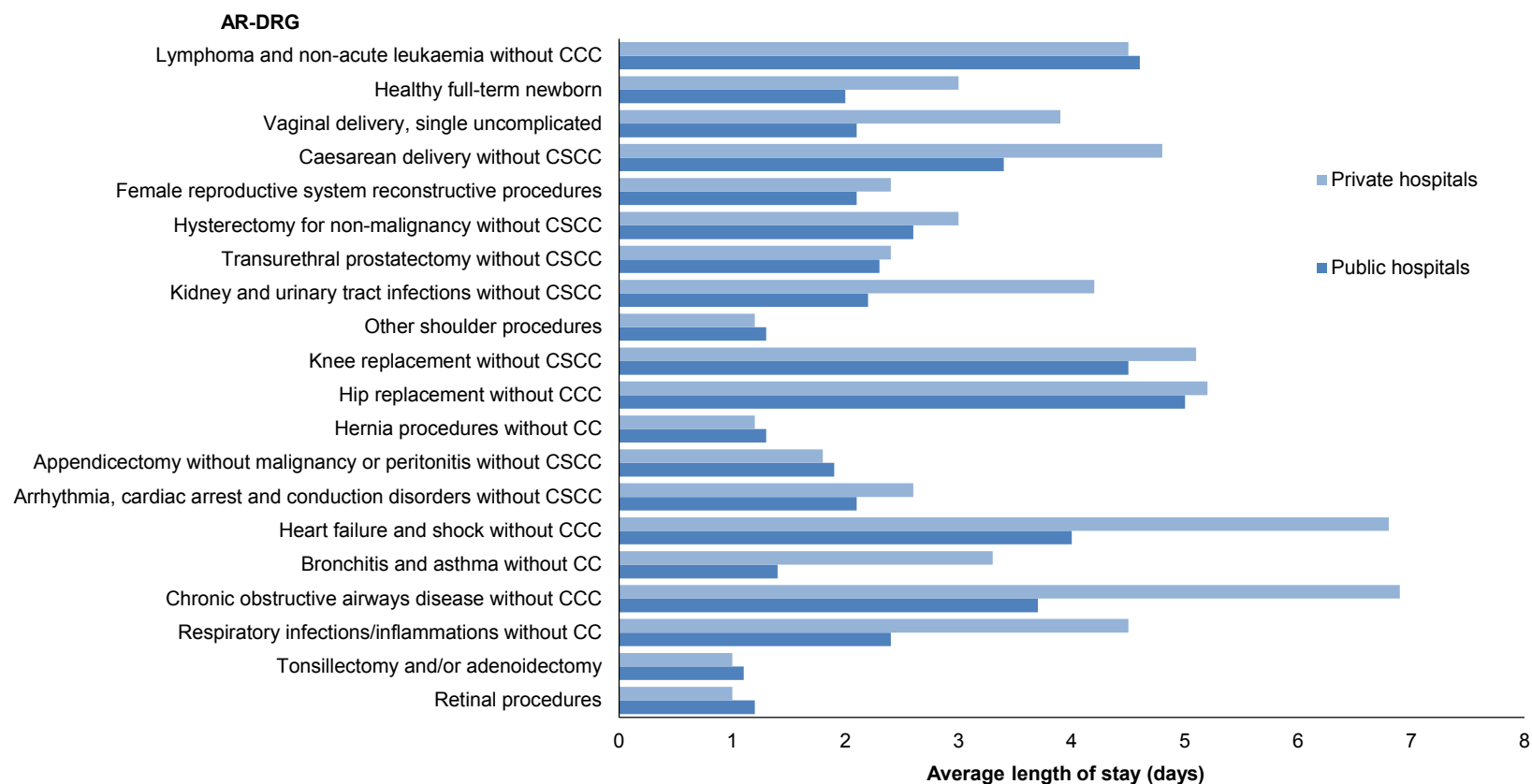
There were notable differences (more than 1 day) in the ALOS between public and private hospitals for 8 of the 20 selected AR-DRGs (Figure 2.3). For example, the ALOS for E65B *Chronic obstructive airways disease without catastrophic complications or comorbidities* was 3.7 days for public hospitals and 6.9 days for private hospitals.

There were some notable differences in ALOS among states and territories. For example, for F62B *Heart failure and shock without catastrophic complications or comorbidities*, the ALOS in public hospitals ranged from 3.4 days in Queensland to 4.7 days in Tasmania (see the table accompanying this report online). For private hospitals, the ALOS for F62B ranged from 5.7 days in South Australia to 7.1 days in New South Wales and Victoria (for jurisdictions whose private hospital data could be reported).

Where to go for more information:

More information on the average length of stay for selected AR-DRGs is available in *Table S2.1: Average length of stay (days) for selected AR-DRGs version 7.0, public and private hospitals, states and territories, 2015–16*, accompanying this report online.

Information on data limitations and methods is available in appendixes A and B.



CC—complications and comorbidities; CCC—catastrophic complications or comorbidities; CSCC—catastrophic or severe complications or comorbidities; OR—operating room; ≥—greater than or equal to.

(a) Includes separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. Excludes separations where the length of stay was greater than 120 days. Average length of stay suppressed for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory, or if fewer than 100 separations were reported.

(b) For more information on the selected AR-DRGs, see Appendix B and tables accompanying this report online.

Note: See boxes 1.1, 1.2 and appendices A and B for notes on data limitations and methods.

Figure 2.3: Average length of stay (days)^(a) for selected AR-DRGs^(b) version 7.0, public and private hospitals, 2015–16

2.7 Performance indicator: Relative stay index

'Relative stay index' is presented as an indicator of *Efficiency and sustainability* under the NHPF (see Appendix C).

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, standardised for casemix (based on national figures). The adjustment for casemix allows variation in the types of services provided to be taken into account. However, it does not take into account other influences on length of stay, such as Indigenous status or the remoteness area of the patient's usual residence or of the hospital.

An RSI greater than 1 indicates that the average episode's length of stay is higher than would be expected, given the casemix for the category of interest (for example, by hospital sector or jurisdiction). An RSI of less than 1 indicates that the length of stay was less than would be expected.

The directly standardised RSI is comparable between cells, and is therefore more appropriate to use when comparing between groups and over time. The indirectly standardised RSI is not technically comparable between cells but provides a comparison of the hospital group with the 5-year average based on the casemix of that group.

RSIs are calculated using separations for which the care type was reported as *Acute* or *Newborn* (with qualified days) or was not reported. In earlier reports, this analysis included *Public psychiatric* hospitals. However, due to the introduction of the *Mental health* care type on 1 July 2015, the number of *Acute* care separations in *Public psychiatric* hospitals decreased significantly. Therefore, *Acute* care separations in *Public psychiatric* hospitals have not been included in tables 2.18 to 2.20 and the information presented for 2015–16 is not comparable with data presented for earlier periods.

Changes over time

The directly standardised RSI for public acute hospitals was consistently lower than that for private hospitals between 2011–12 and 2015–16 (Table 2.18).

Relative stay indexes in 2015–16

Overall, the directly standardised RSI for private hospitals was 1.1, compared with 0.96 for public acute hospitals, indicating relatively shorter lengths of stay in the public sector (Table 2.19).

There were relatively shorter lengths of stay for *Medical* and *Other* separations in public hospitals (compared with these categories in private hospitals), and for *Surgical* separations in private hospitals (compared with *Surgical* separations in public acute hospitals).

Separations for which the funding source was reported as *Self-funded* had lower lengths of stay than expected in both public acute (0.98) and private hospitals (0.96) (Table 2.20).

Separations for which the funding source was reported as *Department of Veterans' Affairs* had relatively lower lengths of stay than expected in public acute hospitals (0.93), and relatively higher lengths of stay than expected in private hospitals (1.29).

Table 2.18: Relative stay index^(a), public acute^(b) and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Indirectly standardised relative stay index^(c)							
Public hospitals							
Public acute hospitals	1.03	0.99	0.96	0.93	0.89	..	..
Private hospitals							
Private free-standing day hospital facilities	0.83	0.84	0.82	0.83	0.82	..	..
Other private hospitals	1.14	1.11	1.09	1.07	1.03	..	..
<i>Total private hospitals</i>	<i>1.11</i>	<i>1.09</i>	<i>1.07</i>	<i>1.05</i>	<i>1.01</i>	..	..
All hospitals	1.05	1.02	0.99	0.97	0.93	..	..
Directly standardised relative stay index^(d)							
Public hospitals							
Public acute hospitals	1.05	1.01	0.98	0.96	0.90	-3.8	-5.9
Private hospitals							
Private free-standing day hospital facilities	0.48	0.47	0.47	0.54	0.49	0.4	-9.2
Other private hospitals	1.21	1.18	1.15	1.13	1.14	-1.3	1.0
<i>Total private hospitals</i>	<i>1.19</i>	<i>1.16</i>	<i>1.14</i>	<i>1.12</i>	<i>1.13</i>	-1.3	1.0
All hospitals	1.06	1.02	0.99	0.97	0.92	-3.5	-5.6

(a) Includes separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. The care type *Mental health* was introduced on 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute* care or as *Subacute and non-acute* care). Therefore, information presented for 2015–16 is not comparable with data presented for earlier periods.

(b) RSIs are not presented for *Public psychiatric* hospitals as the implementation of the *Mental health* care type from 1 July 2015 resulted in relatively small numbers of *Acute* separations in 2015–16.

(c) RSI based on all hospitals combined for the 5-year period using the indirect method. The indirectly standardised RSI 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. AR-DRG version 6.0x has been used for all years.

(d) RSI based on all hospitals combined for the 5-year period using the direct method. The directly standardised RSI is comparable between cells. AR-DRG version 6.0x has been used for all years.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

See Appendix B for detail on methods used in calculating RSI.

Table 2.19: Relative stay index by Medical/Surgical/Other type of AR-DRG version 7.0, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indirectly standardised relative stay index^(a)									
<i>Public hospitals</i>	1.04	0.91	0.87	0.91	1.00	1.00	1.03	1.08	0.96
Medical	1.01	0.90	0.83	0.90	0.97	0.99	1.00	1.00	0.93
Surgical	1.11	0.94	0.96	0.92	1.06	1.02	1.08	1.31	1.01
Other	1.13	0.92	0.95	0.94	1.10	0.95	1.07	1.21	1.02
<i>Private hospitals</i>	1.13	1.10	1.13	1.04	1.00	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.10
Medical	1.40	1.25	1.28	1.18	1.04	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.27
Surgical	0.99	0.99	1.00	0.95	0.98	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.99
Other	0.92	0.98	1.01	0.99	0.95	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	0.97
All hospitals	1.07	0.97	0.96	0.95	1.00	n.p.	n.p.	n.p.	1.00
Medical	1.07	0.98	0.94	0.96	0.98	n.p.	n.p.	n.p.	1.00
Surgical	1.06	0.96	0.98	0.93	1.02	n.p.	n.p.	n.p.	1.00
Other	1.07	0.94	0.98	0.96	1.04	n.p.	n.p.	n.p.	1.00
Directly standardised relative stay index^(b)									
<i>Public hospitals</i>	1.06	0.93	0.89	0.92	1.01	1.02	1.04	1.12	0.97
Medical	1.02	0.90	0.82	0.91	0.97	0.99	1.00	0.98	0.93
Surgical	1.12	0.97	0.99	0.94	1.07	1.06	1.11	1.37	1.02
Other	1.16	0.95	0.99	0.97	1.10	0.98	1.09	1.26	1.04
<i>Private hospitals</i>	1.30	1.19	1.23	1.14	1.16	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.22
Medical	1.48	1.30	1.35	1.25	1.26	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.35
Surgical	1.02	1.02	1.03	0.95	1.00	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.01
Other	1.08	1.09	1.12	1.09	1.09	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	1.09
All hospitals	1.07	0.98	0.96	0.96	1.01	n.p.	n.p.	n.p.	1.00
Medical	1.07	0.98	0.95	0.97	0.99	n.p.	n.p.	n.p.	1.00
Surgical	1.06	0.97	0.99	0.94	1.03	n.p.	n.p.	n.p.	1.00
Other	1.07	0.94	0.98	0.97	1.06	n.p.	n.p.	n.p.	1.00

(a) The indirectly standardised RSI 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, using AR-DRG version 7.0.

(b) The directly standardised RSI is comparable between cells. Casemix-adjusted, based on AR-DRG version 7.0.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 2.20: Relative stay index (indirectly standardised)^(a), by funding source, public acute and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public acute hospitals									
Public patient ^(b)	1.04	0.91	0.86	0.90	0.97	0.99	1.02	1.07	0.95
Private health insurance	1.05	0.94	0.90	0.93	1.14	1.07	1.15	1.19	1.00
Self-funded	1.02	0.92	0.90	0.93	0.91	0.86	0.76	0.99	0.98
Workers compensation	1.09	1.02	1.06	0.91	1.23	1.04	1.10	1.11	1.06
Motor vehicle third party personal claim	1.25	0.87	1.00	1.05	1.15	1.30	1.15	1.61	1.04
Department of Veterans Affairs	0.97	0.91	0.76	0.83	1.07	1.08	0.88	1.08	0.93
Other ^(c)	1.29	0.93	0.97	0.87	1.11	0.79	0.95	1.08	0.95
<i>Total</i>	<i>1.04</i>	<i>0.91</i>	<i>0.87</i>	<i>0.91</i>	<i>1.00</i>	<i>1.00</i>	<i>1.03</i>	<i>1.08</i>	<i>0.96</i>
Private hospitals									
Public patient ^(b)	1.12	1.40	1.11	0.89	1.00	n.p.	n.p.	n.p.	1.12
Private health insurance	1.13	1.10	1.12	1.04	1.00	n.p.	n.p.	n.p.	1.10
Self-funded	1.02	0.98	0.87	0.86	0.87	n.p.	n.p.	n.p.	0.96
Workers compensation	1.11	1.01	1.03	0.76	0.91	n.p.	n.p.	n.p.	1.00
Motor vehicle third party personal claim	1.32	1.09	1.18	0.85	1.03	n.p.	n.p.	n.p.	1.08
Department of Veterans Affairs	1.39	1.21	1.32	1.26	1.18	n.p.	n.p.	n.p.	1.29
Other ^(c)	1.30	1.17	1.16	0.98	0.87	n.p.	n.p.	n.p.	1.06
<i>Total</i>	<i>1.13</i>	<i>1.10</i>	<i>1.13</i>	<i>1.04</i>	<i>1.00</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.10</i>
Public acute and private hospitals									
Public patient ^(b)	1.04	0.91	0.87	0.90	0.97	n.p.	n.p.	n.p.	0.95
Private health insurance	1.10	1.06	1.07	1.02	1.03	n.p.	n.p.	n.p.	1.07
Self-funded	1.02	0.97	0.88	0.87	0.87	n.p.	n.p.	n.p.	0.97
Workers compensation	1.11	1.02	1.04	0.80	0.98	n.p.	n.p.	n.p.	1.02
Motor vehicle third party personal claim	1.25	0.90	1.01	1.03	1.14	n.p.	n.p.	n.p.	1.05
Department of Veterans Affairs	1.13	1.08	1.20	1.11	1.12	n.p.	n.p.	n.p.	1.14
Other ^(c)	1.30	0.97	1.11	0.89	1.05	n.p.	n.p.	n.p.	0.99
Total	1.07	0.97	0.96	0.95	1.00	n.p.	n.p.	n.p.	1.00

(a) The indirectly standardised RSI 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, using AR-DRG version 7.0.

(b) *Public patient* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient* election status), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(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, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

2.8 What types of public hospitals provide admitted patient care?

This section presents summary information on separations, patient days and average length of stay by the peer group of the public hospital. Peer groups classify public hospitals into groups of similar hospitals by the types of services provided.

In 2015–16, admitted patient care data was provided by 681 public hospitals (Table 2.21).

The 30 *Principal referral hospitals* accounted for the highest proportion of public hospital separations (2.3 million separations, or 36%) and public hospital patient days (7.2 million patient days, or 35%), with an ALOS of 3.2 days. *Principal referral hospitals* provide a broad range of services, including some very specialised services that are not available in other types of hospitals.

The 62 *Public acute group A hospitals* accounted for a further 33% of separations and 30% of patient days.

The 114 *Very small hospitals* accounted for fewer than 1% of both separations and patient days.

The 39 *Subacute and non-acute hospitals* accounted for about 1% of separations and about 4% of patient days, with an average length of stay of 13.6 days.

Table 2.21: Count of hospitals, separations and patient days by hospital peer group, public hospitals, 2015–16

Hospital peer group	Number of hospitals	Separations	Patient days	Average length of stay
Principal referral hospitals	30	2,259,870	7,154,667	3.2
Women's and children's hospitals	12	275,696	823,149	3.0
Public acute group A hospitals	62	2,081,403	5,958,878	2.9
Public acute group B hospitals	45	801,976	2,112,491	2.6
Public acute group C hospitals	142	522,340	1,379,413	2.6
Public acute group D hospitals	190	109,565	488,107	4.5
Very small hospitals	114	10,224	107,444	10.5
Psychiatric hospitals	22	15,495	976,416	63
Subacute and non-acute hospitals	38	64,517	875,585	13.6
Other	26	131,395	308,193	2.3
All hospitals	681	6,272,481	20,184,343	3.2

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

Information on data limitations and methods is available in appendixes A, B and C.

Detailed information on the public hospital peer group classification is available in *Australian hospital peer groups* (AIHW 2015b).

2.9 Separations for acute admitted patient care

Acute admitted patient care includes separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. See Box 4.1 for more information.

The care type *Mental health* was introduced from 1 July 2015. *Mental health* admitted patient activity was previously assigned to 1 of the other care types (for example, as *Acute* care, *Rehabilitation care*, *Psychogeriatric care* and *Geriatric evaluation and management*). Therefore, data presented by care type for 2015–16 are not comparable with data presented for earlier periods.

Changes over time

Same-day acute care

From 2014–15 to 2015–16, same-day acute separations rose by 2.2% to 5.9 million. This was lower than the overall average annual increase per year between 2011–12 and 2015–16 (3.3%, Table 2.22).

Between 2011–12 and 2015–16, same-day acute separations increased by 3.9% on average per year in public hospitals and by 2.6% per year in private hospitals.

Table 2.22: Same-day acute separations, public and private hospitals, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
<i>Total public hospitals</i> ^(b)	2,777,380	2,751,061	2,899,623	3,086,074	3,238,657	3.9	4.9
Private hospitals							
Private free-standing day hospital facilities	841,327	852,073	872,579	937,405	953,183	3.2	1.7
Other private hospitals	1,553,839	1,606,675	1,688,742	1,744,750	1,700,818	2.3	–2.5
<i>Total private hospitals</i>	2,395,166	2,458,748	2,561,321	2,682,155	2,654,001	2.6	–1.0
All hospitals	5,172,546	5,209,809	5,460,944	5,768,229	5,892,658	3.3	2.2

(a) There were changes in coverage, policies or practices over this period for New South Wales, Victoria, Queensland and Western Australia that affect the interpretation of these data. In addition, information presented for *Acute* care for 2015–16 is not comparable with data presented for earlier periods due to the implementation of the *Mental health* care type from 1 July 2015.

(b) The numbers of *Acute* care separations in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*. The number of same-day *Acute* care separations in *Public psychiatric hospitals* decreased markedly between 2014–15 and 2015–16 to fewer than 400 separations, and this was mainly due to the introduction of the *Mental health* care type from 1 July 2015.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

States and territories

Between 2011–12 and 2015–16, the highest annual average increases in public hospital same-day acute separations occurred in Queensland (8.6% per year) (Table 2.23), which mainly reflects an increase in admitted patient separations for chemotherapy.

For jurisdictions whose private hospital data could be reported, Western Australia recorded the highest annual average increase in the number of same-day acute separations between 2011–12 and 2015–16 (4.0% per year).

Between 2014–15 and 2015–16, the decrease in private hospital same-day acute separations may, in part, be due to the introduction of the *Mental health* care type on 1 July 2015 (which is not included in acute analyses).

Large single-year rises in same-day acute separations between 2014–15 and 2015–16 were recorded for public hospitals in the Northern Territory (14.6%) and Queensland (8.4%).

Table 2.23: Same-day acute separations, public and private hospitals, states and territories, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales							
Public hospitals	726,434	757,835	791,347	816,110	830,765	3.4	1.8
Private hospitals	651,662	654,772	661,856	705,566	705,453	2.0	<0.1
<i>All hospitals</i>	<i>1,378,096</i>	<i>1,412,607</i>	<i>1,453,203</i>	<i>1,521,676</i>	<i>1,536,218</i>	<i>2.8</i>	<i>1.0</i>
Victoria							
Public hospitals	882,687	787,362	867,584	915,407	962,484	2.2	5.1
Private hospitals	601,695	618,398	648,742	671,479	653,382	2.1	-2.7
<i>All hospitals</i>	<i>1,484,382</i>	<i>1,405,760</i>	<i>1,516,326</i>	<i>1,586,886</i>	<i>1,615,866</i>	<i>2.1</i>	<i>1.8</i>
Queensland							
Public hospitals	492,281	509,595	539,253	631,178	683,937	8.6	8.4
Private hospitals	586,929	609,674	643,747	677,780	655,210	2.8	-3.3
<i>All hospitals</i>	<i>1,079,210</i>	<i>1,119,269</i>	<i>1,183,000</i>	<i>1,308,958</i>	<i>1,339,147</i>	<i>5.5</i>	<i>2.3</i>
Western Australia							
Public hospitals	316,669	326,687	317,427	323,921	339,213	1.7	4.7
Private hospitals	298,557	309,715	326,328	337,777	349,528	4.0	3.5
<i>All hospitals</i>	<i>615,226</i>	<i>636,402</i>	<i>643,755</i>	<i>661,698</i>	<i>688,741</i>	<i>2.9</i>	<i>4.1</i>
South Australia							
Public hospitals	183,019	185,094	188,818	192,223	199,863	2.2	4.0
Private hospitals	180,672	189,061	200,123	204,857	207,396	3.5	1.2
<i>All hospitals</i>	<i>363,691</i>	<i>374,155</i>	<i>388,941</i>	<i>397,080</i>	<i>407,259</i>	<i>2.9</i>	<i>2.6</i>
Tasmania							
Public hospitals	50,462	55,765	60,011	63,507	62,679	5.6	-1.3
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	51,505	49,298	51,540	52,774	55,465	1.9	5.1
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	74,323	79,425	83,643	90,954	104,251	8.8	14.6
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
All hospitals							
Public hospitals	2,777,380	2,751,061	2,899,623	3,086,074	3,238,657	3.9	4.9
Private hospitals	2,395,166	2,458,748	2,561,321	2,682,155	2,654,001	2.6	-1.0
All hospitals	5,172,546	5,209,809	5,460,944	5,768,229	5,892,658	3.3	2.2

(a) There were changes in coverage, policies or practices over this period for New South Wales, Victoria, Queensland and Western Australia that affect the interpretation of these data. In addition, information presented by care type for 2015–16 will not be comparable with data presented for earlier periods due to the introduction of the *Mental health* care type from 1 July 2015.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Overnight acute care

Between 2011–12 and 2015–16, the number of overnight acute separations in public hospitals increased by 1.4% on average each year. For private hospitals they increased by an average of 1.1% per year (Table 2.24).

Between 2014–15 and 2015–16, the increase in the number of overnight acute separations in *Private free-standing day hospital facilities* reflects increased reporting for *Sleep apnoea*.

Table 2.24: Overnight acute separations, public and private hospitals, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
<i>Total public hospitals</i> ^(b)	2,551,786	2,583,733	2,623,633	2,696,965	2,701,061	1.4	0.2
Private hospitals							
Private free-standing day hospital facilities ^(c)	1,231	1,431	1,614	1,885	5,826	47.5	209.1
Other private hospitals	1,102,425	1,123,527	1,148,016	1,160,777	1,146,818	1.0	–1.2
<i>Total private hospitals</i>	1,103,656	1,124,958	1,149,630	1,162,662	1,152,644	1.1	–0.9
All hospitals	3,655,442	3,708,691	3,773,263	3,859,627	3,853,705	1.3	–0.2

(a) There were changes in coverage, policies or practices over this period for New South Wales, Victoria, Queensland and Western Australia that affect the interpretation of these data. In addition, information presented by care type for 2015–16 will not be comparable with data presented for earlier periods due to the introduction of the *Mental health* care type from 1 July 2015.

(b) The numbers of *Acute* care separations in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*. The numbers of overnight *Acute* care separations in *Public psychiatric hospitals* decreased markedly between 2014–15 and 2015–16 to less than 800 separations, mainly due to the introduction of the *Mental health* care type from 1 July 2015.

(c) Due to the low and variable numbers of overnight separations in *Private free-standing day hospital facilities*, caution should be used in interpreting the average rates of change.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

States and territories

Between 2011–12 and 2015–16, Queensland had the greatest annual average rise in the number of public hospital separations for overnight acute (3.5% on average each year) (Table 2.25).

Over the same period, above average increases in the rate of private hospital separations for overnight acute were recorded in Queensland and Western Australia (1.9% and 1.6%, respectively) (among jurisdictions whose private hospital data could be reported).

In general, the increases in overnight acute separations between 2014–15 and 2015–16 were smaller than the average annual increases between 2011–12 and 2015–16 (and some jurisdictions recorded decreases). This was mainly due to the introduction of the *Mental health* care type from 1 July 2015 (see Box 1.2).

Table 2.25: Overnight acute separations, public and private hospitals, states and territories, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales							
Public hospitals	874,293	893,396	910,355	926,904	915,493	1.2	-1.2
Private hospitals	276,770	279,584	285,186	283,711	283,956	0.6	0.1
<i>All hospitals</i>	<i>1,151,063</i>	<i>1,172,980</i>	<i>1,195,541</i>	<i>1,210,615</i>	<i>1,199,449</i>	<i>1.0</i>	<i>-0.9</i>
Victoria							
Public hospitals	621,425	601,095	600,472	629,019	637,464	0.6	1.3
Private hospitals	290,786	298,661	301,561	306,830	300,060	0.8	-2.2
<i>All hospitals</i>	<i>912,211</i>	<i>899,756</i>	<i>902,033</i>	<i>935,849</i>	<i>937,524</i>	<i>0.7</i>	<i>0.2</i>
Queensland							
Public hospitals	466,393	486,426	504,747	527,038	534,444	3.5	1.4
Private hospitals	275,689	281,780	293,255	301,348	297,256	1.9	-1.4
<i>All hospitals</i>	<i>742,082</i>	<i>768,206</i>	<i>798,002</i>	<i>828,386</i>	<i>831,700</i>	<i>2.9</i>	<i>0.4</i>
Western Australia							
Public hospitals	254,810	262,872	264,118	263,446	264,528	0.9	0.4
Private hospitals	127,610	131,053	134,568	134,978	136,060	1.6	0.8
<i>All hospitals</i>	<i>382,420</i>	<i>393,925</i>	<i>398,686</i>	<i>398,424</i>	<i>400,588</i>	<i>1.2</i>	<i>0.5</i>
South Australia							
Public hospitals	208,710	213,145	210,988	212,999	207,075	-0.2	-2.8
Private hospitals	87,252	86,755	87,068	86,853	86,347	-0.3	-0.6
<i>All hospitals</i>	<i>295,962</i>	<i>299,900</i>	<i>298,056</i>	<i>299,852</i>	<i>293,422</i>	<i>-0.2</i>	<i>-2.1</i>
Tasmania							
Public hospitals	47,009	47,877	51,277	52,807	53,528	3.3	1.4
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public Hospitals	41,051	40,940	42,389	44,372	46,393	3.1	4.6
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	38,095	37,982	39,287	40,380	42,136	2.6	4.3
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
All hospitals							
Public hospitals	2,551,786	2,583,733	2,623,633	2,696,965	2,701,061	1.4	0.2
Private hospitals	1,103,656	1,124,958	1,149,630	1,162,662	1,152,644	1.1	-0.9
All hospitals	3,655,442	3,708,691	3,773,263	3,859,627	3,853,705	1.3	-0.2

(a) There were changes in coverage, policies or practices over this period for New South Wales, Victoria, Queensland and Western Australia that affect the interpretation of these data. In addition, information presented by care type for 2015–16 will not be comparable with data presented for earlier periods due to the introduction of the *Mental health* care type from 1 July 2015.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How much acute care was there in 2015–16?

In 2015–16, a total of about 9.7 million same-day and overnight acute separations were reported, accounting for 92% of all separations (tables 2.26 and 2.27).

Overall, about 60% of acute separations were same-day separations. Private hospitals had a higher proportion of acute separations that were same-day compared with public hospitals (70% and 55%, respectively). For the Northern Territory, 71% of public hospital acute separations were provided on a same-day basis, reflecting the relatively high volume of separations for dialysis care.

Same-day acute care

In 2015–16, there were about 5.9 million same-day acute separations (Table 2.26).

About 93% of all same-day separations were acute separations, with a higher proportion in the public sector (98%) than in the private sector (87%) (tables 2.5 and 2.26).

The proportion of acute care that were same-day separations also varied among states and territories. For private hospitals, the proportion varied from 69% in Victoria and Queensland to 72% in Western Australia (tables 2.26 and 2.27) (for jurisdictions whose private hospital data could be reported).

Overnight acute care

In 2015–16, there were about 3.9 million overnight acute separations (Table 2.27).

Of all overnight separations, most were acute separations in both public and private hospitals (91% and 90%, respectively) (tables 2.3 and 2.27).

The Northern Territory had the highest proportion of public hospital overnight separations that were for acute care (96%) (tables 2.5 and 2.27).

Where to go for more information:

More information on acute care is available in:

- 'Chapter 4 Why did people receive care?' – by care type
- 'Chapter 5 What services were provided?' – by broad categories of service.

Information on data limitations and methods is available in appendixes A and B.

Table 2.26: Same-day acute separations, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
<i>Total public hospitals</i> ^(a)	830,765	962,484	683,937	339,213	199,863	62,679	55,465	104,251	3,238,657
Separations per 1,000 population	99.9	151.2	137.0	127.5	105.7	106.0	145.2	464.6	127.4
Private hospitals									
Private free-standing day hospital facilities	261,385	224,900	228,979	148,767	73,736	n.p.	n.p.	n.p.	953,183
Other private hospitals	444,068	428,482	426,231	200,761	133,660	n.p.	n.p.	n.p.	1,700,818
<i>Total private hospitals</i>	705,453	653,382	655,210	349,528	207,396	n.p.	n.p.	n.p.	2,654,001
Separations per 1,000 population	84.4	102.2	128.2	130.9	103.6	n.p.	n.p.	n.p.	102.9
All hospitals	1,536,218	1,615,866	1,339,147	688,741	407,259	n.p.	n.p.	n.p.	5,892,658
Separations per 1,000 population	184.3	253.4	265.2	258.5	209.3	n.p.	n.p.	n.p.	230.4

(a) The numbers of *Acute care separations* in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*. For 2015–16, there were relatively few *Acute care separations* in *Public psychiatric hospitals*, mainly due to the introduction of the *Mental health* care type from 1 July 2015.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 2.27: Overnight acute separations, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
<i>Total public hospitals</i> ^(a)	915,493	637,464	534,444	264,528	207,075	53,528	46,393	42,136	2,701,061
Separations per 1,000 population	111.4	100.7	108.1	100.0	109.9	94.9	118.8	191.5	107.3
Private hospitals									
Private free-standing day hospital facilities	4,008	2	1	1,813	0	n.p.	n.p.	n.p.	5,826
Other private hospitals	279,948	300,058	297,255	134,247	86,347	n.p.	n.p.	n.p.	1,146,818
<i>Total private hospitals</i>	283,956	300,060	297,256	136,060	86,347	n.p.	n.p.	n.p.	1,152,644
Separations per 1,000 population	34.2	46.0	58.6	51.0	43.7	n.p.	n.p.	n.p.	44.7
All hospitals	1,199,449	937,524	831,700	400,588	293,422	n.p.	n.p.	n.p.	3,853,705
Separations per 1,000 population	145.7	146.7	166.7	151.0	153.6	n.p.	n.p.	n.p.	151.9

(a) The numbers of *Acute care separations* in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*. For 2015–16, there were relatively few *Acute care separations* in *Public psychiatric hospitals*, mainly due to the implementation of the *Mental health* care type from 1 July 2015.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and method.

3 Who used these services?

This chapter presents information on people who received admitted patient care. The NHMD contains information on the patient's age, sex, Indigenous status, remoteness area of usual residence and socioeconomic status (SES) of area of usual residence. This information can be used to assess the accessibility of admitted patient services – and to answer the question 'Is access the same for everyone?'.

The information in this chapter includes:

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

Key findings

Sex of patient

In 2015–16, 53% of separations were for women and girls.

Age of patient

In 2015–16, people aged 65 and over accounted for 41% of separations and 48% of patient days.

Between 2011–12 and 2015–16, separations for people aged 65 to 74 increased by 26%, an average increase of 5.9% each year. This was faster than the population growth for this age group during that period (about 4.3% each year).

Aboriginal and Torres Strait Islander people

In 2015–16, there were about 483,000 separations reported for Aboriginal and Torres Strait Islander people (about 4.6% of separations). About 90% of separations for Indigenous Australians were from public hospitals, compared with 58% for other Australians.

Indigenous Australians were hospitalised at about 2.5 times the rate for other Australians (1,003 and 402 separations per 1,000 population, respectively).

Remoteness area

For public hospitals, separation rates were highest for patients living in *Very remote* areas and lowest for patients living in *Major cities* (645 and 226 per 1,000, respectively).

For private hospitals, separation rates were highest for patients living in *Major cities* and lowest for patients living in *Very remote* areas (184 and 101 per 1,000, respectively).

Socioeconomic status

For public hospitals, separation rates were highest for patients living in areas classified as being the lowest SES group (329 separations per 1,000 population).

For private hospitals, separation rates were highest for patients living in areas classified as being the highest SES group (236 per 1,000).

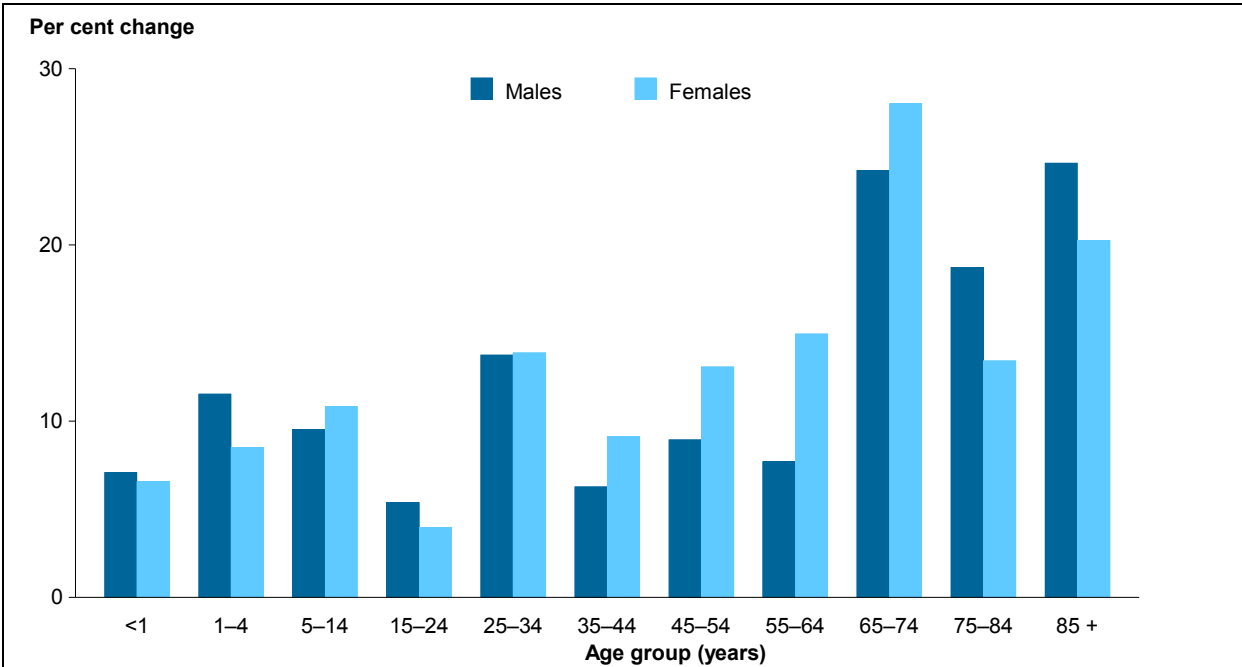
3.1 Age group and sex

This section presents information on the age group and sex of the patient, including the numbers of separations and patient days in public and private hospitals, over time and for 2015-16.

Changes over time

Between 2011-12 and 2015-16, there were large increases in separations for people aged 65-74 and 85 and over:

- For people aged 65-74, separations rose by 26% overall (Figure 3.1), an average increase of 5.9% each year. This was faster than the population growth for this age group of about 4.3% each year over the same period.
- For people aged 85 and over, separations rose by 22% overall, an average increase of 5.1% each year, compared with the population growth for this age group of about 3.9% each year over the same period.



Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Figure 3.1: Percentage change in separations by age group and sex, all hospitals, 2011-12 to 2015-16

Age group and sex, 2015–16

In 2015–16, more than 5.6 million separations were for females (53%), and about 5.0 million separations were for males (Table 3.1). In particular, women accounted for 65% of separations for people aged 15–44 (the age range that includes most separations for childbirth). Females also accounted for more patient days than males (15.6 million and 14.2 million patient days, respectively).

People aged 65 and over (who make up about 15% of the population) accounted for 41% of separations and 48% of patient days in 2015–16. People aged 85 and over (who make up about 2% of the population) accounted for about 7% of separations and 13% of patient days in 2015–16.

Information on separations and patient days by age group and sex for each state and territory is in tables 3.2 and 3.3.

Table 3.1: Separations and patient days, by age group and sex, all hospitals, 2015–16

Age group (years)	Separations			Patient days		
	Males	Females	Persons ^(a)	Males	Females	Persons ^(a)
0–4	226,218	164,042	390,268	692,647	535,931	1,228,606
5–9	88,081	66,470	154,552	133,110	103,791	236,902
10–14	68,526	56,975	125,503	126,994	121,426	248,423
15–19	103,927	139,939	243,867	246,932	325,847	572,780
20–24	129,970	237,862	367,844	373,335	510,698	884,050
25–29	135,918	312,897	448,829	440,425	742,863	1,183,340
30–34	158,154	382,990	541,147	505,027	958,143	1,463,179
35–39	173,807	327,129	500,941	562,529	796,425	1,358,976
40–44	221,412	313,428	534,851	637,904	720,190	1,358,131
45–49	258,876	309,566	568,447	664,298	697,510	1,361,813
50–54	329,693	359,202	688,901	813,414	808,579	1,621,999
55–59	387,375	388,621	776,005	945,814	873,839	1,819,669
60–64	459,865	426,704	886,578	1,117,169	999,173	2,116,352
65–69	562,604	484,291	1,046,904	1,397,986	1,213,656	2,611,651
70–74	528,037	459,702	987,739	1,402,678	1,254,708	2,657,386
75–79	495,988	411,431	907,421	1,413,199	1,346,412	2,759,613
80–84	369,760	336,099	705,860	1,242,494	1,362,655	2,605,150
85+	329,171	394,836	724,008	1,525,082	2,227,243	3,752,326
Total^{(a)(b)}	5,027,398	5,572,189	10,599,768	14,241,068	15,599,094	29,846,390

(a) Persons includes separations and patient days for episodes for which the sex of the patient was not reported as male or female.

(b) Total includes separations for which the date of birth was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 3.2: Separations, by age group and sex, public hospitals, states and territories, 2015–16

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Males	Under 1	35,648	20,173	16,899	8,157	5,423	1,200	1,650	1,587	90,737
	1–4	28,804	23,582	22,373	9,434	7,016	1,493	1,516	1,662	95,880
	5–14	35,746	28,761	28,478	12,692	8,367	2,252	2,342	1,960	120,598
	15–24	47,241	39,344	37,710	14,230	11,156	2,979	2,886	2,675	158,221
	25–34	56,962	50,135	44,313	21,315	13,574	3,360	3,676	5,696	199,031
	35–44	69,367	64,987	54,425	27,330	17,032	5,173	5,174	8,740	252,228
	45–54	99,814	91,667	79,105	41,505	25,312	6,337	5,724	15,944	365,408
	55–64	137,769	130,334	102,048	48,135	32,444	11,562	7,380	12,732	482,404
	65–74	171,363	168,480	117,680	59,465	36,879	13,065	11,416	6,989	585,337
	75–84	165,888	152,645	89,894	47,953	40,091	10,463	7,930	2,516	517,380
	85 and over	68,997	53,567	34,144	19,644	17,633	3,420	2,957	458	200,820
	<i>Total^(a)</i>	<i>917,607</i>	<i>823,675</i>	<i>627,069</i>	<i>309,860</i>	<i>214,927</i>	<i>61,304</i>	<i>52,651</i>	<i>60,959</i>	<i>3,068,052</i>
Females	Under 1	29,406	15,053	12,888	5,870	4,354	860	1,155	1,164	70,750
	1–4	20,105	16,685	16,036	6,373	4,682	1,035	972	1,274	67,162
	5–14	27,028	21,888	22,219	9,261	6,455	1,616	1,680	1,524	91,671
	15–24	69,721	61,480	68,228	24,332	18,841	5,140	4,484	5,907	258,133
	25–34	129,030	121,750	98,844	45,718	31,311	8,199	8,946	10,524	454,322
	35–44	94,711	96,944	75,356	34,741	22,555	5,971	6,861	12,727	349,866
	45–54	89,662	95,910	78,456	39,763	24,680	7,270	5,916	20,985	362,642
	55–64	108,543	108,381	87,080	45,984	27,690	8,740	5,710	18,746	410,874
	65–74	142,445	127,182	91,790	49,062	30,784	10,418	7,657	11,368	470,706
	75–84	142,149	121,997	75,038	38,644	32,266	8,096	7,489	2,707	428,386
	85 and over	90,653	58,601	40,121	21,129	20,286	3,954	4,518	531	239,793
	<i>Total^(a)</i>	<i>943,457</i>	<i>845,871</i>	<i>666,056</i>	<i>320,877</i>	<i>223,904</i>	<i>61,299</i>	<i>55,388</i>	<i>87,457</i>	<i>3,204,309</i>
Total^{(a)(b)}		1,861,163	1,669,562	1,293,125	630,739	438,831	122,604	108,041	148,416	6,272,481

(a) Totals include separations for which the date of birth was not reported.

(b) Total includes separations for which the sex was not reported as male or female.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 3.3: Separations, by age group and sex, private hospitals, states and territories, 2015–16

Sex	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Males	Under 1	4,833	3,544	2,679	1,600	786	n.p.	n.p.	n.p.	13,886
	1–4	8,155	5,204	5,635	3,596	1,985	n.p.	n.p.	n.p.	25,715
	5–14	10,850	8,062	8,435	4,793	2,350	n.p.	n.p.	n.p.	36,009
	15–24	21,168	20,146	17,229	8,514	5,723	n.p.	n.p.	n.p.	75,676
	25–34	27,435	23,446	22,017	12,254	6,559	n.p.	n.p.	n.p.	95,041
	35–44	42,042	34,207	33,957	19,314	8,769	n.p.	n.p.	n.p.	142,991
	45–54	62,914	52,943	53,763	31,143	14,534	n.p.	n.p.	n.p.	223,161
	55–64	105,059	82,641	90,887	44,813	28,233	n.p.	n.p.	n.p.	364,836
	65–74	147,236	107,996	136,548	55,624	40,232	n.p.	n.p.	n.p.	505,304
	75–84	99,105	80,616	89,032	39,014	29,501	n.p.	n.p.	n.p.	348,368
	85 and over	37,460	30,084	31,645	13,754	11,227	n.p.	n.p.	n.p.	128,351
	<i>Total^(a)</i>	<i>566,258</i>	<i>448,889</i>	<i>491,827</i>	<i>234,419</i>	<i>149,906</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1,959,346</i>
Females	Under 1	3,393	2,465	1,828	1,027	410	n.p.	n.p.	n.p.	9,445
	1–4	5,293	3,337	3,719	2,345	1,296	n.p.	n.p.	n.p.	16,685
	5–14	9,532	7,240	7,338	4,284	2,085	n.p.	n.p.	n.p.	31,774
	15–24	33,438	31,457	30,324	13,411	7,028	n.p.	n.p.	n.p.	119,668
	25–34	68,429	63,520	57,959	30,035	12,693	n.p.	n.p.	n.p.	241,565
	35–44	84,651	78,756	67,875	34,230	15,371	n.p.	n.p.	n.p.	290,691
	45–54	82,738	76,950	75,654	38,812	20,249	n.p.	n.p.	n.p.	306,126
	55–64	116,934	93,746	99,337	47,784	31,994	n.p.	n.p.	n.p.	404,451
	65–74	146,657	104,409	119,204	47,281	39,309	n.p.	n.p.	n.p.	473,287
	75–84	98,176	73,106	78,655	30,854	27,427	n.p.	n.p.	n.p.	319,144
	85 and over	45,637	38,025	38,837	13,016	13,967	n.p.	n.p.	n.p.	155,043
	<i>Total^(a)</i>	<i>694,878</i>	<i>573,011</i>	<i>580,730</i>	<i>263,079</i>	<i>171,830</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>2,367,880</i>
Total^{(a)(b)}		1,261,170	1,021,913	1,072,557	497,498	321,748	n.p.	n.p.	n.p.	4,327,287

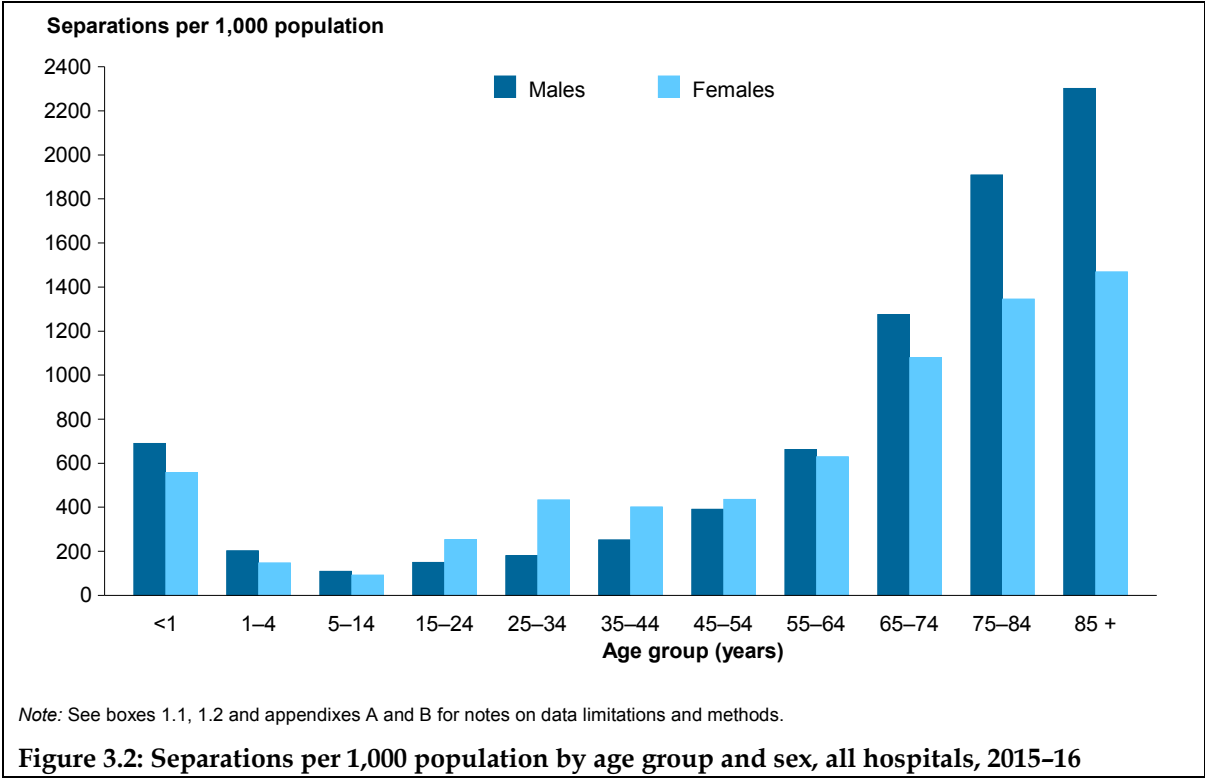
(a) Totals include separations for which the date of birth was not reported.

(b) Total includes separations for which the sex was not reported as male or female.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Separation rates

In 2015–16, overall there were 415 separations per 1,000 population, with more for females than for males in the age groups from 15–54 age group, and more for males in the other age groups (Figure 3.2). Separation rates increased markedly with age for both males and females aged 55 and over.



Same-day acute separations

Just over half (51%) of same-day acute separations were for females (Table 3.4). However, there were more same-day separations for boys than girls aged 0–14 and also more for men aged 60 and over than women in the same age group.

People aged 55 and over accounted for more than half (59%) of all same-day acute separations.

Overnight acute separations

Females accounted for more than half (54%) of overnight acute separations (Table 3.4). There were, however, more overnight separations for males than females in the age groups 0–14 and 55–79.

People aged 55 and over accounted for more than half (51%) of all overnight acute separations.

Table 3.4: Acute separations, by age group, sex and same-day/overnight status, all hospitals, 2015–16

Age group (years)	Same-day acute separations			Overnight acute separations		
	Males	Females	Persons ^(a)	Males	Females	Persons ^(a)
0–4	80,759	52,819	133,580	145,006	110,900	255,912
5–9	49,033	35,763	84,797	37,904	30,260	68,164
10–14	35,661	28,120	63,782	31,639	26,705	58,345
15–19	54,069	69,061	123,131	43,486	59,353	102,839
20–24	66,293	115,347	181,647	51,268	105,262	156,535
25–29	69,624	136,024	205,652	52,138	160,159	212,298
30–34	84,620	167,545	252,166	57,301	196,928	254,230
35–39	96,219	168,354	264,576	60,502	139,120	199,623
40–44	127,707	188,133	315,843	74,798	102,570	177,371
45–49	154,732	189,318	344,054	85,226	94,418	179,645
50–54	205,376	227,346	432,726	102,954	103,118	206,073
55–59	239,699	247,182	486,887	121,834	109,042	230,879
60–64	288,769	269,588	558,363	140,045	118,516	258,564
65–69	352,776	300,112	652,896	168,886	138,176	307,063
70–74	329,493	278,521	608,014	160,166	134,637	294,803
75–79	307,855	229,666	537,523	150,766	135,381	286,147
80–84	211,232	164,041	375,274	126,884	130,006	256,890
85+	142,119	129,603	271,723	147,084	201,198	348,282
Total^{(a)(b)}	2,896,046	2,996,546	5,892,658	1,757,893	2,095,751	3,853,705

(a) Persons includes separations for which the sex of the patient was not reported as male or female.

(b) The total includes separations for which the date of birth was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on the patient's sex and age group is available in:

- Section 3.2 – 'Aboriginal and Torres Strait Islander people'
- 'Chapter 5 What services were provided?' – for rehabilitation care
- 'Chapter 6 What procedures were performed?' – for elective and emergency admissions involving surgery.

Additional tables for separations by age group and sex for principal diagnosis and AR-DRGs accompany this report online.

Information on data limitations and methods is available in appendixes A and B.

3.2 Aboriginal and Torres Strait Islander people

This section presents information on separations for Aboriginal and Torres Strait Islander people and compares this information with separations for other Australians. It includes the numbers of separations and separation rates for 2015–16 in public and private hospitals, and by state and territory.

Caution should be used in interpreting these data because of jurisdictional differences in data quality. See Appendix A and Box 3.1 for more information.

Age group and sex

In 2015–16, about 483,000 separations were reported for Aboriginal and Torres Strait Islander people (Table 3.5). Of these:

- 58% were for females, compared with 52% for other Australians
- 10% were for children aged 0 to 14, compared with 6% for other Australians
- 15% were for people aged 65 and over, compared with 43% for other Australians.

Table 3.5: Separations by Indigenous status, age group and sex, all hospitals, 2015–16

Age group (years)	Indigenous Australians			Other Australians ^(a)		
	Males	Females	Persons ^(b)	Males	Females	Persons ^(b)
0–4	15,997	11,903	27,900	210,221	152,139	362,368
5–9	5,886	4,238	10,124	82,195	62,232	144,428
10–14	4,334	3,996	8,330	64,192	52,979	117,173
15–19	5,414	10,710	16,124	98,513	129,229	227,743
20–24	7,432	17,028	24,460	122,538	220,834	343,384
25–29	7,622	17,072	24,694	128,296	295,825	424,135
30–34	9,495	15,827	25,322	148,659	367,163	515,825
35–39	10,342	14,307	24,649	163,465	312,822	476,292
40–44	19,735	23,174	42,910	201,677	290,254	491,941
45–49	23,090	26,378	49,468	235,786	283,188	518,979
50–54	24,783	32,144	56,928	304,910	327,058	631,973
55–59	21,581	29,644	51,225	365,794	358,977	724,780
60–64	18,759	29,871	48,630	441,106	396,833	837,948
65+	29,450	42,572	72,022	2,256,110	2,043,787	4,299,910
Total^(c)	203,921	278,864	482,787	4,823,477	5,293,325	10,116,981

(a) Includes separations for which the Indigenous status was not reported.

(b) Persons includes separations for which the sex of the patient was not reported as male or female.

(c) Total includes separations for which the date of birth was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Separations

In 2015–16, about 4.6% of separations were reported for people of Aboriginal and Torres Strait Islander origin (Table 3.6), who represent about 3.1% of the Australian population.

About 90% of separations for Indigenous Australians were from public hospitals (435,000), compared with 58% of separations for other Australians. For public hospitals, about 6.9% of separations were reported for Indigenous Australians. The Northern Territory, the jurisdiction with the highest proportion of Indigenous residents (30.0%) had the highest proportion of public hospital separations for Indigenous Australians (70.6%). Victoria, the state with the lowest proportion of Indigenous residents (0.9%), recorded the lowest proportion of public hospital separations for Indigenous Australians (1.4%).

For separations for people who were reported as Indigenous Australians, 92.6% were reported as *Aboriginal but not Torres Strait Islander origin*, 3.8% were reported as *Torres Strait Islander but not Aboriginal origin* and 3.7% were reported as *Aboriginal and Torres Strait Islander origin* (Table 3.6).

Box 3.1: Under-identification of Aboriginal but not Torres Strait Islander people

The AIHW report *Indigenous identification in hospital separations data: quality report* estimated that, in the 2011–12 study period, about 88% of Indigenous Australians were identified correctly in public hospital admissions data (AIHW 2013). It is unknown to what extent Indigenous Australians might be under-identified in private hospital admissions data.

The report also produced correction factors to estimate the ‘true’ number of separations for Indigenous Australians. For example, the national correction factor of 1.09 suggested that the ‘true’ number of separations should be about 9% higher than reported for Indigenous Australians. Using this factor, it is estimated that about 526,000 separations were for Indigenous Australians in 2015–16. As other Australians may include unidentified Indigenous Australians, the ‘true’ number of separations for other Australians would be reduced and could be estimated at about 10,074,000 separations.

Using the same method (and assuming that the age distributions for unidentified and identified Indigenous Australians is similar), the ‘true’ separation rates for 2015–16 could be estimated as about 1,093 per 1,000 population for Indigenous Australians and 400 per 1,000 for other Australians. These rates indicate that, after adjusting for under-identification, Indigenous Australians were hospitalised at about 2.7 times the rate for other Australians.

Separation rates

In 2015–16, there were 1,003 separations per 1,000 population for Indigenous Australians, about 2.5 times the separation rate for other Australians. However, about 83% of this difference is due to the markedly higher rate of separations for dialysis for Indigenous Australians compared with other Australians.

The Northern Territory had the highest separation rate for Indigenous Australians in public hospitals (2,187 separations per 1,000), more than 6 times the rate for other Australians (Table 3.6).

For Indigenous Australians, there were 295 overnight separations per 1,000 population, which was about 80% higher than the rate for other Australians (164 per 1,000) (Table 3.7).

Same-day acute separations

In 2015–16, 5% of all same-day acute separations were for Indigenous Australians.

The same-day acute separation rate for Indigenous Australians was more than 3 times the rate for other Australians (702 and 221 per 1,000 population, respectively) (Table 3.8). The Northern Territory had the highest rate of overall same-day acute separations for Indigenous Australians (1,782 per 1,000).

Care involving dialysis accounted for a large proportion of same-day separations, particularly for Indigenous Australians, who were admitted for dialysis at more than 12 times the rate for other Australians. Excluding separations for dialysis, Indigenous Australians had lower same-day acute separation rates than other Australians in New South Wales, Victoria, Queensland, Western Australia and South Australia.

Overnight acute separations

Nationally, 4% of overnight acute separations were for Indigenous Australians.

In 2015–16, the overnight acute separation rate for Indigenous Australians (271 per 1,000 population) was 82% higher than the rate for other Australians (149 per 1,000 population) (Table 3.8).

In the Northern Territory Indigenous Australians had an overnight acute separation rate of 368 per 1,000 population, which was 3 times as high as the rate for other Australians (121 per 1,000) – the largest difference of all the states and territories.

Where to go for more information:

More information on separations by Indigenous status is available in:

- 'Chapter 4 Why did people receive care?' – for separations by principal diagnosis in ICD-10-AM chapters, and for injury or poisoning
- 'Chapter 5 What services were provided?' – for separations for rehabilitation care
- 'Chapter 6 What procedures were performed?' – for emergency and elective admissions involving surgery.

For detailed information on under-identification of Indigenous persons, see *Indigenous identification in hospital separations data: quality report* (AIHW 2013).

More information on data limitations and methods is available in appendixes A and B.

Table 3.6: Separations, by Indigenous status, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)
Public hospitals									
Aboriginal but not Torres Strait Islander origin	89,638	20,860	89,966	70,745	22,887	4,182	2,455	103,311	404,044
Torres Strait Islander but not Aboriginal origin	1,515	425	12,537	329	129	140	31	599	15,705
Aboriginal and Torres Strait Islander origin	1,895	2,285	7,565	871	803	465	109	810	14,803
<i>Indigenous Australians</i>	<i>93,048</i>	<i>23,570</i>	<i>110,068</i>	<i>71,945</i>	<i>23,819</i>	<i>4,787</i>	<i>2,595</i>	<i>104,720</i>	<i>434,552</i>
Neither Aboriginal nor Torres Strait Islander origin	1,761,780	1,629,849	1,177,174	558,794	397,184	116,351	104,090	43,649	5,788,871
Not reported	6,335	16,143	5,883	0	17,828	1,466	1,356	47	49,058
<i>Total</i>	<i>1,861,163</i>	<i>1,669,562</i>	<i>1,293,125</i>	<i>630,739</i>	<i>438,831</i>	<i>122,604</i>	<i>108,041</i>	<i>148,416</i>	<i>6,272,481</i>
Private hospitals									
Aboriginal but not Torres Strait Islander origin	4,482	769	5,174	29,394	964	n.p.	n.p.	n.p.	42,848
Torres Strait Islander but not Aboriginal origin	291	213	1,468	236	103	n.p.	n.p.	n.p.	2,437
Aboriginal and Torres Strait Islander origin	563	438	1,156	425	130	n.p.	n.p.	n.p.	2,950
<i>Indigenous Australians</i>	<i>5,336</i>	<i>1,420</i>	<i>7,798</i>	<i>30,055</i>	<i>1,197</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>48,235</i>
Neither Aboriginal nor Torres Strait Islander origin	1,206,467	1,011,276	979,107	467,443	294,606	n.p.	n.p.	n.p.	4,090,664
Not reported	49,367	9,217	85,652	0	25,945	n.p.	n.p.	n.p.	188,388
<i>Total</i>	<i>1,261,170</i>	<i>1,021,913</i>	<i>1,072,557</i>	<i>497,498</i>	<i>321,748</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,327,287</i>
All hospitals									
Indigenous Australians	98,384	24,990	117,866	102,000	25,016	n.p.	n.p.	n.p.	482,787
Other Australians	3,023,949	2,666,485	2,247,816	1,026,237	735,563	n.p.	n.p.	n.p.	10,116,981
Total	3,122,333	2,691,475	2,365,682	1,128,237	760,579	n.p.	n.p.	n.p.	10,599,768
Separations per 1,000 population^(c)									
Indigenous Australians	621.6	725.9	877.7	1,719.1	884.9	318.5	708.9	2,186.6	1,002.8
Other Australians	368.8	418.4	457.1	393.3	384.3	362.6	396.5	356.1	402.2
Total	373.6	420.0	467.8	422.0	392.1	359.8	399.7	743.6	413.5
Separation rate ratio ^(d)	1.7	1.7	1.9	4.4	2.3	0.9	1.8	6.1	2.5

(a) For Tasmania, the Australian Capital Territory and the Northern Territory, separations per 1,000 population are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the *Total* column.

(c) Separation rates are directly age-standardised using a highest age group of 65 and over. Therefore, standardised rates calculated for analyses by Indigenous status are not directly comparable with the rates presented in this report that use a highest age group of 85 and over.

(d) The separation rate ratio is equal to the separation rate for Indigenous Australians divided by the separation rate for other Australians.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 3.7: Overnight separations, by Indigenous status, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)
Public hospitals									
Aboriginal but not Torres Strait Islander origin	44,997	8,363	35,486	24,893	9,063	2,247	1,409	23,125	149,583
Torres Strait Islander but not Aboriginal origin	707	219	4,295	125	81	89	24	139	5,679
Aboriginal and Torres Strait Islander origin	1,210	995	3,458	382	165	159	69	283	6,721
<i>Indigenous Australians</i>	<i>46,914</i>	<i>9,577</i>	<i>43,239</i>	<i>25,400</i>	<i>9,309</i>	<i>2,495</i>	<i>1,502</i>	<i>23,547</i>	<i>161,983</i>
Neither Aboriginal nor Torres Strait Islander origin	957,017	689,087	542,161	264,905	209,670	55,947	49,572	20,541	2,788,900
Not reported	3,814	7,105	3,037	0	9,462	725	559	14	24,716
<i>Total</i>	<i>1,007,745</i>	<i>705,769</i>	<i>588,437</i>	<i>290,305</i>	<i>228,441</i>	<i>59,167</i>	<i>51,633</i>	<i>44,102</i>	<i>2,975,599</i>
Private hospitals									
Aboriginal but not Torres Strait Islander origin	1,577	303	1,536	383	192	n.p.	n.p.	n.p.	4,671
Torres Strait Islander but not Aboriginal origin	108	71	249	39	38	n.p.	n.p.	n.p.	557
Aboriginal and Torres Strait Islander origin	210	127	246	45	35	n.p.	n.p.	n.p.	774
<i>Indigenous Australians</i>	<i>1,895</i>	<i>501</i>	<i>2,031</i>	<i>467</i>	<i>265</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>6,002</i>
Neither Aboriginal nor Torres Strait Islander origin	309,286	334,362	298,266	146,349	90,997	n.p.	n.p.	n.p.	1,227,473
Not reported	12,898	2,481	21,938	0	1,448	n.p.	n.p.	n.p.	42,292
<i>Total</i>	<i>324,079</i>	<i>337,344</i>	<i>322,235</i>	<i>146,816</i>	<i>92,710</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1,275,767</i>
All hospitals									
Indigenous Australians	48,809	10,078	45,270	25,867	9,574	n.p.	n.p.	n.p.	167,985
Other Australians	1,283,015	1,033,035	865,402	411,254	311,577	n.p.	n.p.	n.p.	4,083,381
Total	1,331,824	1,043,113	910,672	437,121	321,151	n.p.	n.p.	n.p.	4,251,366
Separations per 1,000 population^(c)									
Indigenous Australians	270.9	252.1	296.1	340.8	297.0	148.6	366.8	389.3	295.1
Other Australians	158.9	162.6	177.3	158.6	165.9	152.5	175.9	163.0	163.9
Total	161.6	163.3	181.2	164.2	168.7	151.9	177.9	221.2	167.2
Separation rate ratio ^(d)	1.7	1.5	1.7	2.1	1.8	1.0	2.1	2.4	1.8

(a) For Tasmania, the Australian Capital Territory and the Northern Territory, separations per 1,000 population are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the *Total* column.

(c) Separation rates are directly age-standardised using a highest age group of 65 and over. Therefore, standardised rates calculated for analyses by Indigenous status are not directly comparable with the rates presented in this report that use a highest age group of 85 and over.

(d) The separation rate ratio is equal to the separation rate for Indigenous Australians divided by the separation rate for other Australians.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 3.8: Same-day and overnight acute separations per 1,000 population, by Indigenous status, all hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)
Indigenous Australians									
Same-day acute separations	48,620	14,851	71,330	76,100	15,176	2,257	1,068	81,147	311,891
Same-day separations per 1,000 population ^(c)	344.6	472.3	572.5	1,377.8	577.9	131.0	260.2	1,782.2	701.9
Same-day separations per 1,000 population excluding dialysis ^(c)	124.2	194.5	188.6	126.5	143.2	82.7	179.8	185.6	156.6
Overnight acute separations	44,280	9,027	41,821	24,379	8,786	2,270	1,353	22,628	155,345
Overnight separations per 1,000 population ^(c)	244.2	221.6	270.3	320.7	273.3	111.7	280.8	367.5	270.9
Other Australians									
Same-day acute separations	1,487,598	1,601,015	1,267,817	612,641	392,083	60,422	54,397	23,104	5,580,767
Same-day separations per 1,000 population ^(c)	180.7	250.5	256.4	233.8	202.9	105.2	141.6	143.5	220.8
Same-day separations per 1,000 population excluding dialysis ^(c)	140.9	201.5	215.4	177.8	165.9	78.5	85.0	109.2	177.2
Overnight acute separations	1,155,169	928,497	789,879	376,209	284,636	51,258	45,040	19,508	3,698,360
Overnight separations per 1,000 population ^(c)	143.7	146.6	162.1	145.1	152.0	94.2	115.6	121.1	148.9
Total									
Same-day acute separations	1,536,218	1,615,866	1,339,147	688,741	407,259	62,679	55,465	104,251	5,892,658
Same-day separations per 1,000 population ^(c)	183.1	251.4	263.6	257.0	208.0	105.3	142.7	480.5	228.9
Same-day separations per 1,000 population excluding dialysis ^(c)	140.7	201.5	215.2	176.9	165.6	78.4	86.0	129.0	177.0
Overnight acute separations	1,199,449	937,524	831,700	400,588	293,422	53,528	46,393	42,136	3,853,705
Overnight separations per 1,000 population ^(c)	146.1	147.2	165.6	150.4	154.5	94.4	117.5	184.1	152.0

(a) For Tasmania, the Australian Capital Territory and the Northern Territory, separations per 1,000 population are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the *Total* column.

(c) Separation rates are directly age-standardised using a highest age group of 65 and over. Therefore, standardised rates calculated for analyses by Indigenous status are not directly comparable to the rates presented in this report that use a highest age group of 85 and over.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

3.3 Remoteness area

This section presents information on separations by remoteness area of usual residence and compares rates across remoteness areas. It includes the numbers of separations and separation rates in public and private hospitals for 2015–16.

Remoteness area categories divide Australia into areas depending on distances from population centres. The patient's area of usual residence is used to derive the remoteness area of usual residence.

Separation rates

The number of separations per 1,000 population varied by remoteness area. Overall, separation rates were highest for people living in *Very remote* and *Remote* areas (746 and 479 per 1,000 population, respectively) (Table 3.9).

The separation rates for the public and private sectors varied across remoteness areas.

For public hospitals, the highest separation rates were for patients living in *Very remote* areas and the lowest for patients living in *Major cities* (645 and 226 per 1,000, respectively).

For private hospitals, the highest separation rates were for patients living in *Major cities* and the lowest for patients living in *Very remote* areas (184 and 101 per 1,000, respectively). In part this may reflect the distribution of private hospitals across remoteness areas.

Table 3.9: Selected separation statistics, by remoteness area of usual residence, public and private hospitals, 2015–16

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations	3,981,199	1,296,842	699,870	123,918	123,183	6,272,481
Separations per 1,000 population ^(b)	226.2	269.7	306.2	378.2	645.3	247.9
Separation rate ratio	0.9	1.1	1.2	1.5	2.6	
Private hospitals						
Separations	3,256,791	747,993	259,726	33,544	18,841	4,327,287
Separations per 1,000 population ^(b)	183.5	145.7	109.2	101.3	100.5	167.8
Separation rate ratio	1.1	0.9	0.7	0.6	0.6	
All hospitals						
Separations	7,237,990	2,044,835	959,596	157,462	142,024	10,599,768
Separations per 1,000 population^(b)	409.6	415.5	415.4	479.4	745.8	415.6
Separation rate ratio	1.0	1.0	1.0	1.2	1.8	

(a) Total includes separations for which the remoteness area could not be categorised.

(b) Separation rates are directly age-standardised using populations by remoteness areas, which do not include persons with unknown or migratory area of usual residence. Therefore, the total standardised rates for analyses by remoteness area differ from rates calculated by state or territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Same-day acute separations

In 2015–16, people who lived in *Very remote* areas had 488 same-day acute separations per 1,000 population, compared with about 231 per 1,000 nationally (Table 3.10). The standardised separation rate ratio (SRR) for *Very remote* areas was 2.1, indicating that the separation rate was more than twice the national same-day acute separation rate.

Overnight acute separations

In 2015–16, people living in *Very remote* areas of Australia had 245 overnight acute separations per 1,000 population, compared with 152 per 1,000 nationally (Table 3.10).

The SRR of 1.6 for this area indicates that the overnight acute separation rate in *Very remote* areas was 60% higher than the national rate.

Table 3.10: Selected separation statistics, for same-day and overnight acute separations, by remoteness area of usual residence, all hospitals, 2015–16

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Same-day acute separations						
Separations	4,035,392	1,126,793	522,931	90,522	93,947	5,892,658
Separations per 1,000 population ^(b)	229.4	225.6	223.0	271.0	488.4	230.9
Separation rate ratio	1.0	1.0	1.0	1.2	2.1	
Overnight acute separations						
Separations	2,533,691	786,908	396,088	63,425	45,912	3,853,705
Separations per 1,000 population ^(b)	143.2	164.0	175.0	197.4	244.5	152.1
Separation rate ratio	0.9	1.1	1.2	1.3	1.6	

(a) Total includes separations for which the remoteness area could not be categorised.

(b) Separation rates are directly age-standardised using populations by remoteness areas, which do not include persons with unknown or migratory area of usual residence. Therefore, the total standardised rates for analyses by remoteness area differ from rates calculated by state or territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on separations by remoteness area of usual residence is available in:

- ‘Chapter 4 Why did people receive care?’ – for potentially preventable hospitalisations
- ‘Chapter 5 What services were provided?’ – for rehabilitation care and palliative care
- ‘Chapter 6 What procedures were performed?’ – for emergency and elective admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

3.4 Socioeconomic status

This section presents information on separations by SES of area of usual residence and compares rates across SES groups. It includes the numbers of separations and separation rates in public and private hospitals for 2015–16. The information is presented by SES quintiles (fifths). The lowest SES group represents the areas containing the 20% of the population with the most disadvantage and the highest SES group represents the areas containing the 20% of the population with the least disadvantage.

Separation rates

In 2015–16, separation rates varied across SES groups and between public and private hospitals. For public hospitals, the highest separation rates were for patients living in areas classified as being the lowest (most disadvantaged) SES group (329 separations per 1,000 population) (Table 3.11). For private hospitals, the highest separation rates were for patients living in areas classified as being the highest (least disadvantaged) SES group (236 per 1,000). See Appendix B for more information on SES groups.

Table 3.11: Selected separation statistics by socioeconomic status of area of usual residence, public and private hospitals, 2015–16

	Socioeconomic status of area of usual residence					Total ^(a)
	1—Lowest	2	3	4	5—Highest	
Public hospitals						
Separations	1,701,604	1,428,588	1,246,261	1,043,098	804,402	6,272,481
Separations per 1,000 population ^(b)	329.1	273.5	246.3	213.9	164.7	247.9
Separation rate ratio	1.3	1.1	1.0	0.9	0.7	
Private hospitals						
Separations	601,911	722,669	865,515	954,553	1,171,434	4,327,287
Separations per 1,000 population ^(b)	112.0	134.5	167.3	194.1	235.9	167.8
Separation rate ratio	0.7	0.8	1.0	1.2	1.4	
All hospitals						
Separations	2,303,515	2,151,257	2,111,776	1,997,651	1,975,836	10,599,768
Separations per 1,000 population ^(b)	441.1	407.9	413.6	408.1	400.7	415.7
Separation rate ratio	1.1	1.0	1.0	1.0	1.0	

(a) Total includes separations for which the SES group could not be categorised.

(b) Separation rates are directly age-standardised using populations by socioeconomic status groups, which do not include persons in areas for which the socioeconomic status could not be determined. Therefore, the total standardised rates for analyses by socioeconomic status groups differ from rates calculated by state or territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Same-day acute separations

Each SES group accounted for between 19% and 22% of total same-day acute separations. The separation rates varied from 221 per 1,000 population for people living in areas classified as having the second lowest SES group to 245 per 1,000 for the lowest SES group (Table 3.12).

Overnight acute separations

Each SES group accounted for between 17% and 23% of total overnight acute separations. Separation rates varied from 132 per 1,000 population for patients living in areas classified as being the highest SES group to 170 per 1,000 for the lowest SES group (Table 3.12).

The SRR of 0.9 for the highest and second highest SES groups indicates that the overnight acute separation rates for these groups were 10% lower than the national rate.

Table 3.12: Selected separation statistics, for same-day and overnight acute separations, by socioeconomic status of area of usual residence, all hospitals, 2015–16

	Socioeconomic status of area of usual residence					Total ^(a)
	1—Lowest	2	3	4	5—Highest	
Same-day acute separations						
Separations	1,279,680	1,171,233	1,181,929	1,128,073	1,107,593	5,892,658
Separations per 1,000 population ^(b)	244.6	221.3	231.2	231.2	224.5	230.9
Separation rate ratio	1.1	1.0	1.0	1.0	1.0	
Overnight acute separations						
Separations	881,005	831,527	768,296	696,106	648,452	3,853,705
Separations per 1,000 population ^(b)	169.9	159.3	151.5	141.9	132.4	152.1
Separation rate ratio	1.1	1.0	1.0	0.9	0.9	

(a) Total includes separations for which SES group could not be categorised.

(b) Separation rates are directly age-standardised using populations by socioeconomic status groups, which do not include persons in areas for which the socioeconomic status could not be determined. Therefore, the total standardised rates for analyses by socioeconomic status groups differ from rates calculated by state or territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on separations by SES of area of usual residence is available in:

- 'Chapter 4 Why did people receive care?' – for potentially preventable hospitalisations
- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- 'Chapter 6 What procedures were performed?' – for emergency and elective admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

4 Why did people receive care?

The reason that a patient was admitted to hospital can be described in various ways. The information in this chapter includes:

- the mode of admission – as a new admission to hospital, a transfer from another hospital, or a change in the type of care the patient required
- the urgency of admission – as an emergency admission, an elective admission or other planned admission (for example, for childbirth)
- the type of care required – as acute, mental health, newborn, subacute or non-acute care
- the principal diagnosis – the diagnosis established at the completion of the episode of care to be chiefly responsible for occasioning the episode of admitted patient care
- whether the admission could potentially have been avoided (for example, potentially preventable hospitalisations (PPHs), and injuries and poisoning)
- whether the patient was waiting for residential aged care.

Key findings

Mode and urgency of admission

In 2015–16, most separations (94%) began as a new admission to hospital. About 5% of separations in public hospitals and 3% in private hospitals began as a transfer from another hospital.

In 2015–16, about 27% of separations were emergency admissions, with 92% of these occurring in public hospitals.

In public hospitals, separations both for *Public patients* and for *Private health insurance* patients were more likely to be emergency admissions (41% and 49%, respectively), and in private hospitals were more likely to be elective or other planned care (94% and 95%, respectively).

Care type

In 2015–16, about 91% of separations were for *Acute* care, 4% for *Rehabilitation* care and 3% for *Newborn* care. About 304,000 separations were reported for *Mental health* care, but these are likely to be underestimated in the first year of collection (see Box 1.2). About 42,000 separations (0.4%) were for *Palliative care*, and the remainder were for other subacute and non-acute types of care.

Public hospitals accounted for about 61% of *Acute* care, while private hospitals accounted for about 76% of *Rehabilitation* care.

Principal diagnosis

In 2015–16, about 10% of separations (more than 1.0 million) had a principal diagnosis in the ICD-10-AM chapter *Diseases of the digestive system* and a further 7% in the chapter *Injury, poisoning and certain other consequences of external causes*.

Dialysis for kidney disease was the most common reason for care (about 1.4 million separations). Between 2011–12 and 2015–16, separations for dialysis increased by 3.3% on average each year. The second most common reason was *Other medical care* (496,000), mostly for chemotherapy.

Potentially preventable hospitalisations

In 2015–16, PPHs, accounted for about 6% of all separations, with *Urinary tract infection* being the most common PPH condition (75,600 hospitalisations).

4.1 Mode and urgency of admission

This section presents information on the mechanism by which an admitted patient begins an episode of care (the mode of admission) and the urgency with which they were admitted (urgency of admission).

Mode of admission

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
- *New admission to hospital* – this term refers to all other planned and unplanned admissions (that is, the patient was not transferred from another hospital and did not have a *Statistical admission: care type change* in the same hospital).

In 2015–16, most separations in both public and private hospitals had a mode of admission of *New admission to hospital* (93% and 96%, respectively) (Table 4.1).

Public hospitals had a higher proportion of patients transferred from another hospital than private hospitals (4.7% and 3.0%, respectively). For public hospitals, Western Australia had the highest proportion of patients transferred from another hospital and the Northern Territory had the lowest (5.9% and 0.1%, respectively).

Public hospitals also reported higher proportions of *Statistical admission: care type change* than private hospitals (1.7% and 0.6%, respectively). For public hospitals, the Australian Capital Territory had the highest proportion of patients with a statistical admission.

It should be noted that in Queensland, the implementation of the *Mental health* care type from 1 July 2015 was effected by statistically discharging and readmitting patients on 1 July 2015 to record the change in care type. Therefore, the number of separations with an admission mode of *Statistical admission: care type change* for Queensland and nationally for 2015–16 are not comparable with previous years. See Box 1.2 and Appendix A for more information.

Same-day acute separations

In both public and private hospitals, most same-day acute separations were a *New admission to hospital* (99% overall) (Table 4.2). Public hospitals recorded higher proportions of *Admitted patient transferred from another hospital* than private hospitals (1.2% and 0.3%, respectively).

Overnight acute separations

For both public and private hospitals, the majority of overnight acute separations were a *New admission to hospital* (93% overall) (Table 4.2).

Higher proportions of overnight acute separations were for *Admitted patient transferred from another hospital* compared with same-day acute separations. For public hospitals, 6.5% of overnight acute separations had this admission mode, compared with 6.0% for private hospitals.

Table 4.1: Separations by mode of admission, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld ^(a)	WA	SA	Tas	ACT	NT	Total
Public hospitals									
New admission to hospital ^(b)	1,713,952	1,572,847	1,219,490	583,317	408,251	114,511	100,605	146,369	5,859,342
Admitted patient transferred from another hospital	101,940	78,328	44,565	37,505	23,813	3,499	3,411	171	293,232
Statistical admission: type change	36,218	17,943	29,070	9,917	5,558	2,538	4,025	1,874	107,143
Not reported	9,053	444	0	0	1,209	2,056	0	2	12,764
<i>Total public hospitals</i>	<i>1,861,163</i>	<i>1,669,562</i>	<i>1,293,125</i>	<i>630,739</i>	<i>438,831</i>	<i>122,604</i>	<i>108,041</i>	<i>148,416</i>	<i>6,272,481</i>
Private hospitals									
New admission to hospital ^(b)	1,209,054	981,261	1,035,656	485,068	314,930	n.p.	n.p.	n.p.	4,151,927
Admitted patient transferred from another hospital	44,570	35,800	27,029	9,720	6,215	n.p.	n.p.	n.p.	128,156
Statistical admission: type change	5,796	4,852	9,872	2,710	578	n.p.	n.p.	n.p.	25,308
Not reported	1,750	0	0	0	25	n.p.	n.p.	n.p.	21,896
<i>Total private hospitals</i>	<i>1,261,170</i>	<i>1,021,913</i>	<i>1,072,557</i>	<i>497,498</i>	<i>321,748</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,327,287</i>
All hospitals									
New admission to hospital ^(b)	2,923,006	2,554,108	2,255,146	1,068,385	723,181	n.p.	n.p.	n.p.	10,011,269
Admitted patient transferred from another hospital	146,510	114,128	71,594	47,225	30,028	n.p.	n.p.	n.p.	421,388
Statistical admission: type change	42,014	22,795	38,942	12,627	6,136	n.p.	n.p.	n.p.	132,451
Not reported	10,803	444	0	0	1,234	n.p.	n.p.	n.p.	34,660
Total	3,122,333	2,691,475	2,365,682	1,128,237	760,579	n.p.	n.p.	n.p.	10,599,768

(a) In Queensland, the implementation of the *Mental health* care type from 1 July 2015 was effected by statistically discharging and readmitting existing patients on 1 July 2015 to record the change in care type, resulting in a relatively large number of statistical admissions.

(b) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.2: Acute separations, by mode of admission and same-day/overnight status, public and private hospitals, 2015–16

Mode of admission	Public hospitals	Private hospitals	Total
Same-day acute separations			
New admission to hospital ^(a)	3,190,744	2,635,361	5,826,105
Admitted patient transferred from another hospital	39,419	6,729	46,148
Statistical admission: type change ^(b)	670	442	1,112
Not reported	7,824	11,469	19,293
Total	3,238,657	2,654,001	5,892,658
Overnight acute separations			
New admission to hospital ^(a)	2,513,194	1,074,789	3,587,983
Admitted patient transferred from another hospital	174,840	68,758	243,598
Statistical admission: type change ^(b)	9,368	2,646	12,014
Not reported	3,659	6,451	10,110
Total	2,701,061	1,152,644	3,853,705

(a) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

(b) In Queensland, the implementation of the *Mental health* care type from 1 July 2015 was effected by statistically discharging and readmitting existing patients on 1 July 2015 to record the change in care type, resulting in a relatively large number of statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How urgent was the care?

Admissions to hospital can be categorised as *Emergency* (admission was required within 24 hours), *Elective* (admission could be delayed by at least 24 hours) or *Not assigned* (obstetric care and planned care, such as dialysis).

Between 2011–12 and 2015–16, emergency admissions in public hospitals rose from 2,304,000 to 2,655,000, an average increase of 3.6% per year, compared with 2.3% for private hospitals (Table 4.3). Over this period, elective admissions in private hospitals increased by an average of 3.8% per year, compared with a 2.5% average increase in public hospitals.

Table 4.3: Separations by urgency of admission, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Emergency	2,304,185	2,283,421	2,383,578	2,514,638	2,655,379	3.6	5.6
Elective	2,211,277	2,253,439	2,328,197	2,384,343	2,436,994	2.5	2.2
Not assigned	992,305	990,199	1,002,098	1,080,644	1,179,538	4.4	9.2
Not reported ^(a)	3,725	3,137	997	713	570	n.p.	n.p.
Total	5,511,492	5,530,196	5,714,870	5,980,338	6,272,481	3.3	4.9
Private hospitals							
Emergency	203,645	205,825	205,300	213,810	222,862	2.3	4.2
Elective	3,064,862	3,162,304	3,292,873	3,441,036	3,551,977	3.8	3.2
Not assigned	453,387	466,880	479,587	508,984	546,973	4.8	7.5
Not reported ^(a)	18,778	4,052	4,145	6,199	5,475	n.p.	n.p.
Total	3,740,672	3,839,061	3,981,905	4,170,029	4,327,287	3.7	3.8

(a) The percentage changes for *Not reported* are not shown as they are based on small numbers of records and may reflect data quality rather than changes in practices or admission rates.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Urgency of admission by principal source of funding

Overall, about 40% of separations for *Public patients* were emergency admissions, 39% were elective admissions and for 21% the urgency of admission was *Not assigned* (Table 4.4).

For *Public patients* in private hospitals, about 67% had a *Not assigned* urgency of admission, consistent with the numbers of publicly-funded dialysis separations in private hospitals in Western Australia and South Australia.

About 75% of separations for patients who used *Private health insurance* to fund all or part of their admission were elective admissions, 14% were emergency admissions and 12% had a *Not assigned* urgency of admission.

Separations for patients who used *Private health insurance* to fund all or part of their admission in public hospitals were often reported as emergency admissions. In both public and private hospitals, separations with a funding source of *Self-funded* were more often reported as elective admissions (91% overall). For *Self-funded* separations in public hospitals, about 29% were emergency admissions.

For separations with a funding source of *Motor vehicle third party personal claim*, more than 68% were emergency admissions. In public hospitals, 84% of separations with a funding source of *Motor vehicle third party personal claim* were emergency admissions.

Same-day acute care

In 2015–16, about 13% of same-day acute separations were emergency admissions; 97% of these were in public hospitals. About 68% of same-day acute separations were elective admissions, and more than half of these occurred in private hospitals (55%) (Table 4.5).

Overnight acute care

In 2015–16, over half (52%) of all overnight acute separations were emergency admissions; 90% of these were in public hospitals. About 36% of overnight acute separations were elective admissions, with about 62% of these in private hospitals (Table 4.5).

Where to go for more information:

More information on separations by mode and urgency of admission is available in:

- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- 'Chapter 6 What procedures were performed?' – for emergency and elective admissions involving surgery.

More information on separations by principal source of funding is available in:

- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- 'Chapter 6 What procedures were performed?' – for emergency and elective surgery and for elective surgery waiting times
- 'Chapter 7 Costs and funding'.

Information on data limitations and methods is available in appendixes A and B.

Information on urgency for emergency department care (triage category) and admissions from public hospital emergency departments is available in *Emergency department care 2015–16: Australian hospital statistics* (AIHW 2016d).

Table 4.4: Separations by principal source of funding and urgency of admission, public and private hospitals, 2015–16

Principal source of funding	Urgency of admission			Total ^(a)
	Emergency	Elective	Not assigned	
Public hospitals				
Public patients ^(b)	2,109,541	2,044,093	1,032,137	5,186,320
Private health insurance	423,847	327,386	120,656	871,902
Self-funded	13,390	27,126	6,404	46,921
Workers compensation	17,048	4,568	806	22,422
Motor vehicle third party personal claim	23,620	3,106	1,367	28,094
Department of Veterans' Affairs	51,657	21,304	12,044	85,008
Other ^(c)	16,276	9,411	6,124	31,814
Total	2,655,379	2,436,994	1,179,538	6,272,481
Private hospitals				
Public patients ^(b)	9,277	43,582	109,663	162,522
Private health insurance	185,134	3,012,851	399,785	3,601,976
Self-funded	2,886	275,758	7,916	286,570
Workers compensation	1,780	55,364	974	58,262
Motor vehicle third party personal claim	312	6,535	133	6,980
Department of Veterans' Affairs	22,656	127,475	24,092	174,290
Other ^(c)	817	30,412	4,410	36,687
Total	222,862	3,551,977	546,973	4,327,287
All hospitals				
Public patients ^(b)	2,118,818	2,087,675	1,141,800	5,348,842
Private health insurance	608,981	3,340,237	520,441	4,473,878
Self-funded	16,276	302,884	14,320	333,491
Workers compensation	18,828	59,932	1,780	80,684
Motor vehicle third party personal claim	23,932	9,641	1,500	35,074
Department of Veterans' Affairs	74,313	148,779	36,136	259,298
Other ^(c)	17,093	39,823	10,534	68,501
Total	2,878,241	5,988,971	1,726,511	10,599,768

(a) The total includes about 6,000 separations for which the urgency of admission was not reported.

(b) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(c) *Other patients* 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, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 4.5: Acute separations, by same-day/overnight status and urgency of admission, public and private hospitals, 2015–16

Urgency of admission	Public hospitals	Private hospitals	Total
Same-day acute separations			
Emergency	740,506	20,492	760,998
Elective	1,816,252	2,213,111	4,029,363
Not assigned	681,858	419,836	1,101,694
Not reported	41	562	603
Total	3,238,657	2,654,001	5,892,658
Overnight acute separations			
Emergency	1,813,025	197,530	2,010,555
Elective	527,747	865,528	1,393,275
Not assigned	360,211	88,636	448,847
Not reported	78	950	1,028
Total	2,701,061	1,152,644	3,853,705

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

4.2 Care type

This section presents information on the types of care patients received in hospital. It includes information on the numbers of separations, over time and in 2015–16. Information on patient days and average length of stay are for 2015–16.

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* (see Box 4.1)
- *Newborn*
- *Subacute – Rehabilitation care, Palliative care, Geriatric evaluation and management and Psychogeriatric care*
- *Non-acute – Maintenance care*
- *Mental health care*
- *Other admitted patient care.*

The care type *Mental health* was introduced on 1 July 2015. Therefore, data presented by care type for 2015–16 are not comparable with data presented for earlier periods. As 2015–16 is the first year of collection for the *Mental health* care type, the number of *Mental health* care separations may be underestimated.

In addition, revised definitions for care types were introduced from 1 July 2013, with the aim to improve consistency in reporting of subacute and non-acute care types. Hence, data reported from 2013–14 onwards will not be entirely comparable with data reported for earlier years. See Box 1.2 and Appendix A for more information.

Box 4.1: Acute care

An episode of acute care for an admitted patient is one in which the principal clinical intent is to do one or more of the following:

- manage labour (obstetric)
- cure illness or provide definitive treatment of injury
- perform surgery
- relieve symptoms of illness or injury (excluding palliative care)
- reduce severity of illness or injury
- protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal functions
- perform diagnostic or therapeutic procedures.

Changes over time

Between 2011–12 and 2015–16, the number of separations for *Acute care* increased by 2.8% on average per year for public hospitals, and by 2.2% per year for private hospitals (Table 4.6).

Between 2014–15 and 2015–16, the number of separations for *Acute care* increased by 2.7% on average per year for public hospitals, and decreased by 1.0% per year for private hospitals.

Due to the introduction of the *Mental health* care type from 1 July 2015, the changes over time presented in Table 4.6 should be interpreted with caution. See Box 1.2 and Appendix A for more information.

Between 2011–12 and 2015–16, the number of separations for subacute and non-acute care rose from about 424,000 to about 549,000, an average increase of 6.7% per year.

Over this period, *Rehabilitation care* accounted for an increasing proportion of all subacute and non-acute care separations, rising from 76% in 2011–12 to 79% in 2015–16. In 2015–16, it accounted for about 51% of subacute and non-acute care separations for public hospitals, and 95% for private hospitals.

Table 4.6: Separations by care type, public and private hospitals, 2011–12 to 2015–16^(a)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Acute	5,255,045	5,259,399	5,447,244	5,705,939	5,860,520	2.8	2.7
Subacute and non-acute care							
Rehabilitation	95,562	103,220	99,091	102,815	102,784	1.8	<–0.1
Palliative care	31,260	33,272	32,585	34,594	36,499	3.9	5.5
Geriatric evaluation and management	30,451	33,284	34,321	32,446	32,171	1.4	–0.8
Psychogeriatric care	2,382	2,485	2,416	1,895	1,455	–11.6	–23.2
Maintenance care	22,271	23,062	23,123	25,472	26,694	4.6	4.8
<i>Subacute and non-acute care</i>	<i>181,926</i>	<i>195,323</i>	<i>191,536</i>	<i>197,222</i>	<i>199,620</i>	<i>2.3</i>	<i>1.2</i>
Newborn (with at least 1 qualified day)	64,014	64,587	65,687	66,294	67,313	1.3	1.5
Newborn (without qualified days)	163,206	166,742	169,228	170,762	175,643	1.9	2.9
Mental health care	..	..	..	..	133,143	..	..
<i>Total public hospitals^(b)</i>	<i>5,511,492</i>	<i>5,530,196</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>3.3</i>	<i>4.9</i>
Private hospitals							
Acute	3,480,964	3,565,913	3,694,442	3,828,761	3,790,717	2.2	–1.0
Subacute and non-acute care							
Rehabilitation	226,887	240,519	255,567	309,862	331,998	10.0	7.1
Palliative care	5,877	6,007	6,392	6,217	5,721	–0.7	–8.0
Geriatric evaluation and management	124	204	211	119	124	0.0	4.2
Psychogeriatric care	6,204	6,321	7,116	7,216	6,730	2.1	–6.7
Maintenance care	2,698	2,300	1,663	1,797	5,153	17.6	186.8
<i>Subacute and non-acute care</i>	<i>241,790</i>	<i>255,351</i>	<i>270,949</i>	<i>325,211</i>	<i>349,733</i>	<i>9.7</i>	<i>7.5</i>
Newborn (with at least 1 qualified day)	15,812	15,220	14,218	13,887	11,394	–7.9	–18.0
Newborn (without qualified days)	46,726	48,138	47,322	45,013	46,747	0.0	3.9
Mental health care	..	..	..	..	170,909	..	..
<i>Total private hospitals^(b)</i>	<i>3,740,672</i>	<i>3,839,061</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>3.7</i>	<i>3.8</i>
All hospitals	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

(a) The care type *Mental health* was implemented from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute* care or as *Subacute and non-acute* care). Therefore, information presented for 2015–16 may not be comparable with data presented for earlier periods.

(b) Totals exclude separations for *Newborns* without qualified days, and include separations for *Other admitted care*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How much activity was there in 2015–16?

In 2015–16, for the public and private sectors combined, 91% of separations were classified as episodes of *Acute care*, 4.0% as *Rehabilitation care*, 2.9% as *Mental health care* and 0.9% as *Newborn* (with qualified days) (Table 4.7).

The proportions of separations for each care type varied by hospital sector. Public hospitals accounted for 61% of separations for *Acute care*, while private hospitals accounted for 76% of separations for *Rehabilitation care*.

The proportion of separations that were classified as *Rehabilitation care* in public hospitals ranged from 0.2% in the Northern Territory to 2.5% in South Australia. In private hospitals, it ranged from 0.8% in Western Australia to 16.3% in New South Wales.

The proportion of separations for *Mental health care* in public hospitals ranged from 0.7% in the Northern Territory to 3.0% in South Australia. Among jurisdictions whose private hospital data could be reported, the proportion of separations for *Mental health care* ranged from 0.7% in South Australia to 5.5% in Queensland.

Patient days

In 2015–16, for the public and private sectors combined, *Acute care* accounted for 70% of patient days and *Rehabilitation care* (the largest component of subacute and non-acute care) accounted for 10% of patient days (Table 4.8). *Mental health care* accounted for about 9% of patient days.

Public hospitals accounted for 66% of patient days for *Acute care*, 70% of patient days for *Mental health care*, and 55% of patient days for *Rehabilitation care*.

Length of stay

The ALOS for episodes of *Acute care* was longer in public hospitals (2.4 days) than in private hospitals (1.9 days) (tables 4.7 and 4.8).

The ALOS for *Rehabilitation care* episodes was 15.8 days in public hospitals, and 4.0 days in private hospitals. In part, this reflects a high proportion of same-day rehabilitation separations in private hospitals, as well as a number of very long stays for rehabilitation separations in public hospitals.

Where to go for more information:

More information on separations by care type is available in:

- 'Chapter 2 How much activity was there?' for same-day and overnight acute care
- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care.

More detailed information on the provision of admitted patient mental health care is available in the AIHW report *Mental health services in Australia* (AIHW 2016f), which includes separations for which specialised psychiatric care days and/or a mental health-related principal diagnosis were reported.

Definitions for care types are available online at meteor.aihw.gov.au/content/index.phtml/itemId/584408.

Information on data limitations and methods is available in appendixes A and B.

Table 4.7: Separations, by care type, public and private hospitals, states and territories, 2015–16

Care type	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Acute care	1,707,520	1,584,944	1,207,172	597,539	402,380	115,301	100,330	145,334	5,860,520
<i>Subacute and non-acute care</i>									
Rehabilitation care	39,184	18,248	23,957	6,283	11,442	1,027	2,318	325	102,784
Palliative care	14,497	7,663	8,488	1,960	1,957	747	813	374	36,499
Geriatric evaluation and management	5,463	17,450	4,543	2,536	1,784	10	307	78	32,171
Psychogeriatric care	546	0	306	523	2	60	17	1	1,455
Maintenance care	11,243	729	6,782	2,420	2,991	1,195	1,102	232	26,694
<i>Newborn care</i>									
Newborn—qualified days only	35,073	12,104	8,707	4,986	3,292	830	1,273	1,048	67,313
Newborn—qualified and unqualified days	3,662	2,900	2,502	1,216	1,266	76	255	0	11,877
Newborn—unqualified days only	41,959	51,062	37,649	21,388	12,539	3,943	4,204	2,899	175,643
<i>Total newborn care</i>	<i>80,694</i>	<i>66,066</i>	<i>48,858</i>	<i>27,590</i>	<i>17,097</i>	<i>4,849</i>	<i>5,732</i>	<i>3,947</i>	<i>254,833</i>
Mental health care	43,972	25,524	30,668	13,276	13,717	3,348	1,626	1,012	133,143
<i>Total^(b)</i>	<i>1,903,122</i>	<i>1,720,624</i>	<i>1,330,774</i>	<i>652,127</i>	<i>451,370</i>	<i>126,547</i>	<i>112,245</i>	<i>151,315</i>	<i>6,448,124</i>
Private hospitals									
Acute care	982,837	950,165	950,041	483,798	292,886	n.p.	n.p.	n.p.	3,790,717
<i>Subacute and non-acute care</i>									
Rehabilitation care	208,551	24,214	56,704	4,265	25,508	n.p.	n.p.	n.p.	331,998
Palliative care	394	792	1,897	2,000	310	n.p.	n.p.	n.p.	5,721
Geriatric evaluation and management	1	0	74	38	2	n.p.	n.p.	n.p.	124
Psychogeriatric care	7	6,639	25	59	0	n.p.	n.p.	n.p.	6,730
Maintenance care	3,558	180	1,236	122	7	n.p.	n.p.	n.p.	5,153

(continued)

Table 4.7 (continued): Separations, by care type, public and private hospitals, states and territories, 2015–16

Care type	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
Private hospitals									
<i>Newborn care</i>									
Newborn—qualified days only	4,161	3,021	1,874	1,203	857	n.p.	n.p.	n.p.	11,394
Newborn—qualified and unqualified days	2,411	256	551	587	0	n.p.	n.p.	n.p.	4,046
Newborn without qualified days	16,669	3,305	14,196	8,770	716	n.p.	n.p.	n.p.	46,747
<i>Total newborn care</i>	<i>23,241</i>	<i>6,582</i>	<i>16,621</i>	<i>10,560</i>	<i>1,573</i>	n.p.	n.p.	n.p.	<i>62,187</i>
Mental health care	59,250	36,646	60,153	5,426	2,178	n.p.	n.p.	n.p.	170,909
<i>Total^(b)</i>	<i>1,277,839</i>	<i>1,025,218</i>	<i>1,086,753</i>	<i>506,268</i>	<i>322,464</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>4,374,034</i>
All hospitals									
Acute care	2,690,357	2,535,109	2,157,213	1,081,337	695,266	n.p.	n.p.	n.p.	9,651,237
<i>Subacute and non-acute care</i>									
Rehabilitation care	247,735	42,462	80,661	10,548	36,950	n.p.	n.p.	n.p.	434,782
Palliative care	14,891	8,455	10,385	3,960	2,267	n.p.	n.p.	n.p.	42,220
Geriatric evaluation and management	5,464	17,450	4,617	2,574	1,786	n.p.	n.p.	n.p.	32,295
Psychogeriatric care	553	6,639	331	582	2	n.p.	n.p.	n.p.	8,185
Maintenance care	14,801	909	8,018	2,542	2,998	n.p.	n.p.	n.p.	31,847
<i>Newborn care</i>									
Newborn—qualified days only	39,234	15,125	10,581	6,189	4,149	n.p.	n.p.	n.p.	78,707
Newborn—qualified and unqualified days	6,073	3,156	3,053	1,803	1,266	n.p.	n.p.	n.p.	15,923
Newborn without qualified days	58,628	54,367	51,845	30,158	13,255	n.p.	n.p.	n.p.	222,390
<i>Total newborn care</i>	<i>103,935</i>	<i>72,648</i>	<i>65,479</i>	<i>38,150</i>	<i>18,670</i>	n.p.	n.p.	n.p.	<i>317,020</i>
Mental health care	103,222	62,170	90,821	18,702	15,895	n.p.	n.p.	n.p.	304,052
Total^(b)	3,180,961	2,745,842	2,417,527	1,158,395	773,834	n.p.	n.p.	n.p.	10,822,158

(a) The reporting of *Newborns* (without qualified days) is not compulsory for the Victorian private sector, resulting in a low numbers of separations in this category.

(b) Total separations include records for *Newborns* (without qualified days) and separations with a care type of *Other admitted patient care*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.8: Patient days, by care type, public and private hospitals, states and territories, 2015–16

Care type	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Acute care	4,746,052	3,566,400	2,613,834	1,350,573	1,086,097	300,777	258,283	284,855	14,206,871
<i>Subacute and non-acute care</i>									
Rehabilitation care	484,136	382,694	474,855	117,853	101,939	28,090	27,956	8,692	1,626,215
Palliative care	143,579	91,535	66,748	14,994	18,694	6,210	7,820	4,321	353,901
Geriatric evaluation and management	66,425	380,663	74,699	36,655	29,720	288	3,008	1,529	592,987
Psychogeriatric care	9,671	0	14,811	17,312	14	3,934	154	1	45,897
Maintenance care	193,911	12,259	384,990	81,951	95,808	15,949	25,310	9,469	819,647
<i>Newborn care</i>									
Newborn—qualified days only	167,684	118,182	83,516	48,476	38,569	10,818	11,492	9,161	487,898
Newborn (mixed)—qualified days	11,348	13,360	6,032	3,528	3,126	496	832	0	38,722
Newborn (mixed)—unqualified days	6,618	6,957	4,512	2,233	2,351	180	386	0	23,237
Newborn without qualified days	99,779	117,256	71,993	46,112	25,085	8,744	7,961	7,100	384,030
Mental health care	885,503	402,439	333,271	164,809	156,901	34,307	23,819	10,799	2,011,848
<i>Total^(b)</i>	<i>6,814,736</i>	<i>5,091,745</i>	<i>4,129,261</i>	<i>1,884,496</i>	<i>1,558,304</i>	<i>410,081</i>	<i>367,021</i>	<i>335,966</i>	<i>20,591,610</i>
Private hospitals									
Acute care	1,847,256	1,886,087	1,881,143	815,368	531,821	n.p.	n.p.	n.p.	7,230,123
<i>Subacute and non-acute care</i>									
Rehabilitation care	609,403	320,408	220,038	59,274	72,901	n.p.	n.p.	n.p.	1,324,430
Palliative care	5,807	8,250	24,321	22,392	5,614	n.p.	n.p.	n.p.	70,214
Geriatric evaluation and management	1	0	1,823	2,034	7	n.p.	n.p.	n.p.	3,910
Psychogeriatric care	86	34,143	145	3,433	0	n.p.	n.p.	n.p.	37,807
Maintenance care	5,918	1,173	32,059	2,672	1,379	n.p.	n.p.	n.p.	43,387

(continued)

Table 4.8 (continued): Patient days, by care type, public and private hospitals, states and territories, 2015–16

Care type	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
<i>Newborn care</i>									
Newborn–qualified days only	26,855	20,803	22,950	7,392	6,366	n.p.	n.p.	n.p.	86,569
Newborn (mixed)–qualified days	5,173	613	1,238	2,001	0	n.p.	n.p.	n.p.	10,506
Newborn (mixed)–unqualified days	7,867	699	1,557	1,495	0	n.p.	n.p.	n.p.	12,822
Newborn without qualified days	71,740	13,513	55,225	33,145	3,522	n.p.	n.p.	n.p.	188,887
Mental health care	278,334	204,902	247,464	74,059	25,887	n.p.	n.p.	n.p.	854,536
Total^(b)	2,858,440	2,490,591	2,487,966	1,023,265	647,497	n.p.	n.p.	n.p.	9,863,756
All hospitals									
Acute care	6,593,308	5,452,487	4,494,977	2,165,941	1,617,918	n.p.	n.p.	n.p.	21,436,994
<i>Subacute and non-acute care</i>									
Rehabilitation care	1,093,539	703,102	694,893	177,127	174,840	n.p.	n.p.	n.p.	2,950,645
Palliative care	149,386	99,785	91,069	37,386	24,308	n.p.	n.p.	n.p.	424,115
Geriatric evaluation and management	66,426	380,663	76,522	38,689	29,727	n.p.	n.p.	n.p.	596,897
Psychogeriatric care	9,757	34,143	14,956	20,745	14	n.p.	n.p.	n.p.	83,704
Maintenance care	199,829	13,432	417,049	84,623	97,187	n.p.	n.p.	n.p.	863,034
<i>Newborn care</i>									
Newborn–qualified days only	194,539	138,985	106,466	55,868	44,935	n.p.	n.p.	n.p.	574,467
Newborn (mixed)–qualified days	16,521	13,973	7,270	5,529	3,126	n.p.	n.p.	n.p.	49,228
Newborn (mixed)–unqualified days	14,485	7,656	6,069	3,728	2,351	n.p.	n.p.	n.p.	36,059
Newborn without qualified days	171,519	130,769	127,218	79,257	28,607	n.p.	n.p.	n.p.	572,917
Mental health care	1,163,837	607,341	580,735	238,868	182,788	n.p.	n.p.	n.p.	2,866,384
Total^(b)	9,673,176	7,582,336	6,617,227	2,907,761	2,205,801	n.p.	n.p.	n.p.	30,455,366

(a) The reporting of *Newborns* (without qualified days) is not compulsory for the Victorian private sector, resulting in a low numbers of days in this category.

(b) Total patient days include unqualified days for *Newborns* and patient days for separations with a care type of *Other admitted patient care*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

4.3 Principal diagnosis

This section presents information on the reasons for patients' hospital admissions, described by the principal diagnosis, that is the diagnosis established after study (for example, at the completion of the episode of care) to be chiefly responsible for occasioning the episode of admitted patient care. In some cases, the principal diagnosis is described in terms of a treatment for an ongoing condition (for example, *Care involving dialysis*).

It includes the numbers of separations by ICD-10-AM chapters (broad diagnosis groups), and the 20 most common detailed principal diagnoses (at the 3-character level – see Appendix B for more information) for public and private hospitals in 2015–16.

Box 4.2: Changes in Australian coding standards (ACS) affecting the reporting of principal diagnoses

Between 2014–15 and 2015–16, changes in Australian Coding Standard (ACS) 2104 *Rehabilitation* were introduced for the 9th edition of ICD-10-AM.

From 1 July 2015, the ICD-10-AM diagnosis codes Z50.- *Care involving the use of rehabilitation procedures* were flagged as 'Unacceptable principal diagnosis codes'. This change means that, from 2015–16, the principal diagnosis reported for rehabilitation care will now identify the 'reason' for rehabilitation (which was previously recorded as the first additional diagnosis).

Due to the change in the ACS, compared with previous years the numbers of separations in 2015–16 with a principal diagnosis in the ICD-10-AM chapter Z00–Z99 *Factors influencing health status and contact with health services* has decreased, accompanied by corresponding increases in other ICD-10-AM chapters – for example, S00–T98 *Injury, poisoning and certain other consequences of external causes* and M00–M99 *Diseases of the musculoskeletal system and connective tissue*. Therefore, the data presented by principal diagnosis for 2015–16 are not comparable with data for previous reporting periods.

ICD-10-AM disease chapters

In 2015–16, almost one-quarter (24%, 2.5 million) of separations in public and private hospitals had a principal diagnosis in the ICD-10-AM chapter *Factors influencing health status and contact with health services* – which includes *Care involving dialysis* (more than 1.4 million separations), radiotherapy and chemotherapy (Table 4.9).

The relative distribution of separations by ICD-10-AM chapter varied across public and private hospitals. For example, about 84% of separations for *Certain infectious and parasitic diseases* and 78% of separations for *Injury, poisoning and certain other consequences of external causes* were from public hospitals. For *Diseases of the eye and adnexa*, about 73% of separations were from private hospitals.

Table 4.9: Separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
A00–B99	Certain infectious and parasitic diseases	143,392	26,703	170,095
C00–D48	Neoplasms	301,084	365,521	666,605
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	110,478	65,128	175,606
E00–E89	Endocrine, nutritional and metabolic diseases	103,437	65,811	169,248
F00–F99	Mental and behavioural disorders	229,980	199,327	429,307
G00–G99	Diseases of the nervous system	181,944	140,900	322,844
H00–H59	Diseases of the eye and adnexa	108,571	288,773	397,344
H60–H95	Diseases of the ear and mastoid process	35,867	31,318	67,185
I00–I99	Diseases of the circulatory system	369,492	187,146	556,638
J00–J99	Diseases of the respiratory system	358,354	109,427	467,781
K00–K93	Diseases of the digestive system	488,895	553,833	1,042,728
L00–L99	Diseases of the skin and subcutaneous tissue	123,459	49,926	173,385
M00–M99	Diseases of the musculoskeletal system and connective tissue	233,923	529,554	763,477
N00–N99	Diseases of the genitourinary system	283,936	206,460	490,396
O00–O99	Pregnancy, childbirth and the puerperium	362,909	135,916	498,825
P00–P96	Certain conditions originating in the perinatal period	57,294	12,307	69,601
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	27,877	11,895	39,772
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	563,622	277,801	841,423
S00–T98	Injury, poisoning and certain other consequences of external causes	584,270	163,523	747,793
Z00–Z99	Factors influencing health status and contact with health services	1,602,389	906,012	2,508,401
	Not reported	1,308	6	1,314
Total		6,272,481	4,327,287	10,599,768

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Aboriginal and Torres Strait Islander people

About half of separations for Indigenous Australians in 2015–16 had a principal diagnosis in the ICD-10-AM chapter *Factors influencing health status and contact with health services*, compared with 22% for other Australians (Table 4.10). This category includes care involving dialysis which accounts for about 78% of same-day separations for Indigenous Australians (see Chapter 3).

The ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes* was the second most common principal diagnosis chapter among Indigenous Australians, accounting for 6.8% of separations.

Separation rates for Indigenous Australians were more than 6 times the rates for other Australians for *Factors influencing health status and contact with health services* (which includes *Care involving dialysis*), and more than twice the rate for *Endocrine, nutritional and metabolic diseases* (which includes *Diabetes mellitus*), *Diseases of the skin and subcutaneous tissue* and *Diseases of the respiratory system*.

Table 4.10: Separations by principal diagnosis in ICD-10-AM chapters, by Indigenous status, all hospitals, 2015–16

Principal diagnosis	Indigenous Australians		Other Australians		Total	
	Separations	Rate (per 1,000 population)	Separations	Rate (per 1,000 population)	Separations	Rate (per 1,000 population)
A00–B99 Certain infectious and parasitic diseases	7,570	12.1	162,525	6.6	170,095	6.8
C00–D48 Neoplasms	7,201	17.9	659,404	24.9	666,605	24.8
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	3,145	7.0	172,461	6.7	175,606	6.7
E00–E89 Endocrine, nutritional and metabolic diseases	7,865	15.9	161,383	6.5	169,248	6.7
F00–F99 Mental and behavioural disorders	19,801	31.8	409,506	17.4	429,307	17.8
G00–G99 Diseases of the nervous system	6,524	11.7	316,320	12.8	322,844	12.8
H00–H59 Diseases of the eye and adnexa	3,994	11.6	393,350	14.3	397,344	14.3
H60–H95 Diseases of the ear and mastoid process	2,994	3.3	64,191	2.8	67,185	2.8
I00–I99 Diseases of the circulatory system	13,940	34.6	542,698	20.1	556,638	20.4
J00–J99 Diseases of the respiratory system	24,199	41.7	443,582	18.1	467,781	18.6
K00–K93 Diseases of the digestive system	23,172	41.3	1,019,556	41.6	1,042,728	41.6
L00–L99 Diseases of the skin and subcutaneous tissue	10,362	16.2	163,023	6.7	173,385	7.0
M00–M99 Diseases of the musculoskeletal system and connective tissue	10,500	22.0	752,977	29.0	763,477	29.0
N00–N99 Diseases of the genitourinary system	12,924	24.6	477,472	19.5	490,396	19.6
O00–O99 Pregnancy, childbirth and the puerperium	24,293	29.6	474,532	21.3	498,825	21.7
P00–P96 Certain conditions originating in the perinatal period	4,723	3.6	64,878	2.9	69,601	3.0
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	1,641	1.5	38,131	1.7	39,772	1.7
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	24,922	47.1	816,501	32.5	841,423	32.8
S00–T98 Injury, poisoning and certain other consequences of external causes	32,694	52.1	715,099	29.2	747,793	29.9
Z00–Z99 Factors influencing health status and contact with health services	240,118	574.0	2,268,283	86.9	2,508,401	94.9
Not reported	205	0.3	1,109	0.0	1,314	0.1
Total	482,787	1,000.0	10,116,981	402.0	10,599,768	413.0

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Same-day acute separations

In 2015–16, almost half (46%) of same-day acute separations in public hospitals and one-third (33%) in private hospitals had a principal diagnosis in the ICD-10-AM chapter *Factors influencing health status and contact with health services* (tables 4.11 and 4.12). The major contributors to the *Factors influencing health status and contact with health services* separations were *Care involving dialysis* and *Other medical care* (mostly for chemotherapy).

The relative distribution of same-day acute separations by ICD-10-AM chapter varied between public and private hospitals. For example, about 63% of same-day acute separations for *Factors influencing health status and contact with health services* were from public hospitals, while about 75% of same-day acute separations for *Diseases of the eye and adnexa* were from private hospitals.

Most common principal diagnoses

The most common principal diagnosis (at the 3-character level) reported for same-day acute separations was *Care involving dialysis*, which accounted for 35% of same-day acute separations in public hospitals (Table 4.13).

Between 2011–12 and 2015–16, separations involving dialysis (*Haemodialysis*) rose by 3.3% on average each year (see tables 6.1 and 6.2). Almost all dialysis separations are classed as same-day acute.

Public hospitals provided the majority of same-day acute separations for *Care involving dialysis* (82%) and *Pain in throat and chest* (90%) (Table 4.13).

Private hospitals provided a large majority of same-day acute separations for *Other retinal disorders* (95%), *Procreative management* (94%), *Embedded and impacted teeth* (91%) and *Benign neoplasm of colon, rectum, anus and anal canal* (81%). The principal diagnoses of *Other cataract* (70%) and *Other medical care* (59%, which includes chemotherapy) also contributed to high counts of private hospital same-day acute separations.

Overnight acute separations

Overall, almost half of all overnight acute separations in 2015–16 had a principal diagnosis from 1 of the following 5 ICD-10-AM chapters:

- *Injury, poisoning and certain other consequences of external causes*
- *Diseases of the digestive system*
- *Diseases of the circulatory system*
- *Pregnancy, childbirth and the puerperium*
- *Diseases of the respiratory system.*

The relative distribution of overnight acute separations by ICD-10-AM chapter varied across public and private hospitals. For *Certain infectious and parasitic diseases*, 88% of overnight separations were from public hospitals (Table 4.14). For *Diseases of the musculoskeletal system and connective tissue*, 60% of separations were from private hospitals (Table 4.15).

Table 4.11: Same-day acute separations, by principal diagnosis in ICD-10-AM chapters, public hospitals, states and territories, 2015–16

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–B99	Certain infectious and parasitic diseases	9,340	11,456	12,549	2,935	2,253	471	632	742	40,378
C00–D48	Neoplasms	32,660	44,812	28,411	15,132	10,986	3,768	1,245	1,226	138,240
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	15,420	31,436	15,969	9,099	4,149	1,263	1,043	561	78,940
E00–E89	Endocrine, nutritional and metabolic diseases	7,720	15,174	7,777	5,282	1,633	1,552	560	1,103	40,801
F00–F99	Mental and behavioural disorders	8,055	11,896	8,056	2,591	2,718	351	444	1,445	35,556
G00–G99	Diseases of the nervous system	17,982	32,555	19,465	6,561	5,253	2,283	1,508	802	86,409
H00–H59	Diseases of the eye and adnexa	26,297	28,175	12,883	14,056	8,300	2,784	1,391	944	94,830
H60–H95	Diseases of the ear and mastoid process	4,226	4,991	5,702	1,865	1,705	289	320	331	19,429
I00–I99	Diseases of the circulatory system	22,285	22,216	18,423	7,125	6,792	1,680	1,709	790	81,020
J00–J99	Diseases of the respiratory system	16,638	20,161	22,911	3,800	4,411	1,382	695	1,185	71,183
K00–K93	Diseases of the digestive system	56,786	63,277	41,320	23,117	11,603	5,310	4,250	3,206	208,869
L00–L99	Diseases of the skin and subcutaneous tissue	9,362	10,022	9,474	3,582	4,315	1,379	531	759	39,424
M00–M99	Diseases of the musculoskeletal system and connective tissue	20,284	25,975	18,918	6,890	6,727	2,034	2,410	1,181	84,419
N00–N99	Diseases of the genitourinary system	34,846	38,916	30,779	11,387	9,142	2,751	1,957	1,441	131,219
O00–O99	Pregnancy, childbirth and the puerperium	22,735	16,952	23,127	5,612	7,710	1,096	1,266	2,596	81,094
P00–P96	Certain conditions originating in the perinatal period	880	721	617	220	140	35	61	68	2,742
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	4,045	3,701	2,474	1,249	998	305	234	87	13,093
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	72,834	88,207	69,923	26,100	17,372	4,387	5,486	3,877	288,186
S00–T98	Injury, poisoning and certain other consequences of external causes	55,282	49,504	54,661	14,812	13,899	3,010	4,717	4,430	200,315
Z00–Z99	Factors influencing health status and contact with health services	392,908	442,337	280,498	177,798	79,756	26,548	25,005	77,473	1,502,323
	Not reported	180	0	0	0	1	1	1	4	187
Total		830,765	962,484	683,937	339,213	199,863	62,679	55,465	104,251	3,238,657

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.12: Same-day acute separations, by principal diagnosis in ICD-10-AM chapters, private hospitals, states and territories, 2015–16

Principal diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–B99 Certain infectious and parasitic diseases	3,590	2,653	3,177	1,356	966	n.p.	n.p.	n.p.	12,189
C00–D48 Neoplasms	66,982	55,735	65,867	26,712	24,182	n.p.	n.p.	n.p.	246,351
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	9,929	12,673	23,322	3,381	4,336	n.p.	n.p.	n.p.	55,249
E00–E89 Endocrine, nutritional and metabolic diseases	5,675	8,673	8,461	4,391	1,767	n.p.	n.p.	n.p.	29,850
F00–F99 Mental and behavioural disorders	10,129	2,404	1,009	30	73	n.p.	n.p.	n.p.	15,611
G00–G99 Diseases of the nervous system	11,399	9,542	14,018	5,996	2,782	n.p.	n.p.	n.p.	45,002
H00–H59 Diseases of the eye and adnexa	90,675	54,062	66,892	30,737	20,944	n.p.	n.p.	n.p.	279,248
H60–H95 Diseases of the ear and mastoid process	7,589	5,515	4,348	2,723	2,252	n.p.	n.p.	n.p.	23,573
I00–I99 Diseases of the circulatory system	16,837	8,478	8,357	5,291	3,564	n.p.	n.p.	n.p.	45,270
J00–J99 Diseases of the respiratory system	8,348	4,798	5,958	1,507	1,695	n.p.	n.p.	n.p.	22,946
K00–K93 Diseases of the digestive system	123,934	131,786	95,669	40,031	30,722	n.p.	n.p.	n.p.	436,017
L00–L99 Diseases of the skin and subcutaneous tissue	7,816	8,425	5,990	3,939	4,796	n.p.	n.p.	n.p.	32,055
M00–M99 Diseases of the musculoskeletal system and connective tissue	40,318	33,192	29,692	19,314	15,076	n.p.	n.p.	n.p.	143,218
N00–N99 Diseases of the genitourinary system	37,880	31,516	24,435	13,142	6,968	n.p.	n.p.	n.p.	118,176
O00–O99 Pregnancy, childbirth and the puerperium	9,596	17,045	14,054	7,638	771	n.p.	n.p.	n.p.	49,765
P00–P96 Certain conditions originating in the perinatal period	100	109	37	105	39	n.p.	n.p.	n.p.	407
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	2,253	1,658	1,523	874	548	n.p.	n.p.	n.p.	7,065
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	54,014	54,047	37,652	22,398	10,495	n.p.	n.p.	n.p.	183,835
S00–T98 Injury, poisoning and certain other consequences of external causes	10,457	8,614	7,288	4,186	4,710	n.p.	n.p.	n.p.	36,658
Z00–Z99 Factors influencing health status and contact with health services	187,932	202,457	237,461	155,777	70,710	n.p.	n.p.	n.p.	871,515
Not reported	0	0	0	0	0	n.p.	n.p.	n.p.	1
Total	705,453	653,382	655,210	349,528	207,396	n.p.	n.p.	n.p.	2,654,001

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.13: Same-day acute separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings, public and private hospitals, 2015-16

Principal diagnosis		Public hospitals	Private free-	Other	Total
			standing day	private	
			hospital	hospitals	
			facilities		
Z49	Care involving dialysis	1,136,811	144,439	108,611	1,389,861
Z51	Other medical care	204,695	80,284	211,315	496,294
H26	Other cataract	64,654	79,195	69,685	213,534
R10	Abdominal and pelvic pain	59,729	22,213	38,093	120,035
C44	Other malignant neoplasms of skin	25,215	31,316	38,045	94,576
R07	Pain in throat and chest	75,488	1,240	6,842	83,570
D12	Benign neoplasm of colon, rectum, anus and anal canal	15,497	25,736	41,828	83,061
K01	Embedded and impacted teeth	7,077	18,580	49,534	75,191
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	22,120	17,434	34,684	74,238
Z45	Adjustment and management of drug delivery or implanted device	23,102	6,377	41,154	70,633
Z31	Procreative management	4,035	41,505	24,950	70,490
H35	Other retinal disorders	3,544	54,510	10,038	68,092
R19	Other symptoms and signs involving the digestive system and abdomen	21,586	12,716	32,420	66,722
K21	Gastro-oesophageal reflux disease	15,386	17,905	32,335	65,626
Z12	Special screening examination for neoplasms	12,538	19,271	29,962	61,771
K92	Other diseases of digestive system	23,238	8,311	24,621	56,170
Z08	Follow-up examination after treatment for malignant neoplasms	21,894	4,406	26,417	52,717
D50	Iron deficiency anaemia	28,099	5,662	12,208	45,969
M23	Internal derangement of knee	9,978	2,312	33,146	45,436
M54	Dorsalgia	14,930	5,135	23,461	43,526
O04	Medical abortion	7,519	31,631	1,352	40,502
	Other	1,441,522	323,005	810,117	2,574,644
Total		3,238,657	953,183	1,700,818	5,892,658

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Most common principal diagnoses

The most common principal diagnosis (at the 3-character level) reported for overnight acute separations was *Single spontaneous delivery*, which accounted for 4.3% of overnight acute separations in public hospitals and 2.4% in private hospitals (Table 4.16). The 20 most common principal diagnoses included several childbirth-related and heart-related conditions, as well as respiratory conditions. Private hospitals accounted for 76% of overnight acute separations for *Sleep disorders*.

Comparison of Table 4.16 with Table 4.13 shows differences in the types of conditions that are most commonly treated on an overnight basis compared with those receiving same-day treatment.

Table 4.14: Overnight acute separations, by principal diagnosis in ICD-10-AM chapters, public hospitals, states and territories, 2015–16

Principal diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–B99 Certain infectious and parasitic diseases	34,583	24,680	19,379	9,295	6,617	1,626	1,545	1,992	99,717
C00–D48 Neoplasms	41,599	39,179	27,237	12,437	11,503	2,926	2,347	1,071	138,299
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	10,908	7,606	5,800	2,387	2,833	572	489	315	30,910
E00–E89 Endocrine, nutritional and metabolic diseases	17,879	14,184	12,648	5,813	5,038	1,169	864	1,680	59,275
F00–F99 Mental and behavioural disorders	25,109	13,048	11,782	8,363	6,930	1,221	1,087	940	68,480
G00–G99 Diseases of the nervous system	23,073	23,836	15,132	6,992	5,523	1,975	1,126	835	78,492
H00–H59 Diseases of the eye and adnexa	4,913	3,272	2,439	1,515	777	143	254	232	13,545
H60–H95 Diseases of the ear and mastoid process	4,893	3,800	3,109	1,741	1,261	280	218	359	15,661
I00–I99 Diseases of the circulatory system	87,771	61,792	53,425	24,711	20,888	5,711	4,644	3,012	261,954
J00–J99 Diseases of the respiratory system	96,861	60,979	55,524	26,443	22,807	5,519	4,535	4,875	277,543
K00–K93 Diseases of the digestive system	92,489	65,841	54,583	28,461	19,720	5,774	4,974	3,460	275,302
L00–L99 Diseases of the skin and subcutaneous tissue	26,703	17,097	18,696	8,836	5,209	1,365	1,247	3,109	82,262
M00–M99 Diseases of the musculoskeletal system and connective tissue	42,116	31,891	24,501	13,847	9,125	2,894	1,954	1,468	127,796
N00–N99 Diseases of the genitourinary system	48,370	34,275	32,689	14,487	11,482	2,796	3,014	2,226	149,339
O00–O99 Pregnancy, childbirth and the puerperium	90,423	70,254	55,285	30,632	18,857	5,499	5,933	4,710	281,593
P00–P96 Certain conditions originating in the perinatal period	18,620	13,730	9,581	5,709	3,823	908	1,340	834	54,545
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	5,365	3,544	2,692	1,436	947	200	244	144	14,572
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	91,950	57,324	49,798	21,420	20,577	4,695	3,609	3,411	252,784
S00–T98 Injury, poisoning and certain other consequences of external causes	117,415	77,747	69,071	36,495	26,223	7,199	6,288	6,411	346,849
Z00–Z99 Factors influencing health status and contact with health services	33,794	13,385	11,073	3,508	6,935	1,055	679	1,049	71,478
Not reported	659	0	0	0	0	1	2	3	665
Total	915,493	637,464	534,444	264,528	207,075	53,528	46,393	42,136	2,701,061

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.15: Overnight acute separations, by principal diagnosis in ICD-10-AM chapters, private hospitals, states and territories, 2015–16

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–B99	Certain infectious and parasitic diseases	1,752	4,055	4,976	1,296	790	n.p.	n.p.	n.p.	13,361
C00–D48	Neoplasms	27,797	29,937	26,294	11,773	8,473	n.p.	n.p.	n.p.	108,274
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1,629	2,983	2,759	1,020	867	n.p.	n.p.	n.p.	9,578
E00–E89	Endocrine, nutritional and metabolic diseases	9,387	7,285	9,172	5,480	1,856	n.p.	n.p.	n.p.	34,299
F00–F99	Mental and behavioural disorders	2,294	1,510	1,574	650	190	n.p.	n.p.	n.p.	6,670
G00–G99	Diseases of the nervous system	18,432	19,103	21,940	9,516	4,728	n.p.	n.p.	n.p.	76,705
H00–H59	Diseases of the eye and adnexa	2,663	1,641	1,505	2,117	856	n.p.	n.p.	n.p.	9,059
H60–H95	Diseases of the ear and mastoid process	2,152	1,518	1,748	798	614	n.p.	n.p.	n.p.	7,133
I00–I99	Diseases of the circulatory system	26,447	31,645	30,524	11,906	7,634	n.p.	n.p.	n.p.	111,437
J00–J99	Diseases of the respiratory system	19,516	19,608	22,917	8,124	6,182	n.p.	n.p.	n.p.	79,737
K00–K93	Diseases of the digestive system	25,865	29,875	31,507	12,072	9,250	n.p.	n.p.	n.p.	113,955
L00–L99	Diseases of the skin and subcutaneous tissue	3,512	4,482	5,117	1,676	1,172	n.p.	n.p.	n.p.	16,644
M00–M99	Diseases of the musculoskeletal system and connective tissue	48,365	49,431	41,566	26,552	16,729	n.p.	n.p.	n.p.	192,630
N00–N99	Diseases of the genitourinary system	22,169	21,980	22,058	9,669	7,014	n.p.	n.p.	n.p.	86,689
O00–O99	Pregnancy, childbirth and the puerperium	25,386	21,469	18,929	11,516	4,652	n.p.	n.p.	n.p.	86,137
P00–P96	Certain conditions originating in the perinatal period	3,674	2,896	2,408	1,666	766	n.p.	n.p.	n.p.	11,900
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	1,176	999	854	527	349	n.p.	n.p.	n.p.	4,034
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	11,767	21,776	21,188	6,164	5,126	n.p.	n.p.	n.p.	68,716
S00–T98	Injury, poisoning and certain other consequences of external causes	18,093	21,153	24,117	10,271	6,975	n.p.	n.p.	n.p.	84,030
Z00–Z99	Factors influencing health status and contact with health services	11,880	6,714	6,103	3,267	2,124	n.p.	n.p.	n.p.	31,653
	Not reported	0	0	0	0	0	n.p.	n.p.	n.p.	3
Total		283,956	300,060	297,256	136,060	86,347	n.p.	n.p.	n.p.	1,152,644

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.16: Overnight acute separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
O80	Single spontaneous delivery	114,877	27,700	142,577
O82	Single delivery by caesarean section	62,818	33,044	95,862
G47	Sleep disorders	19,424	61,085	80,509
J18	Pneumonia, organism unspecified	54,431	9,831	64,262
R07	Pain in throat and chest	52,515	11,463	63,978
J44	Other chronic obstructive pulmonary disease	52,356	7,529	59,885
K80	Cholelithiasis	39,066	18,885	57,951
M17	Gonarthrosis (arthrosis of knee)	17,735	37,470	55,205
R10	Abdominal and pelvic pain	42,335	9,489	51,824
L03	Cellulitis	44,010	7,475	51,485
I50	Heart failure	39,623	11,439	51,062
N39	Other disorders of urinary system	35,773	10,347	46,120
I21	Acute myocardial infarction	38,146	7,316	45,462
I48	Atrial fibrillation and flutter	26,679	14,942	41,621
O81	Single delivery by forceps and vacuum extractor	26,638	11,630	38,268
K40	Inguinal hernia	15,929	20,648	36,577
T81	Complications of procedures, not elsewhere classified	25,642	9,337	34,979
K35	Acute appendicitis	28,523	4,736	33,259
M16	Coxarthrosis (arthrosis of hip)	11,072	21,831	32,903
J35	Chronic diseases of tonsils and adenoids	11,956	20,612	32,568
I25	Chronic ischaemic heart disease	12,748	19,184	31,932
	Other	1,928,765	776,651	2,705,416
Total		2,701,061	1,152,644	3,853,705

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on principal diagnosis is available in:

- Section 4.5—‘How many separations were due to injury and poisoning?’
- ‘Chapter 5 What services were provided?’ – for rehabilitation care and palliative care
- ‘Chapter 6 What procedures were performed?’ – for emergency and elective admissions involving surgery.

Additional information on separations for the 20 most common principal diagnoses by state and territory is available in tables accompanying this report online.

Information on data limitations and methods is available in appendixes A and B.

4.4 How many separations were due to injury and poisoning?

This section presents information for 2015–16 on the numbers of separations with a principal diagnosis in the ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes* for public and private hospitals and by Indigenous status. It also presents information on the external cause of injury and poisoning.

Some hospitalisations for injury or poisoning may be considered potentially avoidable.

It should be noted that the admitted patient care data provide only a partial picture of the overall burden of injury because the data do not include injuries not medically treated, injuries treated by general practitioners and injuries treated in emergency departments that do not require admission to hospital.

Separations for injury and poisoning in 2015–16

In 2015–16, about 750,000 separations (about 30 per 1,000 population) had a principal diagnosis in the ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes*. The majority (78%) of these were treated in public hospitals (Table 4.17).

In 2015–16, about 9% of separations (65,000) with an injury or poisoning principal diagnosis were receiving rehabilitation care (see Table 5.22, Section 5.4). In previous years, rehabilitation care separations were not included in this table as the principal diagnosis was reported as *Z50.- Care involving the use of rehabilitation procedures* and an injury or poisoning diagnosis would have been reported as an additional diagnosis. Therefore, these data are not comparable with data presented in earlier years. See Box 4.1 for more information.

About 45% of these separations, in public and private hospitals combined, had a principal diagnosis in the ICD-10-AM subchapter *Injuries to upper and lower limbs*.

Table 4.17: Separations with a principal diagnosis of injury or poisoning, public and private hospitals, 2015–16

Principal diagnosis	Public hospitals	Private hospitals	Total
S00–S19 Injuries to head and neck	109,647	10,898	120,545
S20–S39 Injuries to thorax, abdomen, back, spine and pelvis	61,415	15,344	76,759
S40–S99 Injuries to upper and lower limbs	252,127	86,354	338,481
T00–T19 Injuries to multi- or unspecified region; foreign body effects	10,513	1,249	11,762
T20–T35 Burns and frostbite	8,247	258	8,505
T36–T65 Poisoning and toxic effects	44,510	544	45,054
T66–T79 Other and unspecified effects of external causes	16,400	847	17,247
T80–T88 Complications of medical and surgical care	81,407	48,029	129,436
T89–T98 Other trauma complications; external cause sequelae	4	0	4
Total	584,270	163,523	747,793
Separations per 1,000 population	23.4	6.3	29.7

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Aboriginal and Torres Strait Islander people

Indigenous Australians were hospitalised with a principal diagnosis of injury and poisoning at almost twice the rate of other Australians (52 per 1,000 and 29 per 1,000, respectively) (Table 4.18).

Injuries to upper and lower limbs accounted for 39% of these separations for Indigenous Australians and 46% for other Australians, while *Injuries to the head and neck* accounted for 24% of separations for Indigenous Australians and 16% for other Australians.

Table 4.18: Separations and separations per 1,000 population^(a) with a principal diagnosis of injury or poisoning, by Indigenous status, all hospitals, 2015–16

Principal diagnosis	Indigenous Australians		Other Australians		Total	
	Separations	Rate (per 1,000)	Separations	Rate (per 1,000)	Separations	Rate (per 1,000)
S00–S19 Injuries to head and neck	7,834	11.8	112,711	4.7	120,545	4.9
S20–S39 Injuries to thorax, abdomen, back, spine and pelvis	2,587	4.6	74,172	2.9	76,759	3.0
S40–S99 Injuries to upper and lower limbs	12,843	19.7	325,638	13.4	338,481	13.6
T00–T19 Injuries to multi- or unspecified region; foreign body effects	623	0.8	11,139	0.5	11,762	0.5
T20–T35 Burns and frostbite	753	1.0	7,752	0.3	8,505	0.4
T36–T65 Poisoning and toxic effects	2,975	4.3	42,079	1.9	45,054	1.9
T66–T79 Other and unspecified effects of external causes	822	1.2	16,425	0.7	17,247	0.7
T80–T88 Complications of medical and surgical care	4,257	8.7	125,179	4.9	129,436	5.0
T89–T98 Other trauma complications; external cause sequelae	0	0.0	4	<0.1	4	<0.1
Total	32,694	52.1	715,099	29.2	747,793	29.9

(a) The total separations per 1,000 population differs from that presented in table 4.17 due to differences in the age groups used to calculate age-standardised rates by Indigenous status.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

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. External causes may also be required for other selected diagnoses.

Caution should be used in interpreting the information presented in tables 4.19 and 4.20 as more than one external cause code may be reported for a separation, and the external causes presented may not relate to the principal diagnosis.

The ICD-10-AM subchapter groups *Falls* (34%, 257,000 separations) and *Complications of medical and surgical care* (17%, 125,000 separations) were the most frequently reported external causes of injury or poisoning (Table 4.19).

Public hospitals had notably higher proportions (more than 97%) of separations with external causes of *Intentional self-harm*, *Assault*, *Accidental poisoning*, *Exposure to smoke, fire*,

flames, hot substances and Exposure to electricity, radiation, extreme temperature/pressure than private hospitals.

Aboriginal and Torres Strait Islander people

For Indigenous Australians, the ICD-10-AM subchapter groups *Falls* (20%) and *Assault* (19%) were the most commonly reported external cause of injury and poisoning, accounting for almost two-fifths (39%) of all reported external causes of injury and poisoning (Table 4.20). *Falls* was also the most commonly reported external cause for other Australians (35%), followed by *Complications of medical and surgical care* (17%).

Transport accidents accounted for a similar proportion of external causes for both Indigenous Australians and other Australians (9% and 10%, respectively).

Table 4.19: Separations with a principal diagnosis of injury or poisoning, by external cause in ICD-10-AM subchapter groupings^(a), public and private hospitals, 2015–16

External cause		Public hospitals	Private hospitals	Total
V01–V99	Transport accidents	65,220	6,336	71,556
W00–W19	Falls	219,716	36,860	256,576
W20–W64	Exposure to mechanical forces	90,740	9,267	100,007
W65–W74	Accidental drowning and submersion	682	29	711
W75–W84	Other accidental threats to breathing	798	53	851
W85–W99	Exposure to electricity, radiation, extreme temperature/pressure	766	23	789
X00–X19	Exposure to smoke, fire, flames, hot substances	6,505	151	6,656
X20–X39	Exposure to venomous plants, animals, forces of nature	4,424	144	4,568
X40–X49	Accidental poisoning	11,399	244	11,643
X50–X59	Other external causes of accidental injury	35,226	29,099	64,325
X60–X84	Intentional self-harm	32,780	128	32,908
X85–Y09	Assault	21,389	271	21,660
Y10–Y34	Events of undetermined intent	5,124	186	5,310
Y35–Y36	Legal intervention and operations of war	104	2	106
Y40–Y84	Complications of medical and surgical care	88,421	36,210	124,631
Y85–Y98	Sequelae and supplementary factors	369	122	491
	Not reported	607	44,398	45,005
Total		584,270	163,523	747,793

(a) A separation is counted once for the external cause subchapter if it has at least 1 external cause reported within the subchapter. As more than 1 external cause can be reported for a separation, the totals may not equal the sums of the rows.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.20: Separations with a principal diagnosis of injury or poisoning, by external cause in ICD-10-AM groupings^(a) and Indigenous status, all hospitals, 2015–16

External cause		Indigenous Australians	Other Australians	Total
V01–V99	Transport accidents	2,931	68,625	71,556
W00–W19	Falls	6,631	249,945	256,576
W20–W64	Exposure to mechanical forces	5,454	94,553	100,007
W65–W74	Accidental drowning and submersion	57	654	711
W75–W84	Other accidental threats to breathing	36	815	851
W85–W99	Exposure to electricity, radiation, extreme temperature/pressure	26	763	789
X00–X19	Exposure to smoke, fire, flames, hot substances	583	6,073	6,656
X20–X39	Exposure to venomous plants, animals, forces of nature	242	4,326	4,568
X40–X49	Accidental poisoning	764	10,879	11,643
X50–X59	Other external causes of accidental injury	1,946	62,379	64,325
X60–X84	Intentional self-harm	2,701	30,207	32,908
X85–Y09	Assault	6,187	15,473	21,660
Y10–Y34	Events of undetermined intent	500	4,810	5,310
Y35–Y36	Legal intervention and operations of war	16	90	106
Y40–Y84	Complications of medical and surgical care	4,380	120,251	124,631
Y85–Y98	Sequelae and supplementary factors	22	469	491
	Not reported	218	44,787	45,005
Total		32,694	715,099	747,793

(a) A separation is counted once for the external cause subchapter if it has at least 1 external cause reported within the subchapter. As more than 1 external cause can be reported for a separation, the totals may not equal the sums of the rows.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on external causes of injury or poisoning is available in tables accompanying this report online.

Information on data limitations and methods is available in appendixes A and B.

4.5 Performance indicator: Potentially preventable hospitalisations

The rate of 'potentially preventable hospitalisations' (PPHs) is a National Healthcare Agreement (NHA) performance indicator, relating to the outcome *Australians receive appropriate high quality and affordable primary and community health services*. The proportion of total separations that were for PPHs is an NHA benchmark:

By 2014–15, improve the provision of primary care and reduce the proportion of potentially preventable hospital admissions by 7.6 per cent over the 2006–07 baseline to 8.5 per cent of total hospital admissions.

PPHs are those conditions where hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals). 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.

There are 3 broad categories of PPHs:

- *Vaccine-preventable* – diseases that can be prevented by proper vaccination, including influenza, bacterial pneumonia, hepatitis, tetanus, diphtheria, pertussis (whooping cough), chicken pox, measles, mumps, rubella, polio and haemophilus meningitis. The conditions are considered to be preventable, rather than the hospitalisation.
- *Acute* – conditions that may not be preventable, but theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received. These include eclampsia, pneumonia (not vaccine-preventable), pyelonephritis, perforated ulcer, cellulitis, urinary tract infections, pelvic inflammatory disease, ear, nose and throat infections, and dental conditions.
- *Chronic* – conditions that may be preventable through behaviour modification and lifestyle change, but 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, nutritional deficiencies and chronic obstructive pulmonary disease.

The specification for this indicator was revised during 2014, and this new specification has been applied to all years of data presented in Table 4.21. Therefore, these data are not comparable with data presented for those years in reports before the 2013–14 reference year. Caution should be used in making comparisons over time using different specifications. See Appendix C for more information on performance indicators.

How have rates of PPHs changed over time?

Between 2011–12 and 2015–16, overall rates of PPHs fluctuated between 23.9 per 1,000 population and 26.4 per 1,000 (Table 4.21). Over this period, PPHs consistently accounted for about 6% of total separations (10,599,768, Table 2.1).

For *Chronic conditions*, the rate remained close to 11 per 1,000 between 2011–12 and 2014–15; then increased to 12.0 per 1,000 between 2014–15 and 2015–16 (Table 4.20).

Between 2014–15 and 2015–16, rates of *Vaccine-preventable* PPHs rose by 13.3%. Changes to the ACS that relate to the reporting of additional diagnoses for hepatitis (implemented from 1 July 2013, and for which reporting has increased over time) may have affected the rates of *Vaccine-preventable* PPHs reported from the 2013–14 period onwards and be responsible for the majority of this increase.

In addition, changes to ACS 2104 *Rehabilitation* implemented from 1 July 2015 in ICD-10-AM 9th edition, directed clinical coders to assign the underlying condition requiring rehabilitation as the principal diagnosis, rather than the code Z50.- *Care involving the use of rehabilitation procedures* which was used in previous years. As a result of this change to ACS 2104, a greater number of rehabilitation care separations are included as PPHs in 2015–16 compared with previous years (for example, for respiratory and cardiac disorders). Therefore, the data for PPHs for 2015–16 are not comparable with the data reported for 2011–12 to 2014–15. See Appendix A for more information.

Table 4.21: Selected potentially preventable hospitalisations per 1,000 population, by PPH category, all hospitals, 2011–12 to 2015–16

PPH category	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Vaccine preventable conditions ^(a)	0.7	0.9	1.3	1.8	2.0	29.1	13.3
Acute conditions	12.2	11.9	12.0	12.2	12.6	0.9	3.3
<i>Chronic conditions</i> ^(b)	11.4	11.3	11.2	11.4	12.0	1.3	5.2
Diabetes complications	1.6	1.7	1.7	1.7	1.8	3.1	5.3
Chronic conditions (excluding diabetes)	9.8	9.6	9.6	9.7	10.2	1.0	5.2
Total	24.2	23.9	24.4	25.2	26.4	2.2	4.8

(a) Changes in coding standards for the recording of hepatitis took effect from 1 July 2013 and may be responsible for most of the increase in *Vaccine-preventable* PPHs between 2013–14 and 2015–16. See Appendix A for more information.

(b) As more than 1 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*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How many PPHs were there in 2015–16?

In 2015–16, more than 678,000 separations in public and private hospitals were classified as PPHs (Table 4.22).

PPHs accounted for 6.4% of all hospital separations—8.3% of public hospital separations and 3.6% of private hospital separations. More than three-quarters of PPHs (77%) were reported for public hospitals. *Diabetes complications* accounted for about 15% of separations that were classified as *Chronic condition* PPHs.

How do rates of PPHs vary across jurisdictions?

For *Vaccine-preventable conditions*, rates ranged from 1.4 per 1,000 population in Tasmania and the Australian Capital Territory to 8.8 per 1,000 in the Northern Territory (Table 4.23).

For *Acute conditions*, rates ranged from 10.3 per 1,000 population in the Australian Capital Territory to 24.8 per 1,000 in the Northern Territory. Overall, *Urinary tract infections* (24%), *Dental conditions* (22%) and *Cellulitis* (21%) accounted for almost two-thirds of *Acute condition* PPHs.

Table 4.22: Separations for potentially preventable hospitalisations, public and private hospitals, 2015–16

PPH category	Public hospitals	Private hospitals	Total
Vaccine preventable conditions	44,226	6,333	50,559
Acute conditions	235,263	77,537	312,800
<i>Chronic conditions</i> ^(a)	249,914	71,426	321,340
Diabetes complications	37,298	9,814	47,112
Chronic conditions (excluding diabetes)	212,616	61,612	274,228
Total	523,616	154,754	678,370
Proportion of total separations (%)	8.3	3.6	6.4

(a) As more than 1 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*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

For *Chronic conditions (excluding Diabetes)*, rates ranged from 8.3 per 1,000 population in the Australian Capital Territory and Tasmania to 19.6 per 1,000 in the Northern Territory. *Chronic obstructive pulmonary disease* was the most common *Chronic condition* PPH in all states and territories, except in Victoria, Western Australia and the Australian Capital Territory. *Rheumatic heart disease* accounted for about 9% of total *Chronic condition* PPHs in the Northern Territory.

The proportion of all separations that were PPHs varied among states and territories, ranging from 5.9% in the Western Australia to 7.3% in the Northern Territory.

How do rates of PPHs differ by population groups?

Indigenous status

For Indigenous Australians, the rate of overall PPHs per 1,000 population was about 3 times the rate for other Australians (Table 4.24). The rate of PPHs for *Vaccine-preventable conditions* for Indigenous Australians was more than 5 times the rate for other Australians.

Remoteness area

For 2015–16, the overall rate of PPHs was highest for residents of *Remote* and *Very remote* areas (40 and 61 per 1,000 population, respectively) and lowest for residents of *Major cities* (25 per 1,000) (Table 4.24).

Residents of *Remote* and *Very remote* areas had the highest rates of PPHs across the 3 PPH categories.

Socioeconomic status

The rate of PPHs generally fell with increasing levels of socioeconomic advantage, ranging from 21 per 1,000 for residents of areas classified as being in the highest SES group to 33 per 1,000 for residents of areas classified as being in the lowest SES group (Table 4.24).

Table 4.23: Separations for selected potentially preventable hospitalisations^(a), by state or territory of usual residence, all hospitals, 2015–16

PPH category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(b)
Vaccine preventable conditions									
Pneumonia and vaccine-preventable influenza	6,652	4,924	6,585	1,429	2,671	541	260	465	23,774
Other vaccine-preventable conditions	7,764	6,717	5,857	2,538	1,749	251	279	1,581	27,022
<i>Total vaccine-preventable conditions</i>	<i>14,355</i>	<i>11,594</i>	<i>12,387</i>	<i>3,956</i>	<i>4,393</i>	<i>790</i>	<i>537</i>	<i>2,023</i>	<i>50,559</i>
<i>Vaccine-preventable PPH separations per 1,000 population</i>	<i>1.7</i>	<i>1.8</i>	<i>2.4</i>	<i>1.5</i>	<i>2.3</i>	<i>1.4</i>	<i>1.4</i>	<i>8.8</i>	<i>2.0</i>
Acute conditions									
Pneumonia (not vaccine-preventable)	1,198	528	899	376	339	23	69	36	3,497
Cellulitis	20,143	13,281	16,961	5,558	4,421	1,292	732	1,490	64,572
Convulsions and epilepsy	11,719	8,460	8,992	3,285	2,836	748	585	940	37,951
Eclampsia	19	21	24	5	6	0	2	2	79
Dental conditions	17,772	16,682	13,262	9,698	6,469	1,686	793	736	67,266
Ear, nose and throat infections	12,425	8,999	10,931	3,962	2,932	688	456	836	41,624
Gangrene	2,602	3,994	2,297	1,655	666	221	134	448	12,118
Pelvic inflammatory disease	1,088	1,118	1,197	502	297	100	75	188	4,619
Perforated/bleeding ulcer	1,899	1,406	1,126	650	468	137	78	32	5,859
Urinary tract infections including pyelonephritis	22,573	16,092	19,575	7,511	5,843	1,265	1,076	1,014	75,617
<i>Total acute conditions^(c)</i>	<i>91,359</i>	<i>70,452</i>	<i>75,191</i>	<i>33,141</i>	<i>24,250</i>	<i>6,152</i>	<i>3,997</i>	<i>5,704</i>	<i>312,800</i>
<i>Acute PPH separations per 1,000 population</i>	<i>11.3</i>	<i>11.4</i>	<i>15.3</i>	<i>12.7</i>	<i>13.3</i>	<i>11.2</i>	<i>10.3</i>	<i>24.8</i>	<i>12.6</i>

(continued)

Table 4.23 (continued): Separations for selected potentially preventable hospitalisations^(a), by state or territory of usual residence, all hospitals, 2015–16

PPH category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(b)
Chronic conditions									
Angina	10,322	6,884	9,436	3,674	3,030	714	456	626	35,401
Asthma	9,921	7,569	7,596	2,308	2,320	614	381	360	31,245
Chronic obstructive pulmonary disease	24,051	15,885	16,134	5,978	6,075	1,557	765	1,144	71,861
Congestive cardiac failure	19,211	15,834	11,919	6,217	4,841	1,243	882	569	60,964
Diabetes complications	12,575	12,261	10,464	5,139	4,002	1,265	509	651	47,112
Diabetes complications per 1,000 population	1.5	1.9	2.1	1.9	2.0	2.2	1.3	3.1	1.8
Hypertension	2,959	2,473	2,872	628	711	118	84	82	9,990
Iron deficiency anaemia	13,435	19,325	10,377	4,538	3,360	1,122	458	305	53,045
Nutritional deficiencies	211	188	194	67	37	7	5	23	737
Rheumatic heart disease ^(d)	937	664	895	441	399	52	28	375	3,874
Bronchiectasis	2,282	1,536	1,956	666	253	132	49	225	7,119
<i>Total chronic conditions^(c)</i>	<i>95,903</i>	<i>82,619</i>	<i>71,837</i>	<i>29,655</i>	<i>25,028</i>	<i>6,824</i>	<i>3,617</i>	<i>4,360</i>	<i>321,340</i>
<i>Chronic PPH separations per 1,000 population</i>	<i>10.8</i>	<i>12.3</i>	<i>14.0</i>	<i>11.1</i>	<i>11.8</i>	<i>10.5</i>	<i>9.6</i>	<i>22.7</i>	<i>12.0</i>
<i>Total chronic conditions, excluding diabetes^(c)</i>	<i>83,328</i>	<i>70,358</i>	<i>61,373</i>	<i>24,516</i>	<i>21,026</i>	<i>5,559</i>	<i>3,108</i>	<i>3,709</i>	<i>274,228</i>
<i>Chronic PPH (excluding diabetes) separations per 1,000 population</i>	<i>9.3</i>	<i>10.4</i>	<i>11.9</i>	<i>9.2</i>	<i>9.8</i>	<i>8.3</i>	<i>8.3</i>	<i>19.6</i>	<i>10.2</i>
Total selected potentially preventable hospitalisations^(c)	199,975	163,313	157,866	66,190	53,046	13,670	8,106	11,687	678,370
Total PPH separations per 1,000 population	23.7	25.3	31.5	25.1	27.0	22.9	21.2	54.6	26.4
Proportion of all separations	6.3	6.2	6.8	5.9	7.1	6.3	6.0	7.3	6.4

(a) These conditions are defined using ICD-10-AM codes in Appendix B tables accompanying this report online.

(b) Includes other territories, overseas residents and unknown state of residence.

(c) Excludes multiple diagnoses for the same separation within the same group.

(d) Rheumatic heart disease includes acute rheumatic fever as well as the chronic disease.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 4.24: Separations per 1,000 population for selected potentially preventable hospitalisations, by Indigenous status, remoteness area and socioeconomic status of area of usual residence, all hospitals, 2015–16

	Vaccine-preventable conditions	Acute conditions	Total chronic conditions ^(a)	Diabetes complications	Chronic conditions (excluding diabetes)	Total
Indigenous status^(b)						
Indigenous Australians	9.8	30.1	35.6	6.8	28.8	73.6
Other Australians	1.8	12.2	11.6	1.7	9.9	25.4
Remoteness area of residence						
Major cities	2.1	11.7	11.4	1.7	9.7	25.0
Inner regional	1.4	13.3	12.5	2.0	10.5	27.0
Outer regional	1.5	15.1	13.4	2.2	11.3	29.9
Remote	3.1	20.4	16.6	2.8	13.9	39.5
Very remote	9.0	30.1	23.7	4.6	19.1	60.9
Socioeconomic status of area of residence						
1—Lowest	2.9	15.0	15.0	2.5	12.5	32.6
2	1.9	13.2	13.1	2.0	11.0	27.9
3	1.8	12.4	12.0	1.8	10.2	26.0
4	1.8	11.5	10.7	1.6	9.1	23.7
5—Highest	1.4	10.6	9.0	1.2	7.8	20.8
Total	2.0	12.6	12.0	1.8	10.2	26.4

(a) As more than 1 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*.

(b) Age-standardised separation rates by Indigenous status are not comparable with separation rates by remoteness area and socioeconomic area due to differences in the age groups used.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information

More information about individual PPH conditions by state of residence, remoteness area of residence and SES of area of residence is in tables accompanying this report online at <www.aihw.gov.au/hospitals/>.

Information about the specification used for this performance indicator is available at <<http://meteor.aihw.gov.au/content/index.phtml/itemId/559032>>.

Information on data limitations and methods is available in appendixes A and B.

4.6 Performance indicator: Waiting for residential aged care

This section presents the number of hospital patient days (per 1,000 patient days) for overnight separations with a care type of *Maintenance* and any diagnosis of *Person awaiting admission to residential aged care service*.

The 'Number of hospital patient days used by those eligible and waiting for residential aged care' is an NHA performance indicator related to the outcome area of *Older Australians receive appropriate high quality and affordable health and aged services*. The indicator is specified under the NHA as a 'proxy' measure as it requires data development to ensure that the analysis is better suited to the intent of the indicator.

This indicator is intended to report the number of hospital patient days taken up by Australians waiting for a residential aged care place. However, the current data collected do not identify whether an aged care assessment has been made, and the use of the care type *Maintenance* may vary between jurisdictions.

Number of patient days used by those eligible and waiting for residential aged care in 2015–16

In 2015–16, about 11.3 patient days per 1,000 patient days were for patients waiting for a residential aged care place (Table 4.25). The rates between states and territories, across remoteness areas and across SES groups varied markedly. The highest rates were reported for persons living in *Outer regional* and *Remote* areas, and for those living in areas in the 2 lowest SES groups.

It should be noted that, from 1 July 2015, changes to ACS 2105 *Non-acute care* included the addition of the ICD-10-AM diagnosis code *Z75.41 Unavailability and inaccessibility of residential aged care service* for use in situations where, due to a lack of nursing homes in some areas, the patient was not technically awaiting placement to another facility. These changes to the coding standard are likely to have decreased the numbers of separations (and consequently the number of days of patient care reported) for which *Z75.11 Person awaiting admission to residential aged care service* was recorded as the principal diagnosis in 2015–16.

Table 4.25 presents information on the number of separations with a care type of *Maintenance* for which the separation mode was not *Discharged to usual place of residence* and for which the principal diagnosis was reported as *Z75.11 Person awaiting admission to residential aged care service* or *Z75.41 Unavailability and inaccessibility of residential aged care service*.

Therefore, the data presented for this performance indicator for 2015–16 may not be comparable with data in earlier reporting periods.

Table 4.25: Hospital patient days per 1,000 patient days, used by those eligible and waiting for residential aged care^(a), by Indigenous status, remoteness socioeconomic status of usual residence, all hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous status									
Indigenous	3.0	0.0	8.6	1.5	9.4	n.p.	n.p.	n.p.	6.1
Other Australians	10.4	0.6	18.4	18.6	21.6	n.p.	n.p.	n.p.	11.5
Remoteness area of residence									
Major cities	9.2	0.0	12.5	10.1	17.3	..	31.8	..	8.5
Inner regional	8.9	0.9	18.0	23.0	4.5	10.6	4.9	..	9.8
Outer regional	22.5	7.9	35.6	60.5	34.6	18.2	..	19.9	28.8
Remote	62.4	5.6	47.5	50.1	83.1	3.8	..	15.3	47.2
Very remote	0.1	..	37.7	14.2	106.0	5.3	..	6.6	22.0
Socioeconomic status of area of residence									
1—Lowest	12.2	1.5	23.6	14.5	12.1	16.6	3.8	9.4	13.3
2	14.6	1.1	18.2	25.2	33.8	11.1	4.8	42.7	15.2
3	9.8	0.6	16.2	27.8	23.8	13.8	8.3	13.8	11.7
4	8.8	0.0	12.8	9.2	17.1	4.6	51.6	7.6	8.6
5—Highest	4.8	0.0	14.4	9.5	10.6	..	21.7	9.5	6.6
Total	10.2	0.6	17.8	17.5	21.2	12.7	27.6	13.3	11.3

(a) Includes patient days for overnight separations with a care type of *Maintenance*, for which the separation mode was not *Other* (Discharged to place of usual residence) and for which there was a diagnosis of Z75.11 *Person awaiting admission to residential aged care service* or Z75.41 *Unavailability and inaccessibility of residential aged care service*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

Information about the specification used for this performance indicator is available at <http://meteor.aihw.gov.au/content/index.phtml/itemId/559012>.

More information on performance indicators is available in Appendix C.

Information on data limitations and methods is available in appendixes A and B.

5 What services were provided?

This chapter presents information on the overall nature of the services provided for admitted patients. The services provided can be described using a variety of classifications. The information in this chapter includes:

- the broad category of service – this includes *Childbirth, Specialist mental health, Medical, Surgical* or *Other* care
- Australian Refined Diagnosis Related Groups (AR-DRGs) – this includes the numbers of separations by Major Diagnostic Category (MDC) and AR-DRGs
- intensive care – this includes the numbers of hours that patients stayed in an intensive care unit (ICU) or were assisted by a breathing machine
- the intent of care – information for rehabilitation care and palliative care includes who used these services, why they received care, who paid for the care, and how the care ended.

Information is also included for hospital-in-the-home care, and how the admitted patient episode ended.

Chapter 6 provides more information on services provided, with a focus on surgery and other procedures performed.

Key findings

Broad categories of service

In 2015–16, about 58% of separations were for medical care, 24% were for surgical care and about 3% each were for childbirth and specialist mental health care. The majority of childbirth separations (75%), medical separations (73%) and emergency admissions (92%) occurred in public hospitals. Private hospitals accounted for 60% of surgical separations and 56% of specialist mental health care separations.

Intensive care

In 2015–16, about 2% of public hospital separations involved a stay in an intensive care unit. About 9.7 million hours of intensive care were reported for public hospitals.

Rehabilitation care

In 2015–16, almost 435,000 separations were reported for *Rehabilitation care*, with 76% occurring in private hospitals. About 80% of *Rehabilitation care* separations were for people aged over 60, and the majority (81%) were for people living in *Major cities*.

Palliative care

In 2015–16, there were over 42,000 separations for *Palliative care* in public and private hospitals, with about 57% of those having a principal diagnosis that was cancer-related.

5.1 Broad category of service

This section presents information by broad category of service, over time and for 2015–16. It includes counts of separations, and for overnight care also includes counts of patient days and average length of stay.

Due to the implementation of the *Mental health* care type from 1 July 2015, the data are not comparable with data reported in previous years (see Box 1.2 and Appendix A).

The broad categories of service include:

- *Childbirth* – separations for which the AR-DRG was associated with childbirth (does not include newborn care).
- *Specialist mental health*: separations for which either the care type was reported as *Mental health* care (implemented from 1 July 2015) or for which specialised psychiatric care days were reported, excluding separations for childbirth. This differs from previous years, for which this category included only separations for which specialised psychiatric care days were reported.

More detailed information on the provision of admitted patient mental health care is available in the AIHW report *Mental health services in Australia* (AIHW 2016f), which includes both separations for which specialised psychiatric care days were reported and/or a mental health-related principal diagnosis.

- *Surgical* – separations for which the AR-DRG belonged to the *Surgical* partition of the AR-DRG classification (involving an operating room procedure).
- *Medical* – separations for which the AR-DRG belonged to the *Medical* partition (not involving an operating room procedure).
- *Other* – separations for which the AR-DRG did not belong to the *Surgical* or *Medical* partitions (involving a non-operating room procedure, such as endoscopy).

This information is also presented by the urgency of admission, as either *Emergency* or *Non-emergency*. See Appendix B for more information.

Changes over time

Between 2011–12 and 2015–16, in public hospitals *Emergency surgical* separations increased by an average of 2.5% each year and *Emergency medical* separations increased by an average of 3.6% each year (Table 5.1). Between 2011–12 and 2015–16, *Non-emergency medical* separations in private hospitals increased by an average of 5.0% each year.

Between 2014–15 and 2015–16, *Emergency* separations increased by 5.6% in public hospitals and by 3.9% in private hospitals.

Between 2014–15 and 2015–16, *Specialist mental health* separations increased by 15.9% in public hospitals. This increase is, in part, due to the introduction of the *Mental health* care type from 1 July 2015, and the corresponding change in specification for this category. See appendixes A and B for more information.

How much activity was there in 2015–16?

In 2015–16, about 58% of separations were for *Medical* care, 24% were for *Surgical* care and about 3% each were for *Childbirth* and *Specialist mental health* (Table 5.2). The Northern

Territory had the highest proportion of separations in public hospitals that were for *Medical* care (86%).

Public hospitals accounted for the majority of *Childbirth* separations (75%), *Medical* separations (73%) and *Emergency* admissions (92%).

Private hospitals accounted for 60% of *Surgical* separations and 56% of *Specialist mental health* separations.

Table 5.1: Separations^(a) by broad category of service, public and private hospitals, 2011–12 to 2015–16^(b)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Childbirth	218,903	223,814	225,323	226,997	233,788	1.7	3.0
Specialist mental health	109,410	113,706	115,142	120,870	140,040	6.4	15.9
Emergency							
Surgical	256,880	260,880	265,762	272,883	283,266	2.5	3.8
Medical	1,902,150	1,869,786	1,957,198	2,073,544	2,195,039	3.6	5.9
Other	59,964	63,431	68,399	71,123	74,973	5.7	5.4
<i>Total emergency</i>	<i>2,218,994</i>	<i>2,194,097</i>	<i>2,291,359</i>	<i>2,417,550</i>	<i>2,553,278</i>	<i>3.6</i>	<i>5.6</i>
Non-emergency							
Surgical	695,239	698,500	714,041	726,172	741,628	1.6	2.1
Medical	1,991,141	2,024,868	2,057,148	2,155,918	2,258,888	3.2	4.8
Other	277,805	275,211	311,857	332,831	344,859	5.6	3.6
<i>Total non-emergency</i>	<i>2,964,185</i>	<i>2,998,579</i>	<i>3,083,046</i>	<i>3,214,921</i>	<i>3,345,375</i>	<i>3.1</i>	<i>4.1</i>
<i>Total public hospitals</i>	<i>5,511,492</i>	<i>5,530,196</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>3.3</i>	<i>4.9</i>
Private hospitals							
Childbirth	80,782	81,872	78,865	75,650	75,881	-1.6	0.3
Specialist mental health	136,086	139,476	154,859	165,955	179,439	7.2	8.1
Emergency							
Surgical	38,678	39,432	39,178	41,486	42,754	2.5	3.1
Medical	146,399	147,663	147,303	152,655	159,664	2.2	4.6
Other	15,692	15,835	16,142	16,679	16,623	1.5	-0.3
<i>Total emergency</i>	<i>200,769</i>	<i>202,930</i>	<i>202,623</i>	<i>210,820</i>	<i>219,041</i>	<i>2.2</i>	<i>3.9</i>
Non-emergency							
Surgical	1,349,008	1,371,995	1,391,078	1,445,553	1,480,683	2.4	2.4
Medical	1,227,888	1,289,029	1,330,424	1,412,975	1,492,784	5.0	5.6
Other	746,139	753,759	824,056	859,076	879,459	4.2	2.4
<i>Total non-emergency</i>	<i>3,323,035</i>	<i>3,414,783</i>	<i>3,545,558</i>	<i>3,717,604</i>	<i>3,852,926</i>	<i>3.8</i>	<i>3.6</i>
<i>Total private hospitals</i>	<i>3,740,672</i>	<i>3,839,061</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>3.7</i>	<i>3.8</i>
Total separations	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

(a) Includes *Acute* care, *Subacute* and *non-acute* care and *Mental health* care separations.

(b) Due to the introduction of the *Mental health* care type on 1 July 2015, the data for 2015–16 are not comparable with data reported in previous years.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.2: Separations by broad category of service, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Childbirth	74,748	60,204	45,159	24,844	15,679	4,585	5,286	3,283	233,788
Specialist mental health	43,955	26,049	34,186	14,436	14,797	3,800	1,805	1,012	140,040
Emergency									
Surgical	91,574	68,235	50,597	32,597	22,353	6,459	6,486	4,965	283,266
Medical	690,123	495,757	531,467	192,702	170,167	35,554	36,200	43,069	2,195,039
Other	25,433	17,183	13,990	8,435	5,358	1,875	1,586	1,113	74,973
Non-emergency									
Surgical	214,142	218,550	132,878	78,628	60,226	17,731	12,630	6,843	741,628
Medical	626,944	663,075	433,766	230,102	136,798	45,173	38,445	84,585	2,258,888
Other	94,244	120,509	51,082	48,995	13,453	7,427	5,603	3,546	344,859
Total public hospitals	1,861,163	1,669,562	1,293,125	630,739	438,831	122,604	108,041	148,416	6,272,481
Private hospitals									
Childbirth	22,536	19,352	16,112	10,134	4,193	n.p.	n.p.	n.p.	75,881
Specialist mental health	59,250	43,285	61,274	5,667	2,178	n.p.	n.p.	n.p.	179,439
Emergency									
Surgical	3,970	12,040	13,291	5,176	7,595	n.p.	n.p.	n.p.	42,754
Medical	16,631	44,338	61,586	19,168	15,039	n.p.	n.p.	n.p.	159,664
Other	1,286	4,592	4,700	1,569	4,220	n.p.	n.p.	n.p.	16,623
Non-emergency									
Surgical	442,138	356,170	325,400	178,818	112,330	n.p.	n.p.	n.p.	1,480,683
Medical	460,012	290,919	393,490	184,518	119,761	n.p.	n.p.	n.p.	1,492,784
Other	255,347	251,217	196,704	92,448	56,432	n.p.	n.p.	n.p.	879,459
Total private hospitals	1,261,170	1,021,913	1,072,557	497,498	321,748	n.p.	n.p.	n.p.	4,327,287

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Same-day acute care

In 2015–16, nationally about 46% of same-day acute separations were for *Non-emergency medical care* (Table 5.3).

Public hospitals provided the majority of *Emergency medical* same-day acute separations (98%) and *Non-emergency medical* separations (66%). About 71% of *Emergency* admissions to public hospitals were overnight separations (tables 5.3 and 5.4).

Private hospitals provided about 70% of *Non-emergency surgical* same-day acute separations.

Overnight acute care

In 2015–16, nationally about 42% of overnight acute separations were for *Emergency medical care* (Table 5.4), and 91% of these occurred in public hospitals. The proportion of overnight acute separations in public hospitals that were *Emergency* admissions ranged from 61% in Victoria to 78% in the Northern Territory.

Public hospitals provided about 75% of *Childbirth* overnight acute separations, and this proportion varied among jurisdictions whose private hospital data could be reported – from 70% in Western Australia to 78% in South Australia.

Private hospitals provided about 51% of all *Surgical* overnight acute separations, including 63% of *Non-emergency surgical* overnight acute separations. The proportion of *Surgical* overnight acute separations that were in private hospitals (for jurisdictions whose private hospital data could be reported) ranged from 48% in New South Wales to 56% in Western Australia.

Table 5.3: Same-day acute separations by broad category of service^(a), public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Childbirth	3,004	1,444	2,516	938	843	284	432	155	9,616
Emergency									
Surgical	8,985	6,400	3,356	3,428	2,087	573	552	191	25,572
Medical	174,677	182,427	220,806	43,229	49,916	8,258	12,481	16,178	707,972
Other	1,777	1,334	1,356	1,125	246	166	175	26	6,205
Non-emergency									
Surgical	106,262	116,679	62,801	43,524	34,595	9,875	5,938	4,059	383,733
Medical	449,578	541,488	346,885	199,995	100,530	36,538	30,422	80,378	1,785,814
Other	86,482	112,651	45,422	46,969	11,577	6,979	5,381	3,264	318,725
Total public hospitals^(b)	830,765	962,484	683,937	339,213	199,863	62,679	55,465	104,251	3,238,657
Private hospitals									
Childbirth	28	27	25	12	5	n.p.	n.p.	n.p.	125
Emergency									
Surgical	313	494	443	380	3,498	n.p.	n.p.	n.p.	5,198
Medical	1,110	2,873	4,011	1,487	1,760	n.p.	n.p.	n.p.	11,291
Other	190	263	296	154	3,057	n.p.	n.p.	n.p.	3,986
Non-emergency									
Surgical	268,642	210,232	193,682	101,551	64,950	n.p.	n.p.	n.p.	876,158
Medical	192,116	201,668	271,435	156,443	80,930	n.p.	n.p.	n.p.	922,197
Other	243,054	237,825	184,756	89,501	53,196	n.p.	n.p.	n.p.	834,083
Total private hospitals^(b)	705,453	653,382	655,210	349,528	207,396	n.p.	n.p.	n.p.	2,654,001

(a) Includes *Acute* care separations only and therefore the sum of tables 5.3 and 5.4 do not equal the total in Table 5.2.

(b) Includes *Acute* care separations for which specialised psychiatric care days were reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.4: Overnight acute separations by broad category of service^(a), public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Childbirth	71,726	58,760	42,641	23,905	14,835	4,301	4,854	3,125	224,147
Emergency									
Surgical	82,552	61,806	47,229	29,159	20,256	5,885	5,934	4,772	257,593
Medical	511,000	311,699	308,261	147,595	118,938	26,929	23,683	26,818	1,474,923
Other	23,635	15,845	12,627	7,304	5,109	1,709	1,411	1,087	68,727
Non-emergency									
Surgical	107,607	100,786	69,917	35,010	25,571	7,838	6,674	2,768	356,171
Medical	111,307	80,292	46,146	19,012	19,535	6,129	3,534	3,285	289,240
Other	7,666	7,812	5,579	1,991	1,866	445	213	281	25,853
Total public hospitals^(b)	915,493	637,464	534,444	264,528	207,075	53,528	46,393	42,136	2,701,061
Private hospitals									
Childbirth	22,507	19,324	16,087	10,122	4,188	n.p.	n.p.	n.p.	75,754
Emergency									
Surgical	3,656	11,545	12,844	4,794	4,094	n.p.	n.p.	n.p.	37,540
Medical	15,268	41,322	57,089	17,266	13,112	n.p.	n.p.	n.p.	146,729
Other	1,095	4,329	4,403	1,411	1,161	n.p.	n.p.	n.p.	12,626
Non-emergency									
Surgical	171,526	145,871	131,667	77,254	47,366	n.p.	n.p.	n.p.	602,389
Medical	58,984	64,300	62,674	22,089	13,198	n.p.	n.p.	n.p.	232,793
Other	10,920	13,369	11,934	2,941	3,228	n.p.	n.p.	n.p.	43,944
Total private hospitals^(b)	283,956	300,060	297,256	136,060	86,347	n.p.	n.p.	n.p.	1,152,644

(a) Includes *Acute* care separations only and therefore the sum of tables 5.3 and 5.4 do not equal the total in Table 5.2.

(b) Includes *Acute* care separations for which specialised psychiatric care days were reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Patient days and length of stay

The lengths of stay for overnight acute separations varied by broad category of service, and between public and private hospitals.

Non-emergency admissions in public hospitals had longer stays (4.5 days, on average) compared with *Non-emergency* admissions in private hospitals (3.5 days).

For *Childbirth* separations and *Emergency* admissions for *Surgical* and *Medical* care, the average lengths of stay were longer in private hospitals than in public hospitals (Table 5.5).

Table 5.5: Patient days and average length of stay, for overnight acute separations, by broad category of service, public and private hospitals, 2015–16

Broad category of service	Public hospitals		Private hospitals		Total	
	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay
Childbirth	670,792	3.0	349,521	4.6	1,020,313	3.4
Specialist mental health	101,685	23.1	20,607	23.7	122,292	23.2
Emergency						
Surgical	1,896,779	7.4	289,548	7.7	2,186,327	7.4
Medical	5,407,388	3.7	847,318	5.8	6,254,706	3.9
Other	429,272	6.2	72,414	5.7	501,686	6.2
<i>Total emergency</i>	<i>7,733,439</i>	<i>4.3</i>	<i>1,209,280</i>	<i>6.1</i>	<i>8,942,719</i>	<i>4.5</i>
Non-emergency						
Surgical	1,403,071	3.9	1,868,042	3.1	3,271,113	3.4
Medical	1,496,940	5.2	1,118,159	4.8	2,615,099	5.0
Other	88,942	3.4	108,143	2.5	197,085	2.8
<i>Total non-emergency</i>	<i>2,988,953</i>	<i>4.5</i>	<i>3,094,344</i>	<i>3.5</i>	<i>6,083,297</i>	<i>3.9</i>
Total	11,494,869	4.3	4,673,752	4.1	16,168,621	4.2

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about broad categories of service by state and territory is in tables accompanying this report online at <www.aihw.gov.au/hospitals/>.

More information on urgency of admission is available in 'Chapter 4 Why did people receive care?'.

Information on data limitations and methods is available in appendixes A and B.

5.2 Diagnosis related groups

This section presents information on the numbers of separations for Major Diagnostic Categories (MDCs) and Australian Refined Diagnosis Related Groups (AR-DRGs) for 2015–16. It includes counts of acute care separations (including *Newborns* with at least one qualified day and records for which care type was not reported) for MDCs by hospital sector and state or territory, and for the 20 most common AR-DRGs by hospital sector for same-day and overnight separations.

The data presented for 2015–16 for acute care separations are not comparable with data for previous years, due to the introduction of the *Mental health* care type from 1 July 2015, which is not included in these analyses. Therefore, caution should be used when interpreting changes over time.

The AR-DRG is a classification system developed to provide a clinically meaningful way of relating the number and type of patients treated in a hospital to the resources required by the hospital. Separations are assigned to MDCs and AR-DRGs mostly based on the diagnoses and procedures reported (NCCC 2012).

The AR-DRG classification is partly hierarchical, with 23 MDCs, divided into *Surgical*, *Medical* and *Other* partitions, and then into 771 individual AR-DRGs (AR-DRG version 7.0). As such, the AR-DRG classification provides a more detailed picture of the care provided than MDCs. The MDCs are mostly defined by body system or disease type, and correspond with particular medical specialties. See Appendix B for more information.

MDC overview

In 2015–16, *Diseases and disorders of the kidney and urinary tract* was the most common MDC for public hospitals, accounting for 23% of acute care separations, while *Diseases and disorders of the digestive system* was the most common MDC for private hospitals (17%) (Table 5.6). About 71% of acute care separations for *Diseases and disorders of the eye* were from private hospitals.

For public hospitals, *Medical DRGs* accounted for about 74% of acute care separations (4.4 million), and *Surgical DRGs* for about 19% (1.1 million).

For private hospitals, *Surgical DRGs* accounted for about 41% of acute care separations (1.6 million), and *Medical DRGs* for about 36% (1.4 million).

Same-day acute care

MDCs

In 2015–16, *Diseases and disorders of the kidney and urinary tract* was the most common MDC reported for same-day acute separations. It accounted for more than one-quarter (27%) of separations, with 79% of these occurring in public hospitals (tables 5.7 and 5.8). For the Northern Territory, *Diseases and disorders of the kidney and urinary tract* accounted for about 73% of same-day acute separations in public hospitals (Table 5.7).

About 74% of same-day acute separations for *Diseases and disorders of the eye*, and 65% of *Diseases and disorders of the female reproductive system* were from private hospitals (tables 5.7 and 5.8).

AR-DRGs

In 2015–16, the 20 most common AR-DRGs accounted for more than two-thirds (68%) of same-day acute separations (Table 5.9).

Almost one-quarter (23%) of same-day acute separations were for *Haemodialysis*, with *Chemotherapy* the next most common AR-DRG (about 8%). Public hospitals provided the majority (82%) of same-day acute separations for *Haemodialysis*.

Private hospitals provided about 90% of same-day acute separations for *Retinal procedures* and 70% of *Lens procedures*.

Table 5.6: Acute care separations by Major Diagnostic Category version 7.0 and medical/surgical/other partition, public and private hospitals, 2015–16

Major Diagnostic Category		Public hospitals	Private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	12,765	4,806	17,571
01	Diseases and disorders of the nervous system	324,827	88,362	413,189
02	Diseases and disorders of the eye	119,376	294,390	413,766
03	Diseases and disorders of the ear, nose, mouth and throat	219,082	237,529	456,611
04	Diseases and disorders of the respiratory system	353,227	119,164	472,391
05	Diseases and disorders of the circulatory system	476,713	187,385	664,098
06	Diseases and disorders of the digestive system	625,733	659,581	1,285,314
07	Diseases and disorders of the hepatobiliary system and pancreas	110,414	37,878	148,292
08	Diseases and disorders of the musculoskeletal system and connective tissue	434,592	415,940	850,532
09	Diseases and disorders of the skin, subcutaneous tissue and breast	225,373	221,474	446,847
10	Endocrine, nutritional and metabolic diseases and disorders	89,559	62,647	152,206
11	Diseases and disorders of the kidney and urinary tract	1,384,396	382,878	1,767,274
12	Diseases and disorders of the male reproductive system	48,270	67,567	115,837
13	Diseases and disorders of the female reproductive system	127,048	187,506	314,554
14	Pregnancy, childbirth and puerperium	381,096	139,242	520,338
15	Newborns and other neonates	90,883	16,633	107,516
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	123,010	71,208	194,218
17	Neoplastic disorders (haematological and solid neoplasms)	255,593	319,585	575,178
18	Infectious and parasitic diseases	88,592	15,495	104,087
19	Mental diseases and disorders	50,780	13,672	64,452
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	36,066	6,504	42,570
21	Injuries, poisoning and toxic effects of drugs	185,445	26,391	211,836
22	Burns	8,487	281	8,768
23	Factors influencing health status and other contacts with health services	161,757	225,598	387,355
ED	Error DRGs ^(a)	6,634	4,929	11,563
	<i>Surgical</i>	1,099,716	1,557,250	2,656,966
	<i>Medical</i>	4,420,121	1,354,659	5,774,780
	<i>Other</i>	419,881	894,736	1,314,617
Total		5,939,718	3,806,645	9,746,363

DRG—diagnosis related group; ECMO—extracorporeal membranous oxygenation.

(a) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.7: Same-day acute separations, by Major Diagnostic Category, AR-DRG version 7.0, public hospitals, state and territories, 2015–16

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	56	69	40	119	57	5	0	0	346
01	Diseases and disorders of the nervous system	31,454	45,887	35,716	10,075	9,494	2,926	2,395	1,760	139,707
02	Diseases and disorders of the eye	28,060	29,695	14,581	14,564	8,807	2,884	1,556	1,132	101,279
03	Diseases and disorders of the ear, nose, mouth and throat	24,034	31,094	28,421	8,752	8,650	1,989	1,757	1,720	106,417
04	Diseases and disorders of the respiratory system	16,794	18,725	19,766	4,309	4,096	1,485	710	1,084	66,969
05	Diseases and disorders of the circulatory system	44,751	47,347	43,274	13,139	14,400	2,979	4,248	2,041	172,179
06	Diseases and disorders of the digestive system	87,115	94,754	65,000	35,835	12,667	6,163	5,474	4,396	311,404
07	Diseases and disorders of the hepatobiliary system and pancreas	5,770	6,305	4,662	2,206	1,335	765	373	317	21,733
08	Diseases and disorders of the musculoskeletal system and connective tissue	42,903	43,166	37,290	12,695	11,338	3,283	4,508	2,269	157,452
09	Diseases and disorders of the skin, subcutaneous tissue and breast	25,200	26,716	25,904	9,298	10,180	2,925	1,277	1,675	103,175
10	Endocrine, nutritional and metabolic diseases and disorders	6,370	10,958	6,842	4,164	1,466	944	514	458	31,716
11	Diseases and disorders of the kidney and urinary tract	372,643	331,514	211,128	135,676	76,812	20,453	23,620	75,617	1,247,463
12	Diseases and disorders of the male reproductive system	6,738	8,069	5,348	4,003	2,238	816	430	320	27,962
13	Diseases and disorders of the female reproductive system	20,840	25,120	16,373	6,331	5,783	1,650	999	924	78,020
14	Pregnancy, childbirth and puerperium	26,944	18,235	28,872	5,718	8,071	1,148	1,312	3,457	93,757
15	Newborns and other neonates	3,759	1,034	1,025	323	214	56	89	117	6,617
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	16,834	36,649	16,911	10,437	4,385	1,886	1,098	886	89,086
17	Neoplastic disorders (haematological and solid neoplasms)	8,952	114,236	62,557	39,899	3,432	4,109	819	905	234,909
18	Infectious and parasitic diseases	3,965	5,019	6,105	1,026	946	295	198	308	17,862
19	Mental diseases and disorders	5,251	9,150	3,951	1,024	1,479	259	229	553	21,896
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	2,569	2,426	3,588	1,508	1,125	81	186	915	12,398
21	Injuries, poisoning and toxic effects of drugs	20,474	19,636	19,695	5,854	5,490	1,138	1,804	1,872	75,963
22	Burns	1,406	538	730	254	197	92	33	102	3,352
23	Factors influencing health status and other contacts with health services	27,258	35,453	25,963	11,458	7,076	4,316	1,820	1,402	114,746
ED	Error DRGs ^(a)	625	689	195	546	125	32	16	21	2,249
Total		830,765	962,484	683,937	339,213	199,863	62,679	55,465	104,251	3,238,657

AR-DRG—Australian Refined Diagnosis Related Group; ECMO—extracorporeal membranous oxygenation; MDC—Major Diagnostic Category.

(a) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2, 2.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.8: Same-day acute separations, by Major Diagnostic Category, AR-DRG version 7.0, private hospitals, state and territories, 2015–16

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	146	227	207	31	68	n.p.	n.p.	n.p.	695
01	Diseases and disorders of the nervous system	13,019	10,578	16,441	6,154	3,395	n.p.	n.p.	n.p.	50,994
02	Diseases and disorders of the eye	91,929	54,955	68,484	31,972	21,229	n.p.	n.p.	n.p.	284,700
03	Diseases and disorders of the ear, nose, mouth and throat	48,619	41,751	33,342	22,668	15,264	n.p.	n.p.	n.p.	168,061
04	Diseases and disorders of the respiratory system	2,960	3,013	3,055	1,305	1,301	n.p.	n.p.	n.p.	11,826
05	Diseases and disorders of the circulatory system	19,848	11,604	11,340	7,131	4,650	n.p.	n.p.	n.p.	57,810
06	Diseases and disorders of the digestive system	160,573	159,099	125,190	46,168	34,013	n.p.	n.p.	n.p.	540,107
07	Diseases and disorders of the hepatobiliary system and pancreas	1,596	1,625	1,815	528	774	n.p.	n.p.	n.p.	6,534
08	Diseases and disorders of the musculoskeletal system and connective tissue	49,961	39,414	35,185	22,461	17,228	n.p.	n.p.	n.p.	170,893
09	Diseases and disorders of the skin, subcutaneous tissue and breast	42,647	39,382	37,067	20,397	18,108	n.p.	n.p.	n.p.	161,821
10	Endocrine, nutritional and metabolic diseases and disorders	5,485	7,277	7,176	3,546	1,656	n.p.	n.p.	n.p.	25,711
11	Diseases and disorders of the kidney and urinary tract	58,298	57,628	83,438	99,840	25,862	n.p.	n.p.	n.p.	328,909
12	Diseases and disorders of the male reproductive system	13,273	9,994	7,901	6,517	3,310	n.p.	n.p.	n.p.	42,679
13	Diseases and disorders of the female reproductive system	43,667	43,782	27,415	13,897	8,104	n.p.	n.p.	n.p.	141,762
14	Pregnancy, childbirth and puerperium	10,390	17,879	14,544	7,674	791	n.p.	n.p.	n.p.	51,954
15	Newborns and other neonates	297	274	120	122	120	n.p.	n.p.	n.p.	955
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	10,547	14,614	25,525	3,741	4,623	n.p.	n.p.	n.p.	61,047
17	Neoplastic disorders (haematological and solid neoplasms)	62,284	77,445	97,643	37,149	26,928	n.p.	n.p.	n.p.	309,089
18	Infectious and parasitic diseases	345	349	551	89	1,408	n.p.	n.p.	n.p.	2,767
19	Mental diseases and disorders	7,259	360	596	27	65	n.p.	n.p.	n.p.	10,256
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	2,804	2,036	389	3	2	n.p.	n.p.	n.p.	5,249
21	Injuries, poisoning and toxic effects of drugs	2,178	2,731	2,024	1,207	961	n.p.	n.p.	n.p.	9,410
22	Burns	26	27	37	13	35	n.p.	n.p.	n.p.	146
23	Factors influencing health status and other contacts with health services	56,339	56,776	55,374	16,566	17,332	n.p.	n.p.	n.p.	208,186
ED	Error DRGs ^(a)	963	562	351	322	169	n.p.	n.p.	n.p.	2,440
Total		705,453	653,382	655,210	349,528	207,396	n.p.	n.p.	n.p.	2,654,001

AR-DRG—Australian Refined Diagnosis Related Group; ECMO—extracorporeal membranous oxygenation; MDC—Major Diagnostic Category.

(a) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.9: Separations for the 20 most common AR-DRGs version 7.0 for same-day acute separations, public and private hospitals, 2015–16

AR-DRG		Public	Private free-	Other	Total
		hospitals	standing day hospital facilities	private hospitals	
L61Z	Haemodialysis	1,129,866	143,565	108,394	1,381,825
R63Z	Chemotherapy	199,865	78,194	210,507	488,566
G48C	Colonoscopy, same-day	80,077	87,085	139,049	306,211
C16Z	Lens procedures	70,472	95,258	72,844	238,574
G46C	Complex endoscopy, same-day	39,055	63,321	95,120	197,496
Z40Z	Other contacts with health services with endoscopy, same-day	47,118	38,669	80,578	166,365
G47C	Gastrosocopy, same-day	41,182	48,888	64,924	154,994
Z64B	Other factors influencing health status, same-day	52,133	16,661	59,106	127,900
D40Z	Dental extractions and restorations	21,791	29,343	69,823	120,957
Q61C	Red blood cell disorders, same-day	58,806	13,390	24,606	96,802
J11Z	Other skin, subcutaneous tissue and breast procedures	32,558	26,434	35,589	94,581
C03Z	Retinal procedures	8,328	62,458	13,541	84,327
N07B	Other uterus and adnexa procedures for non-malignancy, same-day	17,234	23,832	36,664	77,730
F74B	Chest pain, less than 2 days	72,630	705	3,359	76,694
I82Z	Other same-day treatment for musculoskeletal disorders	43,067	3,579	25,750	72,396
L41Z	Cystourethroscopy for urinary disorder, same-day	32,931	4,263	33,903	71,097
O66C	Antenatal and other obstetric admissions, same-day	56,539	45	8,697	65,281
O05Z	Abortion with operating room procedures	19,246	32,438	8,845	60,529
I18Z	Other knee procedures	12,949	2,939	44,403	60,291
I40Z	Infusions for musculoskeletal disorders, same-day	18,698	4,768	27,145	50,611
	Other	1,184,112	177,348	537,971	1,899,431
Total		3,238,657	953,183	1,700,818	5,892,658

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Overnight acute care

MDCs

In 2015–16, *Diseases and disorders of the musculoskeletal system and connective tissue* was the most common MDC reported for overnight acute separations, accounting for about 14% of separations (tables 5.10 and 5.11).

Public hospitals accounted for 87% of overnight acute separations for *Injuries, poisoning and toxic effects of drugs* (tables 5.10 and 5.11).

Private hospitals accounted for about 55% of overnight acute separations for *Diseases and disorders of the male reproductive system* and 48% for *Diseases and disorders of the female reproductive system* (tables 5.10 and 5.11).

Table 5.10: Overnight acute separations by Major Diagnostic Category AR-DRG version 7.0, public hospitals, states and territories, 2015–16

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	3,966	3,352	2,526	1,040	970	220	222	123	12,419
01	Diseases and disorders of the nervous system	63,010	44,235	36,537	17,997	14,005	4,047	2,938	2,351	185,120
02	Diseases and disorders of the eye	6,608	4,151	3,400	1,963	1,121	197	319	338	18,097
03	Diseases and disorders of the ear, nose, mouth and throat	34,512	28,296	22,903	10,940	9,577	2,385	1,939	2,113	112,665
04	Diseases and disorders of the respiratory system	99,103	66,456	55,754	27,250	22,508	6,204	4,459	4,524	286,258
05	Diseases and disorders of the circulatory system	103,403	67,111	66,950	27,097	25,416	5,801	4,905	3,851	304,534
06	Diseases and disorders of the digestive system	107,940	74,619	62,011	30,561	23,599	6,364	5,488	3,747	314,329
07	Diseases and disorders of the hepatobiliary system and pancreas	29,401	22,448	17,060	8,837	6,292	1,879	1,585	1,179	88,681
08	Diseases and disorders of the musculoskeletal system and connective tissue	92,915	67,885	52,437	29,116	19,904	6,170	4,979	3,734	277,140
09	Diseases and disorders of the skin, subcutaneous tissue and breast	39,502	26,697	27,035	12,724	8,471	2,080	1,835	3,854	122,198
10	Endocrine, nutritional and metabolic diseases and disorders	17,938	14,061	12,112	5,647	4,979	1,165	852	1,089	57,843
11	Diseases and disorders of the kidney and urinary tract	44,813	32,011	28,123	12,581	11,813	2,346	2,780	2,466	136,933
12	Diseases and disorders of the male reproductive system	6,183	5,231	4,297	2,031	1,382	433	481	270	20,308
13	Diseases and disorders of the female reproductive system	14,511	13,068	10,378	4,726	3,662	1,174	845	664	49,028
14	Pregnancy, childbirth and puerperium	92,471	71,429	56,388	31,263	19,353	5,576	6,016	4,843	287,339
15	Newborns and other neonates	38,541	16,882	12,737	7,249	4,985	1,061	1,675	1,136	84,266
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	11,799	8,255	6,410	2,751	3,058	607	554	490	33,924
17	Neoplastic disorders (haematological and solid neoplasms)	6,219	6,719	3,058	1,720	2,038	447	346	137	20,684
18	Infectious and parasitic diseases	24,902	18,175	13,506	6,590	3,995	1,276	1,083	1,203	70,730
19	Mental diseases and disorders	9,417	6,270	4,874	3,601	3,887	347	260	228	28,884
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	9,920	2,925	4,087	3,192	1,829	439	660	616	23,668
21	Injuries, poisoning and toxic effects of drugs	37,080	23,918	21,788	11,813	8,759	2,223	1,772	2,129	109,482
22	Burns	1,288	895	1,156	729	649	141	44	233	5,135
23	Factors influencing health status and other contacts with health services	18,181	11,389	8,333	2,686	4,495	875	296	756	47,011
ED	Error DRGs ^(a)	1,870	986	584	424	328	71	60	62	4,385
Total		915,493	637,464	534,444	264,528	207,075	53,528	46,393	42,136	2,701,061

DRG—Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation; MDC—Major Diagnostic Category.

(a) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.11: Overnight acute separations by Major Diagnostic Category AR-DRG version 7.0, private hospitals, states and territories, 2015–16

Major Diagnostic Category		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	1,094	1,092	1,096	344	410	n.p.	n.p.	n.p.	4,111
01	Diseases and disorders of the nervous system	8,616	10,903	10,726	3,970	2,070	n.p.	n.p.	n.p.	37,368
02	Diseases and disorders of the eye	2,802	1,762	1,688	2,250	901	n.p.	n.p.	n.p.	9,690
03	Diseases and disorders of the ear, nose, mouth and throat	20,815	15,490	15,807	7,494	6,292	n.p.	n.p.	n.p.	69,468
04	Diseases and disorders of the respiratory system	22,313	28,406	33,499	12,413	6,929	n.p.	n.p.	n.p.	107,338
05	Diseases and disorders of the circulatory system	29,130	36,802	36,803	13,716	9,422	n.p.	n.p.	n.p.	129,575
06	Diseases and disorders of the digestive system	25,279	32,522	34,669	12,271	9,226	n.p.	n.p.	n.p.	119,474
07	Diseases and disorders of the hepatobiliary system and pancreas	7,555	8,468	8,219	3,297	2,448	n.p.	n.p.	n.p.	31,344
08	Diseases and disorders of the musculoskeletal system and connective tissue	60,214	61,971	56,499	32,768	21,464	n.p.	n.p.	n.p.	245,047
09	Diseases and disorders of the skin, subcutaneous tissue and breast	15,111	16,006	15,256	6,400	4,287	n.p.	n.p.	n.p.	59,653
10	Endocrine, nutritional and metabolic diseases and disorders	10,561	7,556	9,899	5,506	2,184	n.p.	n.p.	n.p.	36,936
11	Diseases and disorders of the kidney and urinary tract	12,134	15,507	14,225	5,348	4,272	n.p.	n.p.	n.p.	53,969
12	Diseases and disorders of the male reproductive system	7,397	6,314	5,770	2,589	1,821	n.p.	n.p.	n.p.	24,888
13	Diseases and disorders of the female reproductive system	13,053	10,422	10,596	5,741	3,858	n.p.	n.p.	n.p.	45,744
14	Pregnancy, childbirth and puerperium	25,653	21,843	19,032	11,585	4,685	n.p.	n.p.	n.p.	87,288
15	Newborns and other neonates	6,589	3,261	2,582	1,852	829	n.p.	n.p.	n.p.	15,678
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	1,726	3,179	2,901	1,091	918	n.p.	n.p.	n.p.	10,161
17	Neoplastic disorders (haematological and solid neoplasms)	1,510	3,381	3,008	1,537	865	n.p.	n.p.	n.p.	10,496
18	Infectious and parasitic diseases	2,127	3,540	4,379	1,448	762	n.p.	n.p.	n.p.	12,728
19	Mental diseases and disorders	1,383	487	770	306	90	n.p.	n.p.	n.p.	3,416
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	478	455	200	68	33	n.p.	n.p.	n.p.	1,255
21	Injuries, poisoning and toxic effects of drugs	3,090	4,581	5,130	2,239	1,218	n.p.	n.p.	n.p.	16,981
22	Burns	21	47	39	15	7	n.p.	n.p.	n.p.	135
23	Factors influencing health status and other contacts with health services	4,764	5,221	3,858	1,582	1,152	n.p.	n.p.	n.p.	17,412
ED	Error DRGs ^(a)	541	844	605	230	204	n.p.	n.p.	n.p.	2,489
Total		283,956	300,060	297,256	136,060	86,347	n.p.	n.p.	n.p.	1,152,644

DRG—Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation; MDC—Major Diagnostic Category.

(a) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

AR-DRGs

In 2015–16, the 2 most common AR-DRGs for overnight acute separations were for childbirth, followed by *Sleep apnoea* (Table 5.12).

Public hospitals provided the majority of overnight separations for *Vaginal delivery, single uncomplicated* (80%) and for *Chest pain less than 2 days* (90%).

Private hospitals provided more than 85% of overnight separations for *Sleep apnoea* and 82% of overnight separations for *Other shoulder procedures*.

Table 5.12: Separations for the 20 most common AR-DRGs version 7.0 for overnight acute separations, public and private hospitals, 2015–16

AR-DRG	Public hospitals	Private hospitals	Total
O60C Vaginal delivery, single uncomplicated	110,873	27,232	138,105
O01C Caesarean delivery without CSCC	47,575	27,859	75,434
E63Z Sleep apnoea	8,924	51,990	60,914
G70B Other digestive system disorders without CSCC	46,492	9,197	55,689
J64B Cellulitis without CSCC	46,126	6,088	52,214
G10B Hernia procedures without CC	19,337	27,771	47,108
E65B Chronic obstructive airways disease without catastrophic CC	38,238	6,886	45,124
G66A Abdominal pain and mesenteric adenitis	38,426	5,147	43,573
F74B Chest pain, less than 2 days	38,560	4,149	42,709
I16Z Other shoulder procedures	7,072	32,689	39,761
H08B Laparoscopic cholecystectomy without closed CDE without CSCC	21,419	16,870	38,289
I04B Knee replacement without CSCC	11,720	25,365	37,085
P68D Neonate, admission weight >=2500g without significant OR procedure, >=37 completed weeks gestation without problem	30,996	5,559	36,555
O60B Vaginal delivery without CSCC	26,069	10,418	36,487
F42B Circulatory disorders, not admitted for AMI with invasive cardiac investigation without CSCC	12,352	22,653	35,005
O66B Antenatal and other obstetric admissions without CSCC	28,402	6,097	34,499
D11Z Tonsillectomy and/or adenoidectomy	13,634	20,823	34,457
G67B Oesophagitis and gastroenteritis without CSCC	30,173	4,029	34,202
L63B Kidney and urinary tract infections without CSCC	28,491	5,557	34,048
F76B Arrhythmia, cardiac arrest and conduction disorders without CSCC	24,040	8,007	32,047
Other	2,072,142	828,258	2,900,400
Total	2,701,061	1,152,644	3,853,705

AMI—acute myocardial infarction; CC—complications and comorbidities; CDE—common duct exploration; CSCC—catastrophic or severe complications or comorbidities; OR—operating room; >=—greater than or equal to.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about diagnosis related groups is in data cubes and tables accompanying this report online at <www.aihw.gov.au/hospitals/>.

Information on data limitations and methods is available in appendixes A and B.

5.3 Intensive care

This section presents information on the numbers of hours that patients stayed in an intensive care unit (ICU) and the number of hours of continuous ventilatory support (CVS) received.

Box 5.1: Intensive care and continuous ventilatory support

Intensive care

Public hospitals that have either an approved level 3 adult ICU or an approved paediatric ICU are required to report data for the number of hours people spend in an ICU.

A level 3 adult ICU must:

- be capable of providing complex, multisystem life support for an indefinite period
- be a tertiary referral centre for patients in need of intensive care services and have extensive backup laboratory and clinical service facilities to support the tertiary referral role
- be capable of providing mechanical ventilation, extracorporeal renal support services and invasive cardiovascular monitoring for an indefinite period, or care of a similar nature.

A paediatric ICU must:

- be capable of providing complex, multisystem life support for an indefinite period
- be a tertiary referral centre for children needing intensive care, and have extensive backup laboratory and clinical service facilities to support this tertiary role
- be capable of providing mechanical ventilation, extracorporeal renal support services and invasive cardiovascular monitoring for an indefinite period to infants and children aged less than 16, or care of a similar nature.

If a patient's episode involves more than 1 period in an ICU, then the total number of hours in ICU are summed for reporting.

Information on ICU hours was not available for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory.

Continuous ventilatory support

CVS (also known as invasive ventilatory support or mechanical ventilation) refers to the use of a machine to assist breathing.

If a patient undergoes CVS on more than 1 occasion during their admitted patient episode, then the CVS hours are summed for reporting.

Periods of ventilatory support that are associated with anaesthesia during surgery, and which are considered an integral part of the surgical procedure, are not included.

Information on CVS hours was not available for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory.

Hours in intensive care

In 2015–16, almost 12 million hours in ICU were reported for about 149,000 separations (Table 5.13).

In public hospitals, almost 9.7 million hours (about 402,000 patient days) were spent in an ICU for about 104,000 separations. About 1.7% of separations involved time in an ICU and the average period in ICU was 93 hours per separation (just under 4 days).

For private hospitals in New South Wales, Victoria, Queensland, Western Australia and South Australia, about 2.3 million hours (about 96,500 patient days) were spent in an ICU for about 45,000 separations. About 1.0% of separations involved time in an ICU and the average period in ICU was 51 hours per separation (just over 2 days).

Hours of continuous ventilatory support

In 2015–16, about 4.1 million hours of CVS were reported for about 48,000 separations (Table 5.14).

Public hospitals provided almost 3.7 million hours (about 154,000 patient days) of CVS for about 39,000 separations. About 0.8% of separations in public hospitals involved CVS and the average duration of CVS was 94 hours per separation (just under 4 days).

For private hospitals in New South Wales, Victoria, Queensland, Western Australia and South Australia, almost 390,000 hours (about 16,100 patient days) of CVS was provided for about 9,000 separations. About 0.2% of separations in private hospitals involved CVS and the average duration of CVS was 44 hours per separation (just under 2 days).

Table 5.13: Separations involving time in an intensive care unit, public and private hospitals, states and territories, 2015–16

	NSW	Vic ^(a)	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Number of hospitals reporting separations involving a stay in ICU	43	29	8	11	7	2	2	2	104
Separations involving a stay in ICU	31,950	32,483	12,327	9,812	9,623	2,834	3,189	1,667	103,885
Hours in ICU	2,648,478	3,260,501	1,078,117	1,020,803	812,919	366,978	322,420	145,603	9,655,819
Average duration of stay in ICU (hours) ^(b)	82.9	100.4	87.5	104.0	84.5	129.5	101.1	87.3	93.0
Separations that involved a stay in ICU per 1,000 separations	17.2	19.5	9.5	15.6	21.9	23.1	29.5	11.2	16.6
Private hospitals^(c)									
Separations involving a stay in ICU	17,616	14,335	5,828	2,423	4,856	n.a.	n.a.	n.a.	45,058
Hours in ICU	865,369	713,110	320,515	132,397	284,594	n.a.	n.a.	n.a.	2,315,985
Average duration of stay in ICU (hours) ^(b)	49.1	49.8	55.0	54.6	58.6	n.a.	n.a.	n.a.	51.4
Separations that involved a stay in ICU per 1,000 separations	14.0	14.0	5.4	4.9	15.1	n.a.	n.a.	n.a.	10.4

(a) For Victoria, ICU hours were provided for all public hospitals with an ICU or a Neonatal ICU, including for ICUs that were not level 3.

(b) For separations involving time in an ICU.

(c) For private hospitals, data were not available for Tasmania, the Australian Capital Territory and the Northern Territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.14: Separations involving continuous ventilatory support, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Number of hospitals reporting separations involving CVS	79	29	56	25	33	5	2	5	234
Separations involving CVS	10,949	12,329	7,072	3,229	3,534	1,146	629	380	39,268
Hours of CVS	1,147,284	918,878	816,440	338,180	307,906	85,314	39,948	32,112	3,686,062
Average duration of CVS ^(a)	104.8	74.5	115.5	104.7	87.1	74.5	63.5	84.5	93.9
Separations that involved CVS per 1,000 separations	5.9	7.4	5.5	5.1	8.1	9.4	5.8	2.6	6.3
Private hospitals^(b)									
Separations involving CVS	3,401	3,196	1,002	234	975	n.a.	n.a.	n.a.	8,808
Hours of CVS	102,137	96,205	109,019	20,319	58,503	n.a.	n.a.	n.a.	386,183
Average duration of CVS ^(a)	30.0	30.1	108.8	86.8	60.0	n.a.	n.a.	n.a.	43.8
Separations that involved CVS per 1,000 separations	2.7	3.1	0.9	0.5	3.0	n.a.	n.a.	n.a.	2.0

(a) For separations involving CVS.

(b) For private hospitals, data were not available for Tasmania, the Australian Capital Territory and the Northern Territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Overlap between ICU and CVS

CVS is usually, but not always, provided within an intensive care unit. Some stays in intensive care units do not involve ventilatory support.

In 2015–16, about 149,000 separations reported a stay in ICU and about 48,000 separations reported periods of CVS (Table 5.15).

Overall, about 27% of separations (41,000) that reported hours in an ICU also reported hours of CVS—about 32% for public hospitals (32,970 of 103,885) and about 17% for private hospitals (7,675 of 45,058).

About 85% of separations that reported hours of CVS also reported hours in an ICU (40,645 of 48,076).

Table 5.15: Numbers of separations reporting time in an intensive care unit or involving continuous ventilatory support, public and private hospitals, 2015–16

	Separations that involved a stay in ICU	Separations that did not involve a stay in ICU	ICU hours not reported	Total
Public hospitals				
Separations that involved CVS	32,970	6,298	0	39,268
Separations that did not involve CVS	70,915	6,162,298	0	6,233,213
CVS hours not reported	0	0	0	0
<i>Total public hospitals</i>	<i>103,885</i>	<i>6,168,596</i>	<i>0</i>	<i>6,272,481</i>
Private hospitals				
Separations that involved CVS	7,675	1,133	0	8,808
Separations that did not involve CVS	37,383	4,128,695	0	4,166,078
CVS hours not reported	0	0	152,401	152,401
<i>Total private hospitals</i>	<i>45,058</i>	<i>4,129,828</i>	<i>152,401</i>	<i>4,327,287</i>
All hospitals				
Separations that involved CVS	40,645	7,431	0	48,076
Separations that did not involve CVS	108,298	10,290,993	0	10,399,291
CVS hours not reported	0	0	152,401	152,401
Total	148,943	10,298,424	152,401	10,599,768

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

5.4 Rehabilitation care

This section presents an overview of *Rehabilitation care* provided for admitted patients in both public and private hospitals. It includes counts of separations over time and, for 2015–16, it includes information about who used these services, why they received care, who paid for the care and how the episode ended. This section also refers to information in Chapter 4 for changes over time.

Rehabilitation care is care in which the primary clinical purpose or treatment goal is improvement in the functioning of a patient with an impairment, activity limitation, or participation restriction due to a health condition. The patient will be capable of actively participating. Rehabilitation care is always:

- delivered under the management of or informed by a clinician with specialised expertise in rehabilitation, and
- evidenced by an individualised multidisciplinary management plan, which is documented in the patient's medical record, which includes negotiated goals within specified time frames and formal assessment of functional ability (METeOR id. 584408).

Changes over time

Between 2011–12 and 2015–16, rehabilitation care rose by an average of 10.0% per year in private hospitals and by 1.8% per year in public hospitals. For private hospitals, the number of rehabilitation care separations increased by 7.1% between 2014–15 and 2015–16 (Table 4.5).

Between 2014–15 and 2015–16, the number of rehabilitation care separations in public hospitals fell by 4% in Queensland, by 3% in Tasmania and by about 2% in Western Australia. It increased in other states and territories. For the Australian Capital Territory, the number of rehabilitation care separations in public hospitals increased by about 19% between 2014–15 and 2015–16. For Western Australia, the number of rehabilitation care separations in private hospitals fell by 26% between 2014–15 and 2015–16 (Table 4.6 and AIHW 2016a).

From 1 July 2013, care types have been reported using revised definitions, with the aim to improve consistency in reporting for the subacute and non-acute care types. In addition, the care type *Mental health* was implemented from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute, Rehabilitation* or *Psychogeriatric care* and *Geriatric evaluation and management*). Therefore, changes in the care type definitions should be considered when interpreting changes over time.

How much activity was there in 2015–16?

In 2015–16, there were almost 435,000 rehabilitation care separations, with the majority (76%) occurring in private hospitals. Rehabilitation care accounted for more than 95% of subacute and non-acute separations for private hospitals and 51% for public hospitals (see Section 4.2).

The proportion of admitted patient care that was rehabilitation care varied among states and territories (whose private hospital data could be reported), ranging from 0.8% of separations in Western Australia to about 7.8% of separations in New South Wales (Table 4.6).

Who used these services?

This section presents information by the patient's sex, age group, Indigenous status and for the remoteness and SES of the patient's area of usual residence.

Age group and sex

Females accounted for more than half (56%) of all rehabilitation care separations (Table 5.16). There were more separations for males than for females in the age groups 0–9 years and 20–39 years. People aged 60 and over accounted for about 80% of all rehabilitation care separations.

Table 5.16: Separations for rehabilitation care, by age group and sex, all hospitals, 2015–16

Age group	Male	Female	Total
0–4	181	130	311
5–9	228	205	433
10–14	255	276	531
15–19	764	965	1,729
20–24	1,418	1,302	2,720
25–19	1,722	1,362	3,084
30–34	2,074	1,973	4,047
35–39	2,734	2,520	5,254
40–44	3,788	4,123	7,911
45–49	5,687	6,435	12,122
50–54	8,673	10,672	19,345
55–59	13,195	15,671	28,866
60–64	20,351	24,594	44,945
65–69	28,604	34,213	62,817
70–74	28,166	35,959	64,125
75–79	27,250	34,985	62,235
80–84	20,943	29,628	50,571
85+	23,873	39,857	63,730
Total	189,906	244,870	434,782

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Aboriginal and Torres Strait Islander people

In 2015–16, Indigenous Australians had lower separation rates for rehabilitation care than other Australians (7.5 per 1,000 and 15.8 per 1,000, respectively) (Table 5.17). Rehabilitation care also accounted for a smaller proportion of all separations for Indigenous Australians compared with other Australians (0.6% and 4.3%, respectively).

Table 5.17: Separations for rehabilitation care, by Indigenous status, all hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)	Per 1,000 population
Indigenous Australians										
Total Indigenous Australians	864	210	909	208	162	21	41	171	2,698	7.5
Proportion of all hospital separations (%)	0.9	0.8	0.8	0.2	0.6	0.4	0.0	0.2	0.6	
Other Australians^(c)										
Total other Australians	246,871	42,252	79,752	10,340	36,788	1,006	2,277	154	432,084	15.8
Proportion of all hospital separations (%)	8.2	1.6	3.5	1.0	5.0	0.9	0.0	0.4	4.3	
Total	247,735	42,462	80,661	10,548	36,950	1,027	2,318	325	434,782	15.7

(a) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the *Total* column.

(c) Other Australians includes separations for which Indigenous status was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Remoteness area

Overall in 2015–16, people living in *Major cities* had much higher rates for rehabilitation care than people who lived in other remoteness areas (19 separations per 1,000 population, compared with 16 per 1,000 nationwide) (Table 5.18).

The separation rate ratios (SRRs) (see Glossary) also indicate notable differences in the separation rates for rehabilitation care across remoteness areas for both public and private hospitals.

For public hospitals, the rate of rehabilitation care varied from 2.2 per 1,000 population for people living in *Remote* areas to 4.2 per 1,000 for people living in *Major cities*. There were more marked variations for private hospitals, with the rate of rehabilitation care ranging from 2.0 per 1,000 for people living in *Remote* areas to 14.9 per 1,000 for people living in *Major cities*.

Table 5.18: Separation statistics for rehabilitation care, by remoteness area of usual residence, public and private hospitals, 2015–16

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations	77,902	16,575	6,376	656	455	102,784
Separations per 1,000	4.2	3.0	2.5	2.2	2.9	3.8
Separation rate ratio	1.1	0.8	0.7	0.6	0.8	
Private hospitals						
Separations	275,050	47,153	8,114	503	231	331,998
Separations per 1,000	14.9	8.2	3.2	2.0	2.1	12.1
Separation rate ratio	1.2	0.7	0.3	0.2	0.2	

(a) *Total* includes separations for which the remoteness area could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Socioeconomic status

Separation rates for rehabilitation care varied from 26 per 1,000 population for patients living in areas classified as being the highest SES group (least disadvantaged) to 11 per 1,000 for the lowest SES group (most disadvantaged) (Table 5.19).

For public hospitals, the rate of rehabilitation care was broadly similar across all SES groups.

For private hospitals, the SRRs indicate notable differences in the separation rates for rehabilitation care across SES groups—from 8 per 1,000 population for people living in areas classified as the lowest SES group to 22 per 1,000 for people living in areas classified as the highest SES group.

Table 5.19: Separation statistics for rehabilitation care, by socioeconomic status of area of residence, public and private hospitals, 2015–16

	Socioeconomic status of area of residence					Total ^(a)
	1–Lowest	2	3	4	5–Highest	
Public hospitals						
Separations	19,992	21,445	19,730	21,928	18,861	102,784
Separations per 1,000	3.4	3.7	3.7	4.4	3.7	3.8
Separation rate ratio	0.9	1.0	1.0	1.2	1.0	
Private hospitals						
Separations	43,621	50,268	60,182	65,677	111,262	331,998
Separations per 1,000	7.5	8.6	10.9	13.1	21.9	12.1
Separation rate ratio	0.6	0.7	0.9	1.1	1.8	

(a) Total includes separations for which the socioeconomic status group could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Why did people receive rehabilitation care?

The reason that a patient receives admitted patient care can be described in various ways including the mode of admission, the urgency of admission and the principal diagnosis reported.

Mode of admission

More than two-thirds (69%) of rehabilitation care separations were a *New admission to hospital*, which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 5.20).

In public hospitals, *Statistical admission: care type change* was the second most common admission mode for rehabilitation care separations, accounting for 33% of rehabilitation care separations. This indicates that the clinical intent of the patient's care had changed (for example, from *Acute* to *Rehabilitation care*) within the same hospital. Public hospitals recorded a higher proportion (31%) of *Admitted patient transferred from another hospital* than private hospitals (14%).

Table 5.20: Separations for rehabilitation care, by mode of admission, public and private hospitals, 2015–16

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital	37,418	263,154	300,572
Admitted patient transferred from another hospital	31,467	47,883	79,350
Statistical admission: care type change	33,874	20,872	54,746
Not reported	25	89	114
Total^(a)	102,784	331,998	434,782

(a) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How urgent was the care?

In 2015–16, more than three-quarters (78%) of rehabilitation care separations were reported as *Elective* admissions (treatment could be delayed by at least 24 hours) (Table 5.21). The proportion of *Elective* admissions varied between public and private hospitals, accounting for 90% of rehabilitation care separations in private hospitals and 42% in public hospitals. About 21% of rehabilitation care separations had a *Not assigned* urgency of admission.

Table 5.21: Separations for rehabilitation care, by urgency of admission, public and private hospitals, 2015–16

Urgency of admission	Public hospitals	Private hospitals	Total
Emergency	2,727	851	3,578
Elective	43,383	297,134	340,517
Not assigned	56,672	34,012	90,684
Total^(a)	102,784	331,998	434,782

(a) The totals include separations for which the urgency of admission was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Principal diagnosis

ICD-10-AM disease chapters

In 2015–16, almost half (49%, 212,000) of rehabilitation care separations in public and private hospitals had a principal diagnosis in the ICD-10-AM chapter *Diseases of the musculoskeletal system and connective tissue* – which includes conditions such as arthrosis of the knee or hip, back pain and other joint disorders (Table 5.22). Other common principal diagnosis ICD-10-AM chapters reported for rehabilitation were *Injury, poisoning and certain other consequences of external causes* (15%), and *Diseases of the circulatory system* (11%).

The relative distribution of rehabilitation care separations by ICD-10-AM chapter varied across public and private hospitals. For example, about 91% of separations for *Diseases of the musculoskeletal system and connective tissue* were from private hospitals, and 73% of separations for *Mental and behavioural disorders* were from public hospitals.

Table 5.22: Separations for rehabilitation care, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
A00–B99	Certain infectious and parasitic diseases	1,240	1,030	2,270
C00–D48	Neoplasms	2,867	6,581	9,448
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	174	203	377
E00–E89	Endocrine, nutritional and metabolic diseases	2,079	1,305	3,384
F00–F99	Mental and behavioural disorders	1,686	628	2,314
G00–G99	Diseases of the nervous system	13,381	18,080	31,461
H00–H59	Diseases of the eye and adnexa	148	190	338
H60–H95	Diseases of the ear and mastoid process	659	583	1,242
I00–I99	Diseases of the circulatory system	18,384	30,032	48,416
J00–J99	Diseases of the respiratory system	3,113	6,242	9,355
K00–K93	Diseases of the digestive system	1,783	2,718	4,501
I00–L99	Diseases of the skin and subcutaneous tissue	951	1,159	2,110
M00–M99	Diseases of the musculoskeletal system and connective tissue	18,568	193,152	211,720
N00–N99	Diseases of the genitourinary system	1,047	1,346	2,393
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	173	775	948
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	12,154	24,448	36,602
S00–T99	Injury, poisoning and certain other consequences of external causes	22,713	42,477	65,190
Z00–Z99	Factors influencing health status and contact with health services	1,594	1,049	2,643
	Other ICD-10-AM chapters	21	0	21
	Not reported	49	0	49
Total		102,784	331,998	434,782

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Most common principal diagnoses

The 20 most common principal diagnoses accounted for about two-thirds of rehabilitation care separations, including about 53% of rehabilitation care separations in public hospitals and 71% in private hospitals (Table 5.23).

The 2 most common principal diagnoses (at the 3-character level) for rehabilitation care separations were *Gonarthrosis (arthrosis of knee)*, which accounted for 22% of rehabilitation care separations and *Coxarthrosis (arthrosis of hip)* which accounted for 9%.

Private hospitals provided the majority of rehabilitation care separations for *Gonarthrosis (arthrosis of knee)* and *Coxarthrosis (arthrosis of hip)* (both about 94%).

Public hospitals provided the majority of rehabilitation care separations for *Cerebral infarction* (66%), and *Intracerebral haemorrhage* (60%).

Table 5.23: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for rehabilitation care separations, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
M17	Gonarthrosis (arthrosis of knee)	5,336	90,539	95,875
M16	Coxarthrosis (arthrosis of hip)	2,434	35,654	38,088
S72	Fracture of femur	8,083	10,564	18,647
M54	Dorsalgia	1,584	14,356	15,940
M25	Other joint disorders, not elsewhere classified	1,914	11,960	13,874
I63	Cerebral infarction	9,028	4,675	13,703
R26	Abnormalities of gait and mobility	4,191	8,472	12,663
R29	Other symptoms and signs involving the nervous and musculoskeletal systems	3,046	5,282	8,328
S32	Fracture of lumbar spine and pelvis	2,549	5,405	7,954
T84	Complications of internal orthopaedic prosthetic devices, implants and grafts	927	6,968	7,895
M48	Other spondylopathies	814	6,901	7,715
M51	Other intervertebral disc disorders	669	6,633	7,302
G20	Parkinson's disease	2,346	4,854	7,200
S82	Fracture of lower leg, including ankle	2,196	4,613	6,809
R53	Malaise and fatigue	699	5,651	6,350
I25	Chronic ischaemic heart disease	288	5,450	5,738
G81	Hemiplegia	2,714	2,948	5,662
S42	Fracture of shoulder and upper arm	1,084	2,671	3,755
S06	Intracranial injury	2,144	1,531	3,675
I61	Intracerebral haemorrhage	2,105	1,383	3,488
	Other	48,633	95,488	144,121
Total		102,784	331,998	434,782

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Procedures

The majority of rehabilitation care separations (99%) reported at least 1 procedure.

In 2015–16, allied health interventions (which lie within the ACHI chapter *Non-invasive, cognitive and other interventions, not elsewhere classified*) were the most frequently reported procedures for rehabilitation care separations (Table 5.24).

The 10 most common procedures reported accounted for 86% of procedures reported. They included physiotherapy (34%), occupational therapy (16%) and social work (5%).

Some procedures were predominantly provided in private hospitals, such as hydrotherapy (94%) and exercise therapy (98%).

Table 5.24: The 10 most common ACHI procedures for rehabilitation care, public and private hospitals, 2015–16

Procedure code and description		Public hospitals	Private hospitals	Total
95550-03	Allied health intervention, physiotherapy	90,439	370,399	460,838
95550-02	Allied health intervention, occupational therapy	67,355	156,090	223,445
96153-00	Hydrotherapy	7,831	133,339	141,170
96129-00	Exercise therapy, total body	1,881	79,510	81,391
95550-01	Allied health intervention, social work	43,056	22,757	65,813
95550-00	Allied health intervention, dietetics	29,371	23,729	53,100
95550-05	Allied health intervention, speech pathology	24,560	15,989	40,549
95550-11	Allied health intervention, other	7,473	28,329	35,802
96130-00	Skills training in activities related to body position/mobility/movement	125	27,665	27,790
95550-09	Allied health intervention, pharmacy	17,523	7,451	24,974
95550-10	Allied health intervention, psychology	7,988	6,802	14,790
	Other	36,118	158,460	194,578
Total procedures		333,720	1,030,520	1,364,240

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Length of stay

In 2015–16, the average length of stay for rehabilitation care separations was 15.8 days in public hospitals, and 4.0 days in private hospitals. In part, this reflects a high proportion of same-day rehabilitation care separations in private hospitals, as well as some very long stays for rehabilitation care in public hospitals (tables 4.7 and 4.8).

Who paid for the care?

About 70% of rehabilitation care separations from public hospitals were for *Public patients*, and 88% of rehabilitation care separations from private hospitals were for patients who used *Private health insurance* to fund all or part of their admission (Table 5.25). The *Department of Veterans' Affairs* funded 3% of rehabilitation care separations in public hospitals and 8% in private hospitals. See 'Chapter 7 Costs and funding' for similar information for all separations.

How was the care completed?

In 2015–16, the most common mode of separation for rehabilitation care separations was *Discharged home* (93%) (Table 5.26).

About 8% of rehabilitation care separations in public hospitals and 1% in private hospitals, ended with a *Discharge/transfer to an (other) acute hospital*, indicating that the patient's care continued at another hospital. A further 9% of rehabilitation care separations in public hospitals ended with a *Statistical discharge: type change* (indicating that the patient remained in hospital but the intent of care had changed, for example, to acute care).

Table 5.25: Separations for rehabilitation care, by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private hospitals	Total
Public patients ^(a)	72,398	873	73,271
Private health insurance	25,014	292,325	317,339
Self-funded	243	3,418	3,661
Workers compensation	638	6,732	7,370
Motor vehicle third party personal claim	1,347	1,711	3,058
Department of Veterans' Affairs	2,786	26,114	28,900
Other ^(b)	358	825	1,183
Total	102,784	331,998	434,782

(a) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) *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, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.26: Separations for rehabilitation care, by mode of separation, public and private hospitals, 2015–16

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	79,356	323,183	402,539
Discharge/transfer to an (other) acute hospital	8,709	3,873	12,582
Discharge/transfer to residential aged care service ^(b)	3,001	1,218	4,219
Discharge/transfer to an (other) psychiatric hospital	19	3	22
Discharge/transfer to other health care accommodation	1,238	350	1,588
Statistical discharge: type change	9,013	2,961	11,974
Left against medical advice/discharge at own risk	735	258	993
Statistical discharge from leave	334	27	361
Died	306	120	426
Not reported	73	5	78
Total^(c)	102,784	331,998	434,782

(a) *Discharged home* is equivalent to *Discharge to usual residence/own accommodation/welfare institution* (including prisons, hostels and group homes providing primarily welfare services) in the mode of separation definition.

(b) *Discharge/transfer to residential aged care service* excludes where this was the usual place of residence.

(c) *Total* includes records where the mode of separation was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

Information about changes over time for rehabilitation care is in 'Chapter 4 Why did people receive care?'. Information on data limitations and methods is available in appendixes A and B.

5.5 Palliative care

This section presents an overview of *Palliative care* provided for admitted patients in both public and private hospitals in Australia. It includes information for 2015–16 covering who used these services, why they received care, who paid for the care and how the episode ended. This section also refers to information in Chapter 4 for changes over time.

Palliative care is care in which the primary clinical purpose or treatment goal is optimisation of the quality of life of a patient with an active and advanced life-limiting illness. The patient will have complex physical, psychosocial and/or spiritual needs. Palliative care is always:

- delivered under the management of or informed by a clinician with specialised expertise in palliative care, and
- evidenced by an individualised multidisciplinary assessment and management plan, which is documented in the patient's medical record, that covers the physical, psychological, emotional, social and spiritual needs of the patient and negotiated goals (METeOR id. 584408).

In this report, palliative care refers to separations with a care type of *Palliative care* (unless otherwise specified). More detailed information on the provision of admitted patient palliative care is available in the AIHW report *Admitted patient palliative care* (AIHW 2016g), which includes separations with a care type of palliative care and/or an additional diagnosis of *Palliative care*.

Changes over time

Between 2011–12 and 2015–16, palliative care separations decreased by an average of 0.7% per year for private hospitals and increased by 3.9% per year for public hospitals (see Table 4.6 in 'Why did people receive care?'). Palliative care separations accounted for less than 0.5% of all hospital separations over the 5-year period.

Between 2014–15 and 2015–16, palliative care separations in public hospitals increased for all states and territories except South Australia (AIHW 2016a and Table 4.6). Over the same period, palliative care separations in private hospitals decreased by 8.0%, and by 20.8% for South Australia.

From 1 July 2013, care types have been reported using revised definitions, with the aim to improve consistency in reporting for the subacute and non-acute care types. In addition, the care type *Mental health* was implemented from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute*, *Rehabilitation* or *Psychogeriatric care* and *Geriatric evaluation and management*). Therefore, changes in the care type definitions should be considered when interpreting changes over time.

How much activity was there in 2015–16?

In 2015–16, there were more than 42,000 separations with a care type of palliative care. These 42,000 separations are the focus of this section and are presented in tables 5.28 to 5.36.

However, almost 74,000 separations were identified as providing some form of palliative care regardless of the care type specified (Table 5.27). These separations are identified by either the ICD-10-AM code Z51.5 *Palliative care* as an additional diagnosis, or by the palliative care type.

The diagnosis code of Z51.5 is assigned as an additional diagnosis where there is documented evidence that the patient has been provided with palliative care. It may be assigned independent of the admitted patient care type (ACCD 2014).

Table 5.27: Palliative care separations as identified by care type and/or any (principal or additional) diagnosis of Z51.5, all hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)
Care type	14,891	8,455	10,385	3,960	2,267	747	813	374	42,220
Diagnosis	21,133	21,942	12,533	6,034	6,128	2,025	1,294	684	72,430
Care type and/or diagnosis	22,281	21,945	12,639	6,034	6,239	2,051	1,319	711	73,884

(a) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Total column.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Who used these services?

This section presents information on who used palliative care services, by the patient's Indigenous status and for the remoteness and SES of the patient's area of usual residence.

Aboriginal and Torres Strait Islander people

In 2015–16, Indigenous Australians had higher palliative care separation rates than other Australians (2.7 and 1.5 per 1,000 population, respectively) (Table 5.28).

Table 5.28: Separations for palliative care, by Indigenous status, all hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas ^(a)	ACT ^(a)	NT ^(a)	Total ^(b)	Per 1,000 population
Indigenous Australians										
Palliative care separations	283	45	307	95	24	12	7	114	890	2.7
Proportion of all hospital separations (%)	0.3	0.2	0.3	0.1	0.1	0.3	0.3	0.1	0.2	..
Other Australians										
Palliative care separations	14,608	8,410	10,078	3,865	2,243	735	806	260	41,330	1.5
Proportion of all hospital separations (%)	0.5	0.3	0.4	0.4	0.3	0.6	0.8	0.6	0.4	..
Total	14,891	8,455	10,385	3,960	2,267	747	813	374	42,220	1.5

(a) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(b) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Total column.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Remoteness area

Overall, palliative care separation rates were similar across remoteness areas for both public and private hospitals.

For public hospitals, the rate of palliative care separations varied from 1.2 per 1,000 population for people living in *Major cities* to 1.7 per 1,000 for people living in *Very remote* areas (Table 5.29).

Table 5.29: Separation statistics for palliative care, by remoteness area of usual residence, public and private hospitals, 2015–16

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations	22,909	8,599	4,249	385	211	36,499
Separations per 1,000 population	1.2	1.5	1.6	1.5	1.7	1.3
Separation rate ratio	0.9	1.1	1.2	1.1	1.3	
Private hospitals						
Separations	4,183	1,097	401	19	19	5,721
Separations per 1,000 population	0.2	0.2	0.4	0.4	0.5	0.2
Separation rate ratio	1.0	1.0	1.8	1.8	2.1	

(a) Total includes separations for which the remoteness area could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Socioeconomic status

Palliative care separation rates varied from 1.4 per 1,000 population for people living in areas classified in the highest SES group to 1.7 per 1,000 for the lowest 2 SES groups (Table 5.30).

The SRRs indicate notable differences in the separation rates across SES groups for both public and private hospitals.

For public hospitals, the rate of palliative care separations varied from 1.0 per 1,000 population for people living in areas classified in the highest SES group to 1.6 per 1,000 for people living in areas classified in the lowest SES group.

Table 5.30: Separation statistics for palliative care, by socioeconomic status of area of usual residence, public and private hospitals, 2015–16

	Socioeconomic status of area of usual residence					Total ^(a)
	1–Lowest	2	3	4	5–Highest	
Public hospitals						
Separations	9,473	8,810	7,306	5,766	4,996	36,499
Separations per 1,000 population	1.6	1.5	1.3	1.2	1.0	1.3
Separation rate ratio	1.2	1.1	1.0	0.9	0.8	
Private hospitals						
Separations	752	942	1,018	1,278	1,728	5,721
Separations per 1,000 population	0.1	0.2	0.2	0.3	0.4	0.2
Separation rate ratio	0.6	0.8	0.8	1.2	1.5	

(a) Total includes separations for which the socioeconomic status group could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Why did people receive palliative care?

The reason that a patient receives admitted patient care can be described in various ways including the mode of admission, the urgency of admission and the diagnoses reported.

Mode of admission

About 40% of palliative care separations were a *New admission to hospital*, which includes all planned and unplanned admissions, except transfers from other hospitals and statistical admissions (Table 5.31).

Statistical admission: care type change accounted for 42% of palliative care separations in public hospitals. This indicates that the clinical intent of the patient's care had changed (for example, from *Acute care*) within the same hospital.

Private hospitals recorded a higher proportion (38%) of *Admitted patient transferred from another hospital* than public hospitals (19%).

Table 5.31: Separations for palliative care by mode of admission, public and private hospitals, 2015–16

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	14,061	2,867	16,928
Admitted patient transferred from another hospital	6,866	2,179	9,045
Statistical admission: care type change	15,429	674	16,103
Not reported	143	1	144
Total	36,499	5,721	42,220

(a) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How urgently was palliative care required?

In 2015–16, 19% of patients admitted for palliative care were reported as *Emergency* admissions (Table 5.32). The proportion of *Elective* admissions varied between public and private hospitals, accounting for 71% of palliative care separations in private hospitals and 26% in public hospitals. About 49% of palliative care separations had a *Not assigned* urgency of admission.

Table 5.32: Separations for palliative care by urgency of admission, public and private hospitals, 2015–16

Urgency of admission	Public hospitals	Private hospitals	Total
Emergency	7,137	798	7,935
Elective	9,611	4,071	13,682
Not assigned	19,747	852	20,599
Total^(a)	36,499	5,721	42,220

(a) The totals include separations for which the urgency of admission was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Principal diagnosis

Neoplasm-related (cancer-related) conditions accounted for 57% of principal diagnoses reported for palliative care separations. The 5 most common neoplasm-related principal diagnoses for palliative care (at the 3-character level) are presented in Table 5.33, as are the top 5 non-neoplasm-related principal diagnoses for palliative care, which included heart failure and respiratory disorders.

Table 5.33: Separations for the 5 most common neoplasm-related and the 5 most common other principal diagnoses in 3-character ICD-10-AM groupings for palliative care separations, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
Neoplasm-related				
C34	Malignant neoplasm of bronchus and lung	3,424	553	3,977
C79	Secondary malignant neoplasm of other and unspecified sites	2,111	472	2,583
C78	Secondary malignant neoplasm of respiratory and digestive organs	1,704	385	2,089
C25	Malignant neoplasm of pancreas	1,225	286	1,511
C61	Malignant neoplasm of prostate	1,020	166	1,186
	Other neoplasm-related principal diagnosis	10,771	2,036	12,807
Other				
I50	Heart failure	1,081	166	1,247
J44	Other chronic obstructive pulmonary disease	1,078	101	1,179
A41	Other sepsis	911	64	975
J69	Pneumonitis due to solids and liquids	861	53	914
J18	Pneumonia, organism unspecified	827	68	895
	Other (excludes neoplasm-related principal diagnoses)	11,486	1,371	12,857
Total		36,499	5,721	42,220

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Procedures

For palliative care, 7 of the 10 most commonly reported procedures were allied health interventions and included social work, physiotherapy and pastoral care (Table 5.34).

About 26% of palliative care separations did not report a procedure.

Length of stay

The average length of stay for palliative care separations was 9.7 days in public hospitals, and 12.3 days in private hospitals (see tables 4.7 and 4.8).

Table 5.34: The 10 most common ACHI procedures for palliative care, public and private hospitals, 2015–16

Procedure code and description	Public hospitals	Private hospitals	Total
95550-01 Allied health intervention, social work	15,422	1,454	16,876
95550-03 Allied health intervention, physiotherapy	13,922	1,889	15,811
95550-02 Allied health intervention, occupational therapy	8,702	590	9,292
95550-00 Allied health intervention, dietetics	7,226	522	7,748
95550-12 Allied health intervention, pastoral care	5,732	1,065	6,797
95550-05 Allied health intervention, speech pathology	5,718	322	6,040
95550-09 Allied health intervention, pharmacy	5,320	287	5,607
96027-00 Prescribed/self-selected medication assessment	2,711	14	2,725
13706-02 Administration of packed cells	1,092	286	1,378
96104-00 Music therapy	784	187	971
Other	8,458	2,790	11,248
No procedure or not reported	9,410	1,682	11,092
Total procedures	75,087	9,406	84,493

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Who paid for the care?

About 75% of palliative care separations from public hospitals and 34% of palliative care separations from private hospitals were for *Public patients* (Table 5.35).

About 54% of palliative care separations from private hospitals were for patients who used *Private health insurance* to fund all or part of their admission. The *Department of Veterans' Affairs* funded 4% of palliative care separations in public hospitals, and 6% in private hospitals.

Table 5.35: Separations for palliative care, by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private hospitals	Total
Public patients ^(a)	27,262	1,932	29,194
Private health insurance	7,719	3,094	10,813
Self-funded	67	29	96
Workers compensation	34	2	36
Motor vehicle third party personal claim	9	46	55
Department of Veterans' Affairs	1,373	363	1,736
Other ^(b)	35	255	290
Total	36,499	5,721	42,220

(a) *Public patients* includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) *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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How was the care completed?

In 2015–16, the most common mode of separation for palliative care separations was *Died* (62%) (Table 5.36). About one-quarter (25%) had a mode of separation of *Discharged home*—indicating that these patients were discharged to their place of usual residence, which can include residential aged care facilities.

Table 5.36: Separations for palliative care, by mode of separation, public and private hospitals, 2015–16

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	8,995	1,625	10,620
Discharge/transfer to an (other) acute hospital	2,281	255	2,536
Discharge/transfer to residential aged care service ^(b)	1,331	88	1,419
Discharge/transfer to an (other) psychiatric hospital	1	0	1
Discharge/transfer to other health care accommodation	348	10	358
Statistical discharge: type change	568	57	625
Left against medical advice/discharge at own risk	93	3	96
Statistical discharge from leave	193	4	197
Died	22,662	3,679	26,341
Not reported	27	0	27
Total^(c)	36,499	5,721	42,220

(a) *Discharged home* is equivalent to *Discharge to usual residence/own accommodation/welfare institution* (including prisons, hostels and group homes providing primarily welfare services) in the mode of separation definition.

(b) *Discharge/transfer to residential aged care service* excludes where this was the usual place of residence.

(c) *Total* includes records where the mode of separation was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

Information about changes over time for palliative care in the admitted patient care setting is in 'Chapter 4 Why did people receive care?'

Additional information on palliative care is also available in the AIHW's *Admitted patient palliative care* series.

Information on data limitations and methods is available in appendixes A and B.

5.6 How much hospital care was provided in the patient's home?

This section presents information on whether the patient received 'hospital-in-the-home' care (HITH), by state and territory and by hospital sector.

Most states and territories have HITH programs under which admitted patients are provided with hospital care in their home. As service delivery models differ across jurisdictions, there will also be some variation in the numbers of separations which involve HITH, based on the fact that there is variation across jurisdictions in the types of patients that would be admitted to hospital in the first place.

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 (AIHW 2012). HITH days are counted as patient days in the data presented in this report.

In 2015–16, almost 578,000 days of HITH care were reported for more than 100,000 separations (Table 5.37).

Overall, for separations that reported HITH days, the average length of the episode of care was 8.6 days, of which 5.8 days on average were HITH days.

For public hospitals, for separations that reported HITH days, the average length of the episode of care was 10.1 days, of which 6.7 days on average were HITH days.

Table 5.37: Separations with hospital-in-the-home care, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Same day separations	3,023	5,351	119	8	222	0	4,174	10	12,907
Overnight separations	17,684	26,130	10,083	2,801	6,782	81	1,264	1,138	65,963
Total patient days ^(a)	180,918	339,795	98,168	47,381	87,480	999	20,981	21,521	797,243
Hospital-in-the-home days	127,911	216,395	64,681	28,128	61,712	738	16,044	13,282	528,891
Average length of stay	8.7	10.8	9.6	16.9	12.5	12.3	3.9	18.7	10.1
Average number of hospital-in-the-home days	6.2	6.9	6.3	10.0	8.8	9.1	3.0	11.6	6.7
Private hospitals									
Same day separations	n.a.	591	4,824	0	n.p.	n.p.	n.p.	n.p.	19,174
Overnight separations	n.a.	1,732	211	314	n.p.	n.p.	n.p.	n.p.	2,257
Total patient days ^(a)	n.a.	36,092	6,529	7,046	n.p.	n.p.	n.p.	n.p.	63,426
Hospital-in-the-home days	n.a.	24,365	6,351	4,570	n.p.	n.p.	n.p.	n.p.	49,045
Average length of stay	n.a.	15.5	1.3	22.4	n.p.	n.p.	n.p.	n.p.	3.0
Average number of hospital-in-the-home days	n.a.	10.5	1.3	14.6	n.p.	n.p.	n.p.	n.p.	2.3
All hospitals									
Same day separations	3,023	5,942	4,943	8	n.p.	n.p.	n.p.	n.p.	32,081
Overnight separations	17,684	27,862	10,294	3,115	n.p.	n.p.	n.p.	n.p.	68,220
Total patient days ^(a)	180,918	375,887	104,697	54,427	n.p.	n.p.	n.p.	n.p.	860,669
Hospital-in-the-home days	127,911	240,760	71,032	32,698	n.p.	n.p.	n.p.	n.p.	577,936
Average length of stay	8.7	11.1	6.9	17.4	n.p.	n.p.	n.p.	n.p.	8.6
Average number of hospital-in-the-home days	6.2	7.1	4.7	10.5	n.p.	n.p.	n.p.	n.p.	5.8

(a) Patient days reported for separations that involved hospital-in-the-home care.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

5.7 How was care completed?

This section presents information on how the admitted patient episode ended. It presents counts of separations by the mode of separation, overall and for acute care, for 2015–16.

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.

Separations

In 2015–16, about 92% of separations (9.8 million) had a mode of separation of *Discharged home* – indicating that these patients were discharged to their place of usual residence (Table 5.38). Private hospitals were more likely to have patients *Discharged home* (97% or 4.2 million), compared with public hospitals (89% or 5.6 million).

About 5.6% of public hospital separations and 1.5% of private hospital separations had a mode of separation of *Discharge/transfer to an (other) hospital*, indicating that their care continued at another hospital.

The number of separations with a mode of separation of *Discharge/transfer to an (other) hospital* (acute and psychiatric) (421,283) does not completely match the number of separations with a mode of admission of *Admitted patient transferred from another hospital* (421,388; see Table 4.1). This may indicate that not all patients who are transferred to a hospital from another are having this recorded as their mode of admission. There may also be discrepancies because some patients were admitted and separated in different reporting years.

Same-day acute separations

About 97% of same-day acute separations were *Discharged home*; and the proportion was higher for private hospitals compared with public hospitals (99% and 95%, respectively) (Table 5.39). A higher proportion of public hospital same-day separations ended with a *Discharge/transfer to an (other) hospital* compared with private hospital same-day separations (3.7% and 0.5%, respectively).

Overnight acute separations

About 87% of overnight acute separations were *Discharged home* (Table 5.40). Private hospitals were more likely to have patients *Discharged home* (92%), compared with public hospitals (85%). A higher proportion of public hospital overnight acute separations ended with a *Discharge/transfer to an (other) hospital* compared with private hospital overnight acute separations (7.5% and 4.0%, respectively).

Table 5.38: Separations, by mode of separation, public and private hospitals, states and territories, 2015–16

Separation mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Discharged home ^(a)	1,633,613	1,509,383	1,154,096	574,230	380,529	110,806	97,951	135,491	5,596,099
Discharge/transfer to an (other) acute hospital	115,888	86,431	76,969	26,504	31,051	5,227	3,731	3,427	349,228
Discharge/transfer to residential aged care service ^(b)	20,739	24,509	5,227	7,523	8,656	982	508	407	68,551
Discharge/transfer to an (other) psychiatric hospital	1,962	1,774	244	1,054	1,699	367	29	15	7,144
Discharge/transfer to other health care accommodation ^(c)	3,449	4,056	2,331	1,391	2,130	381	199	2,739	16,676
Statistical discharge: type change	36,359	18,274	29,326	9,914	5,478	2,722	4,001	1,501	107,575
Left against medical advice/discharge at own risk	21,092	9,945	12,758	4,738	3,659	448	502	4,157	57,299
Statistical discharge from leave	2,835	20	847	660	263	0	0	0	4,625
Died ^(d)	23,548	15,170	11,327	4,725	4,911	1,671	1,120	497	62,969
<i>Not reported</i>	1,678	0	0	0	455	0	0	182	2,315
Total	1,861,163	1,669,562	1,293,125	630,739	438,831	122,604	108,041	148,416	6,272,481
Private hospitals									
Discharged home ^(a)	1,224,356	986,960	1,046,532	487,773	314,419	n.p.	n.p.	n.p.	4,208,162
Discharge/transfer to an (other) acute hospital	23,926	22,613	8,965	3,400	4,191	n.p.	n.p.	n.p.	64,837
Discharge/transfer to residential aged care service ^(b)	1,471	3,217	1,394	959	614	n.p.	n.p.	n.p.	7,884
Discharge/transfer to an (other) psychiatric hospital	4	30	0	17	23	n.p.	n.p.	n.p.	74
Discharge/transfer to other health care accommodation ^(c)	587	30	789	65	860	n.p.	n.p.	n.p.	2,476
Statistical discharge: type change	7,239	4,994	9,892	2,888	585	n.p.	n.p.	n.p.	27,201
Left against medical advice/discharge at own risk	1,237	638	497	197	71	n.p.	n.p.	n.p.	2,676
Statistical discharge from leave	13	0	35	30	0	n.p.	n.p.	n.p.	80
Died ^(d)	2,337	3,431	4,453	2,169	936	n.p.	n.p.	n.p.	13,848
<i>Not reported</i>	0	0	0	0	49	n.p.	n.p.	n.p.	49
Total	1,261,170	1,021,913	1,072,557	497,498	321,748	n.p.	n.p.	n.p.	4,327,287

(a) *Discharged home* is equivalent to *Discharge to usual residence/own accommodation/welfare institution* (including prisons, hostels and group homes providing primarily welfare services) in the mode of separation definition.

(b) Unless this is the usual place of residence.

(c) Includes Mothercraft hospitals/Early parenting hospitals, except in jurisdictions where these facilities are considered acute.

(d) Does not include *Newborns* without qualified days.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.39: Same-day acute separations, by mode of separation, public and private hospitals, 2015–16

Separation mode	Public hospitals	Private free-standing day hospital facilities	Other private hospitals	Total
Discharged home ^(a)	3,071,603	945,660	1,693,440	5,710,703
Discharge/transfer to an (other) acute hospital	120,588	7,450	5,474	133,512
Discharge/transfer to residential aged care service ^(b)	12,499	7	179	12,685
Discharge/transfer to an (other) psychiatric hospital	1,172	1	4	1,177
Discharge/transfer to other health care accommodation ^(c)	1,994	37	182	2,213
Statistical discharge: type change	3,655	0	450	4,105
Left against medical advice/discharge at own risk	20,750	26	750	21,526
Statistical discharge from leave	472	0	11	483
Died ^(d)	4,998	2	299	5,299
Not reported	926	0	29	955
Total	3,238,657	953,183	1,700,818	5,892,658

Notes

1. See Table 5.38 for footnotes for this table.
2. See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 5.40: Overnight acute separations, by mode of separation, public and private hospitals, 2015–16

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	2,298,420	1,064,597	3,363,017
Discharge/transfer to an (other) acute hospital	202,148	46,539	248,687
Discharge/transfer to residential aged care service ^(b)	36,692	5,808	42,500
Discharge/transfer to an (other) psychiatric hospital	1,825	42	1,867
Discharge/transfer to other health care accommodation ^(c)	8,148	1,760	9,908
Statistical discharge: type change	84,405	23,390	107,795
Left against medical advice/discharge at own risk	33,376	808	34,184
Statistical discharge from leave	1,577	20	1,597
Died ^(d)	33,376	9,665	43,041
Not reported	1,094	15	1,109
Total	2,701,061	1,152,644	3,853,705

Notes

1. See Table 5.38 for footnotes for this table.
2. See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about mode of separation is available in:

- ‘Chapter 5 What services were provided?’ – for rehabilitation care and palliative care
- ‘Chapter 6 What procedures were performed?’ – for admissions involving surgery.

Information on data limitations and methods is available in appendixes A and B.

6 What procedures were performed?

This chapter presents information on the procedures and other interventions provided for admitted patients.

The procedures reported for admitted patients can include surgical (operating room) procedures, non-operating room procedures (for example, dialysis), procedures of a patient support nature (for example, general anaesthesia) and other interventions (for example, physiotherapy and other allied health interventions).

The information in this chapter includes:

- an overview of procedures and other interventions, including changes over time
- how Australia compares with other OECD countries for selected procedures
- rates of service for selected procedures – a performance indicator related to accessibility
- emergency surgery (a subset of all procedures) – including who used these services, why they required care, what services were provided and who paid for the care
- elective surgery (a subset of all procedures) – including who used these services, why they required care, what services were provided and who paid for the care
- elective surgery waiting times for patients admitted from public hospital elective surgery waiting lists – including information on Indigenous status, remoteness and SES area of usual residence. Elective surgery waiting times data for the Australian Capital Territory for 2015–16 were not available for publication.

Key findings

Procedures

In 2015–16, about 21.6 million procedures were reported, with about 10.9 million procedures performed in public hospitals and 10.7 million in private hospitals.

Surgery

About 1 in 4 hospitalisations involved surgery and 59% of these occurred in private hospitals.

In 2015–16, there were 326,000 emergency admissions involving surgery and 87% of these occurred in public hospitals. The most common emergency surgery performed was *Appendicectomy*.

Between 2011–12 and 2015–16, elective admissions involving surgery rose by an average of 2.2% per year; by 1.7% for public hospitals and by 2.4% for private hospitals.

Waiting times

In 2015–16, median waiting times for elective surgery varied by remoteness area of usual residence, ranging from 32 days in *Remote* areas to 41 days in *Inner regional* and *Outer regional* areas.

Public patients had longer median waiting times for some surgical procedures compared with other patients. The greatest difference was for *Septoplasty* (to fix a deviated septum) – 238 days for public patients and 48 days for other patients.

Patients with a cancer-related principal diagnosis had shorter median waiting times compared with patients waiting for surgery for other reasons (18 days and 42 days, respectively).

6.1 Overview of procedures

This section presents an overview of the procedures performed in public and private hospitals. It presents information on procedures at the ACHI chapter-level for public and private hospitals and, for same-day and overnight acute care, by state and territory. It also presents information on the 20 most common procedures (at the more detailed block-level), by change in the number of procedures over time, and for same-day acute and overnight acute separations.

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.

As such, procedures encompass surgical procedures and non-surgical investigative and therapeutic procedures, such as X-rays. Patient support interventions that are neither investigative nor therapeutic (such as anaesthesia) are also included. In 2015–16, procedures were recorded using the 9th edition of the Australian Classification of Health Interventions (ACHI) (ACCD 2015).

Changes over time

Tables 6.1 and 6.2 present the 20 procedure blocks with the largest increases between 2011–12 and 2015–16 for public hospitals and private hospitals.

For public hospitals, between 2011–12 and 2015–16, overall, the numbers of procedures reported increased by 4.6% on average each year (Table 6.1).

Between 2011–12 and 2015–16, the ACHI procedure block with the largest overall increase in public hospitals was *Generalised allied health interventions* which increased from 2.5 million to 3.2 million procedures, an average annual increase of 6.2% each year.

For private hospitals, between 2011–12 and 2015–16, overall, the numbers of procedures reported increased by 5.9% on average each year (Table 6.2).

Between 2011–12 and 2015–16, the ACHI procedure block with the largest overall increase in private hospitals was also *Generalised allied health interventions* which increased from 946,000 to 1.4 million procedures, an average annual increase of 10.0% each year (Table 6.2). There were large average annual increases in the numbers of procedures reported for psychological therapies and other therapies (including skills training, counselling or education), as well as for procedures on the eye, especially for the retina, choroid or posterior chamber.

For public and private hospitals combined, the number of procedures reported for *Haemodialysis* increased by an average of 3.3% each year. There was also a large average annual increase (8.4% each year for both public and private hospitals) in the number of procedures reported for *Administration of pharmacotherapy* (mostly chemotherapy for cancer).

Table 6.1: The 20 procedure blocks with the largest change in the total number of procedures reported, public hospitals, 2011–12 to 2015–16

		2011–12	2012–13	2013–14	2014–15	2015–16	Change (%) average since 2011–12
1916	Generalised allied health interventions	2,501,374	2,645,465	2,805,301	3,004,043	3,187,748	6.2
1822	Assessment of personal care and other activities of daily/independent living	8,795	38,410	112,529	159,792	194,020	116.7 ^(a)
1910	Cerebral anaesthesia	1,396,156	1,413,494	1,454,704	1,502,737	1,546,681	2.6
1920	Administration of pharmacotherapy	329,692	333,730	347,506	403,137	454,804	8.4
1060	Haemodialysis	1,040,453	1,056,470	1,096,159	1,127,965	1,162,829	2.8
1909	Conduction anaesthesia	188,625	192,319	201,984	210,816	223,674	4.4
1893	Administration of blood and blood products	269,118	270,272	271,104	285,163	298,709	2.6
570	Non-invasive ventilatory support	36,570	43,054	49,252	56,335	64,617	15.3
911	Fibreoptic colonoscopy with excision	83,290	83,265	88,310	101,021	109,562	7.1
1628	Other debridement of skin and subcutaneous tissue	43,022	45,710	50,174	56,783	67,665	12.0
1620	Excision of lesion(s) of skin and subcutaneous tissue	72,013	72,146	90,671	96,649	93,740	6.8
1334	Medical or surgical induction of labour	56,505	60,214	63,138	66,340	72,369	6.4
1008	Panendoscopy with excision	87,936	88,724	92,939	100,009	103,579	4.2
1341	Fetal monitoring	26,770	29,474	31,681	34,463	38,482	9.5
1067	Endoscopic insertion, replacement or removal of ureteric stent	23,193	25,922	29,064	32,061	34,804	10.7
1333	Analgesia and anaesthesia during labour and delivery procedure	51,119	54,385	56,306	57,155	60,821	4.4
197	Extracapsular crystalline lens extraction by phacoemulsification	63,248	65,300	67,585	70,017	72,726	3.6
1089	Examination procedures on bladder	47,004	48,240	50,903	52,539	56,442	4.7
1566	Excision procedures on other musculoskeletal sites	39,774	41,679	43,731	47,316	49,212	5.5
905	Fibreoptic colonoscopy	83,100	81,701	82,427	89,776	91,969	2.6
	No procedure reported	1,475,691	1,418,166	1,453,328	1,504,410	1,582,583	1.8
	Total procedures^(b)	9,109,535	9,374,348	9,867,860	10,398,832	10,923,036	4.6

(a) The large increase in reporting of *Assessment of personal care and other activities of daily/independent living* is mainly due to increases in the recording of medication reviews as a quality measure in some hospitals in one jurisdiction.

(b) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.2: The 20 procedure blocks with the largest change in the total number of procedures reported, private hospitals, 2011–12 to 2015–16

		2011–12	2012–13	2013–14	2014–15	2015–16	Change (%) average since 2011–12
1916	Generalised allied health interventions	945,533	990,370	1,060,062	1,223,721	1,386,509	10.0
1910	Cerebral anaesthesia	2,091,755	2,134,268	2,221,060	2,292,439	2,358,341	3.0
1876	Skills training in movement	31,293	41,544	72,386	110,651	159,516	50.3
1920	Administration of pharmacotherapy	327,689	345,557	371,534	402,044	451,714	8.4
911	Fibreoptic colonoscopy with excision	259,046	268,854	287,956	331,813	352,917	8.0
1880	Therapies using agents, not elsewhere classified	83,535	81,743	91,924	120,919	145,633	14.9
1873	Psychological/psychosocial therapies	75,326	81,860	91,344	103,316	136,513	16.0
1008	Panendoscopy with excision	244,189	249,804	260,838	284,149	305,046	5.7
1620	Excision of lesion(s) of skin and subcutaneous tissue	152,240	151,739	194,800	208,849	212,544	8.7
1060	Haemodialysis	224,537	235,160	243,261	258,372	276,897	5.4
1909	Conduction anaesthesia	249,304	251,832	264,874	275,407	289,494	3.8
209	Application, insertion or removal procedures on retina, choroid or posterior chamber	44,115	54,116	59,498	89,415	82,028	16.8
197	Extracapsular crystalline lens extraction by phacoemulsification	142,816	146,673	154,300	189,771	180,222	6.0
72	Percutaneous neurotomy of other peripheral nerve	36,066	41,999	54,141	63,579	73,128	19.3
905	Fibreoptic colonoscopy	233,435	230,934	235,449	255,881	254,538	2.2
1867	Counselling or education relating to personal care and other activities of daily/independent living	16,395	19,906	22,741	26,473	36,786	22.4
31	Application, insertion or removal procedures on vertebra or intervertebral disc	16,774	19,134	20,852	25,374	30,381	16.0
412	Tonsillectomy or adenoidectomy	38,462	40,642	41,534	44,808	51,861	7.8
1089	Examination procedures on bladder	66,598	67,703	71,000	74,196	79,696	4.6
1822	Assessment of personal care and other activities of daily/independent living	5,523	7,082	7,894	11,725	18,287	34.9
	No procedure reported	208,798	214,466	212,708	205,932	203,631	-0.6
	Total procedures^(a)	8,486,208	8,727,801	9,201,723	9,946,560	10,667,871	5.9

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How many procedures were reported in 2015–16?

In 2015–16, about 75% (4.7 million) of public hospital separations and 95% (4.1 million) of private hospital separations involved a procedure.

About 21.6 million procedures were reported, with about 10.9 million procedures performed in public hospitals, and 10.7 million in private hospitals (Table 6.3).

Public hospitals accounted for 73% of procedures in the ACHI chapter *Procedures on the urinary system* (mainly for dialysis), 75% of *Procedures on the respiratory system*, 74% of *Obstetric procedures* (which includes childbirth) and 66% of *Radiation oncology procedures*.

Private hospitals accounted for 73% of *Dental services* procedures and 73% of *Procedures on the eye and adnexa* (which includes cataract extractions).

Information on procedures for same-day and overnight acute separations at the ACHI chapter level for public and private hospitals by state and territory is available in tables 6.4 to 6.9. Information on separations with at least one surgical procedure is available in Table 6.10.

Procedures reported for same-day acute care

In 2015–16, about 79% of same-day acute separations in public hospitals and 99% of same-day acute separations in private hospitals involved a procedure (tables 6.4 and 6.5), with about 9.6 million procedures reported for same-day acute separations.

In 2015–16, *Cerebral anaesthesia* (general anaesthesia) was the most common procedure block for same-day acute separations (2.3 million procedures), reflecting that it is a companion procedure for many other procedures (Table 6.6). The next most frequently reported procedure groups were *Haemodialysis* (1.4 million procedures), *Administration of pharmacotherapy* (including chemotherapy, 754,000 procedures) and *Fibreoptic colonoscopy with excision* (427,000 procedures).

Procedures reported for overnight acute care

In 2015–16, about 70% of overnight acute separations in public hospitals and 99% of overnight acute separations in private hospitals involved a procedure (tables 6.7 and 6.8), with a total of almost 10 million procedures were reported for overnight acute separations.

In 2015–16, *Generalised allied health interventions*, which includes physiotherapy and other rehabilitation procedures or interventions, was the most common procedure block reported for overnight acute separations. *Cerebral anaesthesia* (general anaesthesia) was the next most frequently reported procedure block, reflecting the fact that it is a companion procedure for many other procedures (Table 6.9).

Table 6.3: Number of procedures^(a), by ACHI chapter, public and private hospitals, 2015–16

Procedure		Public hospitals	Private hospitals	Total
1–86	Procedures on nervous system	110,907	284,005	394,912
110–129	Procedures on endocrine system	10,036	11,215	21,251
160–256	Procedures on eye and adnexa	124,879	344,196	469,075
300–333	Procedures on ear and mastoid process	31,703	47,044	78,747
370–422	Procedures on nose, mouth and pharynx	102,561	204,132	306,693
450–490	Dental services	98,668	270,269	368,937
520–571	Procedures on respiratory system	174,356	58,477	232,833
600–777	Procedures on cardiovascular system	299,609	278,052	577,661
800–817	Procedures on blood and blood-forming organs	43,803	31,499	75,302
850–1011	Procedures on digestive system	728,079	1,316,800	2,044,879
1040–1129	Procedures on urinary system	1,376,720	513,588	1,890,308
1160–1203	Procedures on male genital organs	45,044	82,551	127,595
1240–1299	Gynaecological procedures	236,754	388,915	625,669
1330–1347	Obstetric procedures	464,912	166,887	631,799
1360–1580	Procedures on musculoskeletal system	397,649	598,021	995,670
1600–1718	Dermatological and plastic procedures	364,409	473,362	837,771
1740–1759	Procedures on breast	26,139	67,870	94,009
1786–1800	Radiation oncology procedures	14,288	8,370	22,658
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	6,210,570	5,474,066	11,684,636
1940–2016	Imaging services	61,947	48,549	110,496
	<i>Procedures reported^(a)</i>	<i>10,923,036</i>	<i>10,667,928</i>	<i>21,590,964</i>
	No procedure or not reported	1,582,583	203,631	1,786,214
Total separations		6,272,481	4,327,287	10,599,768

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information on procedures is available in:

- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- Section 6.3 – 'Performance indicator: Rates of selected hospital procedures'
- Sections 6.4 and 6.5 in this chapter – for emergency and elective admissions involving surgery.

Additional information is available in tables that accompany this report online at www.aihw.gov.au/hospitals/.

Information on data limitations and methods is available in appendixes A and B.

Table 6.4: Number of procedures^(a) reported for same-day acute separations, by ACHI chapter, public hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86 Procedures on nervous system	8,887	10,498	6,620	6,540	3,058	792	331	229	36,955
110–129 Procedures on endocrine system	86	665	26	26	11	7	1	2	824
160–256 Procedures on eye and adnexa	27,703	32,090	14,388	15,497	9,244	3,242	1,585	999	104,748
300–333 Procedures on ear and mastoid process	3,989	4,443	5,419	2,105	2,091	352	281	270	18,950
370–422 Procedures on nose, mouth and pharynx	7,757	9,916	9,102	1,854	2,193	434	293	222	31,771
450–490 Dental services	20,222	25,519	19,236	8,796	8,899	1,890	1,199	2,137	87,898
520–571 Procedures on respiratory system	5,968	7,400	4,814	2,096	1,076	765	150	199	22,468
600–777 Procedures on cardiovascular system	17,059	24,072	9,295	8,557	4,753	2,332	1,858	535	68,461
800–817 Procedures on blood and blood-forming organs	2,692	7,328	2,764	1,614	1,673	301	37	74	16,483
850–1011 Procedures on digestive system	115,700	112,159	44,433	54,376	8,363	7,626	3,720	3,795	350,172
1040–1129 Procedures on urinary system	377,980	329,744	205,499	136,194	75,643	19,898	23,788	75,067	1,243,813
1160–1203 Procedures on male genital organs	6,118	7,597	3,815	3,664	2,131	776	365	271	24,737
1240–1299 Gynaecological procedures	42,070	54,789	28,118	13,966	15,440	3,135	2,025	2,024	161,567
1330–1347 Obstetric procedures	3,430	2,210	2,202	1,941	1,189	324	414	146	11,856
1360–1580 Procedures on musculoskeletal system	31,233	29,582	17,511	13,323	10,012	2,364	2,275	895	107,195
1600–1718 Dermatological and plastic procedures	39,268	44,152	34,624	18,289	15,858	3,622	2,968	2,062	160,843
1740–1759 Procedures on breast	2,669	2,865	1,318	791	554	254	79	37	8,567
1786–1800 Radiation oncology procedures	708	1,453	788	395	188	16	2	2	3,552
1820–1922 Non-invasive, cognitive and other interventions, n.e.c.	311,831	494,072	279,511	170,504	77,446	34,579	21,109	12,260	1,401,312
1940–2016 Imaging services	7,729	6,315	3,700	3,437	2,160	929	375	146	24,791
<i>Procedures reported^(a)</i>	<i>1,033,101</i>	<i>1,206,869</i>	<i>693,183</i>	<i>463,965</i>	<i>241,982</i>	<i>83,638</i>	<i>62,855</i>	<i>101,372</i>	<i>3,886,965</i>
No procedure or not reported	186,253	173,817	213,316	34,098	49,621	8,585	12,066	16,550	694,306
Total same-day acute separations^(b)	830,765	962,484	683,937	339,213	199,863	62,679	55,465	104,251	3,238,657

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The total number of same-day acute separations in public hospitals.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.5: Number of procedures^(a) reported for same-day acute separations, by ACHI chapter, private hospitals, state and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86 Procedures on nervous system	40,965	28,572	50,377	41,196	9,422	n.p.	n.p.	n.p.	175,208
110–129 Procedures on endocrine system	142	51	18	23	6	n.p.	n.p.	n.p.	256
160–256 Procedures on eye and adnexa	113,827	60,120	79,183	35,224	23,304	n.p.	n.p.	n.p.	329,513
300–333 Procedures on ear and mastoid process	13,306	6,508	5,571	3,785	2,736	n.p.	n.p.	n.p.	33,298
370–422 Procedures on nose, mouth and pharynx	29,247	13,002	14,703	8,429	5,587	n.p.	n.p.	n.p.	72,904
450–490 Dental services	79,119	52,953	55,555	39,527	27,480	n.p.	n.p.	n.p.	264,465
520–571 Procedures on respiratory system	3,422	2,534	3,626	884	1,026	n.p.	n.p.	n.p.	11,717
600–777 Procedures on cardiovascular system	30,286	17,862	16,670	8,244	5,278	n.p.	n.p.	n.p.	82,517
800–817 Procedures on blood and blood-forming organs	1,926	2,223	3,579	648	748	n.p.	n.p.	n.p.	9,486
850–1011 Procedures on digestive system	364,257	268,406	222,537	85,966	57,779	n.p.	n.p.	n.p.	1,025,190
1040–1129 Procedures on urinary system	106,079	67,585	91,572	107,485	27,774	n.p.	n.p.	n.p.	406,744
1160–1203 Procedures on male genital organs	18,959	10,316	7,318	5,580	3,378	n.p.	n.p.	n.p.	47,290
1240–1299 Gynaecological procedures	91,855	89,578	61,166	30,455	13,496	n.p.	n.p.	n.p.	295,377
1330–1347 Obstetric procedures	460	324	606	167	55	n.p.	n.p.	n.p.	1,662
1360–1580 Procedures on musculoskeletal system	69,041	48,732	37,301	25,703	22,375	n.p.	n.p.	n.p.	211,869
1600–1718 Dermatological and plastic procedures	89,353	89,108	77,550	43,945	36,594	n.p.	n.p.	n.p.	345,357
1740–1759 Procedures on breast	11,478	4,553	8,874	2,629	1,387	n.p.	n.p.	n.p.	29,342
1786–1800 Radiation oncology procedures	4,308	361	259	206	209	n.p.	n.p.	n.p.	5,387
1820–1922 Non-invasive, cognitive and other interventions, n.e.c.	712,827	581,151	597,969	221,767	177,093	n.p.	n.p.	n.p.	2,365,016
1940–2016 Imaging services	8,974	3,729	4,638	2,466	1,176	n.p.	n.p.	n.p.	21,342
<i>Procedures reported^(a)</i>	<i>1,789,831</i>	<i>1,347,668</i>	<i>1,339,072</i>	<i>664,329</i>	<i>416,903</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>5,733,996</i>
No procedure or not reported	8,013	7,497	8,679	2,552	11,179	n.p.	n.p.	n.p.	39,212
Total same-day acute separations^(b)	705,453	653,382	655,210	349,528	207,396	n.p.	n.p.	n.p.	2,654,001

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The total number of same-day acute separations in private hospitals.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.6: Procedures reported for the 20 most common ACHI procedure blocks for same-day acute separations, public and private hospitals, 2015–16

Procedure block		Public hospitals	Private free-standing day facilities	Other private hospitals	Total
1910	Cerebral anaesthesia	707,468	491,413	1,087,929	2,286,810
1060	Haemodialysis	1,131,807	149,254	125,296	1,406,357
1920	Administration of pharmacotherapy	338,612	101,712	313,259	753,583
911	Fibreoptic colonoscopy with excision	92,437	115,175	219,617	427,229
1008	Panendoscopy with excision	83,331	99,869	187,556	370,756
905	Fibreoptic colonoscopy	77,204	89,808	150,415	317,427
1620	Excision of lesion(s) of skin and subcutaneous tissue	72,987	65,927	111,015	249,929
197	Extracapsular crystalline lens extraction by phacoemulsification	69,924	96,739	78,944	245,607
1909	Conduction anaesthesia	77,092	70,774	64,856	212,722
1893	Administration of blood and blood products	108,581	25,050	46,383	180,014
1265	Curettage and evacuation of uterus	55,309	37,938	54,237	147,484
458	Surgical removal of tooth	14,353	36,197	94,237	144,787
1916	Generalised allied health interventions	77,122	328	38,730	116,180
1089	Examination procedures on bladder	43,933	6,531	52,507	102,971
209	Application, insertion or removal procedures on retina, choroid or posterior chamber	5,295	66,786	14,459	86,540
1005	Panendoscopy	20,514	33,747	31,615	85,876
1297	Procedures for reproductive medicine	3,953	44,669	25,986	74,608
1259	Examination procedures on uterus	31,356	3,995	36,479	71,830
72	Percutaneous neurotomy of other peripheral nerve	4,083	9,928	55,161	69,172
466	Tooth-coloured restoration	22,428	12,053	20,469	54,950
	<i>Other</i>	<i>849,176</i>	<i>318,923</i>	<i>1,048,030</i>	<i>2,216,129</i>
	<i>Procedures reported^(a)</i>	<i>3,886,965</i>	<i>1,876,816</i>	<i>3,857,180</i>	<i>9,620,961</i>
	No procedure or not reported	694,306	1,280	37,932	733,518
Total same-day acute separations		3,238,657	953,183	1,700,818	5,892,658

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.7: Number of procedures^(a) reported for overnight acute separations by ACHI chapter, public hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86 Procedures on nervous system	25,077	19,044	13,272	6,937	4,928	2,045	1,415	568	73,286
110–129 Procedures on endocrine system	2,934	2,652	1,690	859	605	200	161	67	9,168
160–256 Procedures on eye and adnexa	7,423	4,848	3,569	2,432	1,081	112	417	155	20,037
300–333 Procedures on ear and mastoid process	3,361	3,113	2,414	1,553	1,320	245	244	282	12,532
370–422 Procedures on nose, mouth and pharynx	20,897	21,134	11,717	6,266	6,763	1,593	1,649	633	70,652
450–490 Dental services	2,506	2,021	2,474	1,444	938	137	249	650	10,419
520–571 Procedures on respiratory system	47,950	39,056	30,799	13,696	9,745	3,878	3,003	2,008	150,135
600–777 Procedures on cardiovascular system	70,401	61,500	46,096	23,606	17,848	4,861	4,706	1,685	230,703
800–817 Procedures on blood and blood-forming organs	8,430	7,338	5,431	2,592	2,155	454	554	255	27,209
850–1011 Procedures on digestive system	124,775	97,605	70,656	38,013	25,711	8,177	6,994	3,693	375,624
1040–1129 Procedures on urinary system	40,163	33,741	24,621	12,457	10,791	2,606	3,529	2,906	130,814
1160–1203 Procedures on male genital organs	5,988	5,757	3,892	2,165	1,303	527	435	212	20,279
1240–1299 Gynaecological procedures	21,721	20,750	15,260	7,544	5,789	1,821	1,321	895	75,101
1330–1347 Obstetric procedures	134,254	117,954	83,049	63,325	31,107	8,173	9,516	5,617	452,995
1360–1580 Procedures on musculoskeletal system	92,397	71,497	54,714	31,265	20,462	7,752	6,094	4,601	288,782
1600–1718 Dermatological and plastic procedures	54,129	51,813	43,904	21,503	14,723	3,494	3,751	6,030	199,347
1740–1759 Procedures on breast	4,876	4,500	3,558	2,176	1,547	358	323	195	17,533
1786–1800 Radiation oncology procedures	3,445	2,625	1,935	789	650	171	193	77	9,885
1820–1922 Non-invasive, cognitive and other interventions, n.e.c.	1,168,352	1,032,097	956,669	388,148	305,693	90,794	62,250	46,288	4,050,291
1940–2016 Imaging services	13,992	7,328	7,051	3,362	2,132	863	1,149	227	36,104
<i>Procedures reported^(e)</i>	<i>1,853,071</i>	<i>1,606,373</i>	<i>1,382,771</i>	<i>630,132</i>	<i>465,291</i>	<i>138,262</i>	<i>107,953</i>	<i>77,044</i>	<i>6,260,897</i>
No procedure or not reported	318,788	161,875	150,924	74,259	61,132	12,747	12,628	15,626	807,979
Total overnight acute separations^(b)	915,493	637,464	534,444	264,528	207,075	53,528	46,393	42,136	2,701,061

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The total number of overnight acute separations in public hospitals.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.8: Number of procedures^(a) reported for overnight acute separations by ACHI chapter, private hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1–86 Procedures on nervous system	31,152	24,886	24,386	16,435	6,646	n.p.	n.p.	n.p.	107,918
110–129 Procedures on endocrine system	4,964	2,154	1,792	1,214	555	n.p.	n.p.	n.p.	10,953
160–256 Procedures on eye and adnexa	5,134	2,058	2,482	3,354	1,036	n.p.	n.p.	n.p.	14,382
300–333 Procedures on ear and mastoid process	5,276	2,155	2,554	1,964	1,092	n.p.	n.p.	n.p.	13,680
370–422 Procedures on nose, mouth and pharynx	47,755	23,295	23,098	15,169	13,341	n.p.	n.p.	n.p.	130,764
450–490 Dental services	1,821	1,239	1,060	544	793	n.p.	n.p.	n.p.	5,758
520–571 Procedures on respiratory system	11,456	12,047	14,779	3,460	3,467	n.p.	n.p.	n.p.	46,482
600–777 Procedures on cardiovascular system	56,739	57,113	46,948	18,754	11,352	n.p.	n.p.	n.p.	195,453
800–817 Procedures on blood and blood-forming organs	6,747	4,976	5,246	2,174	2,003	n.p.	n.p.	n.p.	21,920
850–1011 Procedures on digestive system	81,141	70,041	73,984	30,829	20,516	n.p.	n.p.	n.p.	287,715
1040–1129 Procedures on urinary system	31,325	26,607	23,686	11,236	9,023	n.p.	n.p.	n.p.	106,483
1160–1203 Procedures on male genital organs	12,348	8,772	6,966	3,309	2,237	n.p.	n.p.	n.p.	35,211
1240–1299 Gynaecological procedures	30,339	19,952	21,007	10,501	8,104	n.p.	n.p.	n.p.	93,436
1330–1347 Obstetric procedures	56,856	37,398	31,144	25,010	8,579	n.p.	n.p.	n.p.	165,218
1360–1580 Procedures on musculoskeletal system	106,400	98,709	78,108	49,619	34,205	n.p.	n.p.	n.p.	384,426
1600–1718 Dermatological and plastic procedures	35,186	34,371	30,647	14,235	7,718	n.p.	n.p.	n.p.	127,183
1740–1759 Procedures on breast	12,499	8,533	7,064	5,793	2,816	n.p.	n.p.	n.p.	38,326
1786–1800 Radiation oncology procedures	1,153	1,028	380	64	297	n.p.	n.p.	n.p.	2,944
1820–1922 Non-invasive, cognitive and other interventions, n.e.c.	471,401	462,180	450,462	213,100	142,607	n.p.	n.p.	n.p.	1,813,386
1940–2016 Imaging services	9,143	7,015	7,175	2,114	1,343	n.p.	n.p.	n.p.	27,178
<i>Procedures reported^(a)</i>	<i>1,018,835</i>	<i>904,529</i>	<i>852,968</i>	<i>428,878</i>	<i>277,730</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>3,628,820</i>
No procedure or not reported	21,406	33,715	38,686	11,345	7,727	n.p.	n.p.	n.p.	118,239
Total overnight acute separations^(b)	283,956	300,060	297,256	136,060	86,347	n.p.	n.p.	n.p.	1,152,644

(a) Numbers of procedures are counts of 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 1 code. Therefore the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The total number of overnight acute separations in private hospitals.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.9: Procedures^(a) reported for the 20 most common ACHI procedure blocks for overnight acute separations, public and private hospitals, 2015–16

Procedure block		Public hospitals	Private hospitals	Total
1916	Generalised allied health interventions	2,463,136	659,916	3,123,052
1910	Cerebral anaesthesia	805,265	743,442	1,548,707
1909	Conduction anaesthesia	146,428	153,395	299,823
1893	Administration of blood and blood products	186,136	66,613	252,749
1822	Assessment of personal care and other activities of daily/independent living	163,866	5,754	169,620
1920	Administration of pharmacotherapy	113,964	33,794	147,758
1340	Caesarean section	69,438	40,234	109,672
1344	Postpartum suture	77,228	23,902	101,130
1334	Medical or surgical induction of labour	71,098	25,260	96,358
668	Coronary angiography	48,415	40,537	88,952
1333	Analgesia and anaesthesia during labour and delivery procedure	60,394	27,569	87,963
570	Non-invasive ventilatory support	62,132	19,343	81,475
1828	Sleep study	13,670	61,933	75,603
986	Division of abdominal adhesions	36,778	34,151	70,929
1628	Other debridement of skin and subcutaneous tissue	56,146	9,339	65,485
1566	Excision procedures on other musculoskeletal sites	39,109	25,240	64,349
412	Tonsillectomy or adenoidectomy	20,643	36,115	56,758
1620	Excision of lesion(s) of skin and subcutaneous tissue	20,551	35,452	56,003
965	Cholecystectomy	32,550	23,449	55,999
1335	Medical or surgical augmentation of labour	42,854	12,656	55,510
	<i>Other</i>	1,731,096	1,550,726	3,281,822
	<i>Procedures reported</i>	6,260,897	3,628,820	9,889,717
	No procedure or not reported	807,979	118,239	926,218
Total overnight acute separations		2,701,061	1,152,644	3,853,705

(a) Numbers of procedures are counts of 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 1 code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How many separations had a surgical procedure in 2015–16?

Surgical separations are identified as separations with a 'surgical AR-DRG' in AR-DRG version 7.0 (NCCC 2012). The definition of separations involving surgery in this section differ from those used to describe the scope of the National Elective Surgery Waiting Times Data Collection (NESWTDC). For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

In 2015–16, a surgical procedure was reported for about 2.7 million separations – about 18% (1.1 million) of public hospital separations and 36% (1.6 million) of private hospital separations (Table 6.10).

For public hospitals, about 67% of surgical separations were elective admissions, 26% of surgical separations were emergency admissions and 7% had an urgency of admission of *Not assigned* (for example, for childbirth or other planned procedures) or not reported. The

proportion of surgical separations that were emergency admissions varied from 22% in Queensland to 38% in the Northern Territory.

For private hospitals, about 95% of surgical separations were elective admissions, 3% of surgical separations were emergency admissions and 2% had an urgency of admission of *Not assigned* or not reported. The proportion of surgical separations that were elective admissions varied from 93% in South Australia to 96% in New South Wales (jurisdictions whose private hospital data could be reported).

Where to go for more information:

More information on procedures is available in:

- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- Section 6.3 – 'Performance indicator: Rates of selected hospital procedures'
- Sections 6.4 and 6.5 in this chapter – for emergency and elective admissions involving surgery.

Additional information is available in tables that accompany this report online at www.aihw.gov.au/hospitals/.

Information on data limitations and methods is available in appendixes A and B.

Table 6.10: Separations with a surgical AR-DRG^(a) (version 7.0), by urgency of admission, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Emergency	92,808	68,262	52,205	33,577	22,787	6,491	7,279	4,980	288,389
Elective	205,515	217,203	134,021	78,593	60,700	18,022	12,692	6,588	733,334
Urgency not assigned/not reported	31,544	21,377	11,415	7,629	4,706	1,161	810	1,371	80,013
<i>Total public hospitals</i>	<i>329,867</i>	<i>306,842</i>	<i>197,641</i>	<i>119,799</i>	<i>88,193</i>	<i>25,674</i>	<i>20,781</i>	<i>12,939</i>	<i>1,101,736</i>
Private hospitals									
Emergency	4,009	12,045	13,416	5,217	7,634	n.p.	n.p.	n.p.	43,010
Elective	440,626	356,269	328,509	178,921	113,026	n.p.	n.p.	n.p.	1,482,819
Urgency not assigned	12,012	8,654	4,897	4,820	1,217	n.p.	n.p.	n.p.	33,589
<i>Total private hospitals</i>	<i>456,647</i>	<i>376,968</i>	<i>346,822</i>	<i>188,958</i>	<i>121,877</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1,559,418</i>
All hospitals									
Emergency	96,817	80,307	65,621	38,794	30,421	n.p.	n.p.	n.p.	331,399
Elective	646,141	573,472	462,530	257,514	173,726	n.p.	n.p.	n.p.	2,216,153
Urgency not assigned	43,556	30,031	16,312	12,449	5,923	n.p.	n.p.	n.p.	113,602
Total surgical	786,514	683,810	544,463	308,757	210,070	n.p.	n.p.	n.p.	2,661,154

(a) The definition of separations with a surgical AR-DRG in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

6.2 How does Australia compare?

This section presents comparisons of procedures reported for Australian admitted patient care with other OECD countries. It includes information on:

- the proportion of:
 - cataract surgeries that were performed on a same-day basis
 - tonsillectomies that were performed on a same-day basis
 - cholecystectomies that were laparoscopic procedures
 - inguinal herniorrhaphies that were laparoscopic procedures
 - appendicectomies that were laparoscopic procedures
- the number of:
 - caesarean sections per 100 live births
 - coronary revascularisation procedures per 100,000 population, and the proportion of these that were coronary angioplasties
 - hip replacement surgeries per 100,000 population
 - knee replacement surgeries per 100,000 population.

The specifications and international data for these indicators were sourced from the OECD *Health statistics 2016* (OECD 2016). The data for other OECD countries relate to the calendar year 2014 (or earlier).

It should be noted that these statistics may be affected by variation in admission practices both within Australia and internationally. Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only. However, data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Australian total.

OECD indicator: Proportion of cataract surgeries that were performed on a same-day basis

Australia's proportion of cataract surgeries that were performed on a same-day basis was higher than the OECD average (97.0% and 68.9%, respectively) (Table 6.11).

In 2015–16, all states and territories had higher rates of cataract surgeries performed as same-day surgery than the OECD average. Tasmania had the highest rate (98.6%) and the Northern Territory the lowest (91.7%).

OECD indicator: Proportion of tonsillectomies that were performed on a same-day basis

Australia's proportion of tonsillectomies that were performed on a same-day basis was lower than the OECD average (11.3% and 30.3%, respectively) (Table 6.11).

In 2015–16, all states and territories had lower rates of tonsillectomies performed as same-day surgery than the OECD average. Victoria had the highest rate (15.7%) and the Northern Territory the lowest (1.7%).

Table 6.11: Proportion of cataract surgeries and tonsillectomies undertaken as same-day separations, all hospitals, states and territories (2015–16) and OECD statistics (2014)^(a)

	Proportion of cataract surgeries undertaken as same-day separations	Proportion of tonsillectomies undertaken as same-day separations
New South Wales	97.2	10.4
Victoria	97.5	15.7
Queensland	97.3	15.5
Western Australia	95.1	2.4
South Australia	95.8	4.1
Tasmania ^(b)	98.6	5.2
Australian Capital Territory ^(b)	96.5	14.0
Northern Territory ^(b)	91.7	1.7
Australia^(c)	97.0	11.3
OECD average	68.9	30.3
OECD interquartile range ^(d)	50.3–96.5	4.6–53.0
Number of OECD countries	27	24

(a) For some OECD countries, the data relate to a year other than 2014.

(b) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(c) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Australia row.

(d) The interquartile range is a measure of statistical dispersion, being equal to the difference between the upper and lower quartiles.

Source: OECD Health Statistics 2016 (OECD 2016).

OECD indicator: Number of caesarean sections per 100 live births

Australia's rate of caesarean sections was higher than the OECD average (33.7 and 27.5 per 100 births, respectively) and was also above the interquartile range for the OECD (20.7–33.1 per 100) (Table 6.12).

Western Australia had the highest rate of caesarean sections (36.1 per 100 births).

OECD indicator: Number of coronary revascularisation procedures per 100,000 population

In 2015–16, the coronary revascularisation procedure rate for Australia was below the 2014 OECD average (199.3 and 224.1 per 100,000 population, respectively), and within the interquartile range (Table 6.12).

The Northern Territory had the lowest population rates for *Coronary revascularisation* procedures (107.0 per 1,000) and 100% of these were for *Coronary angioplasty*. It should be noted that:

- the Northern Territory data are for public hospitals only
- Northern Territory patients who require a *Coronary artery bypass graft* receive treatment in another jurisdiction, so the total population rate is an underestimate.

Coronary angioplasty accounted for 76.6% of all revascularisation procedures in Australia, compared to 80.2% across OECD countries (interquartile range 75.9%–86.2%). The Australian Capital Territory (data are for public hospitals only) had the highest proportion of revascularisation procedures that were *Coronary angioplasties* (84.5%).

OECD indicator: Number of hip and knee replacement surgeries per 100,000 population

Australia's rate of hip replacement surgery was similar to the 2014 OECD average (163.5 and 162.3 per 100,000 population, respectively) (Table 6.12).

Australia's rate of knee replacement surgery was above the 2014 OECD average (201.5 and 118.8 per 100,000 population, respectively), and was also above the OECD interquartile range.

The Australian Capital Territory (data are for public hospitals only) had the highest population rates for hip replacement surgery and knee replacement surgery. However, these rates should be interpreted with caution due to the high proportion of interstate patients treated in that jurisdiction.

Table 6.12: Selected indicators, all hospitals, states and territories (2015–16) and OECD statistics (2014)^(a)

	Caesarean sections (per 100 live births)	Coronary revascularisation procedures ^(b) (per 100,000 population)	Coronary angioplasty (% of coronary revascularisation procedures)	Hip replacement surgery (per 100,000 population)	Knee replacement surgery (per 100,000 population)
New South Wales	32.8	198.3	77.8	147.5	197.4
Victoria	33.7	201.8	73.9	175.7	174.0
Queensland	33.5	200.2	75.1	145.9	212.8
Western Australia	36.1	200.9	79.6	183.7	233.4
South Australia	35.1	188.0	75.4	185.5	224.7
Tasmania ^(c)	31.8	151.4	79.3	222.9	214.9
Australian Capital Territory ^(c)	32.9	355.8	84.5	239.3	292.0
Northern Territory ^(c)	33.6	107.0	100.0	88.8	88.9
Australia^(d)	33.7	199.3	76.6	163.5	201.5
OECD average	27.5	224.1	80.2	162.3	118.8
OECD interquartile range ^(e)	20.7–33.1	169.5–255.2	75.9–86.2	111.5–234.1	73.0–171.3
Number of OECD countries	32	27	27	30	28

(a) For some OECD countries, the data relate to a year other than 2014.

(b) *Coronary revascularisation* procedures include coronary bypass and angioplasty.

(c) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(d) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Australia row.

(e) The interquartile range is a measure of statistical dispersion, being equal to the difference between the upper and lower quartiles.

Source: OECD 2016.

OECD indicator: proportion of cholecystectomies, inguinal herniorrhaphies and appendicectomies that were laparoscopic procedures

Australia's proportion of cholecystectomies performed laparoscopically, was greater than the 2014 OECD average (93.5% and 86.4%, respectively), and was also above the 2014 OECD interquartile range (OECD 2016). Similarly, the nationwide proportion of laparoscopic appendicectomies and repair of inguinal hernia was also higher in Australia (Table 6.13).

Queensland had the highest proportion of cholecystectomies, appendicectomies and repair of inguinal hernia performed laparoscopically (95.2%, 93.0% and 48.0%, respectively).

The lowest proportion of laparoscopic cholecystectomies were performed in South Australia (90.9%). Tasmania (public hospitals only) reported the lowest proportion of laparoscopic appendicectomies (76.0%). However, both are still above their respective 2014 OECD averages.

The proportion of repair of inguinal hernia procedures performed laparoscopically was lowest in the Australian Capital Territory (13.2%, public hospitals only), which is also below the 2014 OECD average.

Table 6.13: Proportion of selected procedures performed laparoscopically, all hospitals, states and territories (2015–16) and OECD statistics (2014)^(a)

	Cholecystectomy		Appendicectomy		Repair of inguinal hernia	
	Number of procedures	Proportion performed laparoscopically	Number of procedures	Proportion performed laparoscopically	Number of procedures	Proportion performed laparoscopically
New South Wales	17,217	93.0	12,076	90.1	14,698	47.7
Victoria	14,122	93.9	9,660	87.4	11,277	32.7
Queensland	11,695	95.2	9,569	93.0	9,855	48.0
Western Australia	5,516	93.5	4,628	85.6	5,069	32.4
South Australia	3,988	90.9	2,748	87.0	3,123	32.7
Tasmania ^(b)	1,387	92.0	886	76.0	1,373	31.3
Australian Capital Territory ^(b)	866	92.8	825	91.2	544	13.2
Northern Territory ^(b)	445	91.7	526	85.7	300	37.3
Australia^(c)	55,236	93.5	40,918	89.1	46,239	40.5
OECD average		86.4		56.3		15.7
OECD interquartile range ^(d)		84.1–91.9		38.5–81.8		4.6–35.6
Number of OECD countries		21		19		20

(a) For some OECD countries, the data relate to a year other than 2014.

(b) Data for Tasmania, the Australian Capital Territory and the Northern Territory are for public hospitals only.

(c) Data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory are included in the Australia row.

(d) The interquartile range is a measure of statistical dispersion, being equal to the difference between the upper and lower quartiles.

Source: OECD 2016.

Where to go for more information:

More information about how Australia's hospitals compare is in 'Chapter 2 How much activity was there?' – for overnight separation rates (hospital discharges) and average length of stay.

More information on OECD comparisons is available at <www.oecd.org/els/health-systems/Health-at-a-Glance-2015.pdf>.

Information on data limitations and methods is available in appendixes A and B.

6.3 Performance indicator: Rates of service—hospital procedures

'Rates of service – hospital procedures' is an NHPF indicator related to accessibility of hospital services. It may also relate to the appropriateness of hospital care (see Appendix C).

Generally, the procedures were selected because of the frequency with which they are undertaken, because they are often elective and discretionary and because alternative treatments are sometimes available.

Table 6.14 presents separations per 1,000 population for selected hospital procedures. *Cataract extraction* was the most common procedure (9.3 per 1,000 population). The rates for *Cataract extraction* varied between public and private sectors (2.8 and 6.4 per 1,000 population, respectively) but were fairly similar by Indigenous status and by SES status. Persons living in *Inner regional* had the highest separation rates for *Cataract extraction* (10.1 per 1,000).

The numbers of separations per 1,000 population for the selected procedures varied among states and territories. For example, separations for *Cataract extraction* ranged from 8.0 per 1,000 population in South Australia to 12.6 per 1,000 in Tasmania (Table 6.15). As data are not included for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory, the separation rates presented in Table 6.15 are likely to be an underestimate for these jurisdictions.

Variation in separation rates can reflect the numbers of interstate patients receiving treatment. For example, for the Australian Capital Territory, 43% of *Coronary angioplasty* and 45% of *Coronary artery bypass graft* procedures were provided to patients who lived in a different state/territory (Table 6.15). For South Australia, Queensland and the Northern Territory there were also relatively large proportions of *Coronary angioplasty* procedures provided to patients who lived in a different state.

Any interpretation of this information should take into consideration the limitations of the data from which they are derived. While variation in separation 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.

Where to go for more information

More information about these procedures by states and territories is in tables that accompany this report online at <www.aihw.gov.au/hospitals/>.

For selected relevant international comparisons, see Section 6.2—'How does Australia compare?'

Information on data limitations and methods is available in appendixes A and B. Information on performance indicators is in Appendix C.

Table 6.14: Rates of service: selected hospital procedures^(a), all hospitals, 2015–16

	Cataract extraction	Cholecystectomy	Coronary angioplasty	Coronary artery bypass graft	Cystoscopy	Haemorrhoidectomy	Hip replacement	Hysterectomy ^(b)
Hospital sector								
Public	2.8	1.4	0.9	0.3	2.4	0.7	0.7	1.5
Private	6.4	0.9	0.6	0.2	3.2	1.4	0.9	1.8
Indigenous status^(c)								
Indigenous	8.3	3.0	2.3	1.0	3.8	1.2	1.0	3.0
Other Australians	8.9	2.2	1.5	0.5	5.5	2.1	1.6	3.1
Remoteness of residence								
Major cities	8.9	2.1	1.5	0.4	5.7	2.0	1.5	3.1
Inner regional	10.1	2.6	1.5	0.5	5.6	2.7	1.9	4.3
Outer regional	9.8	2.4	1.5	0.5	4.9	2.1	1.8	3.7
Remote	8.9	2.1	1.4	0.6	4.4	1.5	1.6	3.4
Very remote	9.1	2.0	1.5	0.6	3.5	0.9	1.3	3.1
Socioeconomic status of area of residence								
1—Lowest	9.4	2.6	1.6	0.5	5.1	2.3	1.5	3.5
2	9.3	2.4	1.6	0.5	5.3	2.3	1.7	3.5
3	9.3	2.2	1.5	0.5	5.7	2.0	1.7	3.6
4	9.0	2.1	1.5	0.4	5.9	2.0	1.7	3.3
5—Highest	9.1	1.8	1.5	0.4	5.8	2.0	1.7	2.9
Total	9.3	2.2	1.5	0.5	5.6	2.1	1.6	3.3

(continued)

Table 6.14 (continued): Rates of service: selected hospital procedures^(a), all hospitals, 2015–16

	Inguinal herniorrhaphy ^(d)	Knee replacement	Myringotomy	Prostatectomy ^(e)	Septoplasty	Tonsillectomy	Varicose veins, stripping and ligation
Hospital sector							
Public	1.0	0.6	0.6	0.8	0.3	1.0	0.2
Private	1.1	1.4	1.2	1.7	0.8	1.6	0.3
Indigenous status^(c)							
Indigenous	1.3	1.5	1.5	1.5	0.4	1.8	0.2
Other Australians	2.1	2.0	1.7	2.5	1.2	2.6	0.5
Remoteness of residence							
Major cities	2.0	1.9	1.7	2.5	1.2	2.4	0.5
Inner regional	2.2	2.3	1.8	2.5	1.1	3.2	0.5
Outer regional	2.2	2.3	1.5	2.4	0.9	2.7	0.4
Remote	1.7	2.0	1.6	1.6	0.6	2.4	0.3
Very remote	1.5	1.7	1.4	1.7	0.4	1.3	0.2
Socioeconomic status of area of residence							
1—Lowest	2.0	2.1	1.4	2.3	1.0	2.3	0.4
2	2.0	2.1	1.6	2.4	1.0	2.6	0.5
3	2.1	2.1	1.7	2.5	1.1	2.7	0.5
4	2.1	1.9	1.9	2.7	1.3	2.6	0.5
5—Highest	2.1	1.9	2.0	2.8	1.3	2.6	0.5
Total	2.1	2.0	1.7	2.5	1.2	2.6	0.5

(a) The procedures are defined using ACHI codes as detailed in tables accompanying this report online in Appendix B.

(b) For *Hysterectomy*, the rate was calculated for the estimated resident female population aged 15 to 69 years.

(c) Separation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2014, based on the 2011 Census data. As the projected estimates use a highest age group of 65 and over, standardised rates calculated for analyses by Indigenous status are not directly comparable with the rates presented elsewhere.

(d) The specification of *Inguinal herniorrhaphy* differs from the specification for *Repair of inguinal hernia* presented in Table 6.12. *Inguinal herniorrhaphy* includes the procedure *Repair of incarcerated, obstructed or strangulated hernia* in addition to the procedures used to define *Repair of inguinal hernia*.

(e) For *Prostatectomy*, the rate was calculated for the estimated resident male population.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.15: Rates of service: selected hospital procedures^(a) and other selected statistics, all hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Cataract extraction									
Separations	78,700	60,552	54,380	28,507	17,940	n.p.	n.p.	n.p.	252,581
Separations not within state of residence (%) ^(b)	2	2	2	<1	3	<1	22	2	2
Proportion of separations public patients (%)	27	32	18	41	34	22	52	55	29
Separations per 1,000 population	8.7	8.8	10.3	10.8	8.0	12.6	6.3	7.7	9.3
Standardised separation rate ratio	0.9	1.0	1.1	1.2	0.9	1.4	0.7	0.8	
Cholecystectomy									
Separations	17,217	14,122	11,695	5,516	3,988	n.p.	n.p.	n.p.	55,395
Separations not within state of residence (%) ^(b)	2	3	2	1	3	1	25	3	2
Proportion of separations public patients (%)	54	57	52	51	56	50	53	66	54
Separations per 1,000 population	2.2	2.3	2.4	2.1	2.2	2.5	2.6	1.9	2.2
Standardised separation rate ratio	1.0	1.0	1.1	0.9	1.0	1.1	1.2	0.8	
Coronary angioplasty									
Separations	13,756	10,018	7,952	4,319	2,992	n.p.	n.p.	n.p.	41,220
Separations not within state of residence (%) ^(b)	2	4	8	2	9	2	43	9	5
Proportion of separations public patients (%)	45	46	44	50	52	48	47	79	46
Separations per 1,000 population	1.5	1.5	1.5	1.6	1.4	1.2	3.0	1.1	1.5
Standardised separation rate ratio	1.0	1.0	1.0	1.0	0.9	0.8	2.0	0.7	
Coronary artery bypass graft									
Separations	3,986	3,596	2,670	1,122	993	n.p.	n.p.	..	12,794
Separations not within state of residence (%) ^(b)	5	7	8	1	15	<1	45	..	7
Proportion of separations public patients (%)	49	51	51	43	54	67	59	..	50
Separations per 1,000 population	0.4	0.5	0.5	0.4	0.5	0.3	0.6	..	0.5
Standardised separation rate ratio	0.9	1.1	1.1	0.9	1.0	0.6	1.2	..	

(continued)

Table 6.15 (continued): Rates of service: selected hospital procedures^(a) and other selected statistics, all hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Cystoscopy									
Separations	34,428	42,328	30,401	22,281	11,952	n.p.	n.p.	n.p.	147,826
Separations not within state of residence (%) ^(b)	1	2	3	<1	3	<1	28	3	2
Proportion of separations public patients (%)	36	46	38	36	37	35	49	47	40
Separations per 1,000 population	3.9	6.4	5.9	8.3	5.7	5.5	5.8	3.5	5.6
Standardised separation rate ratio	0.7	1.1	1.1	1.5	1.0	1.0	1.0	0.6	
Haemorrhoidectomy									
Separations	22,832	12,334	8,916	3,163	3,270	n.p.	n.p.	n.p.	52,551
Separations not within state of residence (%) ^(b)	1	2	2	<1	2	<1	15	1	2
Proportion of separations public patients (%)	30	40	26	38	21	24	28	46	32
Separations per 1,000 population	2.8	2.0	1.8	1.2	1.7	1.9	1.1	2.2	2.1
Standardised separation rate ratio	1.3	0.9	0.9	0.6	0.8	0.9	0.5	1.1	
Hip replacement									
Separations	13,512	12,126	7,785	4,971	4,171	n.p.	n.p.	n.p.	45,189
Separations not within state of residence (%) ^(b)	2	3	5	1	4	1	34	2	3
Proportion of separations public patients (%)	36	36	36	38	31	25	42	53	36
Separations per 1,000 population	1.5	1.8	1.5	1.8	1.9	2.2	2.4	0.9	1.6
Standardised separation rate ratio	0.9	1.1	0.9	1.1	1.1	1.4	1.5	0.5	
Hysterectomy, females aged 15–69^(c)									
Separations	7,949	6,920	6,499	3,295	2,176	n.p.	n.p.	n.p.	28,216
Separations not within state of residence (%) ^(b)	2	2	3	<1	3	<1	22	1	2
Proportion of separations public patients (%)	41	46	40	32	46	35	38	51	41
Separations per 1,000 population	2.9	3.2	3.8	3.6	3.6	4.4	2.9	2.4	3.3
Standardised separation rate ratio	0.9	1.0	1.2	1.1	1.1	1.3	0.9	0.7	

(continued)

Table 6.15 (continued): Rates of service: selected hospital procedures^(a) and other selected statistics, all hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Inguinal herniorrhaphy^(d)									
Separations	16,552	12,932	10,984	5,753	3,532	n.p.	n.p.	n.p.	52,567
Separations not within state of residence (%) ^(b)	2	2	3	<1	3	<1	21	2	2
Proportion of separations public patients (%)	42	43	39	40	40	35	34	48	41
Separations per 1,000 population	2.0	2.0	2.2	2.2	1.8	2.5	2.4	1.7	2.1
Standardised separation rate ratio	1.0	1.0	1.1	1.0	0.9	1.2	1.2	0.8	
Knee replacement									
Separations	18,087	11,929	11,596	6,417	4,966	n.p.	n.p.	n.p.	55,835
Separations not within state of residence (%) ^(b)	1	3	5	<1	5	<1	29	2	3
Proportion of separations public patients (%)	34	31	29	29	22	19	30	34	30
Separations per 1,000 population	2.0	1.7	2.1	2.3	2.2	2.1	2.9	0.9	2.0
Standardised separation rate ratio	1.0	0.9	1.1	1.2	1.1	1.1	1.4	0.4	
Myringotomy (with insertion of tube)									
Separations	12,002	9,524	7,319	4,919	3,825	n.p.	n.p.	n.p.	39,682
Separations not within state of residence (%) ^(b)	1	2	4	<1	4	<1	23	0	3
Proportion of separations public patients (%)	26	33	30	30	33	32	25	51	30
Separations per 1,000 population	1.6	1.7	1.5	1.9	2.5	1.5	2.9	1.0	1.7
Standardised separation rate ratio	0.9	1.0	0.9	1.1	1.4	0.9	1.7	0.6	
Prostatectomy^(e)									
Separations	10,428	9,494	6,922	2,918	2,206	n.p.	n.p.	n.p.	33,449
Separations not within state of residence (%) ^(b)	2	3	5	<1	3	<1	32	2	3
Proportion of separations public patients (%)	29	31	29	27	28	24	30	37	29
Separations per 1,000 population	2.4	2.9	2.6	2.2	2.1	2.6	2.6	1.2	2.5
Standardised separation rate ratio	0.9	1.2	1.0	0.9	0.8	1.0	1.0	0.5	

(continued)

Table 6.15 (continued): Rates of service: selected hospital procedures^(a) and other selected statistics, all hospitals, states and territories, 2015–16

Procedure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Septoplasty									
Separations	8,140	8,435	4,813	2,530	2,490	n.p.	n.p.	n.p.	27,316
Separations not within state of residence (%) ^(b)	2	2	5	<1	5	1	24	0	3
Proportion of separations public patients (%)	25	35	23	19	29	30	38	24	28
Separations per 1,000 population	1.1	1.4	1.0	1.0	1.5	0.7	1.1	0.5	1.2
Standardised separation rate ratio	0.9	1.2	0.9	0.8	1.3	0.6	0.9	0.5	
Tonsillectomy									
Separations	17,673	14,483	11,669	6,707	3,943	n.p.	n.p.	n.p.	57,673
Separations not within state of residence (%) ^(b)	1	3	4	<1	4	<1	26	1	3
Proportion of separations public patients (%)	35	47	33	28	35	38	35	48	37
Separations per 1,000 population	2.5	2.6	2.5	2.7	2.6	2.7	4.2	1.3	2.6
Standardised separation rate ratio	1.0	1.0	1.0	1.0	1.0	1.1	1.6	0.5	
Varicose veins stripping and ligation									
Separations	3,493	4,457	1,466	1,400	742	n.p.	n.p.	n.p.	12,103
Separations not within state of residence (%) ^(b)	2	2	2	<1	2	0	27	3	2
Proportion of separations public patients (%)	35	43	27	23	36	21	41	27	36
Separations per 1,000 population	0.4	0.7	0.3	0.5	0.4	0.2	0.9	0.3	0.5
Standardised separation rate ratio	0.9	1.5	0.6	1.1	0.9	0.5	1.8	0.5	

(a) The procedures are defined using ACHI codes as detailed in tables accompanying this report online in Appendix B.

(b) The proportion of separations for patients admitted for the procedure who did not usually reside in the same state/territory as the hospital. For example, 25% of separations for *Septoplasty* in the Australian Capital Territory did not live in the Australian Capital Territory. Therefore, the rate of *Septoplasty* separations per 1,000 population for the Australian Capital Territory is an overestimate.

(c) For *Hysterectomy*, the rate was calculated for the estimated resident female population aged 15–69.

(d) The specification of *Inguinal herniorrhaphy* differs from the specification for *Repair of inguinal hernia* presented in Table 6.12. *Inguinal herniorrhaphy* includes the procedure *Repair of incarcerated, obstructed or strangulated hernia* in addition to the procedures used to define *Repair of inguinal hernia*.

(e) For *Prostatectomy*, the rate was calculated for the estimated resident male population.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

6.4 Emergency surgery

This section presents an overview of care provided for emergency admissions involving surgery in both public and private hospitals, over time and for 2015–16. It includes information about who used these services (and whether this is the same for elective surgery), why they received care, who paid for the care and how the episode ended.

Emergency admissions involving surgery are identified as acute care separations with a 'surgical AR-DRG' in AR-DRG version 7.0 (NCCC 2012), and for which the urgency of admission was reported as *Emergency* – indicating that the patient required admission within 24 hours.

Emergency admissions involving surgery do not include separations for which the urgency of admission was not reported as *Emergency* but where the surgery was performed as an emergency (for example, the patient was admitted for childbirth and subsequently had an emergency caesarean section).

For the first time, counts of surgical separations for childbirth separations and subacute and non-acute separations are included in counts of emergency admissions involving surgery. Therefore, these data are not comparable with data in earlier reports.

Changes over time

Between 2011–12 and 2015–16, the number of emergency admissions involving surgery increased by an average of 2.5% per year, for both public and private hospitals (Table 6.16).

It increased for public hospitals in most states and territories. Public hospitals accounted for the majority (87%) of emergency admissions involving surgery. The number of emergency admissions involving surgery in private hospitals also rose in most states and territories.

For public hospitals, Queensland had the highest increase in emergency admissions involving surgery (4.4%) between 2011–12 and 2015–16, while Western Australia recorded the highest increase between 2014–15 and 2015–16 (8.4%).

For private hospitals (among jurisdictions whose private hospital data could be reported), Victoria had the highest increase in emergency admissions involving surgery (4.8%) between 2011–12 and 2015–16. New South Wales reported the greatest rise between 2014–15 and 2015–16 (12.7%).

How much activity was there in 2015–16?

In 2015–16, there were about 331,000 emergency admissions involving surgery in Australian hospitals (Table 6.17).

Nationally, there were 13 emergency admissions involving surgery per 1,000 population. The rate varied among states and territories, ranging from 12 per 1,000 in New South Wales to 16 per 1,000 in South Australia.

The Northern Territory had the highest rate of emergency admissions involving surgery in public hospitals (22 per 1,000 population).

For private hospitals, the rates of emergency admissions involving surgery ranged from less than 1 per 1,000 in New South Wales to 4 per 1,000 in South Australia (for jurisdictions whose private hospital data could be reported).

Table 6.16: Emergency admissions involving surgery^(a), public and private hospitals, states and territories, 2011–12 to 2015–16^(b)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales							
Public hospitals	86,198	87,179	88,698	90,254	92,808	1.9	2.8
Private hospitals	4,304	4,203	3,780	3,558	4,009	-1.8	12.7
<i>All hospitals</i>	<i>90,502</i>	<i>91,382</i>	<i>92,478</i>	<i>93,812</i>	<i>96,817</i>	<i>1.7</i>	<i>3.2</i>
Victoria							
Public hospitals	62,554	61,843	63,202	66,879	68,262	2.2	2.1
Private hospitals	9,989	10,580	10,633	11,692	12,045	4.8	3.0
<i>All hospitals</i>	<i>72,543</i>	<i>72,423</i>	<i>73,835</i>	<i>78,571</i>	<i>80,307</i>	<i>2.6</i>	<i>2.2</i>
Queensland							
Public hospitals	44,131	47,275	49,063	50,653	52,205	4.3	3.1
Private hospitals	11,242	11,344	11,547	13,354	13,416	4.5	0.5
<i>All hospitals</i>	<i>55,373</i>	<i>58,619</i>	<i>60,610</i>	<i>64,007</i>	<i>65,621</i>	<i>4.3</i>	<i>2.5</i>
Western Australia							
Public hospitals	29,940	30,710	31,123	30,976	33,577	2.9	8.4
Private hospitals	5,570	5,571	5,351	4,907	5,217	-1.6	6.3
<i>All hospitals</i>	<i>35,510</i>	<i>36,281</i>	<i>36,474</i>	<i>35,883</i>	<i>38,794</i>	<i>2.2</i>	<i>8.1</i>
South Australia							
Public hospitals	20,941	21,241	21,003	21,646	22,787	2.1	5.3
Private hospitals	7,359	7,241	7,318	7,553	7,634	0.9	1.1
<i>All hospitals</i>	<i>28,300</i>	<i>28,482</i>	<i>28,321</i>	<i>29,199</i>	<i>30,421</i>	<i>1.8</i>	<i>4.2</i>
Tasmania							
Public hospitals	5,941	5,875	6,301	6,556	6,491	2.2	-1.0
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	7,402	7,379	6,710	6,809	7,279	-0.4	6.9
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory^(c)							
Public hospitals	4,637	4,444	4,854	4,830	4,980	1.8	3.1
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total							
Public hospitals	261,744	265,946	270,954	278,603	288,389	2.5	3.5
Private hospitals	39,003	39,554	39,531	41,878	43,010	2.5	2.7
All hospitals	300,747	305,500	310,485	320,481	331,399	2.5	3.4

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC.

(b) Counts of surgical separations for childbirth separations and subacute and non-acute separations are included in all years. These data are not comparable with data in earlier reports, which excluded surgical separations for childbirth separations and subacute and non-acute separations.

(c) For 2012–13, urgency of admission was missing for all records from private hospitals in the Northern Territory. All Northern Territory private hospital separations involving surgery were categorised as elective admissions. Therefore, the counts of emergency admissions involving surgery are likely to be underestimated.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.17: Emergency admissions involving surgery^(a) per 1,000 population, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(b)
Public hospitals									
Separations	92,808	68,262	52,205	33,577	22,787	6,491	7,279	4,980	288,389
Separations per 1,000 population	11.6	11.0	10.7	12.8	12.5	11.9	18.6	21.5	11.7
Private hospitals									
Separations	4,009	12,045	13,416	5,217	7,634	n.p.	n.p.	n.p.	43,010
Separations per 1,000 population	0.5	1.8	2.7	2.0	3.6	n.p.	n.p.	n.p.	1.6
All hospitals									
Separations	96,817	80,307	65,621	38,794	30,421	n.p.	n.p.	n.p.	331,399
Separations per 1,000 population	12.1	12.8	13.4	14.8	16.2	n.p.	n.p.	n.p.	13.3

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC.

(b) The total includes private hospital data for Tasmania, the Australian Capital Territory and the Northern Territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

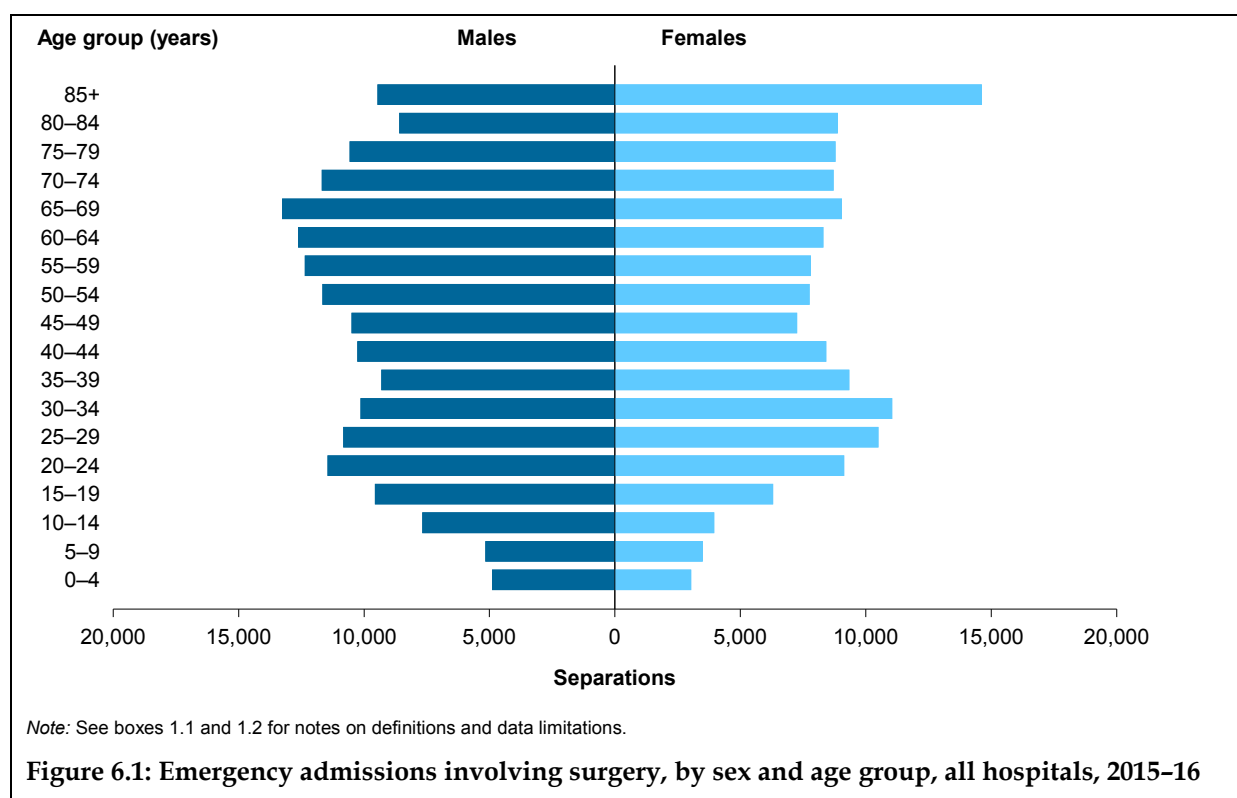
Who used these services?

This section presents information by the patient's sex, age group, Indigenous status and for the remoteness and SES of the patient's area of usual residence.

Sex and age group

Males accounted for more than half (55%) of emergency admissions involving surgery (Figure 6.1). There were more emergency admissions involving surgery for males than females in almost all age groups except for those aged 30–39 and 80 and over. People aged 15–29 accounted for about 18% of all emergency admissions involving surgery.

Boys aged 10–14 were almost twice as likely to be admitted as an emergency admissions as girls in that age group.



Aboriginal and Torres Strait Islander people

Separations for Aboriginal and Torres Strait Islander people are likely to be under-counted. The quality of the data provided for Indigenous status in 2015–16 for admitted patient care varied by jurisdiction. See 'Chapter 3 Who used these services?' and Appendix A for more information on the quality of Indigenous data in the NHMD.

In 2015–16, there were about 16,000 emergency admissions involving surgery for Indigenous Australians. The rate of emergency admissions involving surgery for Indigenous Australians was almost twice the rate for other Australians (26 per 1,000 and 13 per 1,000 population, respectively) (Table 6.18).

Remoteness area

In 2015–16, the separation rate for emergency admissions involving surgery was highest for those living in *Very remote* areas (23 per 1,000) and fell with decreasing remoteness to 13 per 1,000 in *Major cities* (Table 6.18).

Socioeconomic status

The separation rate for emergency admissions involving surgery was highest for those living in areas in the lowest SES group (15 per 1,000) and dropped with decreasing disadvantage (Table 6.18).

Table 6.18: Emergency admissions involving surgery per 1,000 population, by Indigenous status, remoteness and socioeconomic status of area of usual residence, public and private hospitals, 2015–16

	Separations per 1,000 population			Separations
	Public hospitals	Private hospitals	Total	
Indigenous status				
Indigenous	25.2	0.3	25.5	15,561
Other Australians	11.3	1.7	13.0	315,838
Remoteness area of residence				
Major cities	10.8	1.8	12.6	220,589
Inner regional	12.7	1.5	14.3	64,769
Outer regional	13.7	1.0	14.7	31,735
Remote	16.8	0.9	17.7	5,662
Very remote	22.1	0.6	22.6	4,429
Socioeconomic status of area of residence				
1—Lowest	14.0	0.8	14.8	73,712
2	12.6	1.2	13.8	69,597
3	11.7	1.8	13.5	66,696
4	10.5	2.1	12.6	61,340
5—Highest	9.1	2.3	11.4	55,755
Total	11.7	1.6	13.3	331,399

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How did people access these services?

Most emergency admissions involving surgery were a *New admission to hospital* (88%), which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 6.19). About 12% of emergency admissions involving surgery were transferred from another hospital.

Why did people receive the care?

The reason that a patient receives surgical care can be described in terms of the principal diagnosis. This section presents information for all principal diagnoses at the ICD-10-AM chapter level, and for the 20 most common principal diagnoses (at the more detailed 3-character level).

In 2015–16, about 37% of emergency admissions involving surgery had principal diagnoses in the ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes* (Table 6.20). *Diseases of the digestive system* accounted for 22%, and *Diseases of the circulatory system* for a further 12%.

Table 6.19: Emergency admissions involving surgery, by mode of admission, public and private hospitals, 2015–16

	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	256,128	36,127	292,255
Admitted patient transferred from another hospital	31,939	6,874	38,813
Other/not reported	322	9	331
Total	288,389	43,010	331,399

(a) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.20: Emergency admissions involving surgery, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2015–16

Principal diagnosis	Public hospitals	Private hospitals	Total
A00–B99 Certain infectious and parasitic diseases	2,852	293	3,145
C00–D48 Neoplasms	10,215	2,954	13,169
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	409	76	485
E00–E89 Endocrine, nutritional and metabolic diseases	3,703	331	4,034
F00–F99 Mental and behavioural disorders	133	16	149
G00–G99 Diseases of the nervous system	1,675	366	2,041
H00–H59 Diseases of the eye and adnexa	3,067	1,548	4,615
H60–H95 Diseases of the ear and mastoid process	367	87	454
I00–I99 Diseases of the circulatory system	32,413	6,248	38,661
J00–J99 Diseases of the respiratory system	5,097	700	5,797
K00–K93 Diseases of the digestive system	64,620	9,679	74,299
L00–L99 Diseases of the skin and subcutaneous tissue	8,313	1,064	9,377
M00–M99 Diseases of the musculoskeletal system and connective tissue	8,670	2,667	11,337
N00–N99 Diseases of the genitourinary system	12,322	2,792	15,114
O00–O99 Pregnancy, childbirth and the puerperium	17,134	832	17,966
P00–P96 Certain conditions originating in the perinatal period	343	6	349
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	1,343	70	1,413
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4,059	1,082	5,141
S00–T98 Injury, poisoning and certain other consequences of external causes	110,838	12,007	122,845
Z00–Z99 Factors influencing health status and contact with health services	816	192	1,008
Total	288,389	43,010	331,399

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

The 20 most common principal diagnoses for emergency admissions involving surgery accounted for more than half of the principal diagnoses reported (Table 6.21). The most common principal diagnosis for emergency admissions was *Acute appendicitis*, with 89% of those separations occurring in public hospitals.

Table 6.21: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for emergency admissions involving surgery, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
K35	Acute appendicitis	26,400	3,383	29,783
S72	Fracture of femur	18,230	2,559	20,789
I21	Acute myocardial infarction	14,026	2,026	16,052
S82	Fracture of lower leg, including ankle	11,435	1,342	12,777
K80	Cholelithiasis	9,976	1,889	11,865
S52	Fracture of forearm	9,131	1,215	10,346
S61	Open wound of wrist and hand	6,959	733	7,692
S62	Fracture at wrist and hand level	6,705	572	7,277
T81	Complications of procedures, not elsewhere classified	5,365	985	6,350
K61	Abscess of anal and rectal regions	5,770	520	6,290
S42	Fracture of shoulder and upper arm	5,132	603	5,735
K56	Paralytic ileus and intestinal obstruction without hernia	4,001	680	4,681
S66	Injury of muscle and tendon at wrist and hand level	4,118	288	4,406
L02	Cutaneous abscess, furuncle and carbuncle	4,081	218	4,299
O02	Other abnormal products of conception	3,763	132	3,895
O82	Single delivery by caesarean section	3,532	161	3,693
O03	Spontaneous abortion	3,471	197	3,668
S01	Open wound of head	3,124	218	3,342
S81	Open wound of lower leg	2,974	345	3,319
E11	Type 2 diabetes mellitus	3,022	232	3,254
	Other	137,174	24,712	161,886
Total		288,389	43,010	331,399

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

What care was provided?

This section presents information on emergency admissions involving surgery describing care using:

- MDCs and AR-DRGs—based on the AR-DRG classification of acute care separations
- type of surgical procedure undertaken.

MDCs and AR-DRGs

The most common MDC for emergency admissions involving surgery was *Diseases and disorders of the musculoskeletal system and connective tissue*, at 25% (Table 6.22). However, the majority of separations involving surgery (both emergency and elective) for this category were elective admissions (84%) (Table 6.35). In contrast, 59% of separations involving surgery for *Injuries, poisoning and toxic effects of drugs* were emergency admissions.

Table 6.22: Emergency admissions involving surgery, by Major Diagnostic Category^(a), AR-DRG version 7.0, public and private hospitals, 2015–16

Major Diagnostic Category		Public hospitals	Private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	7,740	339	8,079
01	Diseases and disorders of the nervous system	10,124	1,031	11,155
02	Diseases and disorders of the eye	4,441	1,611	6,052
03	Diseases and disorders of the ear, nose, mouth and throat	6,825	636	7,461
04	Diseases and disorders of the respiratory system	2,873	513	3,386
05	Diseases and disorders of the circulatory system	30,062	6,442	36,504
06	Diseases and disorders of the digestive system	54,225	7,720	61,945
07	Diseases and disorders of the hepatobiliary system and pancreas	14,323	2,647	16,970
08	Diseases and disorders of the musculoskeletal system and connective tissue	73,621	10,604	84,225
09	Diseases and disorders of the skin, subcutaneous tissue and breast	9,705	2,465	12,170
10	Endocrine, nutritional and metabolic diseases and disorders	2,776	251	3,027
11	Diseases and disorders of the kidney and urinary tract	5,196	2,259	7,455
12	Diseases and disorders of the male reproductive system	3,220	422	3,642
13	Diseases and disorders of the female reproductive system	6,596	828	7,424
14	Pregnancy, childbirth and puerperium	17,115	833	17,948
15	Newborns and other neonates	947	12	959
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	792	98	890
17	Neoplastic disorders (haematological and solid neoplasms)	1,354	227	1,581
18	Infectious and parasitic diseases	4,470	697	5,167
21	Injuries, poisoning and toxic effects of drugs	27,024	2,672	29,696
22	Burns	2,246	13	2,259
23	Factors influencing health status and other contacts with health services	215	46	261
ED	Error DRGs ^(b)	2,499	644	3,143
Total		288,389	43,010	331,399

ECMO—extracorporeal membrane oxygenation.

(a) The MDCs *Mental diseases and disorders* and *Alcohol/drug use and alcohol/drug induced organic mental disorders* are not listed as there were no separations involving surgery for these MDCs.

(b) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

In 2015–16, the 20 most common AR-DRGs accounted for almost half of the AR-DRGs reported for emergency admissions involving surgery (Table 6.23). About 6% of emergency admissions involving surgery had an AR-DRG of *Appendicectomy without malignancy or peritonitis without catastrophic or severe complications or comorbidities*. Of the 20 most common AR-DRGs, *Implantation or replacement of pacemaker, total system without catastrophic complications or comorbidities* had the highest proportion of emergency admissions involving surgery in private hospitals (32%).

Table 6.23: The 20 most common AR-DRGs version 7.0 reported for emergency admissions involving surgery, public and private hospitals, 2015–16

AR-DRG	Public hospitals	Private hospitals	Total
G07B Appendectomy without malignancy or peritonitis without CSCC	17,794	2,516	20,310
I30Z Hand procedures	11,245	1,117	12,362
F10B Interventional coronary procedures admitted for AMI without catastrophic CC	9,720	1,539	11,259
G07A Appendectomy with malignancy or peritonitis or without CSCC	8,948	787	9,735
H08B Laparoscopic cholecystectomy without closed CDE without CSCC	7,070	1,620	8,690
O05Z Abortion with OR procedures	8,160	364	8,524
I13B Humerus, tibia, fibula and ankle procedures without CC, age >=17	7,311	1,137	8,448
I19B Other elbow and forearm procedures without CC	7,344	1,054	8,398
X06B Other procedures for other injuries without CSCC	7,644	711	8,355
I08B Other hip and femur procedures without catastrophic CC	6,865	1,133	7,998
G11Z Anal and stomal procedures	6,495	772	7,267
I08A Other hip and femur procedures with catastrophic CC	5,791	546	6,337
X05B Other procedures for injuries to hand without CC	5,235	648	5,883
H08A Laparoscopic cholecystectomy with closed CDE or with CSCC	4,515	668	5,183
G02A Major small and large bowel procedures with catastrophic CC	4,512	645	5,157
F12B Implantation or replacement of pacemaker, total system without catastrophic CC	2,802	1,307	4,109
X06A Other procedures for other injuries with CSCC	3,631	337	3,968
I03B Hip replacement without catastrophic CC	2,950	687	3,637
I13A Humerus, tibia, fibula and ankle procedures with CC	3,313	301	3,614
G04C Peritoneal adhesiolysis without CC	2,951	642	3,593
Other	154,093	24,479	178,572
Total	288,389	43,010	331,399

AMI—acute myocardial infarction; CC—complications or comorbidities; CDE—Common bile duct exploration; CSCC—catastrophic or severe complications or comorbidities; OR—operating room.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Procedures

This section presents information for all procedures at the ACHI chapter-level. For the 20 most common procedures, information is also presented at the more detailed procedure block level.

In 2015–16, more than 415,000 surgical procedures were reported for emergency admissions involving surgery.

Almost one-third (31%) of all surgical procedures reported for emergency admissions involving surgery were in the ACHI chapter *Procedures on musculoskeletal system* (Table 6.24), with 87% of these occurring in public hospitals.

Table 6.24: Procedures^{(a)(b)} reported for emergency admissions involving surgery by ACHI chapter, public and private hospitals, 2015–16

Procedure	Public hospitals	Private hospitals	Total
1–86 Procedures on nervous system	13,713	2,758	16,471
110–129 Procedures on endocrine system	221	34	255
160–256 Procedures on eye and adnexa	5,968	1,667	7,635
300–333 Procedures on ear and mastoid process	400	78	478
370–422 Procedures on nose, mouth and pharynx	4,081	628	4,709
450–490 Dental services	67	36	103
520–571 Procedures on respiratory system	12,618	1,084	13,702
600–777 Procedures on cardiovascular system	46,820	10,707	57,527
800–817 Procedures on blood and blood-forming organs	2,214	305	2,519
850–1011 Procedures on digestive system	79,443	12,371	91,814
1040–1129 Procedures on urinary system	6,991	2,394	9,385
1160–1203 Procedures on male genital organs	4,272	717	4,989
1240–1299 Gynaecological procedures	18,408	1,535	19,943
1330–1347 Obstetric procedures	3,224	206	3,430
1360–1580 Procedures on musculoskeletal system	113,389	17,438	130,827
1600–1718 Dermatological and plastic procedures	41,201	5,167	46,368
1740–1759 Procedures on breast	327	193	520
1786–1800 Radiation oncology procedures	22	4	26
1820–1922 Non-invasive, cognitive and other interventions, n.e.c.	4,429	278	4,707
1940–2016 Imaging services	5	0	5
Total surgical procedures	357,813	57,600	415,413

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as *Surgical*.

(b) Only 1 procedure is counted for the chapter if a separation has more than 1 procedure reported within the chapter.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

In 2015–16, *Appendicectomy* was the most common surgical procedure (at the procedure block level) for emergency admissions involving surgery (Table 6.25). About 89% of emergency admissions for *Appendicectomy* procedures were performed in public hospitals. *Insertion of cardiac pacemaker generator* was the surgical procedure with the highest proportion of emergency admissions in private hospitals (28%).

Table 6.25: Procedures^(a) reported for the 20 most common ACHI procedure blocks for emergency admissions involving surgery, public and private hospitals, 2015–16

Procedure block		Public hospitals	Private hospitals	Total
926	Appendicectomy	27,528	3,363	30,891
671	Transluminal coronary angioplasty with stenting	13,876	2,852	16,728
1566	Excision procedures on other musculoskeletal sites	14,472	2,203	16,675
1628	Other debridement of skin and subcutaneous tissue	15,169	716	15,885
965	Cholecystectomy	12,195	2,341	14,536
1479	Fixation of fracture of pelvis or femur	10,071	1,360	11,431
1265	Curettage and evacuation of uterus	8,531	411	8,942
1489	Arthroplasty of hip	6,451	1,110	7,561
1539	Open reduction of fracture of ankle or toe	6,413	840	7,253
986	Division of abdominal adhesions	5,744	1,106	6,850
569	Ventilatory support	6,531	258	6,789
1429	Open reduction of fracture of radius	5,666	873	6,539
930	Incision procedures on rectum or anus	5,905	545	6,450
650	Insertion of cardiac pacemaker generator	3,968	1,534	5,502
1466	Repair of tendon of hand	4,034	340	4,374
1636	Repair of nail	4,000	214	4,214
913	Colectomy	2,732	564	3,296
1256	Procedures for management of ectopic pregnancy	3,048	136	3,184
1486	Reduction of fracture of pelvis or femur	2,540	240	2,780
1533	Amputation of ankle or foot	2,566	208	2,774
	Other	196,373	36,386	232,759
Total surgical procedures		357,813	57,600	415,413

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as *Surgical*.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Length of stay

The length of stay for emergency admissions involving surgery was similar for both public and private hospitals. For overnight separations, the ALOS for emergency admissions involving surgery was about 7 days (Table 6.26).

Table 6.26: Patient days and average length of stay for emergency admissions involving surgery, public and private hospitals, 2015–16

	Public hospitals		Private hospitals		Total	
	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay
Same-day	25,610	1.0	5,201	1.0	30,811	1.0
Overnight	1,932,860	7.4	292,640	7.7	2,225,500	7.4
Total	1,958,470	6.8	297,841	6.9	2,256,311	6.8

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Who paid for the care?

About three-quarters (75%) of emergency admissions involving surgery in public hospitals were for *Public patients*, and about 18% were for patients who used *Private health insurance* to fund all or part of their admission (Table 6.27).

For private hospitals, about 84% of emergency admissions involving surgery were *Private health insurance* patients and the *Department of Veterans' Affairs* funded about 6%.

Table 6.27: Emergency admissions involving surgery, by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private hospitals	Total
Public patients ^(a)	216,620	2,091	218,711
Private health insurance	52,081	36,295	88,376
Self-funded	2,474	697	3,171
Workers compensation	6,274	1,159	7,433
Motor vehicle third party personal claim	4,755	82	4,837
Department of Veterans Affairs	3,452	2,499	5,951
Other ^(b)	2,733	187	2,920
Total	288,389	43,010	331,399

(a) *Public patients* includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) *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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

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 84% of emergency admissions involving surgery had a mode of separation of *Discharged home* (Table 6.28). A relatively high proportion were *Discharged/transferred to an (other) acute hospital* for both public and private hospitals (9% and 8% respectively).

Where to go for more information:

More information about emergency admissions involving surgery is in 'Chapter 5 What services were provided?' in Section 5.1 – 'Broad categories of service'.

Information on data limitations and methods is available in appendixes A and B.

Table 6.28: Emergency admissions involving surgery, by mode of separation, public and private hospitals, 2015–16

Mode of separation	Public hospitals	Private hospitals	Total
Discharged home ^(a)	240,648	37,177	277,825
Discharge/transfer to an (other) acute hospital	25,265	3,411	28,676
Discharge/transfer to residential aged care service ^(b)	3,052	351	3,403
Discharge/transfer to an (other) psychiatric hospital	64	1	65
Discharge/transfer to other health care accommodation ^(c)	1,110	147	1,257
Statistical discharge: type change	10,404	1,332	11,736
Left against medical advice/discharge at own risk	3,018	36	3,054
Statistical discharge from leave	59	1	60
Died	4,719	554	5,273
Not reported	50	0	50
Total	288,389	43,010	331,399

(a) *Discharged home* is equivalent to *Discharge to usual residence/own accommodation/welfare institution* (including prisons, hostels and group homes providing primarily welfare services) in the mode of separation definition.

(b) Unless this is the usual place of residence.

(c) Includes mothercraft hospitals, except in jurisdictions where mothercraft facilities are considered acute.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

6.5 Elective surgery

This section presents an overview of care provided for elective admissions involving surgery in both public and private hospitals, over time and for 2015–16. It includes information about who used these services (and whether access was the same for all), why they received care, who paid for the care and how the episode ended.

Elective admissions involving surgery are identified as separations with a ‘surgical AR-DRG’ in AR-DRG version 7.0 (NCCC 2012), and for which the urgency of admission was reported as *Elective* – indicating that admission could be delayed beyond 24 hours. They do not include separations where the urgency of admission was *Not assigned* or was not reported.

For the first time, surgical separations for childbirth separations and subacute and non-acute separations are included in elective admissions involving surgery. Therefore, these data are not comparable with data in earlier reports.

The elective admissions involving surgery using admitted patient care data from the NHMD are not necessarily the same as elective surgery as defined for the National Elective Surgery Waiting Times Data Collection (NESWTDC). This is due to several factors including:

- the data in the NESWTDC relate to patients who were admitted from public hospital waiting lists, whereas the elective admissions involving surgery sourced from the NHMD include patients who were not placed on a waiting list, including in private hospitals
- surgical AR-DRGs and the NESWTDC are defined using a different list of procedures. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* (defined as a surgical procedure for the NESWTDC) were assigned to various non-surgical AR-DRGs including *L41Z–Cystourethroscopy for urinary disorder, same-day* (41%) and *Z40Z–Other contacts with health services with endoscopy, same-day* (17%).
- the data in the NESWTDC can include separations for which the urgency of admission was *Emergency*. See Section 6.4 for emergency admissions involving surgery.

For information on elective surgery and waiting times for elective surgery for patients admitted from public hospital elective surgery waiting lists, see *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

Changes over time

Between 2011–12 and 2015–16, the number of elective admissions involving surgery rose by an average of 2.2% per year (Table 6.29). The average annual rise in elective admissions involving surgery was higher in private hospitals than in public hospitals (2.5% and 1.7% per year, respectively).

States and territories

Between 2011–12 and 2015–16, the number of elective admissions involving surgery for public hospitals increased in most states and territories, except South Australia (Table 6.28).

In private hospitals, Western Australia had the highest average annual rise in elective admissions involving surgery (3.9%) (for jurisdictions whose private hospital data could be reported). Over this period, private hospitals accounted for the majority (about 67%) of elective admissions involving surgery.

Between 2014–15 and 2015–16, Tasmania had the largest increase in elective admissions involving surgery for public hospitals (22%).

Table 6.29: Elective admissions involving surgery^(a), public and private hospitals, states and territories, 2011–12 to 2015–16^(b)

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
New South Wales							
Public hospitals	195,985	199,190	198,207	203,573	205,515	1.2	1.0
Private hospitals	409,834	417,008	407,777	428,624	440,626	1.8	2.8
<i>All hospitals</i>	<i>605,819</i>	<i>616,198</i>	<i>605,984</i>	<i>632,197</i>	<i>646,141</i>	<i>1.6</i>	<i>2.2</i>
Victoria							
Public hospitals	200,559	200,271	213,891	216,213	217,203	2.0	0.5
Private hospitals	331,433	337,769	344,271	353,725	356,269	1.8	0.7
<i>All hospitals</i>	<i>531,992</i>	<i>538,040</i>	<i>558,162</i>	<i>569,938</i>	<i>573,472</i>	<i>1.9</i>	<i>0.6</i>
Queensland							
Public hospitals	120,670	119,320	121,213	127,330	134,021	2.7	5.3
Private hospitals	294,108	301,573	312,160	324,854	328,509	2.8	1.1
<i>All hospitals</i>	<i>414,778</i>	<i>420,893</i>	<i>433,373</i>	<i>452,184</i>	<i>462,530</i>	<i>2.8</i>	<i>2.3</i>
Western Australia							
Public hospitals	71,271	73,896	75,895	73,338	78,593	2.5	7.2
Private hospitals	153,375	158,156	168,234	173,364	178,921	3.9	3.2
<i>All hospitals</i>	<i>224,646</i>	<i>232,052</i>	<i>244,129</i>	<i>246,702</i>	<i>257,514</i>	<i>3.5</i>	<i>4.4</i>
South Australia							
Public hospitals	66,803	65,613	64,450	64,018	60,700	-2.4	-5.2
Private hospitals	103,014	106,917	109,663	110,186	113,026	2.3	2.6
<i>All hospitals</i>	<i>169,817</i>	<i>172,530</i>	<i>174,113</i>	<i>174,204</i>	<i>173,726</i>	<i>0.6</i>	<i>-0.3</i>
Tasmania							
Public hospitals	14,151	14,214	14,245	14,826	18,022	6.2	21.6
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	10,447	10,572	11,537	11,744	12,692	5.0	8.1
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory^(c)							
Public hospitals	6,070	6,715	6,464	6,469	6,588	2.1	1.8
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total							
Public hospitals	685,956	689,791	705,902	717,511	733,334	1.7	2.2
Private hospitals	1,342,920	1,379,727	1,401,605	1,453,556	1,482,819	2.5	2.0
All hospitals	2,028,876	2,069,518	2,107,507	2,171,067	2,216,153	2.2	2.1

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) Surgical separations for childbirth separations and subacute and non-acute separations are included in all years. These data are not comparable with data in earlier reports, which excluded surgical separations for childbirth and subacute and non-acute care.

(c) For 2012–13, urgency of admission was missing for all records for private hospitals in the Northern Territory. All Northern Territory private hospital separations involving surgery were categorised as elective admissions. Therefore, the counts of elective admissions involving surgery are likely to be overestimated.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How much activity was there in 2015–16?

In 2015–16, there were more than 2.2 million elective admissions involving surgery in Australia’s public and private hospitals (Table 6.30).

Nationally, there were 88 elective admissions involving surgery per 1,000 population. Separation rates varied among states and territories, for private hospitals they ranged from 79 per 1,000 in New South Wales to 97 per 1,000 in Western Australia (for jurisdictions whose private hospital data could be reported). For public hospitals, rates ranged from 25 per 1,000 in New South Wales to 35 per 1,000 in Victoria.

Public hospitals provided about 29 elective admissions involving surgery per 1,000 population and private hospitals provided about 58 per 1,000.

Who used these services?

This section presents information by the patient’s sex, age group, Indigenous status and for the remoteness and SES of the patient’s area of usual residence.

Sex and age group

Females accounted for more than half (56%) of elective admissions involving surgery (Figure 6.2). There were more elective admissions involving surgery for females than males in the age groups from 15–64 and 85 and over. In particular, for the age groups from 30–39, females were 2.5 times as likely as their male counterparts to have had an elective admission involving surgery.

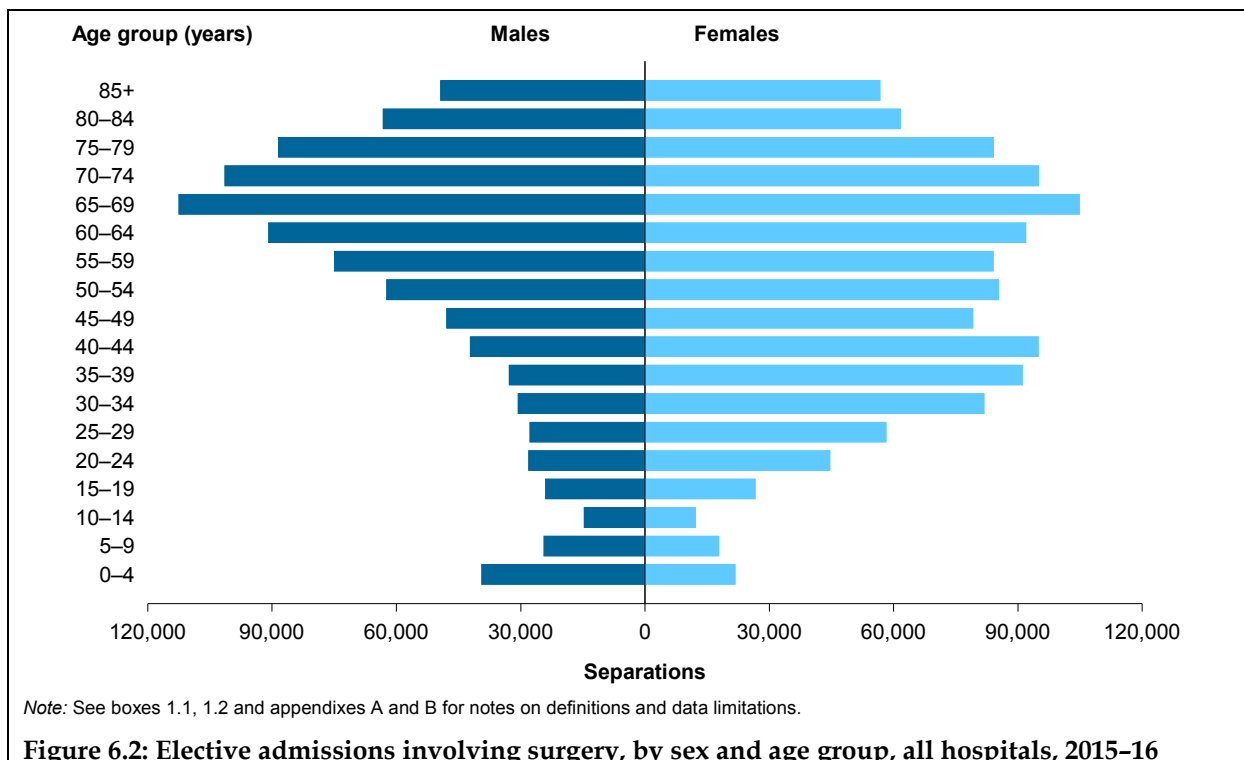


Table 6.30: Elective admissions involving surgery^(a) per 1,000 population, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(b)
Public hospitals									
Separations	205,515	217,203	134,021	78,593	60,700	18,022	12,692	6,588	733,334
Separations per 1,000 population	25.3	34.9	27.1	29.9	32.9	32.1	32.9	30.6	29.4
Private hospitals									
Separations	440,626	356,269	328,509	178,921	113,026	n.p.	n.p.	n.p.	1,482,819
Separations per 1,000 population	53.5	56.2	65.6	67.4	58.4	n.p.	n.p.	n.p.	58.4
All hospitals									
Separations	646,141	573,472	462,530	257,514	173,726	n.p.	n.p.	n.p.	2,216,153
Separations per 1,000 population	78.8	91.1	92.8	97.3	91.3	n.p.	n.p.	n.p.	87.8

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) The total includes private hospital data for Tasmania, Australian Capital Territory and Northern Territory.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Aboriginal and Torres Strait Islander people

Separations for Aboriginal and Torres Strait Islander people are likely to be under-counted. The quality of the data provided for Indigenous status in 2015–16 for admitted patient care varied by jurisdiction. See ‘Chapter 3 Who used these services?’ and Appendix A for more information on the quality of Indigenous data in the NHMD.

The separation rate for elective admissions involving surgery for other Australians (88 per 1,000) was about 1.5 times the rate for Indigenous Australians (60 per 1,000) (Table 6.31).

Remoteness area

In 2015–16, the rate of elective admissions involving surgery was lowest for those living in *Very remote* areas (60 per 1,000) and highest for those living in *Inner regional* areas (94 per 1,000) (Table 6.31).

For public hospitals, the rate of elective admissions involving surgery was lowest for those living in *Major cities* (26 per 1,000) and highest for those living in *Outer regional* and *Remote* areas (38 per 1,000). In contrast, for private hospitals the rate was highest for those living in *Major cities* (61 per 1,000) and fell with increasing remoteness to 26 per 1,000 for *Very remote* areas.

This may reflect relatively lower availability of private hospital services in the more remote areas of Australia.

Socioeconomic status

In 2015–16, separation rates ranged from 80 per 1,000 population for those living in areas classified as being in the lowest SES group to 94 per 1,000 for those living in areas classified as being in the highest SES group (Table 6.31).

The separation rate in public hospitals was highest for people living in areas classified as being in the lowest SES group (39 per 1,000) and fell with increasing SES to 17 per 1,000 for people living in areas classified in the highest SES group. In contrast, the rate in private hospitals was highest for people living in areas classified as being in the highest SES group (77 per 1,000) and lowest for people living in areas classified in the lowest SES group (41 per 1,000).

How did people access these services?

Most elective admissions involving surgery were a *New admission to hospital* (98%), which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 6.32).

Table 6.31: Elective admissions involving surgery^(a) per 1,000 population, by Indigenous status, remoteness and socioeconomic status of area of usual residence, public and private hospitals, 2015–16

	Separations per 1,000 population			Separations
	Public hospitals	Private hospitals	Total	
Indigenous status				
Indigenous	45.9	14.2	60.1	31,557
Other Australians	28.7	59.1	87.9	2,184,596
Remoteness area of residence				
Major cities	25.9	60.9	86.8	1,519,718
Inner regional	36.9	56.7	93.6	457,859
Outer regional	38.2	46.5	84.7	196,332
Remote	38.3	38.2	76.5	24,861
Very remote	34.4	25.7	60.1	10,793
Socioeconomic status of area of residence				
1—Lowest	38.9	41.1	79.9	414,880
2	35.0	49.7	84.7	441,485
3	30.3	58.6	88.9	449,428
4	24.7	66.2	90.9	443,133
5—Highest	17.0	76.7	93.8	459,997
Total	29.4	58.4	87.8	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.32: Elective admissions involving surgery^(a) by mode of admission, public and private hospitals, 2015–16

	Public hospitals	Private hospitals	Total
New admission to hospital ^(b)	717,215	1,462,695	2,179,910
Admitted patient transferred from another hospital	12,815	11,030	23,845
Other/not reported	3,304	9,094	12,398
Total	733,334	1,482,819	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) *New admission to hospital* is equivalent to *Other* in the mode of admission definition. It refers to all planned and unplanned admissions except transfers from other hospitals and statistical admissions.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Why did people receive the care?

This section presents information for all principal diagnoses at the ICD-10-AM chapter level, and for the 20 most common principal diagnoses (at the more detailed 3-character ICD-10-AM level).

In 2015–16, 17% of elective admissions involving surgery had a principal diagnosis in the *Diseases of the eye and adnexa* ICD-10-AM chapter. More than 15% had a principal diagnosis

in the chapters *Diseases of the musculoskeletal system and connective tissue* and another 15% for *Neoplasms* (Table 6.33).

When comparing Table 6.33 with Table 6.20, almost 99% of separations involving surgery for *Diseases of the eye and adnexa* and *Diseases of the ear and mastoid process* were elective admissions.

Table 6.33: Elective admissions involving surgery^(a), by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
A00–B99	Certain infectious and parasitic diseases	1,547	1,484	3,031
C00–D48	Neoplasms	126,202	202,527	328,729
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	479	427	906
E00–E89	Endocrine, nutritional and metabolic diseases	9,352	31,100	40,452
F00–F99	Mental and behavioural disorders	54	20	74
G00–G99	Diseases of the nervous system	23,869	35,766	59,635
H00–H59	Diseases of the eye and adnexa	94,850	282,997	377,847
H60–H95	Diseases of the ear and mastoid process	14,515	27,586	42,101
I00–I99	Diseases of the circulatory system	33,981	53,258	87,239
J00–J99	Diseases of the respiratory system	28,960	59,086	88,046
K00–K93	Diseases of the digestive system	72,303	103,421	175,724
L00–L99	Diseases of the skin and subcutaneous tissue	16,522	27,547	44,069
M00–M99	Diseases of the musculoskeletal system and connective tissue	84,311	250,870	335,181
N00–N99	Diseases of the genitourinary system	93,288	142,058	235,346
O00–O99	Pregnancy, childbirth and the puerperium	24,799	54,609	79,408
P00–P96	Certain conditions originating in the perinatal period	205	26	231
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	13,498	8,413	21,911
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	11,114	15,577	26,691
S00–T98	Injury, poisoning and certain other consequences of external causes	46,886	69,214	116,100
Z00–Z99	Factors influencing health status and contact with health services	36,599	116,833	153,432
Total		733,334	1,482,819	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

For elective admissions involving surgery, the 20 most common principal diagnoses accounted for about 46% of the principal diagnoses reported (Table 6.34).

The most common principal diagnosis for elective admissions involving surgery was *Other cataract* (216,000 or 10%), with 70% of those separations coming from private hospitals. About 94% of elective admissions involving surgery with a principal diagnosis of *Other retinal disorders* and about 94% with a principal diagnosis of *Procreative management* were from private hospitals.

Table 6.34: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for elective admissions involving surgery^(a), public and private hospitals, 2015–16

Principal diagnosis		Public hospitals	Private hospitals	Total
H26	Other cataract	65,446	150,251	215,697
C44	Other malignant neoplasms of skin	29,432	77,837	107,269
Z31	Procreative management	3,963	65,116	69,079
H35	Other retinal disorders	3,834	65,105	68,939
M17	Gonarthrosis [arthrosis of knee]	18,467	43,504	61,971
M23	Internal derangement of knee	13,193	45,021	58,214
K40	Inguinal hernia	18,520	25,032	43,552
J35	Chronic diseases of tonsils and adenoids	14,372	25,835	40,207
O04	Medical abortion	7,043	30,853	37,896
G56	Mononeuropathies of upper limb	13,261	21,364	34,625
K80	Cholelithiasis	16,985	15,305	32,290
N92	Excessive, frequent and irregular menstruation	15,964	16,250	32,214
M16	Coxarthrosis [arthrosis of hip]	9,856	21,298	31,154
M75	Shoulder lesions	5,190	24,927	30,117
H25	Senile cataract	8,145	19,597	27,742
J34	Other disorders of nose and nasal sinuses	8,036	19,397	27,433
Z47	Other orthopaedic follow-up care	10,801	11,755	22,556
O82	Single delivery by caesarean section	8,283	12,739	21,022
E66	Obesity	1,696	19,216	20,912
C50	Malignant neoplasm of breast	8,873	11,617	20,490
	Other	451,974	760,800	1,212,774
Total		733,334	1,482,819	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

What care was provided?

This section presents information on elective admissions involving surgery, describing care using:

- MDCs and AR-DRGs – based on the AR-DRG classification of acute care separations
- type of surgical procedure undertaken.

MDCs and AR-DRGs

About 20% of elective admissions involving surgery were for the MDC *Diseases and disorders of the musculoskeletal system and connective tissue*, and 17% were for *Diseases and disorders of the eye* (Table 6.35).

For elective admissions involving surgery, the 20 most common AR-DRGs accounted for more than half (53%) of the AR-DRGs reported (Table 6.36). The most common AR-DRG was *Lens procedures* (11%), of which 70% were in private hospitals.

Table 6.35: Elective admissions involving surgery^(a), by Major Diagnostic Category^(b), AR-DRG version 7.0, public and private hospitals, 2015–16

Major Diagnostic Category		Public hospitals	Private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	4,187	4,406	8,593
01	Diseases and disorders of the nervous system	23,230	34,353	57,583
02	Diseases and disorders of the eye	97,960	288,602	386,562
03	Diseases and disorders of the ear, nose, mouth and throat	54,954	112,466	167,420
04	Diseases and disorders of the respiratory system	11,752	13,520	25,272
05	Diseases and disorders of the circulatory system	40,790	59,419	100,209
06	Diseases and disorders of the digestive system	60,165	78,358	138,523
07	Diseases and disorders of the hepatobiliary system and pancreas	24,036	21,070	45,106
08	Diseases and disorders of the musculoskeletal system and connective tissue	127,549	306,019	433,568
09	Diseases and disorders of the skin, subcutaneous tissue and breast	82,659	191,932	274,591
10	Endocrine, nutritional and metabolic diseases and disorders	10,741	31,053	41,794
11	Diseases and disorders of the kidney and urinary tract	34,013	42,786	76,799
12	Diseases and disorders of the male reproductive system	20,246	35,408	55,654
13	Diseases and disorders of the female reproductive system	91,520	177,395	268,915
14	Pregnancy, childbirth and puerperium	24,798	54,610	79,408
15	Newborns and other neonates	310	33	343
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	1,806	1,280	3,086
17	Neoplastic disorders (haematological and solid neoplasms)	4,975	4,253	9,228
18	Infectious and parasitic diseases	1,106	1,879	2,985
21	Injuries, poisoning and toxic effects of drugs	7,472	12,800	20,272
22	Burns	1,558	143	1,701
23	Factors influencing health status and other contacts with health services	4,578	7,160	11,738
ED	Error DRGs ^(c)	2,929	3,874	6,803
Total		733,334	1,482,819	2,216,153

ECMO—extracorporeal membrane oxygenation.

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) The MDCs *Mental diseases and disorders* and *Alcohol/drug use and alcohol/drug induced organic mental disorders* are not listed as there were no separations involving surgery for these MDCs.

(c) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.36: The 20 most common AR-DRGs version 7.0 reported for elective admissions involving surgery^(a), public and private hospitals, 2015–16

AR-DRG		Public hospitals	Private hospitals	Total
C16Z	Lens procedures	72,013	169,672	241,685
J11Z	Other skin, subcutaneous tissue and breast procedures	34,767	64,702	99,469
C03Z	Retinal procedures	10,073	77,113	87,186
N07B	Other uterus and adnexa procedures for non-malignancy, same-day	17,085	60,378	77,463
I18Z	Other knee procedures	14,905	54,942	69,847
G10B	Hernia procedures without CC	26,474	35,847	62,321
O05Z	Abortion with OR procedures	14,435	39,484	53,919
I30Z	Hand procedures	18,484	30,732	49,216
D11Z	Tonsillectomy and/or adenoidectomy	17,522	30,725	48,247
J08C	Other skin grafts and debridement procedures, same-day	8,875	36,754	45,629
N10Z	Diagnostic curettage and diagnostic hysteroscopy	19,750	23,271	43,021
I16Z	Other shoulder procedures	7,499	35,409	42,908
J10Z	Plastic OR procedures for skin, subcutaneous tissue and breast disorders	10,721	29,076	39,797
I04B	Knee replacement without CSCC	11,694	25,185	36,879
N11Z	Other female reproductive system OR procedures	2,458	28,798	31,256
H08B	Laparoscopic cholecystectomy without closed CDE without CSCC	15,473	15,559	31,032
B05Z	Carpal tunnel release	12,039	18,090	30,129
N09Z	Other vagina, cervix and vulva procedures	15,097	14,006	29,103
D10Z	Nasal procedures	8,168	19,940	28,108
I03B	Hip replacement without catastrophic CC	9,405	18,667	28,072
	Other	386,397	654,469	1,040,866
Total		733,334	1,482,819	2,216,153

AR-DRG—Australian Refined-Diagnosis Related Group; CC—complications or comorbidities; CDE—common bile duct exploration; CSCC—catastrophic or severe complications or comorbidities; OR—operating room.

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Procedures

This section presents information for all procedures at the ACHI chapter level. For the 20 most common procedures, information is presented at the more detailed procedure block level.

In 2015–16, about 2.8 million surgical procedure codes were reported for elective admissions involving surgery.

About 21% of procedures were in the ACHI chapter *Procedures on musculoskeletal system*, with 74% of these occurring in private hospitals (Table 6.37).

In 2015–16, *Extracapsular crystalline lens extraction by phacoemulsification* (a cataract extraction procedure) was the most common surgical procedure block, accounting for 8% of elective admissions (Table 6.38). About 94% of elective admissions for *Procedures for reproductive medicine* were reported for private hospitals.

Table 6.37: Procedures^(a) reported for elective admissions involving surgery^(b) by ACHI chapter, public and private hospitals, 2015–16

Procedure		Public hospitals	Private hospitals	Total
1–86	Procedures on nervous system	30,933	76,693	107,626
110–129	Procedures on endocrine system	7,870	10,059	17,929
160–256	Procedures on eye and adnexa	103,199	319,705	422,904
300–333	Procedures on ear and mastoid process	12,538	24,929	37,467
370–422	Procedures on nose, mouth and pharynx	49,465	116,861	166,326
450–490	Dental services	410	2,860	3,270
520–571	Procedures on respiratory system	9,182	9,218	18,400
600–777	Procedures on cardiovascular system	60,726	89,278	150,004
800–817	Procedures on blood and blood-forming organs	18,557	18,390	36,947
850–1011	Procedures on digestive system	101,758	153,121	254,879
1040–1129	Procedures on urinary system	43,083	62,123	105,206
1160–1203	Procedures on male genital organs	22,710	44,560	67,270
1240–1299	Gynaecological procedures	124,084	260,424	384,508
1330–1347	Obstetric procedures	2,929	4,477	7,406
1360–1580	Procedures on musculoskeletal system	154,952	435,444	590,396
1600–1718	Dermatological and plastic procedures	107,081	269,486	376,567
1740–1759	Procedures on breast	15,766	52,934	68,700
1786–1800	Radiation oncology procedures	1,051	591	1,642
1820–1922	Non-invasive, cognitive and other interventions, n.e.c.	1,043	614	1,657
1940–2016	Imaging services	9	4	13
Total surgical procedures		867,347	1,951,771	2,819,118

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as *Surgical*.

(b) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Table 6.38: Procedures^(a) reported for the 20 most common ACHI procedure blocks for elective admissions involving surgery^(b), public and private hospitals, 2015–16

Procedure block		Public hospitals	Private hospitals	Total
197	Extracapsular crystalline lens extraction by phacoemulsification	69,313	163,308	232,621
1620	Excision of lesion(s) of skin and subcutaneous tissue	30,882	59,595	90,477
1265	Curettage and evacuation of uterus	29,464	52,609	82,073
209	Application, insertion or removal procedures on retina, choroid or posterior chamber	4,634	67,610	72,244
1297	Procedures for reproductive medicine	3,921	64,579	68,500
412	Tonsillectomy or adenoidectomy	24,070	39,040	63,110
1518	Arthroplasty of knee	15,880	32,986	48,866
990	Repair of inguinal hernia	18,111	23,766	41,877
1651	Local skin flap, single stage	8,482	30,900	39,382
1517	Arthroscopic meniscectomy of knee with repair	5,870	31,659	37,529
965	Cholecystectomy	18,908	17,589	36,497
1489	Arthroplasty of hip	10,801	22,658	33,459
76	Release of carpal and tarsal tunnel	12,180	18,395	30,575
1566	Excision procedures on other musculoskeletal sites	6,776	17,672	24,448
1554	Other application, insertion or removal procedures on other musculoskeletal sites	12,498	11,226	23,724
1266	Excision of lesion of uterus	8,706	14,881	23,587
1649	Other full thickness skin graft	8,368	14,236	22,604
309	Myringotomy	1,962	19,898	21,860
889	Procedures for morbid obesity	6,421	14,296	20,717
671	Transluminal coronary angioplasty with stenting	6,035	13,088	19,123
	Other	564,065	1,221,780	1,785,845
Total surgical procedures		867,347	1,951,771	2,819,118

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as *Surgical*.

(b) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Length of stay

The length of stay for elective admissions involving surgery varied between public and private hospitals. For overnight separations, the ALOS was 3.5 days for public hospitals and 3.1 days for private hospitals (Table 6.39).

Table 6.39: Patient days and average length of stay for elective admissions involving surgery^(a), public and private hospitals, 2015–16

	Public hospitals		Private hospitals		Total	
	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay
Same-day	379,282	1.0	870,525	1.0	1,249,807	1.0
Overnight	1,275,019	3.6	1,912,015	3.1	3,187,034	3.3
Total	1,654,301	2.3	2,782,540	1.9	4,436,841	2.0

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Who paid for the care?

For elective admissions involving surgery, 88% of separations in public hospitals were for *Public patients*, and about 8% of separations were for patients who used *Private health insurance* to fund all or part of their admission (Table 6.40).

In private hospitals, about 82% of elective admissions involving surgery were for *Private health insurance* patients and 10% were *Self-funded*.

Table 6.40: Elective admissions involving surgery^(a), by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private hospitals	Total
Public patients ^(b)	648,648	20,159	668,807
Private health insurance	56,499	1,214,416	1,270,915
Self-funded	17,396	150,796	168,192
Workers compensation	2,907	36,371	39,278
Motor vehicle third party personal claim	1,631	2,895	4,526
Department of Veterans Affairs	2,394	43,724	46,118
Other ^(c)	3,859	14,458	18,317
Total	733,334	1,482,819	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) *Public patients* includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

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 97% of elective admissions involving surgery were *Discharged home*, suggesting that most patients go home after their episode of care (Table 6.41).

Table 6.41: Elective admissions involving surgery^(a), by mode of separation, public and private hospitals, 2015–16

Mode of separation	Public hospitals	Private hospitals	Total
Discharged home ^(b)	711,372	1,440,464	2,151,836
Discharge/transfer to an (other) acute hospital	12,032	26,505	38,537
Discharge/transfer to residential aged care service ^(c)	1,303	749	2,052
Discharge/transfer to an (other) psychiatric hospital	20	4	24
Discharge/transfer to other health care accommodation ^(d)	882	610	1,492
Statistical discharge: type change	4,764	13,360	18,124
Left against medical advice/discharge at own risk	2,048	354	2,402
Statistical discharge from leave	133	11	144
Died	680	735	1,415
Not reported	100	27	127
Total	733,334	1,482,819	2,216,153

(a) The definition of separations involving surgery in this section differ from those used to describe the scope of the NESWTDC. For example, more than 70% of admissions from public hospital elective surgery waiting lists for *Cystoscopy* were assigned to various non-surgical AR-DRGs and are therefore not included in these analyses.

(b) *Discharged home* is equivalent to *Discharge to usual residence/own accommodation/welfare institution* (including prisons, hostels and group homes providing primarily welfare services) in the mode of separation definition.

(c) Unless this is the usual place of residence.

(d) Includes mothercraft hospitals (early parenting centres), except in jurisdictions where these facilities are considered acute.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about elective admissions involving surgery is available in:

- Section 6.6—‘Elective surgery waiting times’
- ‘Chapter 5 What services were provided?’—for broad categories of service.

More information about public hospital elective surgery is available in *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

Information on data limitations and methods is available in appendixes A and B.

6.6 Elective surgery waiting times

This section presents waiting times information for patients admitted from public hospital elective surgery waiting lists in 2015–16. The data presented are for patients who complete their wait and are admitted for surgery as either an elective or emergency admission.

The information in the section includes separation rates and waiting times statistics for surgical (indicator) procedures by Indigenous status, remoteness and SES of area of usual residence of the patient. Indicator procedures are defined as those of high volume, and are often associated with long waits. Surgical procedures that were not 1 of the 15 indicator procedure categories were included in the category *Not applicable/not stated*.

This section also presents waiting times information by:

- the principal source of funding for the patient
- the principal diagnosis of the patient, with a focus on waiting times for patients with a cancer-related principal diagnosis.

Admissions from public hospital elective surgery waiting lists (presented in this section) are based on National Elective Surgery Waiting Times Data Collection (NESWTDC) data, linked with admitted patient care data and provided by jurisdictions for inclusion in the NHMD as a 'cluster' of elective surgery waiting times data. The 'cluster' data allow analysis of public hospital waiting times for elective surgery by Indigenous status, remoteness area and SES of the patient's usual residence and funding source. This section supplements the information reported in *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

Limitations in coverage of the 'cluster' data should be considered when interpreting the information because information was only available for about 96% of admissions from public hospital elective surgery waiting lists in 2015–16. There was some variation in the linked data coverage between states and territories; from 76% in the Northern Territory to 99% for South Australia. For Queensland, Tasmania and the Northern Territory, some NHMD records linked to more than one record in the NESWTDC data. For the purposes of this section, only the first linked indicator procedure was used. Therefore, the waiting times presented in this section may differ from those previously reported in *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c). In addition, cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

Admissions from public hospital elective surgery waiting lists are not necessarily the same as elective admissions involving surgery (see Section 6.5) which are sourced from the NHMD admitted patient care data. This is due to several factors including:

- the data in the 'cluster' relate to patients who were admitted from a public hospital waiting list, whereas elective admissions involving surgery sourced from the NHMD include patients who were not placed on a waiting list, including in private hospitals
- the NESWTDC and 'surgical AR-DRGs' (see Section 6.5) are defined using a different list of procedures
- the data in the NESWTDC can include separations for which the urgency of admission was *Emergency*. See Section 6.4 for emergency admissions involving surgery.

In 2015–16, there were 680,091 admissions from public hospital elective surgery waiting lists for which the 'cluster' data were available.

How long did people wait for care?

Overall, the median waiting time for care (the number of days within which 50% of patients were admitted) was 38 days (Table 6.42) and the 90th percentile waiting time (the number of days within which 90% of patients were admitted) was 262 days.

How did waiting times differ for Indigenous and other Australians?

In 2015–16, there were about 23,000 admissions from public hospital waiting lists for elective surgery for patients identified as Aboriginal and/or Torres Strait Islander.

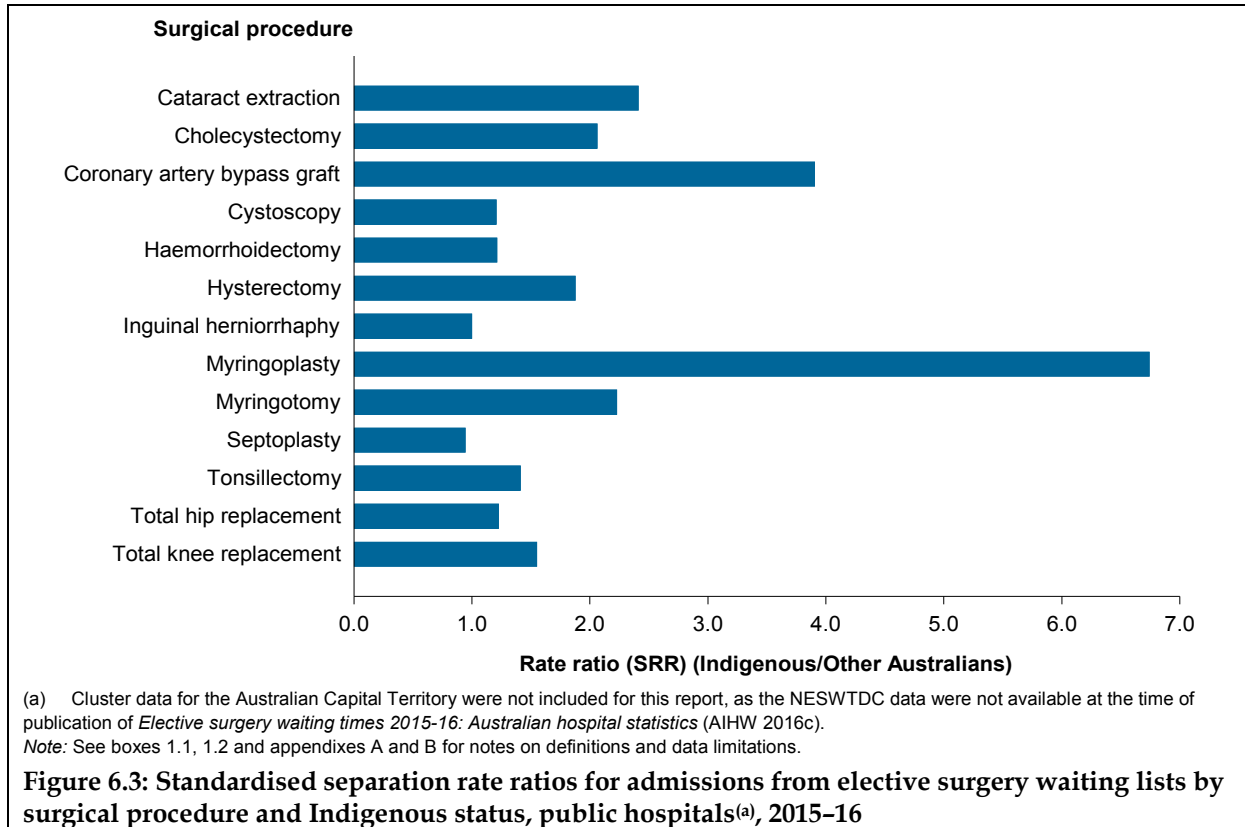
Overall, the median waiting time for Indigenous Australians was greater than the median waiting time for other Australians (45 days and 38 days respectively; Table 6.42).

Surgical procedures – population rates

The standardised SRRs presented in Figure 6.3 compare the separation rates for surgical procedures for Indigenous Australians with the rates for other Australians in 2015–16.

An SRR greater than 1.0 indicates that the separation rate for the surgical procedure for Indigenous Australians was higher than for other Australians admitted for the same surgical procedure. The SRR is not shown for surgical procedures for which there were fewer than 100 separations for Indigenous Australians.

For 8 of the 13 surgical procedures (for which there were greater than 100 separations for Indigenous Australians), the SRRs suggest that the separation rates for Indigenous Australians were markedly different from the rates for other Australians for *Myringoplasty* (6.8) and *Coronary artery bypass graft* (3.9). The rates were not notably different for *Septoplasty*, *Inguinal herniorrhaphy*, *Cystoscopy*, *Haemorrhoidectomy* and *Total hip replacement*.



Surgical procedures – waiting times

Indigenous Australians had higher median waiting times for 9 of the 13 surgical procedures for which there were at least 100 separations for Indigenous Australians. The greatest difference in median waiting times was for *Total knee replacement* (258 days for Indigenous Australians, and 192 days for other Australians). *Hysterectomy*, *Cystoscopy*, and *Coronary artery bypass graft* had the smallest differences in median waiting times by Indigenous status.

Table 6.42: Median waiting time (days) to admission for elective surgery, by surgical procedure and Indigenous status, public hospitals^(a), 2015–16

Surgical procedure	Indigenous Australians ^(b)	Other Australians	All Australians
Cataract extraction	151	93	95
Cholecystectomy	49	43	43
Coronary artery bypass graft	11	14	14
Cystoscopy	27	24	24
Haemorrhoidectomy	49	55	55
Hysterectomy	54	51	51
Inguinal herniorrhaphy	48	54	53
Myringoplasty	120	187	175
Myringotomy	51	57	57
Prostatectomy	n.p.	42	42
Septoplasty	287	217	218
Tonsillectomy	148	119	122
Total hip replacement	129	117	117
Total knee replacement	258	192	193
Varicose veins stripping and ligation	n.p.	98	99
Not applicable/not stated	34	29	29
Total	45	38	38
Number of separations	23,068	657,023	680,091

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) The median waiting times for some indicator procedures are not shown due to small numbers of admissions for Indigenous Australians.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Remoteness area

Overall, about 64% of admissions from waiting lists for elective surgery were for patients living in *Major cities*, with another 22% for patients in *Inner regional* areas, and 11% for patients in *Outer regional* areas (Table 6.43).

For people living in *Very remote* areas, the rate for *Myringoplasty* was 10 times the national rate, and the rate for *Myringotomy* was about 3 times the national rate.

Table 6.43: Admissions from public hospital elective surgery waiting lists per 1,000 population, by surgical procedure and remoteness area of usual residence, public hospitals^(a), 2015–16

Surgical procedure	Remoteness area of residence					Total ^(b)
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
Cataract extraction	2.2	2.3	3.1	3.9	4.0	2.4
Cholecystectomy	0.6	0.9	0.9	0.9	0.7	0.7
Coronary artery bypass graft	0.1	0.1	0.1	0.1	0.3	0.1
Cystoscopy	1.8	1.8	1.4	1.6	1.2	1.8
Haemorrhoidectomy	0.2	0.2	0.2	0.3	0.2	0.2
Hysterectomy	0.4	0.6	0.5	0.6	0.4	0.4
Inguinal herniorrhaphy	0.6	0.7	0.8	0.8	0.5	0.6
Myringoplasty	0.1	0.1	0.1	0.3	1.0	0.1
Myringotomy	0.2	0.3	0.2	0.4	0.6	0.2
Prostatectomy	0.3	0.3	0.3	0.2	0.3	0.3
Septoplasty	0.2	0.2	0.1	0.1	0.1	0.2
Tonsillectomy	0.7	1.1	0.8	0.9	0.5	0.8
Total hip replacement	0.3	0.5	0.5	0.5	0.4	0.4
Total knee replacement	0.5	0.7	0.7	0.6	0.6	0.6
Varicose veins stripping and ligation	0.1	0.2	0.2	0.2	0.1	0.2
Not applicable/not stated	16.9	21.5	22.1	25.1	19.5	18.4
Total	25.2	31.5	32.0	36.7	30.2	27.2
Number of separations	436,273	150,492	73,683	11,888	5,514	680,091

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) The total includes records for which the remoteness area could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How did waiting times vary by remoteness?

The median waiting time varied somewhat by remoteness, ranging from 31 days for people living in *Remote* areas to 41 days for people living in *Inner regional* and *Outer regional* areas (Table 6.44).

The median waiting time by surgical procedure varied among remoteness areas. For surgical procedures with at least 100 admissions in each remoteness area, *Cataract extraction* had the greatest variation in waiting times. People from *Outer regional* areas had the highest median waiting time of 195 days, and people from *Major cities* had the lowest (76 days). *Cystoscopy* had the least variation by remoteness area, ranging from 22 days for people from *Inner regional* areas to 26 days for people from *Outer regional* areas.

Table 6.44: Median waiting time (days) to admission for elective surgery by surgical procedure and remoteness area of usual residence, public hospitals^(a), 2015–16

Surgical procedure	Remoteness area of residence					Total ^(b)
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
Cataract extraction	76	181	195	98	92	95
Cholecystectomy	42	48	47	38	51	43
Coronary artery bypass graft	15	11	11	n.p.	n.p.	14
Cystoscopy	24	22	26	24	25	24
Haemorrhoidectomy	56	56	44	41	n.p.	55
Hysterectomy	52	54	50	41	n.p.	51
Inguinal herniorrhaphy	51	59	54	44	n.p.	53
Myringoplasty	208	163	86	n.p.	112	175
Myringotomy	61	53	46	41	58	57
Prostatectomy	40	43	51	n.p.	n.p.	42
Septoplasty	218	225	201	n.p.	n.p.	218
Tonsillectomy	114	142	125	72	81	122
Total hip replacement	105	139	135	133	n.p.	117
Total knee replacement	164	230	251	187	n.p.	193
Varicose veins stripping and ligation	103	103	82	n.p.	n.p.	99
Not applicable/not stated	29	29	29	27	28	29
Total	37	41	41	32	36	38

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) Median waiting times are not published where there are fewer than 100 separations in a remoteness area for the indicator procedure.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Socioeconomic status

Overall, about 28% of admissions from waiting lists were for people living in areas classified as being in the lowest SES group, dropping to about 11% for people living in areas classified as being in the highest SES group (Table 6.45).

Across all surgical procedures, people living in areas classified as being in the highest SES group had the lowest separation rates for admissions from public hospital elective surgery waiting lists (16 per 1,000 population, overall), while people from the lowest SES area had the highest (37 per 1,000).

The greatest variation in separation rates by SES were for *Myringoplasty*, with people living in areas classified as being in the lowest SES group having twice the overall rate. The rates for *Cystoscopy* were more evenly distributed among SES groups, with people living in areas classified as being in the lowest SES group having separation rates about 27% higher than the overall rate, and those in the highest SES group having separation rates about 40% lower than the overall rate.

Table 6.45: Admissions from public hospital elective surgery waiting lists per 1,000 population, by surgical procedure and socioeconomic status of area of usual residence, public hospitals^(a), 2015–16

Surgical procedure	Socioeconomic status of area of residence ^(b)					Total ^(c)
	1–Lowest	2	3	4	5–Highest	
Cataract extraction	3.3	2.7	2.3	1.9	1.2	2.4
Cholecystectomy	1.1	0.8	0.7	0.6	0.3	0.7
Coronary artery bypass graft	0.2	0.1	0.1	0.1	0.1	0.1
Cystoscopy	2.2	1.9	1.9	1.6	1.1	1.8
Haemorrhoidectomy	0.3	0.2	0.2	0.2	0.1	0.2
Hysterectomy	0.6	0.5	0.5	0.4	0.2	0.4
Inguinal herniorrhaphy	0.9	0.7	0.7	0.5	0.4	0.6
Myringoplasty	0.2	0.1	0.1	0.1	0.0	0.1
Myringotomy	0.3	0.2	0.2	0.2	0.1	0.2
Prostatectomy	0.3	0.3	0.3	0.2	0.2	0.3
Septoplasty	0.3	0.2	0.2	0.2	0.1	0.2
Tonsillectomy	1.1	0.9	0.9	0.7	0.4	0.8
Total hip replacement	0.5	0.5	0.4	0.3	0.2	0.4
Total knee replacement	0.8	0.7	0.5	0.4	0.3	0.6
Varicose veins stripping and ligation	0.2	0.2	0.2	0.1	0.1	0.2
Not applicable/not stated	24.9	20.9	19.1	15.6	10.9	18.4
Total	37.1	31.1	28.2	23.1	15.7	27.2
Number of separations	189,594	159,885	140,808	111,379	76,101	680,091

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

(b) Disaggregation by socioeconomic group is based on the usual residence of the patient, not the location of the hospital.

(c) The total includes records for which records for which SES of area of usual residence could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

How did waiting times vary by socioeconomic status?

Median waiting times varied by SES, ranging from 32 days for people living in areas classified as the highest SES group to 43 days for people living in areas classified as the lowest SES group (Table 6.46).

Cataract extraction was the surgical procedure with the greatest variation in waiting times by socioeconomic status, ranging from 137 days for people living in areas classified as being in the lowest SES group to 63 days for people in the highest SES group. *Coronary artery bypass graft* and *Cystoscopy* had the least variation by socioeconomic status group.

Table 6.46: Median waiting times (days) for elective surgery by surgical procedure and socioeconomic status of area of usual residence, public hospitals^(a), 2015–16

Surgical procedure	Socioeconomic status of area of residence					Total ^(b)
	1–Lowest	2	3	4	5–Highest	
Cataract extraction	137	112	76	73	63	95
Cholecystectomy	50	44	42	38	35	43
Coronary artery bypass graft	13	14	13	13	16	14
Cystoscopy	25	24	23	22	25	24
Haemorrhoidectomy	58	55	56	51	50	55
Hysterectomy	52	55	51	52	47	51
Inguinal herniorrhaphy	61	55	49	48	47	53
Myringoplasty	194	152	163	171	198	175
Myringotomy	60	55	55	60	56	57
Prostatectomy	48	42	36	37	37	42
Septoplasty	249	244	187	184	181	218
Tonsillectomy	141	137	104	100	113	122
Total hip replacement	131	124	114	104	97	117
Total knee replacement	209	220	171	161	161	193
Varicose veins stripping and ligation	116	102	81	88	103	99
Not applicable/not stated	31	30	28	28	27	29
Total	43	41	36	35	32	38

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

(b) The total includes records for which records for which SES of area of usual residence could not be categorised.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Principal source of funding

The funding source and patient election status information available in the data from the NHMD can be used to compare the waiting times for public patients with the waiting times for other patients.

It should be noted that there may be differences between public patients and patients funded by other sources, in the conditions treated and in the urgency categories assigned, that may account for some variation in waiting times.

Public patients accounted for about 90% of patients admitted from public hospital waiting lists for elective surgery and separations with a funding source of *Private health insurance* accounted for about 7% (Table 6.47).

Overall, *Public patients* had a median waiting time of 42 days, compared with 20 days for separations with a funding source of *Private health insurance* and 16 days for separations with a funding source of *Self-funded*.

Table 6.47: Median waiting time (days) for patients admitted from public hospital waiting lists for elective surgery^(a), by principal source of funding, 2015-16

Principal source of funding	Admissions	Days waited at 50th percentile	Days waited at 90th percentile	Percent waited greater than 365 days
Public patients ^(b)	609,999	42	273	2.0
Private health insurance	47,033	20	107	0.8
Self-funded	14,701	16	72	0.1
Workers compensation	1,764	6	69	0.3
Motor vehicle third party personal claim	1,595	13	91	0.8
Department of Veterans' Affairs	1,833	20	93	0.3
Other ^(c)	3,166	187	632	31.3
Total	680,091	38	263	2.0

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) *Public patients* includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Surgical procedures

Public patients had higher median waiting times for all of the 15 surgical procedures compared with other patients (Table 6.48). The greatest difference in median waiting times was for *Septoplasty* (238 days for public patients and 48 days for other patients), followed by *Total knee replacement* (203 days for public patients and 67 days for other patients).

Table 6.48: Median waiting time (days) for public and other patients admitted from public hospital waiting lists for elective surgery^(a), by surgical procedure, 2015–16

Surgical procedure	Public patients ^(b)		Other patients ^(c)		Total	
	Admissions	Median waiting time	Admissions	Median waiting time	Admissions	Median waiting time
Cataract extraction	56,765	113	6,997	18	63,762	95
Cholecystectomy	16,037	45	1,351	27	17,388	43
Coronary artery bypass graft	3,110	14	231	7	3,341	14
Cystoscopy	43,033	24	3,240	21	46,273	24
Haemorrhoidectomy	4,033	55	260	39	4,293	55
Hysterectomy	9,323	54	810	29	10,133	51
Inguinal herniorrhaphy	14,934	56	1,479	25	16,413	53
Myringoplasty	1,668	184	102	50	1,770	175
Myringotomy	4,177	63	504	16	4,681	57
Prostatectomy	6,859	43	515	26	7,374	42
Septoplasty	4,481	238	495	48	4,976	218
Tonsillectomy	15,874	138	1,580	34	17,454	122
Total hip replacement	9,510	125	887	46	10,397	117
Total knee replacement	14,432	203	980	67	15,412	193
Varicose veins stripping and ligation	3,445	108	366	36	3,811	99
Not applicable/not stated	402,318	31	50,295	18	452,613	29
Total	609,999	42	70,092	20	680,091	38

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

(b) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(c) *Other* includes separations with a funding source of *Private health insurance, Self-funded, Department of Veterans' Affairs, Workers compensation, Motor vehicle third party personal claim, Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority* (without a *Public patient election status*), *Other, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Surgical specialty

Public patients had higher median waiting times for all of the 11 surgical specialties compared with other patients (Table 6.49). The greatest difference in median waiting times was for *Ophthalmology* (91 days for public patients and 17 days for other patients), followed by *Ear, nose and throat surgery* (81 days and 25 days, respectively) and *Orthopaedic surgery* (76 days and 22 days, respectively).

Table 6.49: Median waiting time (days) for public and other patients admitted from public hospital waiting lists for elective surgery^(a), by surgical speciality, 2015–16

Surgical speciality	Public patients ^(b)		Other patients ^(c)		Total	
	Admissions	Median waiting time	Admissions	Median waiting time	Admissions	Median waiting time
Cardio-thoracic surgery	10,270	18	1,263	16	11,533	18
Ear, nose and throat surgery	51,582	81	5,849	25	57,431	75
General surgery	136,974	33	15,546	20	152,520	30
Gynaecology	78,801	32	6,723	21	85,524	31
Neurosurgery	9,510	42	1,853	17	11,363	35
Ophthalmology	74,499	91	10,176	17	84,675	77
Orthopaedic surgery	92,198	76	10,627	22	102,825	69
Plastic surgery	44,323	29	6,482	14	50,805	27
Urology	82,231	26	6,887	21	89,118	26
Vascular surgery	13,526	22	1,695	13	15,221	21
Other	16,085	22	2,991	17	19,076	21
Total	609,999	42	70,092	20	680,091	38

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(c) *Other* includes separations with a funding source of *Private health insurance, Self-funded, Department of Veterans' Affairs, Workers compensation, Motor vehicle third party personal claim, Other compensation, Department of Defence, Correctional facilities, Other hospital or public authority* (without a *Public patient election status*), *Other, Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Principal diagnosis

The diagnosis information available in the data from the NHMD can be used to compare the waiting times for patients for whom elective surgery may be more urgent with the waiting times for other patients. In this way, the waiting times for patients awaiting surgery for cancer can be compared with those for patients awaiting surgery for other conditions.

This section presents information for patients with any cancer-related principal diagnosis (ICD-10-AM diagnosis codes C00–C99, D00–D09, D45, D46, D47.1 and D47.3) by surgical speciality, and for patients with a principal diagnosis of selected types of cancer.

Surgical speciality

In 2015–16, overall waiting times for admissions with a principal diagnosis of a cancer (median of 18 days) were shorter than those for other admissions (42 days), and were shorter for most surgical specialities (Table 6.50).

The largest variation in median waiting times by surgical speciality (for which there were at least 100 cancer-related separations) was for *General surgery* for which patients with a cancer-related principal diagnosis had a median waiting time of 14 days, compared with 38 days for other diagnoses and 30 days overall.

The surgical specialties with the least variation in median waiting times for separations with a cancer-related principal diagnosis compared with other diagnoses were *Urology* (23 days for cancer, compared with 26 days for other diagnoses) and *Cardiothoracic surgery* (13 days for cancer, compared with 19 days).

Table 6.50: Median waiting time (days) for patients admitted from waiting lists for elective surgery with a cancer-related principal diagnosis (or other principal diagnosis), by surgical specialty, public hospitals^(a), 2015–16

Surgical specialty	Cancer-related principal diagnosis^(b)	Other principal diagnosis	Overall
Cardio-thoracic surgery	13	19	18
Ear, nose and throat surgery	n.p.	75	75
General surgery	14	38	30
Gynaecology	22	33	31
Neurosurgery	n.p.	35	35
Ophthalmology	n.p.	77	77
Orthopaedic surgery	n.p.	69	69
Plastic surgery	15	28	27
Urology	23	26	26
Vascular surgery	n.p.	21	21
Other	22	21	21
Total	18	42	38

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

(b) Median waiting times are not published where there are fewer than 100 separations for the surgical specialty.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Waiting times for selected types of cancer

This section presents waiting times statistics for selected types of cancer – defined as separations with a principal diagnosis of:

- Bladder cancer (C67, D09.0)
- Bowel cancer (C18–20, D01.0–D01.2)
- Breast cancer (C50, D05)
- Gynaecological cancer (C51–58, D06.9, D07.0–D07.3)
- Kidney cancer (C64)
- Lung cancer (C33–34, D02.1–D02.2)
- Melanoma (C43, D03)
- Prostate cancer (C61, D07.5).

In 2015–16, for patients with one of the selected types of cancer, patients with a principal diagnosis of lung cancer or breast cancer had the shortest median waiting time of 13 days, with 90% of patients admitted for surgery within 29 and 27 days, respectively (Table 6.51).

Patients with a principal diagnosis of prostate cancer had a median waiting time of 28 days, with 90% of patients admitted for surgery within 90 days.

Table 6.51: Waiting time statistics for admissions from waiting lists for elective surgery, for selected principal diagnoses for cancer, public hospitals^(a), 2015–16

Cancer type	Separations	Days waited at 50th percentile	Days waited at 90th percentile
Bladder cancer	7,736	21	70
Bowel cancer	5,141	14	31
Breast cancer	10,025	13	27
Gynaecological cancer	7,580	22	71
Kidney cancer	1,428	24	77
Lung cancer	1,430	13	29
Melanoma	4,469	15	32
Prostate cancer	6,554	28	90
All other principal diagnoses	635,728	42	274
Total	680,091	38	263

(a) Cluster data for the Australian Capital Territory were not included for this report, as the NESWTDC data were not available at the time of publication of *Elective surgery waiting times 2015-16: Australian hospital statistics* (AIHW 2016c).

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about these procedures for public hospitals by Indigenous status, remoteness and SES of area of usual residence is in Section 6.6 – ‘Elective surgery’ and in tables that accompany this report online at <www.aihw.gov.au/hospitals/>.

More information about urgency of admission is available in ‘Chapter 4 Why did people receive care?’.

More information about the principal source of funding is available in:

- Section 2.7 – ‘Relative stay indexes’
- Section 4.1 – ‘Mode and urgency of admission’ – by urgency of admission
- ‘Chapter 5 What services were provided’ – for rehabilitation care and palliative care
- Section 6.4 – ‘Emergency surgery’ and Section 6.5 – ‘Elective surgery’
- ‘Chapter 7 Costs and funding’.

For more information on elective surgery waiting times see *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c).

Information on data limitations and methods is available in appendixes A and B.

7 Costs and funding

This chapter presents some information on estimates of the relative cost of care and who paid for the care (funding source). It also presents some information on how much care was contracted between hospitals.

In this chapter, average cost weights are presented as estimates of the relative cost of admitted patient care. 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. An average cost weight greater than 1.00 indicates that the casemix for the hospital/jurisdiction or other category was more complex than the average.

Key findings

Relative costliness of care

In 2015–16, *Public patients* and *Private health insurance-funded* separations generally had the lowest average cost weights in public hospitals. Separations funded by *Motor vehicle third party personal claim* generally had high average cost weights. For private hospitals, *Public patients* and *Self-funded* separations generally had the lowest average cost weights.

Separations involving surgery were about 3 times more costly on average than medical separations.

Funding source

Between 2011–12 and 2015–16, the number of separations for patients who used *Private health insurance* to fund all or part of their admission increased by an average of 5.5% each year. Over the same period, separations with a funding source of *Department of Veterans' Affairs* decreased by an average of 4.2% each year.

In 2015–16, half (50%) of separations in all hospitals were for *Public patients* and 42% were for *Private health insurance* patients.

For public hospitals, 83% of separations were for *Public patients*.

For private hospitals, 83% of separations were for patients who used *Private health insurance* to fund all or part of their admission.

About 71% of same-day acute separations funded by the *Department of Veterans' Affairs* occurred in private hospitals.

Contracted care

In 2015–16, there were more than 88,000 episodes of inter-hospital contracted care. 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.

7.1 What was the relative cost of the care?

This section includes information on estimates of the relative cost of admitted patient care, based on average cost weights for public and private hospitals, over time and for 2015–16. It also includes cost weight-based expenditure estimates for public hospitals.

The AR-DRGs reported for admitted patients 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.

The estimated public and private hospital cost weights and cost estimates were prepared by the Independent Hospital Pricing Authority (IHPA) using the National Hospital Cost Data Collection (NHCDC), which estimates the average cost of each AR-DRG (IHPA 2015, 2016). The cost weight for each AR-DRG is the average cost for that AR-DRG, divided by the average cost across all AR-DRGs.

Separate cost weights are usually estimated for the public and private sectors because of differences in the range of costs recorded in public and private hospitals. For example, imaging, pathology and medical costs are not generally reported for private hospitals as many of these services are outsourced or charged directly to the patients by providers.

The most recent public hospital cost weights prepared by IHPA (based on AR-DRG version 7.0) relate to the 2013–14 reporting period. For 2013–14, the national average cost for a public hospital separation (that is, for a cost weight of 1.00) was estimated as \$5,100.

For private hospitals, the most recent (2012–13) cost weights were calculated by IHPA for 2012–13 (based on AR-DRG version 6.0x) using data provided by overnight private hospitals only. Therefore, the private hospital cost weights may not accurately reflect the average cost weights for *Private free-standing day hospital facilities*. The average cost for a private hospital separation was not reported for 2012–13; the most recent average cost estimate is based on data from 2008–09 and so is not used here.

The information presented in this section is limited to separations for which the care type was reported as *Acute*, as *Newborn* (with qualified days), or was not reported.

Average cost weights

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 (based on the year of the NHCDC cost weights).

The average cost weight for a hospital (or group of hospitals) is calculated as the sum of the average cost weights for each acute separation, divided by the total number of acute separations for the hospital. For example, a hospital with an average cost weight of 1.05 has a 5% more costly casemix than the national average.

For reporting periods before 2015–16, the acute care separations included in the average cost weight analyses included separations for mental health care. However, the validity of comparisons of average cost weights across jurisdictions before 2015–16 was limited by differences in the extent to which each jurisdiction's acute care psychiatric services were integrated into its public hospital system.

For the 2015–16 reporting period, acute care separations do not include separations for the *Mental health* care type which was implemented from 1 July 2015. Therefore, the data presented for 2015–16 are not comparable with the data for previous reporting periods. In addition, average cost weights are not presented for *Public psychiatric hospitals* in 2015–16 as the few acute care separations were reported for them in 2015–16.

Changes over time

The range of costs differs between public and private hospitals, and separate cost weights are applicable to the 2 sectors. However, in part of Table 7.1, public sector cost weights were used for both public and private hospitals to enable a comparison of the relative costs of admitted patient care between sectors and overtime.

Using public cost weights for both public and private hospitals, average cost weights were similar for *Other private hospitals* (those that can provide overnight care) and for *Public acute hospitals* between 2011–12 and 2014–15 (Table 7.1). Average cost weights were lowest for *Private free-standing day hospital facilities*.

Using private hospital cost weights for separations for private hospitals, the average cost weight for private hospitals increased by about 0.7% per year on average between 2011–12 and 2015–16.

Table 7.1: Average cost weight of separations^(a), public acute^(b) and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Average public cost weight of separations^(c)							
Public acute hospitals	0.95	0.98	0.98	0.98	0.95	–0.1	–2.8
Private hospitals							
Private free-standing day hospital facilities	0.45	0.45	0.44	0.45	0.46	0.5	1.4
Other private hospitals	0.98	0.98	0.98	0.98	1.00	0.6	1.8
<i>Total private hospitals</i>	<i>0.85</i>	<i>0.85</i>	<i>0.86</i>	<i>0.85</i>	<i>0.86</i>	<i>0.4</i>	<i>1.2</i>
All hospitals	0.90	0.91	0.92	0.92	0.91	0.1	–0.9
Average private cost weight of separations^(d)							
Private hospitals							
Private free-standing day hospital facilities	0.33	0.34	0.33	0.33	0.34	0.6	2.5
Other private hospitals	0.96	0.96	0.96	0.97	0.99	0.9	2.4
<i>Total private hospitals</i>	<i>0.81</i>	<i>0.81</i>	<i>0.82</i>	<i>0.81</i>	<i>0.83</i>	<i>0.7</i>	<i>1.8</i>

(a) Separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. For 2015–16, acute care separations do not include *Mental health* care and therefore, the cost weights for 2015–16 may not be comparable with earlier periods.

(b) Public acute hospitals does not include *Public psychiatric hospitals*.

(c) AR-DRG version 7.0 public cost weights 2013–14 were used for both public and private hospitals.

(d) AR-DRG version 6.0x overnight private hospitals cost weights 2012–13 used.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Average cost weights in 2015–16

The average cost weight for public acute hospitals varied across states and territories, ranging from 1.02 in South Australia and Tasmania to 0.58 in the Northern Territory (Table 7.2). The relatively low average cost weight for the Northern Territory reflects the relatively large proportion of same-day separations for dialysis in that jurisdiction (L61Z – *Haemodialysis* had an average cost weight of 0.11 in 2013–14).

For jurisdictions whose private hospital data could be reported (using public hospital cost weights), average cost weights ranged from 0.77 in Western Australia to 0.91 in New South Wales.

In public hospitals, separations for *Public patients* generally had lower average cost weights (0.92) than other patients, and separations funded by *Motor vehicle third party personal claim* had higher average cost weights (1.91) (Table 7.3).

In private hospitals, *Self-funded* separations had lower average costs (0.74) than other separations. The low average cost weight for *Public patients* (0.37) in private hospitals reflects numbers of contracted care for dialysis in Western Australia and South Australia.

Cost weight-based expenditure estimates

An estimate of expenditure in public hospitals can be made using the AR-DRGs reported for each acute separation and the related estimated cost for each AR-DRG from the NHCDC. However, caution should be used in interpreting the information presented here as the costs are based on estimates for the 2013–14 reference period. Therefore, the estimated costs presented in Table 7.4 are not accurate reflections of the actual costs in 2015–16, but are useful in comparing the relative costs of care provided in each MDC.

The 2013–14 AR-DRG version 7.0 national public sector estimated costs were applied to the AR-DRG version 7.0 AR-DRGs reported for each separation and summed to their MDCs.

The average cost for separations in each MDC was calculated by dividing the total MDC cost by volume by the total number of separations in the MDC.

The MDC with the highest average cost (\$98,297) was *Pre-MDC (tracheostomies, transplants and extracorporeal membranous oxygenation)* and the lowest (\$1,275) was reported for *Diseases and disorders of the kidney and urinary tract* (which includes L61Z *Haemodialysis*).

Separations involving surgery (those with *Surgical DRGs*) were about 3 times more costly than separations with *Medical DRGs* (Table 7.4).

An estimate of expenditure in private hospitals is not presented as the most recent estimated costs are for 2008–09.

Where to go for more information:

More information on the costs of hospital care in 2015–16 will be available in:

- *Hospital resources 2015–16: Australian hospital statistics* (AIHW, forthcoming)
- *Health expenditure Australia, 2015–16* (AIHW, forthcoming).

Information on data limitations and methods is available in appendixes A and B.

Table 7.2: Average cost weights^(a), public acute^(b) and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Average public cost weight of separations^(c)									
Public acute hospitals									
Public acute hospitals	1.00	0.93	0.92	0.92	1.02	1.02	0.99	0.58	0.95
Private hospitals									
Private free-standing day hospital facilities	0.50	0.40	0.43	0.32	0.40	n.p.	n.p.	n.p.	0.43
Other private hospitals	1.07	1.02	0.95	0.97	1.02	n.p.	n.p.	n.p.	1.01
<i>Total private hospitals</i>	<i>0.91</i>	<i>0.87</i>	<i>0.82</i>	<i>0.77</i>	<i>0.87</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>0.86</i>
Public acute and private hospitals	0.97	0.91	0.88	0.85	0.95	n.p.	n.p.	n.p.	0.91
Average private cost weight of separations^(d)									
Private hospitals									
Private free-standing day hospital facilities	0.42	0.29	0.37	0.25	0.31	n.p.	n.p.	n.p.	0.34
Other private hospitals	1.06	1.00	0.93	0.93	1.01	n.p.	n.p.	n.p.	0.99
<i>Total private hospitals</i>	<i>0.89</i>	<i>0.83</i>	<i>0.80</i>	<i>0.72</i>	<i>0.83</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>0.83</i>

(a) Separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported.

(b) Public acute hospitals does not include *Public psychiatric hospitals*.

(c) AR-DRG version 7.0 public cost weights 2013–14 were used for both public acute and private hospitals.

(d) AR-DRG version 6.0x overnight private hospitals cost weights 2012–13 were used.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 7.3: Average cost weight^(a) of separations^(b), by principal source of funds, public acute^(c) and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public acute hospitals									
Public patients ^(d)	0.97	0.91	0.92	0.87	0.98	1.02	1.00	0.56	0.92
Private health insurance	1.05	1.00	0.93	1.30	1.30	0.94	0.86	1.08	1.04
Self-funded	1.26	0.78	1.11	0.83	0.81	0.94	1.67	1.00	1.11
Workers compensation	1.14	1.29	1.19	1.47	1.14	1.19	0.99	1.14	1.21
Motor vehicle third party personal claim	1.51	2.06	1.59	2.93	1.91	2.24	2.44	2.19	1.91
Department of Veterans' Affairs	1.23	1.17	0.98	1.42	1.14	1.14	0.88	0.70	1.16
Other ^(e)	1.06	1.21	1.07	1.15	1.16	1.10	1.02	0.61	1.13
Total	1.00	0.93	0.92	0.92	1.02	1.02	0.99	0.58	0.95
Private hospitals									
Public patients ^(d)	0.99	0.58	0.63	0.13	0.15	n.p.	n.p.	n.p.	0.37
Private health insurance	0.91	0.88	0.83	0.92	0.86	n.p.	n.p.	n.p.	0.88
Self-funded	0.83	0.63	0.69	0.72	0.77	n.p.	n.p.	n.p.	0.74
Workers compensation	1.49	1.30	1.22	1.25	1.32	n.p.	n.p.	n.p.	1.32
Motor vehicle third party personal claim	1.09	1.36	1.21	1.21	1.47	n.p.	n.p.	n.p.	1.29
Department of Veterans' Affairs	1.06	1.11	0.92	1.10	1.01	n.p.	n.p.	n.p.	1.01
Other ^(e)	1.52	0.81	0.75	0.75	0.90	n.p.	n.p.	n.p.	0.88
Total	0.91	0.87	0.82	0.77	0.87	n.p.	n.p.	n.p.	0.86

(a) AR-DRG version 7.0 public cost weights 2013–14 were used for both public acute and private hospitals.

(b) Separations for which the care type was reported as *Acute* or *Newborn* (with qualified days) or was not reported.

(c) Public acute hospitals does not include *Public psychiatric hospitals*.

(d) *Public patients* includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a Public patient election status), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(e) *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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 7.4: Selected cost statistics^(a), by Major Diagnostic Category version 7.0 and Medical/Surgical/Other partition, public hospitals, 2015–16

Major Diagnostic Category		Cost by volume (\$'000) ^(b)	Average cost (\$)
PR	Pre-MDC (tracheostomies, transplants, ECMO)	1,254,766	98,297
01	Diseases and disorders of the nervous system	2,093,686	6,446
02	Diseases and disorders of the eye	382,696	3,206
03	Diseases and disorders of the ear, nose, mouth and throat	791,593	3,613
04	Diseases and disorders of the respiratory system	2,416,109	6,840
05	Diseases and disorders of the circulatory system	3,146,196	6,600
06	Diseases and disorders of the digestive system	2,906,685	4,645
07	Diseases and disorders of the hepatobiliary system and pancreas	894,165	8,098
08	Diseases and disorders of the musculoskeletal system and connective tissue	3,529,432	8,121
09	Diseases and disorders of the skin, subcutaneous tissue and breast	1,081,007	4,797
10	Endocrine, nutritional and metabolic diseases and disorders	578,212	6,456
11	Diseases and disorders of the kidney and urinary tract	1,765,715	1,275
12	Diseases and disorders of the male reproductive system	215,138	4,457
13	Diseases and disorders of the female reproductive system	570,248	4,488
14	Pregnancy, childbirth and puerperium	1,998,553	5,244
15	Newborns and other neonates	1,045,124	11,500
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	334,667	2,721
17	Neoplastic disorders (haematological and solid neoplasms)	722,368	2,826
18	Infectious and parasitic diseases	797,716	9,004
19	Mental diseases and disorders	400,038	7,878
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	158,634	4,398
21	Injuries, poisoning and toxic effects of drugs	1,014,999	5,473
22	Burns	100,507	11,842
23	Factors influencing health status and other contacts with health services	427,918	2,645
ED	Error DRGs ^(c)	117,907	17,773
	<i>Surgical DRG</i>	<i>11,964,134</i>	<i>10,879</i>
	<i>Medical DRG</i>	<i>15,001,627</i>	<i>3,394</i>
	<i>Other DRG</i>	<i>1,778,318</i>	<i>4,235</i>
Total		28,744,079	4,839

ECMO—extracorporeal membrane oxygenation.

(a) Separations for which the care type was reported as *Acute*, or *Newborn* (with qualified days), or was not reported.

(b) Expenditure estimate is calculated using the 2013–14 Round 18 AR-DRG version 7.0 public hospital cost weights, with the average public cost for an AR-DRG with a cost weight of 1.00 of \$5,100.

(c) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

7.2 Who paid for the care?

This section presents information on the principal source of funding for the admitted patient episode, for all separations and for acute care separations in 2015–16, and over time.

It should be noted that a separation may be funded by more than one funding source and information on those other funding sources is not available. *Private health insurance* was reported for any separation that receives any funding from private health insurance, regardless of whether it is the majority source of funds.

Changes over time

Between 2011–12 and 2015–16, the number of separations for *Public patients* increased by an average of 2.9% each year, and separations for patients who used *Private health insurance* to fund all or part of their admission increased by an average of 5.5% each year (Table 7.5). Over the same period, *Self-funded* separations decreased by an average of 2.7% each year and those funded by the *Department of Veterans' Affairs* decreased by an average of 4.1% each year.

Between 2011–12 and 2015–16, the number of separations in public hospitals for *Private health insurance* patients increased by an average of 10.5% each year, and the number of separations for *Self-funded* patients decreased by an average of 10.7% each year.

For private hospitals, the number of separations for *Public patients* increased by an average of 10.2% each year between 2011–12 and 2015–16.

Since 2014–15, overall separations for *Public patients* increased by 4.8%.

Who paid in 2015–16?

In 2015–16 for all hospitals, half (50%) of all separations were for *Public patients*, and 42% were for *Private health insurance* patients (Table 7.6). About 83% of separations in public hospitals were for *Public patients*, compared with about 4% in private hospitals. For private hospitals, 83% of separations were for *Private health insurance* patients, compared with 14% in public hospitals.

The distribution by funding source varied across states and territories. For example, in public hospitals, the proportion of separations for *Private health insurance* patients ranged from less than 3% in the Northern Territory to almost 20% in New South Wales. For jurisdictions whose private hospital data could be reported, the proportion of *Self-funded* separations ranged from 4% in Western Australia and South Australia to 9% in New South Wales.

Same-day acute separations

In public hospitals, about 85% of same-day acute separations were for *Public patients*, and in private hospitals, 81% of same-day acute separations were for *Private health insurance* patients (Table 7.7).

About 9% of same-day acute separations from private hospitals were *Self-funded*, with a higher proportion of these occurring in *Private free-standing day hospital facilities* (15%) than in *Other private hospitals* (6%).

About 91% of same-day acute *Self-funded* separations and 71% of same-day acute *Department of Veterans' Affairs* separations were from private hospitals.

Overnight acute separations

In public hospitals, about 80% of overnight acute separations were for *Public patients*, while in private hospitals, 86% of overnight acute separations were for *Private health insurance* patients (Table 7.8).

The *Department of Veterans' Affairs* funded 2% of overnight acute separations in public hospitals and 5% in private hospitals.

Table 7.5: Separations by principal source of funding, public and private hospitals, 2011–12 to 2015–16

	2011–12	2012–13	2013–14	2014–15	2015–16	Change (%)	
						Average since 2011–12	Since 2014–15
Public hospitals							
Public patients ^(a)	4,658,853	4,607,839	4,701,799	4,949,069	5,186,320	2.7	4.8
Private health insurance	584,429	686,076	755,901	814,702	871,902	10.5	7.0
Self-funded	73,711	53,318	52,781	49,331	46,921	-10.7	-4.9
Workers compensation	23,436	21,660	21,034	21,887	22,422	-1.1	2.4
Motor vehicle third party personal claim	28,609	27,818	28,846	27,779	28,094	-0.5	1.1
Department of Veterans' Affairs	113,551	104,154	95,901	90,788	85,008	-7.0	-6.4
Other ^(b)	28,903	29,331	58,608	26,782	31,814	2.4	18.8
<i>Total public hospitals</i>	<i>5,511,492</i>	<i>5,530,196</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>3.3</i>	<i>4.9</i>
Private hospitals							
Public patients ^(a)	110,131	119,236	131,135	155,252	162,522	10.2	4.7
Private health insurance	3,025,841	3,148,087	3,288,535	3,456,176	3,601,976	4.5	4.2
Self-funded	299,009	290,716	287,194	286,403	286,570	-1.1	0.1
Workers compensation	65,846	61,738	60,122	56,530	58,262	-3.0	3.1
Motor vehicle third party personal claim	7,192	6,349	6,458	6,686	6,980	-0.7	4.4
Department of Veterans' Affairs	192,917	184,698	180,013	178,265	174,290	-2.5	-2.2
Other ^(b)	39,736	28,237	28,448	30,717	36,687	-2.0	19.4
<i>Total private hospitals</i>	<i>3,740,672</i>	<i>3,839,061</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>3.7</i>	<i>3.8</i>
All hospitals							
Public patients ^(a)	4,768,984	4,727,075	4,832,934	5,104,321	5,348,842	2.9	4.8
Private health insurance	3,610,270	3,834,163	4,044,436	4,270,878	4,473,878	5.5	4.8
Self-funded	372,720	344,034	339,975	335,734	333,491	-2.7	-0.7
Workers compensation	89,282	83,398	81,156	78,417	80,684	-2.5	2.9
Motor vehicle third party personal claim	35,801	34,167	35,304	34,465	35,074	-0.5	1.8
Department of Veterans' Affairs	306,468	288,852	275,914	269,053	259,298	-4.1	-3.6
Other ^(b)	68,639	57,568	87,056	57,499	68,501	-0.1	19.1
Total	9,252,164	9,369,257	9,696,775	10,150,367	10,599,768	3.5	4.4

(a) *Public patients* includes separations with a funding source of *Health Service budget* (including *Health Service budget due to Reciprocal health care agreements*) and *Health Service budget—no charge raised due to hospital decision* in public hospitals) and *Other hospital or public authority* (with a *Public patient election status*).

(b) *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, Health service budget—no charge raised due to hospital decision* (in private hospitals), and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 7.6: Separations by principal source of funding, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Public patients ^(a)	1,412,863	1,402,623	1,097,188	562,306	385,800	92,434	91,504	141,602	5,186,320
Private health insurance	370,369	214,329	158,815	53,420	37,885	21,523	11,857	3,704	871,902
Self-funded	24,486	9,584	10,393	724	1,067	18	6	643	46,921
Workers compensation	7,469	5,376	5,544	1,474	1,180	432	480	467	22,422
Motor vehicle third party personal claim	7,670	9,466	4,337	2,406	2,852	763	280	320	28,094
Department of Veterans' Affairs	35,206	17,022	15,439	5,124	6,752	2,209	2,625	631	85,008
Other ^(b)	3,100	11,162	1,409	5,285	3,295	5,225	1,289	1,049	31,814
Total public hospitals	1,861,163	1,669,562	1,293,125	630,739	438,831	122,604	108,041	148,416	6,272,481
Private hospitals									
Public patients ^(a)	11,584	3,938	49,277	95,532	472	n.p.	n.p.	n.p.	162,522
Private health insurance	1,066,832	892,149	871,660	361,412	289,216	n.p.	n.p.	n.p.	3,601,976
Self-funded	113,271	79,846	59,725	16,897	12,288	n.p.	n.p.	n.p.	286,570
Workers compensation	19,105	11,206	12,656	7,470	5,428	n.p.	n.p.	n.p.	58,262
Motor vehicle third party personal claim	1,650	3,534	461	774	273	n.p.	n.p.	n.p.	6,980
Department of Veterans' Affairs	47,133	28,160	68,020	13,352	11,743	n.p.	n.p.	n.p.	174,290
Other ^(b)	1,595	3,080	10,758	2,061	2,328	n.p.	n.p.	n.p.	36,687
Total private hospitals	1,261,170	1,021,913	1,072,557	497,498	321,748	n.p.	n.p.	n.p.	4,327,287

(a) *Public patients* includes separations with a funding source of *Health Service budget* (including *Health Service budget due to Reciprocal health care agreements*) and *Health Service budget—no charge raised due to hospital decision* in public hospitals) and *Other hospital or public authority* (with a *Public patient* election status).

(b) *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*, *Health service budget—no charge raised due to hospital decision* (in private hospitals), and not reported.

Note: See boxes 1.1, 1.2 and annexes A and B for notes on data limitations and methods.

Table 7.7: Same-day acute separations, by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private free-standing day hospital facilities	Other private hospitals	Total
Public patients ^(a)	2,751,445	93,987	48,979	2,894,411
Private health insurance	400,721	681,611	1,467,759	2,550,091
Self-funded	24,161	142,086	97,299	263,546
Workers compensation	9,740	2,430	19,352	31,522
Motor vehicle third party personal claim	9,093	356	2,124	11,573
Department of Veterans' Affairs	30,239	24,881	49,957	105,077
Other ^(b)	13,258	7,832	15,348	36,438
Total	3,238,657	953,183	1,700,818	5,892,658

(a) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) *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, Health service budget—no charge raised due to hospital decision* (in private hospitals), and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 7.8: Overnight acute separations, by principal source of funding, public and private hospitals, 2015–16

Principal source of funding	Public hospitals	Private hospitals	Total
Public patients ^(a)	2,169,963	16,240	2,186,203
Private health insurance	419,483	996,612	1,416,095
Self-funded	21,869	40,340	62,209
Workers compensation	11,848	24,610	36,458
Motor vehicle third party personal claim	17,352	2,500	19,852
Department of Veterans' Affairs	43,675	61,536	105,211
Other ^(b)	16,871	10,806	27,677
Total	2,701,061	1,152,644	3,853,705

(a) *Public patients* includes separations with a funding source of *Health service budget, Other hospital or public authority* (with a *Public patient election status*), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals).

(b) *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, Health service budget—no charge raised due to hospital decision* (in private hospitals), and not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information about principal source of funding is available in:

- 'Chapter 4 Why did people receive care?' – by urgency of admission
- 'Chapter 5 What services were provided?' – for rehabilitation care and palliative care
- 'Chapter 6 What procedures were performed?' – for emergency and elective admissions involving surgery and for elective surgery.

Information on data limitations and methods is available in appendixes A and B.

Expenditure by public hospitals on admitted patient care will be reported in the AIHW report *Hospital resources 2015–16: Australian hospital statistics* (AIHW forthcoming).

7.3 How much care was contracted between hospitals?

Inter-hospital contracted patient separations are episodes of care for admitted patients whose treatment and/or care is provided under an arrangement between a hospital purchaser (the contracting hospital) of hospital care and a provider (the contracted hospital) of an admitted service. The activity for such arrangements is recorded by both hospitals. As inter-hospital contracted patients are admitted patients of both the contracting and contracted hospital, these separations are likely to represent double-counting of hospital activity in the NHMD.

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 jurisdictional health department or between private hospitals and Local hospital networks. In addition, it is not possible to identify whether separations had multiple episodes of contracted care, as the inter-hospital contracted patient status is assigned only once by the contracting hospital.

In 2015–16, about 88,600 separations had an *Inter-hospital contracted patient status* indicating that the episode occurred at the contracted hospital ('contracted patient from public/private sector hospital') (Table 7.9). About 87,000 separations had an *Inter-hospital contracted patient status* indicating that the episode occurred at the contracting hospital ('contracted patient to public/private sector hospital').

Most contracted care provided by private hospitals was purchased by public hospitals. About 84,000 separations were reported as public hospital separations contracted to the private sector and 78,000 separations were reported as private hospital separations contracted from the public sector. The majority of contracted separations were for care involving dialysis (about 78,300 episodes).

Table 7.9: Separations by inter-hospital contracted patient status, public and private hospitals, 2015–16

	Public hospitals	Private hospitals	Total
Inter-hospital contracted patient from public sector hospital	8,425	77,953	86,378
Inter-hospital contracted patient from private sector hospital	2,196	17	2,213
Total contracted separations reported by the contracted hospital	10,621	77,970	88,591
Inter-hospital contracted patient to public sector hospital	2,840	48	2,888
Inter-hospital contracted patient to private sector hospital	84,066	0	84,066
Total contracted separations reported by the contracting hospital	86,906	48	86,954

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information about inter-hospital contracted care for states and territories is in tables accompanying this report online at <www.aihw.gov.au/hospitals/>.

Information on data limitations and methods is available in appendixes A and B.

8 What was the safety and quality of the care?

The clinical information available in the NHMD can be used to provide some information on the safety and quality of admitted patient care in hospitals. However, the available information does not provide a complete picture. For example, there is no routinely available information on some aspects of quality, such as continuity or responsiveness of hospital services.

This section presents information relevant to the safety and quality of the care for admitted patients in 2015–16 including national indicators on:

- adverse events treated in hospital – an NHPF performance indicator – presenting counts of separations where selected diagnoses, external causes and places of occurrence were reported, which can indicate that an adverse event was treated and/or occurred during the hospitalisation
- unplanned readmissions – an NHA performance indicator – presenting counts of separations for which a readmission occurred to the same hospital within 28 days of selected surgical procedures
- falls resulting in patient harm in hospitals – an NHPF performance indicator – presenting counts of separations where the data indicate that a fall occurred during the episode of care
- patient experience – an NHA performance indicator – presenting survey results for questions related to admitted patient care.

Information for the NHA performance indicator *Healthcare associated infections* has been reported in *Staphylococcus aureus bacteraemia in Australian public hospitals 2015-16: Australian hospital statistics* (AIHW 2017).

Other measures are not recognised as performance indicators but can provide information relevant to the safety and quality of care provided to admitted patients. They focus on conditions reported as arising (or being acquired) during the hospital episode; some may have been preventable. The measures are:

- conditions that arise during the hospital stay – presenting counts of separations where a diagnosis was reported as arising during the episode of care
- hospital-acquired diagnoses – presenting counts of separations reported with a hospital-acquired diagnosis using the Classification of hospital-acquired diagnoses (CHADx); most involved a condition reported as arising during the episode.

It should be noted that the data in the NHMD are collected primarily for the purposes of recording care provided to admitted patients and that their use for purposes such as reporting adverse events has not been validated for accuracy in Australia. The results should therefore be treated with caution.

It should also be noted that the information presented for adverse events, conditions arising during the hospital stay, falls in hospitals, unplanned readmissions and hospital-acquired diagnoses is not mutually exclusive. For example, 'Unplanned readmissions' and 'Falls resulting in patient harm in hospitals' are subsets of 'Adverse events'.

In 2015–16, in addition:

- for ‘conditions that arose during the hospital stay’, about 30% were also classified as ‘adverse events’ and 92% as a ‘hospital-acquired diagnosis’
- for ‘hospital-acquired diagnoses’, about 30% were also classified as ‘adverse events’ and 98% as ‘conditions that arose during the hospital stay’.

Key findings

Adverse events

In 2015–16, about 576,000 separations (5.4%) included diagnoses or external causes that indicated adverse events had resulted in, or affected, hospital admission (Table 8.1).

Overnight, emergency and surgical separations had the highest rates of adverse event.

Unplanned readmissions

In 2015–16, about 3.5% (35 in 1,000) of *Tonsillectomy and adenoidectomy* surgeries in public hospitals were followed by an unplanned readmission within 28 days. For *Cataract extraction*, about 3 per 1,000 surgeries had an unplanned readmission within 28 days.

Falls

In 2015–16, about 34,000 falls resulting in patient harm in hospitals were recorded, at a rate of 3.2 falls per 1,000 separations. Rates were higher in public hospitals than in private hospitals (4.6 and 1.3 per 1,000, respectively).

Hospital-acquired diagnoses

In 2015–16, a hospital-acquired diagnosis was reported for about 889,000 separations – about 9.8% of public hospital separations (630,000 separations) and 6.6% of private hospital separations (260,000) (for which data were available).

In 2015–16, the most common hospital-acquired diagnoses were reported for *Labour, delivery and postpartum complications* (160,000 separations). Commonly reported single diagnoses included *Hypotension* (almost 85,000 separations), *Nausea and vomiting* (56,000) and *Urinary tract infections* (24,000).

8.1 Performance indicator: Adverse events

'Adverse events treated in hospitals' is a performance indicator under the domain 'Health System Performance – Safety' dimension of the NHPF. It is a measure of the safety and quality of the care provided to admitted patients, and encompasses a range of events, rather than focusing on 1 type, such as readmissions or falls.

Adverse events are defined as incidents in which harm resulted to a person receiving health care. They include adverse effects of drugs, injuries that occur during care, and conditions that occur following procedures such as infections and bleeding. Some of these adverse events may be preventable.

Adverse events such as these can lead to longer stays and poorer patient outcomes, along with increased costs of treatment. 'Adverse events treated in hospital' is based on events that have been identified by the treating doctor in the clinical record, indicating that an adverse event has resulted in, or affected, hospital admission.

The information presented in this section 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.

Hospital separations data include information on diagnoses, external causes of injury and poisoning, and their places of occurrence 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.

A separation may be recorded against more than 1 category in Table 8.1 as some adverse events are reported as diagnoses and others as external causes or places of occurrence (of the injury or poisoning). Some of the adverse events included in this table may represent events that occurred before admission. Condition onset flag (COF) information can be used to provide other information about adverse events occurring, and treated within, single episodes of care.

Separations with adverse events in 2015–16

In 2015–16, about 576,000 separations (5.4%) reported 1 or more ICD-10-AM codes indicating 1 or more adverse events (Table 8.1). The proportion of separations with an adverse event was 6.6% for public hospitals and 3.8% for private hospitals. The data for public hospitals are not comparable with the data for private hospitals because their casemixes differ and recording practices may also be different.

The most common adverse event groups reported for public hospital separations were *Procedures causing abnormal reactions/complications* (50%) and *Adverse effects of drugs, medicaments and biological substances* (38%).

The most common adverse event group reported for private hospital separations was *Procedures causing abnormal reactions/complications* (52%).

Overnight separations reported higher rates of adverse events than same-day separations (11.0% and 1.7%, respectively) (Table 8.2).

Separations for surgical care had higher rates of adverse events than separations for other types of care (7.7% and 4.7%, respectively).

Separations for subacute and non-acute care had higher rates of adverse events than acute care separations (7.4% and 5.3%, respectively), and emergency admissions had higher rates of adverse events than non-emergency admissions (9.7% and 3.9%, respectively).

Table 8.1: Separations with an adverse event^(a) per 100 separations, public and private hospitals, 2015–16

Adverse event	Public hospitals		Private hospitals		Total	
	Separations	Rate (per 100)	Separations	Rate (per 100)	Separations	Rate (per 100)
External cause of injury or poisoning						
Adverse effects of drugs, medicaments and biological substances	155,948	2.5	29,984	0.7	185,932	1.8
Misadventures to patients during surgical and medical care	22,428	0.4	8,960	0.2	31,388	0.3
Procedures causing abnormal reactions/complications	206,753	3.3	85,350	2.0	292,103	2.8
Other external causes of adverse events	15,284	0.2	1,098	0.0	16,382	0.2
Place of occurrence: Health service area	397,243	6.3	146,579	3.4	543,822	5.1
Diagnoses						
Selected post-procedural disorders	53,237	0.8	31,740	0.7	84,977	0.8
Haemorrhage and haematoma complicating a procedure	28,295	0.5	13,753	0.3	42,048	0.4
Infection following a procedure	23,702	0.4	10,727	0.2	34,429	0.3
Complications of internal prosthetic devices	77,575	1.2	47,890	1.1	125,465	1.2
Other diagnoses of complications of medical and surgical care	60,488	1.0	28,553	0.7	89,041	0.8
Total (any of the above)	412,137	6.6	164,058	3.8	576,195	5.4

(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. The adverse event is counted where reported as the principal diagnosis or as an additional diagnosis (or external cause of injury or poisoning). For information on the codes used, see tables accompanying this report online.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 8.2: Separations with an adverse event^(a) per 100 separations, by same-day/overnight status, type of care and urgency of admission^(b), public and private hospitals, 2015–16

Adverse event	Public hospitals		Private hospitals		Total	
	Separations	Rate (per 100)	Separations	Rate (per 100)	Separations	Rate (per 100)
Length of stay						
Same-day separations	67,713	2.1	40,972	1.3	108,685	1.7
Overnight separations	344,424	11.6	123,086	9.6	467,510	11.0
Type of care						
Acute care separations	373,504	6.3	139,522	3.7	513,026	5.3
Sub- and non-acute care separations	38,633	11.6	24,536	4.7	63,169	7.4
Urgency of admission						
Emergency admissions	252,180	9.5	25,971	11.7	278,151	9.7
Non-emergency admissions	159,957	4.4	138,087	3.4	298,044	3.9
Surgical/Non-surgical						
Surgical admissions	123,247	11.2	80,707	5.2	203,954	7.7
Non-surgical admissions	288,890	5.6	83,351	3.0	372,241	4.7

(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. The adverse event is counted where reported as the principal diagnosis or as an additional diagnosis (or external cause of injury or poisoning). For information on the codes used, see tables accompanying this report online.

(b) The categories *Length of stay*, *Type of care*, *Urgency of admission* and *Surgical/Non-surgical* are not mutually exclusive. Each separation with an adverse event is included in 4 categories; for example, as a *Same-day* separation, an *Acute* care separation, an *Emergency* admission and a *Surgical* admission.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information related to adverse events is available in:

- Section 8.3 – ‘Performance indicator: Falls resulting in patient harm in hospital’
- Section 8.5 – ‘Conditions that arose during the hospital stay’
- Section 8.6 – ‘Hospital-acquired diagnoses’
- *Staphylococcus aureus bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics* (AIHW 2017).

More information on performance indicators is available in Appendix C.

Information on data limitations and methods is available in appendixes A and B.

Information on the ICD-10-AM codes used in analyses is available in tables accompanying this report online.

8.2 Performance indicator: Unplanned readmissions

This section presents information on readmissions to the same public hospital following selected surgical procedures. It does not include information on all unplanned or unexpected readmissions, or readmission to another hospital. Therefore, the information presented here may differ from rates reported by states and territories.

'Unplanned or unexpected readmissions after surgery' is an NHA performance indicator in the outcome area of *Australians receive appropriate high quality and affordable hospital and hospital-related care*. The measure is regarded as an indicator of the safety of admitted patient care in hospitals.

This indicator includes hospitalisations for which an unplanned readmission to the same public hospital occurred within 28 days following surgery (for selected surgical procedures), and the cause of the hospitalisation (the principal diagnosis) was an adverse event. The specified principal diagnoses are the same as the diagnoses listed as adverse events in Table 8.1 for *Selected post-procedural disorders, Haemorrhage and haematoma complicating a procedure, Infection following a procedure, Complications of internal prosthetic devices and Other diagnoses of complications of medical and surgical care*.

This measure is restricted to readmissions to the same public hospital between 1 July 2015 and 30 June 2016, where the initial admission for the procedure occurred between 1 July 2015 and 19 May 2016. Where a patient is readmitted more than once within 28 days of the procedure, only the first readmission is included.

Unplanned readmissions in 2015–16

For the selected surgeries, rates of unplanned readmissions in public hospitals were highest for *Tonsillectomy and adenoidectomy* (35 per 1,000 separations) and *Hysterectomy* (33 per 1,000 separations) (Table 8.3). Rates of unplanned readmissions were lowest for *Cataract extraction* (about 3 per 1,000 separations).

Where to go for more information:

Information about the specification used for this performance indicator is available at <http://meteor.aihw.gov.au/content/index.phtml/itemId/630049>.

More information on performance indicators is available in Appendix C.

Information on data limitations and methods is available in appendixes A and B.

Table 8.3: Separations^(a) and rate per 1,000 separations, unplanned/unexpected readmissions within 28 days for selected procedures, public hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total ^(c)
Appendicectomy									
Separations	9,787	7,115	6,176	3,295	1,965	657	738	393	26,831
Number of readmissions	184	137	125	107	67	23	9	17	562
Per 1,000 separations	18.8	19.3	20.2	32.5	34.1	35	12.2	43.3	20.9
Cataract extraction									
Separations	19,211	20,128	7,012	10,469	5,771	1,823	997	610	55,552
Number of readmissions	51	56	32	17	15	16	2	4	176
Per 1,000 separations	2.7	2.8	4.6	1.6	2.6	8.8	2	6.6	3.2
Hip replacement									
Separations	3,470	2,777	1,748	1,231	767	282	94	42	9,180
Number of readmissions	60	53	35	27	16	11	0	1	176
Per 1,000 separations	17.3	19.1	20	21.9	20.9	39	..	23.8	19.2
Hysterectomy									
Separations	2,947	2,974	2,286	979	862	248	123	97	9,537
Number of readmissions	113	77	80	42	29	9	6	5	319
Per 1,000 separations	38.3	25.9	35	42.9	33.6	36.3	48.8	51.5	33.4
Knee replacement									
Separations	5,135	2,954	2,677	1,416	836	302	106	54	12,064
Number of readmissions	100	57	84	33	23	11	1	3	279
Per 1,000 separations	19.5	19.3	31.4	23.3	27.5	36.4	9.4	55.6	23.1
Prostatectomy									
Separations	2,289	2,224	1,325	569	445	190	72	27	6,572
Number of readmissions	54	46	56	23	13	2	2	1	174
Per 1,000 separations	23.6	20.7	42.3	40.4	29.2	10.5	27.8	37	26.5
Tonsillectomy and adenoidectomy									
Separations	6,823	7,736	3,915	2,290	1,817	543	425	245	21,504
Number of readmissions	185	185	222	123	95	25	13	21	746
Per 1,000 separations	27.1	23.9	56.7	53.7	52.3	46	30.6	85.7	34.7

(a) Separations are counted in the denominator if the admission for the selected procedure occurred between 1 July 2015 and 19 May 2016.

(b) The data for Western Australia were calculated and provided by the Western Australian Department of Health.

(c) Total excludes data for Western Australia.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

8.3 Performance indicator: Falls resulting in patient harm in hospital

This section presents information on separations for which an external cause of *Falls* was reported, and for which the place of occurrence was reported as *Health service area*.

'Falls resulting in patient harm in hospitals' is a performance indicator under the NHPPF domain of 'Safety'. This indicator is intended to report separations where a fall occurred in hospital during the episode of care, resulting in patient harm.

The indicator identifies falls occurring in any health service area, as it is not currently possible to identify falls as occurring specifically in hospitals. Therefore, these rates may overestimate falls in hospitals. However, patients with an injury or poisoning as the principal diagnosis for the hospitalisation are excluded to minimise the inclusion of falls that occurred before admission. These rates may also be underestimated, as the place of occurrence was not specified for about 18% of separations with an external cause of injury of *Falls*.

Falls in hospitals in 2015–16

In 2015–16, about 34,000 separations reported a fall that occurred in a health service area, at a rate of 3.2 per 1,000 separations (Table 8.4). More falls per 1,000 separations were reported for public hospitals (4.6 per 1,000 separations) than for private hospitals (1.3 per 1,000).

Where to go for more information:

Information about the specification used for this performance indicator is available at <http://meteor.aihw.gov.au/content/index.phtml/itemId/443705>.

More information on performance indicators is available in Appendix C.

Information on data limitations and methods is available in appendixes A and B.

Table 8.4: Separations for falls resulting in patient harm in hospitals, per 1,000 separations, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	
									Rate	Number
Hospital sector										
Public	5.8	3.4	3.9	5.0	5.4	6.7	5.0	1.7	4.6	28,655
Private	0.4	1.5	2.0	1.5	1.4	n.p.	n.p.	n.p.	1.3	5,591
Indigenous status										
Indigenous	2.4	n.p.	1.7	n.p.	n.p.	n.p.	n.p.	n.p.	1.5	733
Other Australians	3.6	2.7	3.1	3.7	3.8	4.4	4.2	3.1	3.3	33,513
Remoteness area of usual residence^(a)										
Major cities	3.8	2.6	3.2	3.6	3.9	n.p.	4.3	n.p.	3.3	23,969
Inner regional	3.0	3.1	3.2	3.1	2.8	4.2	n.p.	n.p.	3.1	6,431
Outer regional	3.3	3.4	2.6	4.4	3.7	4.9	n.p.	2.4	3.3	3,145
Remote and Very remote	n.p.	n.p.	n.p.	1.6	n.p.	n.p.	..	1.2	1.6	489
Socioeconomic status of area of usual residence^(b)										
1—Lowest	3.8	2.8	3.6	3.4	4.3	5.2	n.p.	n.p.	3.5	8,135
2	3.6	3.0	3.3	4.1	4.1	3.9	n.p.	n.p.	3.5	7,470
3	3.7	2.9	3.1	3.3	3.4	4.3	n.p.	n.p.	3.3	6,900
4	3.7	2.5	2.5	3.4	3.1	3.3	4.7	n.p.	2.9	5,888
5—Highest	3.1	2.4	2.5	3.3	2.3	n.p.	3.9	n.p.	2.9	5,635
Total^(c)	3.6	2.7	3.0	3.5	3.7	n.p.	n.p.	n.p.	3.2	34,246

(a) Disaggregation by remoteness of area of usual residence, not remoteness of hospital. However, state/territory data are reported by jurisdiction of the hospital, regardless of the jurisdiction of usual residence.

(b) Disaggregation by socioeconomic group is based on the usual residence of the patient, rather than the location of the hospital.

(c) The total includes separations for which the place of usual residence was not reported.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

8.4 Patient experience

This section presents selected information from the Australian Bureau of Statistics' (ABS) 2015–16 Patient Experience Survey (ABS 2015). The survey is conducted annually and includes information on patient experience in various health-care situations, including general practitioners, medical specialists, dental professionals, imaging and pathology tests, hospital admissions and emergency department visits.

About 19,000 people aged 15 and over were surveyed in 2015–16. Of these, more than 2,500 people (13.6%) had attended a hospital in the previous 12 months, either as an admitted patient or as an emergency department patient.

'Patient satisfaction/experience' is an NHA performance indicator in the outcome area of *Australians have positive health and aged care experiences which take account of individual circumstances and care needs*. A patient experience survey is one tool that health services can use to assess whether they are meeting the need of the patient. The information presented here relates to the patient's satisfaction with their experience with hospital doctors and nurses (for those who had attended a hospital).

The survey asked patients to respond to whether the doctors or nurses:

- listened carefully to them
- showed respect to them
- spent enough time with them.

At least 89% of patients responded 'always' or 'often' to each of these questions for both doctors and nurses (Table 8.5).

More than 92% of patients responded 'always' or 'often' to the questions about whether the doctors or nurses showed respect to them.

Table 8.5: Patient experience in hospital, people aged 15 years and over, 2015–16

	Always	Often	Sometimes/ rarely/never
Hospital doctors and specialists			
Listened carefully	76.4	15.7	7.9
Showed respect	78.5	13.8	7.6
Spent enough time with person	74.8	14.2	11.0
Hospital nurses			
Listened carefully	78.2	13.8	8.0
Showed respect	79.1	13.4	7.5
Spent enough time with person	76.3	13.8	9.9

Source: ABS 2015.

Where to go for more information:

Information about the specification used for this performance indicator is available at meteor.aihw.gov.au/content/index.phtml/itemId/559002.

More information on the ABS's Patient Experience Survey is available at www.abs.gov.au/ausstats/abs@.nsf/mf/4839.0.

8.5 Conditions that arose during the hospital stay

This section presents information on conditions that arose during the episode of admitted patient care (that is, they arose during the hospital stay), and were not present on admission. Conditions that arise during the hospital stay include adverse events (some of which may have been preventable) and therefore may provide information about the safety and quality of the care.

A condition onset flag (COF) is required to be reported for each diagnosis and external cause of injury or poisoning in the NHMD. The COF is a means of differentiating between conditions that were present on admission, and those that arose during the episode of care.

The flag (COF=1) is assigned for conditions that arise during the episode of admitted patient care and can include conditions that:

- result from a misadventure during surgical or medical care
- are abnormal reactions to, or later complications of, surgical or medical care
- are newly arising conditions (for example, pneumonia, rash, confusion or cyst)
- have an impact on obstetric care that arises after admission, including complications or unsuccessful interventions of labour and delivery, or prenatal/postpartum management
- for neonates, condition(s) in the birth episode arising during the birth event (for example, respiratory distress, jaundice, feeding problems, neonatal aspiration, conditions associated with birth trauma, or newborn affected by delivery or intrauterine procedures).

The flag is not assigned for conditions previously existing or suspected on admission – such as the presenting problem, a comorbidity, chronic disease or disease status.

For 2015–16, the COF data were provided for 99.8% of public hospital separations and 89.7% of private hospital separations (see Appendix A).

The information presented in this section does not include separations for which the COF data were not provided.

Conditions that arose during the hospital stay in 2015–16

In 2015–16, about 905,000 separations (8.9% of all separations for which COF data were provided) recorded a condition that arose during the episode of care (COF=1) (tables 8.6 and 8.7). As the coverage of the COF data for 2015–16 was greater than coverage in earlier years (particularly for private hospitals), these data may not be comparable with data presented in earlier reports.

Separations with condition that arose during the episode of care accounted for about 10.2% of public hospital separations (Table 8.6) and 6.8% of private hospital separations (Table 8.7).

For both same-day and overnight separations, in both public and private hospitals, the highest proportion of separations with a condition that arose during the episode was in the *Childbirth* category, reflecting conditions arising after admission that impact on obstetric care.

Emergency admissions involving surgery had relatively high rates of conditions that arose during the episode:

- for public hospitals, about 1.9% of same-day and 30.0% of overnight emergency admissions involving surgery included a condition that arose during the episode (Table 8.6)
- for private hospitals, about 0.9% of same-day and 29.3% of overnight emergency admissions involving surgery included a condition that arose during the episode (Table 8.7).

Table 8.6: Proportion^(a) (%) of separations^(b) with a condition noted as arising during the episode of care, by same-day/overnight status, broad category of service and urgency of admission, public hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	COF=1
Same-day separations										
Childbirth	30.1	38.9	35.3	38.5	34.8	36.3	40.3	46.2	34.9	3,351
Specialised mental health	0.1	0.9	0.9	1.8	1.0	0.7	1.0	0.0	0.7	157
Emergency admissions										
Surgical	1.5	2.7	2.0	1.5	1.8	1.9	2.9	1.6	1.9	491
Medical	0.9	1.2	0.9	0.8	2.1	0.8	1.2	0.6	1.0	7,393
Other	2.2	3.8	1.2	1.6	2.4	3.0	2.9	3.8	2.3	141
<i>Total emergency</i>	<i>0.9</i>	<i>1.2</i>	<i>0.9</i>	<i>0.9</i>	<i>2.1</i>	<i>0.9</i>	<i>1.3</i>	<i>0.6</i>	<i>1.1</i>	<i>8,025</i>
Non-emergency admissions										
Surgical	1.0	1.9	1.1	1.2	0.9	1.7	1.2	0.7	1.3	5,125
Medical	0.5	0.6	1.0	0.4	1.9	0.8	1.7	0.2	0.7	13,013
Other	0.8	1.0	0.6	0.7	1.0	2.0	0.7	0.5	0.9	2,750
<i>Total non-emergency</i>	<i>0.6</i>	<i>0.9</i>	<i>1.0</i>	<i>0.6</i>	<i>1.6</i>	<i>1.2</i>	<i>1.5</i>	<i>0.3</i>	<i>0.8</i>	<i>20,888</i>
<i>Total same-day</i>	<i>0.8</i>	<i>1.0</i>	<i>1.1</i>	<i>0.7</i>	<i>1.9</i>	<i>1.3</i>	<i>1.8</i>	<i>0.4</i>	<i>1.0</i>	<i>32,421</i>
Overnight separations										
Childbirth	49.6	66.2	61.0	59.6	63.0	47.6	60.5	60.9	58.4	130,823
Specialised mental health	11.2	17.3	14.3	15.9	10.4	6.9	15.9	5.6	13.5	15,813
Emergency admissions										
Surgical	24.3	38.7	31.1	26.0	32.1	32.7	30.2	16.9	30.0	77,166
Medical	9.3	17.2	10.0	9.8	11.9	15.6	12.0	6.6	11.5	170,454
Other	21.3	35.0	28.4	22.9	25.8	32.8	25.3	16.9	26.6	18,271
<i>Total emergency</i>	<i>11.7</i>	<i>21.4</i>	<i>13.3</i>	<i>12.8</i>	<i>15.2</i>	<i>19.3</i>	<i>16.1</i>	<i>8.5</i>	<i>14.7</i>	<i>265,891</i>
Non-emergency admissions										
Surgical	20.4	32.5	23.7	22.9	23.7	28.2	20.7	14.8	25.1	89,718
Medical	17.0	27.6	27.1	26.5	21.2	23.0	28.1	13.7	22.9	99,780
Other	17.6	23.0	18.4	19.5	14.2	25.2	20.3	9.9	19.4	5,057
<i>Total non-emergency</i>	<i>18.4</i>	<i>29.6</i>	<i>25.2</i>	<i>24.4</i>	<i>22.1</i>	<i>25.5</i>	<i>24.5</i>	<i>14.0</i>	<i>23.8</i>	<i>194,555</i>
<i>Total overnight</i>	<i>16.2</i>	<i>27.7</i>	<i>19.9</i>	<i>19.5</i>	<i>19.8</i>	<i>22.5</i>	<i>22.5</i>	<i>13.0</i>	<i>20.4</i>	<i>607,082</i>
Total	9.2	12.3	9.6	9.4	11.2	11.5	11.7	4.1	10.2	639,503

COF=1—Separation with a condition noted as arising during the episode of care.

(a) The number of separations with a condition reported as arising during the episode of care, divided by the total number of separations in each category as a percentage.

(b) Data exclude records for which the condition onset flag was not reported from both the numerator and denominator.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

There was marked variation among states and territories in the proportion of separations for which a condition was reported as arising during the episode of care. 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 COF values, and that there may be underreporting by some states and territories compared with others.

Table 8.7: Proportion^(a) (%) of separations^(b) with a condition noted as arising during the episode of care, by same-day/overnight status, broad category of service and urgency of admission, private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	COF=1
Same-day separations										
Childbirth	44.8	29.6	52.0	58.3	60.0	n.p.	n.p.	n.p.	39.7	50
Specialised mental health	0.4	2.2	0.2	1.2	0.0	n.p.	n.p.	n.p.	0.8	877
Emergency admissions										
Surgical	3.8	1.2	1.8	0.3	0.7	n.p.	n.p.	n.p.	0.9	45
Medical	3.3	1.3	1.4	0.9	3.5	n.p.	n.p.	n.p.	1.8	199
Other	8.8	1.9	0.0	2.6	0.7	n.p.	n.p.	n.p.	1.0	39
<i>Total emergency</i>	<i>3.8</i>	<i>1.3</i>	<i>1.4</i>	<i>0.9</i>	<i>1.3</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1.4</i>	<i>283</i>
Non-emergency admissions										
Surgical	1.5	0.6	0.6	0.5	0.6	n.p.	n.p.	n.p.	0.7	5,261
Medical	1.1	0.6	0.5	0.2	1.2	n.p.	n.p.	n.p.	0.7	7,215
Other	2.0	0.3	0.3	0.4	0.4	n.p.	n.p.	n.p.	0.7	5,327
<i>Total non-emergency</i>	<i>1.5</i>	<i>0.5</i>	<i>0.5</i>	<i>0.4</i>	<i>0.8</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>0.7</i>	<i>17,803</i>
<i>Total same-day</i>	<i>1.4</i>	<i>0.5</i>	<i>0.5</i>	<i>0.4</i>	<i>0.8</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>0.7</i>	<i>19,013</i>
Overnight separations										
Childbirth	52.5	55.3	52.8	57.2	71.3	n.p.	n.p.	n.p.	54.4	41,188
Specialised mental health	25.1	24.0	26.3	16.6	29.9	n.p.	n.p.	n.p.	23.7	9,440
Emergency admissions										
Surgical	40.7	36.8	24.6	21.1	28.1	n.p.	n.p.	n.p.	29.3	10,812
Medical	18.7	18.8	14.4	13.5	15.3	n.p.	n.p.	n.p.	15.8	22,983
Other	24.0	22.4	18.3	16.9	19.1	n.p.	n.p.	n.p.	19.8	2,484
<i>Total emergency</i>	<i>22.9</i>	<i>22.7</i>	<i>16.4</i>	<i>15.2</i>	<i>18.4</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>18.6</i>	<i>36,279</i>
Non-emergency admissions										
Surgical	24.8	20.2	14.2	11.8	18.1	n.p.	n.p.	n.p.	18.1	100,740
Medical	20.0	21.9	16.0	14.8	17.8	n.p.	n.p.	n.p.	18.5	54,183
Other	13.4	11.8	10.3	12.7	12.5	n.p.	n.p.	n.p.	11.7	4,942
<i>Total non-emergency</i>	<i>22.7</i>	<i>20.4</i>	<i>14.7</i>	<i>12.6</i>	<i>17.8</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>17.9</i>	<i>159,865</i>
<i>Total overnight</i>	<i>25.5</i>	<i>22.9</i>	<i>17.3</i>	<i>16.2</i>	<i>20.5</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>20.5</i>	<i>246,772</i>
Total	8.8	7.9	5.5	5.1	6.5	n.p.	n.p.	n.p.	6.8	265,785

COF=1—Separation with a condition noted as arising during the episode of care.

(a) The number of separations with a condition reported as arising during the episode of care, divided by the total number of separations in each category as a percentage.

(b) Data exclude records for which the condition onset flag was not reported from both the numerator and denominator.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on the condition onset flag is available Appendix A under 'Other factors affecting interpretation of the NHMD data'. Other information on data limitations and methods is available in appendixes A and B.

8.6 Hospital-acquired diagnoses

This section presents information on hospital-acquired diagnoses using the Classification of hospital-acquired diagnoses (CHADx). The CHADx is a classification system that allows hospitals to identify, count and monitor events, as markers of patient safety. This includes post-procedural complications; adverse drug events; accidental injuries; specific infections and metabolic disorders. See Box 8.1.

For the most part, the occurrence of a hospital-acquired diagnosis is identified using the COF along with diagnosis information. Therefore, there is overlap with the numbers of separations that reported a condition that arose during the hospital stay (see Section 8.5).

The original purpose of the CHADx was to allow Australian hospitals to monitor the range of hospital-acquired diagnoses coded in routine data in support of quality improvement efforts (Jackson et al 2009). Its development was supported by the ACSQHC.

Box 8.1: Methods and limitations—CHADx

The CHADx is a comprehensive classification of hospital-acquired diagnoses available for use with ICD-10-AM. The CHADx includes over 4,500 categories arranged into 17 major classes and 145 minor classes (ACSQHC 2013).

Method

CHADx conditions are mainly identified using the condition onset flag. Conditions that arose during the episode were assigned to CHADx classes according to the algorithm that was published on the ACSQHC website (ACSQHC 2013). It should be noted that some conditions that arise during the episode will not be allocated to a CHADx class.

The exception to the use of the COF is for obstetric and perinatal conditions classified to the major CHADx classes (MCHADx) 11, 12 and 13, for which diagnoses are assigned to CHADx classes regardless of the value of the COF.

For some conditions, the CHADx method relies on the sequencing of diagnosis and external cause codes to identify whether a hospital-acquired diagnosis occurred.

A separation is counted only once for each CHADx class where at least 1 condition (that is assigned to the class) was reported for the separation.

Limitations

Due to the specifications and structure required for submitting admitted patient care data for the NHMD, the original sequencing of ICD-10-AM codes (as recorded at the hospital) may be destroyed. Therefore, due to uncertainty about the sequencing of the diagnosis and external cause codes, a CHADx analysis of the NHMD may result in either over- or under-estimating hospital-acquired diagnoses.

For CHADx classes that require a combination of diagnosis and external cause codes, the AIHW has allocated a condition to a CHADx class if both the specified external cause and the diagnosis code had condition onset flags of '1', regardless of the sequence of the codes. This assumption is possible because the onset flag on the external cause is required to be the same as the onset flag for the related diagnosis code. However, this assumption may result in overestimation as the external cause may be related to a different condition, which also has an onset flag of '1'.

Separations including a hospital-acquired diagnosis in 2015–16

In 2015–16, a hospital-acquired diagnosis was reported for more than 889,000 separations (Table 8.8). As the coverage of the COF data for 2015–16 was more complete compared with earlier years (particularly for private hospitals), these data may not be comparable with similar data presented in earlier reports.

About 9.8% of public hospital separations (630,000 separations) and 6.6% of private hospital separations (260,000) reported a hospital-acquired diagnosis.

For public hospitals, the most common Major CHADx classes were *Labour, delivery and postpartum complications* for 1.9% of all separations (and accounting for 19.5% of separations that included a hospital-acquired diagnosis), and *Cardiovascular complications* (1.7%).

For private hospitals, the most common Major CHADx classes were *Gastrointestinal complications* for 1.3% of all separations (and accounting for 19.6% of separations that included a hospital-acquired diagnosis), and *Cardiovascular complications* (1.2%).

Post-procedural complications accounted for about 11.5% of hospital-acquired diagnoses in public hospitals and about 15.0% in private hospitals.

The 20 most common CHADx classes

There are 145 minor CHADx classes and the 20 most frequently reported CHADx classes accounted for about 46% of all hospital-acquired diagnoses (Table 8.9). The total counts in Table 8.8 differ from Table 8.9 as a separation may have more than 1 hospital-acquired diagnosis in a Major CHADx class.

Hypotension was the most common hospital-acquired diagnosis, accounting for about 5.2% of hospital-acquired diagnoses in public and private hospitals combined.

Nausea and vomiting was the most common hospital-acquired diagnosis in private hospitals, accounting for about 6.4% of hospital-acquired diagnoses.

Average length of stay for separations with at least 1 hospital-acquired diagnosis

The average length of stay for overnight separations with at least 1 hospital-acquired diagnosis was 10.6 days in public hospitals and 9.6 days in private hospitals (Table 8.10).

This was longer than the respective average lengths of stay for overnight separations overall, which were 5.5 days for public hospitals and 5.3 days for private hospitals.

It should be noted that patients with longer stays in hospital may have a higher risk of acquiring a condition during the episode. In addition, the occurrence of a hospital-acquired diagnosis may extend the hospital stay.

Table 8.8: Separations with a hospital-acquired diagnosis^(a) by Major CHADx class, public and private hospitals, 2015–16

Major CHADx class	Public hospitals		Private hospitals	
	Separations	Rate (per 100)	Separations	Rate (per 100)
Major CHADx1—Post-procedural complications	72,187	1.1	39,012	1.0
Major CHADx2—Adverse drug events	56,460	0.9	17,860	0.5
Major CHADx3—Accidental injuries	22,375	0.3	6,461	0.2
Major CHADx4—Specific infections	21,611	0.3	6,248	0.2
Major CHADx5—Cardiovascular complications	108,114	1.7	45,768	1.2
Major CHADx6—Respiratory complications	49,758	0.8	19,725	0.5
Major CHADx7—Gastrointestinal complications	77,118	1.2	50,913	1.3
Major CHADx8—Skin conditions	38,633	0.6	17,174	0.4
Major CHADx9—Genitourinary complications	60,847	0.9	24,411	0.6
Major CHADx10—Hospital-acquired psychiatric states	35,049	0.5	12,969	0.3
Major CHADx11—Early pregnancy complications	780	0.0	85	0.0
Major CHADx12—Labour, delivery and postpartum complications	122,940	1.9	36,901	0.9
Major CHADx13—Perinatal complications	63,613	1.0	15,480	0.4
Major CHADx14—Haematological disorders	26,089	0.4	9,803	0.3
Major CHADx15—Metabolic disorders	84,764	1.3	21,157	0.5
Major CHADx16—Nervous system complications	9,416	0.1	4,339	0.1
Major CHADx17—Other complications	93,523	1.5	50,190	1.3
Total	629,876	9.8	259,503	6.6

(a) Data exclude records for which the COF was not reported from both the numerator and denominator.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information about the ACSQHC's Classification of hospital-acquired diagnoses is available at <www.safetyandquality.gov.au/our-work/information-strategy/indicators/classification-of-hospital-acquired-diagnoses/>.

More information on the condition onset flag is available Appendix A under 'Other factors affecting interpretation of the NHMD data'.

Other information on data limitations and methods is available in appendixes A and B.

Table 8.9: Counts of hospital-acquired diagnoses^(a) for the 20 most common CHADx classes, public and private hospitals, 2015–16

CHADx class		Public hospitals	Private hospitals	Total
05.06	Hypotension	59,390	25,735	85,125
15.02	Electrolyte disorders without dehydration	50,575	13,605	64,180
05.03	Cardiac arrhythmias, conduction disturbances and abnormal heart beat	43,692	18,184	61,876
07.05	Nausea and vomiting	26,934	28,840	55,774
12.07	Second degree perineal laceration	41,785	10,398	52,183
07.04	Constipation	28,390	13,643	42,033
12.09	Maternal haemorrhage	31,873	4,152	36,025
08.03	Dermatitis, rash and other skin effects	22,545	12,274	34,819
13.11	Other neonatal complications	27,371	5,850	33,221
12.01	Foetal heart rate abnormalities	24,955	6,882	31,837
10.04	Alterations to mental state	21,926	8,447	30,373
17.12	Other symptoms	16,520	8,225	24,745
12.14	Breast disorders associated with childbirth	14,864	9,741	24,605
12.06	First degree and unspecified perineal laceration	17,452	7,080	24,532
02.16	Adverse effects due to other drugs	18,690	5,349	24,039
09.04	Other complications and symptoms of the urinary system	15,311	8,654	23,965
09.02	Urinary tract infection	16,832	6,912	23,744
17.04	Chest pain	16,378	6,909	23,287
12.15	Other disorders predominately related to pregnancy	19,455	3,750	23,205
15.01	Dehydration / volume depletion	19,475	3,560	23,035
	Other	641,575	240,794	882,369
Total		1,175,988	448,984	1,624,972

(a) Data exclude records for which the COF was not reported from both the numerator and denominator.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Table 8.10: Average length of stay (days) for overnight separations^(a) with and without a hospital-acquired diagnosis, by Surgical/Medical/Other partition, public and private hospitals, 2015–16

	Public hospitals			Private hospitals		
	Separations with a hospital-acquired diagnosis	Separations without a hospital-acquired diagnosis	Total	Separations with a hospital-acquired diagnosis	Separations without a hospital-acquired diagnosis	Total
Average length of stay (days)						
Surgical	10.1	3.4	5.3	7.7	2.6	3.6
Medical	10.9	4.5	5.5	11.7	6.3	7.5
Other	9.6	4.3	5.5	7.4	2.6	3.3
Total	10.6	4.3	5.5	9.6	4.2	5.3

(a) Data exclude records for which the COF was not reported from both the numerator and denominator.

Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

Appendix A: Database quality statement summary

This appendix includes a data quality summary and additional detailed information relevant to interpretation of the National Hospital Morbidity Database (NHMD).

It also contains information on other changes that may affect interpretation of the data presented in this report.

A complete data quality statement for the NHMD is available online at <meteor.aihw.gov.au>.

Information relevant to interpretation of the National Elective Surgery Waiting Times Data Collection is available in *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c) and at <meteor.aihw.gov.au/content/index.phtml/itemId/620766>.

Information relevant to interpretation of the ABS' *Patient experiences in Australia: summary of findings, 2015–16* (ABS 2015) is available at <www.abs.gov.au/ausstats/abs@.nsf/mf/4839.0>.

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 data supplied are based on the National minimum data set (NMDS) for Admitted patient care and include demographic, administrative and length of stay data, as well as data on the diagnoses of the patients, the procedures they underwent in hospital and external causes of injury and poisoning.

The purpose of the NMDS for Admitted patient care is to collect information about care provided to admitted patients in Australian hospitals. The scope of the NMDS 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 in Australia. Hospitals operated by the Australian Defence Force, corrections authorities and in Australia's off-shore territories are not in scope but some are included.

The reference period for this data set is 2015–16. The data set includes records for admitted patient separations between 1 July 2015 and 30 June 2016.

Data for 2015–16 based on the Admitted subacute and non-acute hospital care Data Set Specification (ASNHC DSS) were also provided on a 'best efforts' basis by the states and territories for inclusion in the AIHW's NHMD. A summary of the data provided for the ASNHC DSS is included later in this appendix.

Summary of key issues

- The NHMD is a comprehensive data set that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.
- A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than 1 record in the NHMD.

- For 2015–16, almost all public hospitals provided data for the NHMD. The exception was an early parenting centre in the Australian Capital Territory. The great majority of private hospitals also provided data, the exception being the private free-standing day hospital facilities in the Australian Capital Territory.
- There is some variation between jurisdictions as to whether hospitals that predominantly provide public hospital services, but are privately owned and/or operated, are reported as public or private hospitals. In addition, hospitals may be re-categorised as public or private between or within years.
- The care type *Mental health* was introduced on 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute care*, *Rehabilitation care*, *Psychogeriatric care* and *Geriatric evaluation and management*). The implementation of the *Mental health* care type may not be complete. Not all episodes for patients who received mental health care and were admitted before 1 July 2015 and who subsequently separated during 2015–16 were recorded with a *Mental health* care type. In addition, Queensland statistically discharged and readmitted a number of long stay patients in *Public psychiatric hospitals* on 1 July 2015 to record the change in care type, resulting in an apparent increase in separations and patient days. Therefore, information presented by care type for 2015–16 will not be comparable with data presented for earlier periods.
- Other revised definitions for care types were introduced from 1 July 2013 with the aim to improve comparability in care type assignment among jurisdictions. Therefore, information presented by care type from 2013–14 may not be comparable with data presented for earlier periods.
- The reporting of separations for *Newborns* (without qualified days) varied among states and territories.
- Data on state or territory of hospitalisation should be interpreted with caution because of cross-border flows of patients. This is particularly the case for the Australian Capital Territory. In 2015–16, about 17% of separations for Australian Capital Territory hospitals were for patients who lived in New South Wales.
- Although there are national standards for data on hospital services, there are some variations in how hospital services are defined and counted, between public and private hospitals, among the states and territories and over time. For example, there is variation in admission practices for some 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. In addition, some services are provided by hospitals in some jurisdictions and by non-hospital health services in other jurisdictions. The national data on hospital care does not include care provide by non-hospital providers, such as community health centres.
- Caution should be used in comparing diagnosis, procedure and external cause data over time, as the classifications and coding standards for those data can change over time.
- Between 2011–12 and 2015–16, changes in coverage or data supply for New South Wales, Victoria, Queensland and Western Australia may affect the interpretation of the data:
 - For New South Wales, increases in the numbers of separations for private hospitals are, in part, accounted for by improvements in the coverage of reporting.
 - For Victoria, between 2011–12 and 2012–13, a relatively large decrease in public hospital separations reflected a change in Victoria’s emergency department admission policy.

- For Queensland, between 2013–14 and 2014–15, a relatively large increase in same-day separations in public hospitals partly reflects a change in admission practices for chemotherapy in some hospitals.
- For Western Australia, between 2012–13 and 2013–14, the relatively large decrease in public hospital separations may reflect a change in the state’s emergency department admission policy, which resulted in fewer admissions.
- The Indigenous status data in the NHMD for all states and territories are considered to be of sufficient quality for statistical reporting. In 2011–12, an estimated 88% of Indigenous patients were correctly identified in public hospitals (AIHW 2013). The overall quality of the data provided for Indigenous status is considered to be in need of some improvement and varied between states and territories. It is unknown to what extent Indigenous Australians might be under-identified in private hospital admissions data.

Other factors affecting interpretation of the NHMD data

This section presents other information about the quality of the data provided for the NHMD and factors that may affect interpretation of the information presented in this report.

Changes to the domain values for in care type

The care type *Mental health* care was introduced from 1 July 2015 (METeOR id. 584408).

Mental health care is care in which the primary clinical purpose or treatment goal is improvement in the symptoms and/or psychosocial, environmental and physical functioning related to a patient’s mental disorder. Mental health care:

- is delivered under the management of, or regularly informed by, a clinician with specialised expertise in mental health
- is evidenced by an individualised formal mental health assessment and the implementation of a documented mental health plan
- may include significant psychosocial components, including family and carer support.

Before 1 July 2015, records for which the current *Mental health* care type definition would have applied were assigned to another care type (for example, *Acute*, *Rehabilitation*, *Psychogeriatric care* or *Geriatric evaluation and management*).

Analysis of the data provided for 2015–16 shows that all states and territories provided separations with the care type *Mental health* care (Table A1). However, the numbers of separations reported with a mental health care type compared with the number of separations with specialised psychiatric care days, and with the number of separations with a mental health-related principal diagnosis (as defined in *Mental health services in Australia, Classification codes* (AIHW 2016f) varied among jurisdictions. This may indicate that the implementation of the *Mental health* care type may not have been consistent across jurisdictions or sectors. For example:

- public and private hospitals in New South Wales reported similar numbers of separations with a *Mental health* care type and with specialised psychiatric care days
- public hospitals in Queensland and Western Australia reported fewer separations with a *Mental health* care type compared with separations with specialised psychiatric care days

- public hospitals in South Australia reported more separations with a *Mental health* care type compared with separations with specialised psychiatric care days
- private hospitals in Victoria reported fewer separations with a *Mental health* care type compared with separations with specialised psychiatric care days, with the majority having a *Psychogeriatric care* type
- private hospitals in Queensland reported more separations with a *Mental health* care type compared with separations with specialised psychiatric care days.

Newborn episodes of care

The reporting of *Newborn* care and qualified days varied between states and territories. New South Wales reported relatively high proportions of *Newborn* care with qualified days in both public and private hospitals (48% and 28% of newborns, respectively) compared with the remainder of Australia (about 23% of newborns for both public and private hospitals).

For Victoria and the Northern Territory, private hospitals did not report all *Newborn* episodes without qualified days, so the count of newborn episodes is underestimated.

Information on reporting practices for *Newborn* episodes before 2015–16 is available in previous *Australian hospital statistics* reports.

Quality of Indigenous status data

Indigenous identification in hospital separations data: 2013 quality report

The 2013 AIHW report *Indigenous identification in hospital separations data – quality report*, (AIHW 2013) presented findings on the quality of Indigenous identification in hospital separations data in Australia, based on studies conducted in public hospitals during 2011–12. Private hospitals were not included in the assessment.

The results of the study indicated that, overall, the quality of Indigenous identification in hospital separations data was similar to that achieved in the previous study (AIHW 2010). However, the 2011–12 survey was performed on larger samples for each jurisdiction/region and is therefore considered more robust than the previous study.

The report estimated that, in the 2011–12 study period, about 88% of Indigenous Australians were identified correctly in public hospital admissions data. It is unknown to what extent Indigenous Australians might be under-identified in private hospital admissions data.

The report also produced correction factors to estimate the ‘true’ number of separations for Indigenous Australians. For example, the national correction factor of 1.09 suggested that the ‘true’ number of separations should be about 9% higher than reported for Indigenous Australians.

Table A1: Mental health-related separations, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Separations with a <i>Mental health</i> care type	43,972	25,524	30,668	13,276	13,717	3,348	1,626	1,012	133,143
Separations with specialised psychiatric care days	43,970	26,049	33,053	14,422	11,964	3,091	1,766	1,012	135,327
Separations with a mental health-related principal diagnosis ^(a)	75,336	55,496	51,446	25,262	22,944	4,520	3,128	3,420	241,552
<i>Separations with any of the above</i>	<i>80,959</i>	<i>56,775</i>	<i>55,877</i>	<i>25,915</i>	<i>24,502</i>	<i>5,200</i>	<i>3,342</i>	<i>3,564</i>	<i>256,134</i>
Private hospitals									
Separations with a <i>Mental health</i> care type	59,250	36,646	60,153	5,426	2,178	n.p.	n.p.	n.p.	170,909
Separations with specialised psychiatric care days	59,250	43,285	55,952	5,664	2,178	n.p.	n.p.	n.p.	174,114
Separations with a mental health-related principal diagnosis ^(a)	72,214	47,805	63,186	6,578	2,582	n.p.	n.p.	n.p.	202,058
<i>Separations with any of the above</i>	<i>72,257</i>	<i>47,995</i>	<i>63,256</i>	<i>6,608</i>	<i>2,582</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>202,461</i>

(a) Separations for which the principal diagnosis was within the ICD-10-AM diagnosis chapter of Mental and behavioural disorders (excluding F52.5, F84.2, F98.5 and F98.6), or G30, G47 (excludes G47.3- and G47.4-), O99.3, R44, R45.0, R45.1, R45.4, R48, Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z50.2, Z50.3, Z54.3, Z61.9, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5, Z76.0).

Source: National Hospital Morbidity Database.

Quality in 2015–16

The following information has been provided by the states and territories to provide some additional insight into the quality of Indigenous status data in the NHMD.

New South Wales

The New South Wales Ministry of Health noted that the state had achieved an overall weighted completeness of 80% for Indigenous identification in 2011–12. The low level of completeness for hospitals in *Major cities* (67% compared with 98% in remote areas) revealed that education in Indigenous status data collection should be focused on hospital staff in urban areas. New South Wales' Data Quality Audit and Assurance Program revealed that individual Local Health Districts have initiated, and are delivering, their own comprehensive programs to staff on cultural sensitivity and innovative methods of Indigenous data collection.

Victoria

The Victorian Department of Health and Human Services reports that Indigenous status data for 2015–16 is of an adequate standard for reporting, but should still be considered to under-count the number of Aboriginal and Torres Strait Islander patients. There is a continued effort to improve the quality of this data element through data validation processes and communication channels.

Queensland

The Queensland Department of Health noted that for 2015–16, Indigenous status was reported as 'not stated' for 4.1% of admitted patient separations (0.5% of public hospital separations and 8.6% for private hospital separations). The level of non-reporting of Indigenous status has improved for both public and private hospitals.

Western Australia

The Western Australian Department of Health considers its Indigenous status data as being of good quality, with all cases having a valid Indigenous status reported in 2015–16. A sample survey conducted in 2011 concluded that Western Australia was collecting Indigenous status with a high degree of accuracy.

South Australia

The South Australian Department of Health and Ageing advised that Indigenous status identification, across public hospital information collections, is of high quality – sufficient for publication. While the number of *Not stated* responses has decreased over recent years, it is still considered too high and work is planned to develop targeted training packages aimed at improving the recording and quality of Indigenous status data across hospital settings.

Tasmania

The Tasmanian Department of Health and Human Services advised that the quality and the level of Indigenous status identification, across public hospital information collections, are 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.

Australian Capital Territory

The Australian Capital Territory Government Health Directorate is continuing to undertake initiatives aligned with local and national developments to improve the quality of collection and reporting of Indigenous status data.

Northern Territory

The Northern Territory Department of Health considers the quality of its Indigenous status data to be of high quality. The Department participated in the national review of the quality of demographic data (co-ordinated by AIHW) in 2011 where Indigenous status was found to be accurately recorded in 98% of admitted patients, consistent with findings from previous surveys in 1997 and 2008. The Department retains historical reporting of Indigenous status and all reporting is based on the person's reported Indigenous status at the time of the event.

Quality of the coded clinical data

The comparability of the coded diagnosis, procedure and external cause data can be affected by variations in the quality of the coding, and the numbers of diagnoses and/or procedures reported. Comparability 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, and by assessing apparent variation in the reporting of additional diagnoses.

States and territories are represented on the ICD Technical Group and the DRG Technical Group. These groups provide responses and advice regarding changes/updates to the coding classifications and grouping systems to the ACCD in their efforts to improve coded data quality generally.

State-specific coding standards

The Australian Coding Standards (ACS) 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 ACS, 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 ACS, and may affect the comparability of ICD-10-AM/ACHI coded data.

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 (NSW), 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.

All NSW public hospital coded data is routinely processed, monitored and validated using Performance Indicators for Coding Quality (PICQ™) by the Ministry of Health and disseminated back to the Local Health Districts and individual hospitals. The data from PICQ™ is also used to benchmark Local Health District's/Network's performance.

Victoria

The Victorian Department of Health and Human Services conducts state-wide external audits of admitted patient data across public health services. The audits have recently expanded to include sub-acute and mental health records in addition to the approximately 13,000 acute records audited annually. These audits review the ICD-10-AM/ACHI coding, and the application of ACSs, along with key demographic and administrative data. The rate of AR-DRG change reported for audited records remains at under 5%, indicating a high quality of coding. Coded data is also validated using PICQ™ with published state-wide results for both public and private hospitals.

Queensland

Hospitals in Queensland conduct their own coding quality audits, and ICD-10-AM/ACHI validations are automatically executed as part of the general processing of morbidity data in the corporate data collection. The Statewide Health Information Management Clinical Coding Network continues to aid the improvement of Health Information Management (HIM) and clinical coding services state-wide. It also fosters appropriate education and development of HIMs and clinical coders. The Queensland Department of Health complements this activity through various quality assurance processes, and supporting state-wide data quality related groups such as the Data Quality Improvement Working Group and the Coding Consistency Special Interest Group. These groups assist in the quality of data and consistency for data collection and reporting.

Queensland maintains active representation with the ICD and DRG Technical Groups with respect to proposed changes/amendments and enhancements for the coding and AR-DRG classifications.

Western Australia

The Western Australian Department of Health conducts in-house data quality activities and regular comprehensive external audits of hospital medical records and admitted patient data reporting processes. The Edit Protocol for Hospital Morbidity Data System and the 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.

South Australia

The South Australian Department for Health and Ageing completed a major audit of coding practices in 2011. The rate of AR-DRG change for metropolitan hospitals was marginally above 10%. A result of less than 10% is generally regarded as an indication of high-quality coding.

The Department conducts various coding improvement activities, to improve compliance with national and state coding standards. PICQ™ has been implemented in South Australia, hospitals are provided with monthly reports and asked to review all critical errors and correct where necessary. A coding educator has been appointed to assist hospitals in further developing their coding knowledge.

Tasmania

Tasmania focuses on materiality of coded data error over error rates alone and quality evaluation and assurance activities are carried out accordingly. Improvements have been noted in the quality of the coded data in recent years, but the state continues to develop improvements as necessary. For example, accurate representation of the impact of some

chronic comorbidities on the care provided to a patient during their hospital stay, and over-representation of conditions that had onset during a given episode of admitted care.

Tasmania uses a number of strategies to facilitate reporting including:

- the use of a number of coding quality improvement activities such as clinical clarification processes, use of software that promote correct code assignment, internal data analyses and audits
- the establishment of a dedicated casemix risk team with high-level technical expertise in casemix, clinical costing, clinical coding, health statistics, health research, and data analysis to facilitate targeted activity to improve data quality. This group has initiated coding tools, key performance indicators and reports to assist hospitals within the Tasmanian Health Service to improve the quality of the coded data with particular emphasis on coding for 'clinical truth'
- routine state-wide validation of some episode data
- a state-wide coding auditor/educator who is responsible for managing coded data validations; state-wide coded data reviews, and conducting focussed audits and education
- a Clinical Coding Strategic Committee, to facilitate high level coding-related decisions.

Australian Capital Territory

The Australian Capital Territory conducts regular coding data quality improvement and integrity activities including analysis using the PICQ™ tool to ensure a high standard of coding quality. Validations are automatically undertaken as part of the processing data flow in the hospital-level and corporate-level data collections and further education and training supports these quality improvement activities.

Northern Territory

The Northern Territory (NT) Department of Health is committed to the continual improvement of clinical coding across NT hospitals, and continues to conduct coding quality improvement activities. Clinical coding audits at each hospital are performed by the NT Manager Coding Audit and Education, and follow-up includes focussed education sessions for clinical coders. The larger hospitals perform coding audits at a local level. The PICQ™ tool is also used to validate coded data and provide feedback to individual coders. Data validation checks are routinely performed by the department and results returned to the hospitals for follow-up to ensure data quality. The NT Coders Forum is also an inclusive committee which provides peer support and is an NT wide forum for discussion of coding issues and referral of queries to NCCH/ACCD for resolution, to foster coding quality and consistency.

Apparent variation in reporting of additional diagnoses

The proportion of separations in the lowest resource split for adjacent AR-DRGs can be used as a measure of apparent variation among Australian states and territories in the reporting and coding of additional diagnoses. The proportion is standardised to the national distribution of adjacent AR-DRGs to take into account differing casemixes (Coory & Cornes 2005).

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 diagnoses, also known as complications or comorbidities (CCs). Adjacent AR-DRGs are signified in the AR-DRG classification by having the first 3 characters in common. The allocation of a 4th character code is hierarchical, with the highest resource use level being assigned an A and the lowest resource use level being assigned the last letter in the sequence.

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 4 categories of adjacent AR-DRGs (categories 2, 3 and 4 are subsets of category 1):

1. all applicable adjacent AR-DRGs (that is, excluding adjacent AR-DRGs with other factors affecting partitioning)
2. adjacent AR-DRGs where the lowest split was without complications or comorbidities
3. adjacent AR-DRGs where the lowest split was without catastrophic or severe complications or comorbidities
4. Vaginal and caesarean deliveries.

The category *Vaginal and caesarean deliveries* is included as it represents a sub-group of patients for which there is limited scope for differences in the admission threshold. Therefore, it is expected that differences in the proportions in the lowest resource AR-DRGs for this group are likely to reflect variation in reporting additional diagnoses.

Standardised proportion

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. 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 considered comparable.

See tables accompanying this report online for additional detail on this analysis and the list of AR-DRGs included.

Results 2015–16

Table A2 shows that the proportion of separations grouped to the lowest resource split for adjacent AR-DRGs varies among jurisdictions, and by sector.

Overall for public hospitals, about 67% of separations were allocated to the lowest resource split for adjacent AR-DRGs, ranging from 62% for Victoria and the Northern Territory to 69% for New South Wales.

For private hospitals, about 73% of separations were allocated to the lowest resource split for adjacent AR-DRGs and there was less variation among jurisdictions, ranging from 71% in Victoria to 75% in South Australia.

For *Vaginal and caesarean deliveries*, the proportion allocated to the lowest resource split was 74% for public hospitals, and 72% for private hospitals. There was some variation among jurisdictions, with public hospital proportions ranging from 71% in Victoria, Western Australia and the Australian Capital Territory to 76% in Queensland.

Table A2: Standardised proportion of separations^(a) in lowest resource level AR-DRG for selected adjacent AR-DRGs version 7.0, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
All adjacent AR-DRGs split by complications only									
Public hospitals									
Separations	622,877	459,204	399,914	174,255	141,785	38,526	33,980	30,652	1,901,193
Standardised proportion in lowest resource level	0.69	0.62	0.66	0.67	0.67	0.67	0.68	0.62	0.67
Private hospitals									
Separations	195,243	189,891	187,194	84,424	61,084	n.p.	n.p.	n.p.	744,984
Standardised proportion in lowest resource level	0.72	0.71	0.72	0.73	0.75	n.p.	n.p.	n.p.	0.73
Adjacent AR-DRGs with 'without complication' as the lowest resource level AR-DRG									
Public hospitals									
Separations	257,159	189,651	155,136	68,670	54,542	14,955	14,998	12,075	767,186
Standardised proportion in lowest resource level	0.67	0.60	0.64	0.63	0.63	0.63	0.65	0.59	0.65
Private hospitals									
Separations	72,347	68,637	70,485	34,986	20,360	n.p.	n.p.	n.p.	276,063
Standardised proportion in lowest resource level	0.70	0.68	0.67	0.69	0.69	n.p.	n.p.	n.p.	0.69
Adjacent AR-DRGs with 'without catastrophic or severe complication' as the lowest resource level AR-DRG									
Public hospitals									
Separations	365,718	269,553	244,778	105,585	87,243	23,571	18,982	18,577	1,134,007
Standardised proportion in lowest resource level	0.69	0.64	0.68	0.69	0.70	0.70	0.69	0.65	0.68
Private hospitals									
Separations	122,896	121,254	116,709	49,438	40,724	n.p.	n.p.	n.p.	468,921
Standardised proportion in lowest resource level	0.74	0.73	0.75	0.76	0.78	n.p.	n.p.	n.p.	0.75
Adjacent AR-DRGs for vaginal and caesarean delivery									
Public hospitals									
Separations	74,747	60,204	45,159	24,844	15,679	4,585	5,286	3,280	233,784
Standardised proportion in lowest resource level	0.75	0.71	0.76	0.71	0.73	0.75	0.71	0.74	0.74
Private hospitals									
Separations	22,535	19,351	16,112	10,134	4,193	n.p.	n.p.	n.p.	75,824
Standardised proportion in lowest resource level	0.75	0.69	0.75	0.66	0.77	n.p.	n.p.	n.p.	0.72

(a) Separations for which the care type was reported as *Acute* or *Newborn* (with qualified days), or was not reported.

Changes to ICD-10-AM/ACHI classifications

Information presented over time may be affected by changes to ICD-10-AM/ACHI dose and coding standards. The major changes affecting the interpretation of information presented in this report are:

- the reporting of principal diagnoses for *Rehabilitation care* separations
- the reporting of 'supplementary codes' for chronic conditions
- the reporting of 'past history' of hepatitis
- the deletion of the category I84 *Haemorrhoids* and the creation of the category K64 *Haemorrhoids and perianal venous thrombosis*
- the reporting of *Diabetes mellitus and intermediate hyperglycaemia*.

Rehabilitation care principal diagnosis

Changes to the Australian Coding Standard for *Rehabilitation* (ACS 2104), introduced from 1 July 2015 in the 9th edition of ICD-10-AM mean that Z50- *Care involving the use of rehabilitation procedures* (which was previously required to be coded as the principal diagnosis) is now an 'Unacceptable principal diagnosis'. The change to the ACS means that the 'reason' for rehabilitation will now be identified using the principal diagnosis (rather than as the first additional diagnosis).

Therefore, between 2014–15 and 2015–16, the numbers of separations with a principal diagnosis in the ICD-10-AM chapter Z00–Z99 *Factors influencing health status and contact with health services* decreased markedly, accompanied by corresponding increases in other ICD-10-AM chapters – most notably for S00–T98 *Injury, poisoning and certain other consequences of external causes*, and M00–M99 *Diseases of the musculoskeletal system and connective tissue*.

Supplementary codes for chronic conditions

From 1 July 2015, 29 *Supplementary codes for chronic conditions* were introduced. These codes represent a selection of clinically important chronic conditions – which are part of the patient's current health status on admission that do not meet criteria for inclusion as additional diagnoses, but may impact on clinical care.

The supplementary codes were not considered in the allocation of diagnosis related groups.

The AIHW examined the coded data provided for 2015–16 and found that there were some decreases in additional diagnoses reported for some of the conditions compared with past years (for example, obesity, hypertension and chronic kidney disease, stages 3–5). This may reflect that some chronic disorders that did not strictly meet the definition for additional diagnoses were already being reported as additional diagnoses in some jurisdictions in past years.

For 2015–16, about 4.8 million supplementary codes were reported, with at least 1 reported for about 28.5% of separations in public hospitals and 26.6% in private hospitals (Table A3).

For public hospitals, the proportion of separations for which at least 1 supplementary code was reported ranged from 13.5% in the Northern Territory to 34.4% in South Australia.

For private hospitals, the proportion of separations for which at least 1 supplementary code was reported ranged from 22.8% in Victoria to 32.5% in South Australia.

The most commonly reported supplementary code in both public and private hospitals was *Hypertension* (accounting for 32.6% and 42.8% of all supplementary codes reported, respectively). The proportion of supplementary codes reported as *Hypertension* for public hospitals ranged from 29.4% in Queensland to 34.8% in the Northern Territory (Table A4). For private hospitals, it ranged from 39.5% in Queensland to 44.4% in New South Wales (for jurisdictions whose private hospital data are reported) (Table A5).

For public hospitals, other common supplementary codes reported were *Depression* (10.1%), *Ischaemic heart disease* (10.0%) and *Arthritis and osteoarthritis* (9.6%) (Table A4).

For private hospitals, other common supplementary codes reported were *Arthritis and osteoarthritis* (11.9%), *Asthma, without mention of chronic obstructive pulmonary disease* (11.0%) and *Ischaemic heart disease* (8.5%) (Table A5).

Hepatitis

Changes to the Australian Coding Standard for *Viral hepatitis* (ACS 0104), introduced from 1 July 2013 in the 8th edition of ICD-10-AM clarified that, while it was acceptable to assign a code for a past history of hepatitis, the 'personal history' codes of Z22.51 *Carrier of viral hepatitis B*, Z22.52 *Carrier of viral hepatitis C* and Z22.59 *Carrier of other specified viral hepatitis* should not be assigned. Instead, the past history should be assigned to the codes B18.0 *Chronic viral hepatitis B with delta agent*, B18.1 *Chronic viral hepatitis B without delta agent* or B18.2 *Chronic viral hepatitis C*.

This change in coding standard had little effect on the reporting of principal diagnoses for *Hepatitis B*, as personal history codes should not be assigned as a principal diagnosis. However, the number of additional diagnoses reported for the ICD-10-AM codes B18.0 and B18.1 increased from about 2,600 in 2012–13 to about 15,000 in 2013–14 and increased to about 22,000 in 2015–16.

Conversely, in 2012–13, there were more than 52,500 additional diagnoses reported for Z22.51, Z22.52 and Z22.59, and in 2013–14 and 2014–15 there were fewer than 300 reported.

This change in the coding standard affects the comparability over time in the reporting of the vaccine-preventable category of potentially preventable hospitalisations, which includes counts for additional diagnoses of *Hepatitis B* (see 'Chapter 4 Why did people receive care?').

Haemorrhoids

For the 8th edition of the International Classification of Diseases (ICD), the World Health Organization deleted the category I84 *Haemorrhoids* from the ICD chapter *Diseases of the circulatory system*, and created a new category K64 *Haemorrhoids and perianal venous thrombosis* in the chapter *Diseases of the digestive system* under the sub-chapter of *Other disease of the intestines*. This resulted in a decrease in diagnoses reported for the chapter *Diseases of the circulatory system* and an increase in reporting for the chapter *Diseases of the digestive system* between 2012–13 and 2013–14.

Therefore, information presented by ICD-10-AM diagnosis chapters in this report will not be directly comparable with similar information presented in previous years for the ICD-10-AM chapters *Diseases of the circulatory system* and *Diseases of the digestive system*.

Table A3: Separations with supplementary codes reported, public and private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Separations	1,861,163	1,669,562	1,293,125	630,739	438,831	122,604	108,041	148,416	6,272,481
Separations with supplementary codes	530,874	468,514	379,840	168,134	151,145	35,162	33,599	20,011	1,787,279
Proportion with supplementary codes	28.5	28.1	29.4	26.7	34.4	28.7	31.1	13.5	28.5
Supplementary codes	909,147	791,107	676,501	278,185	272,508	58,669	57,668	32,150	3,075,935
Average number of supplementary codes ^(a)	1.7	1.7	1.8	1.7	1.8	1.7	1.7	1.6	1.7
Private hospitals									
Separations	1,261,170	1,021,913	1,072,557	497,498	321,748	n.p.	n.p.	n.p.	4,327,287
Separations with supplementary codes	362,580	232,935	279,249	117,938	104,628	n.p.	n.p.	n.p.	1,151,338
Proportion with supplementary codes	28.7	22.8	26	23.7	32.5	n.p.	n.p.	n.p.	26.6
Supplementary codes	539,226	339,830	423,790	169,279	154,558	n.p.	n.p.	n.p.	1,707,315
Average number of supplementary codes ^(a)	1.5	1.5	1.5	1.4	1.5	n.p.	n.p.	n.p.	1.5
All hospitals									
Separations	3,122,333	2,691,475	2,365,682	1,128,237	760,579	n.p.	n.p.	n.p.	10,599,768
Separations with supplementary codes	893,454	701,449	659,089	286,072	255,773	n.p.	n.p.	n.p.	2,938,617
Proportion with supplementary codes	28.6	26.1	27.9	25.4	33.6	n.p.	n.p.	n.p.	27.7
Supplementary codes	1,448,373	1,130,937	1,100,291	447,464	427,066	n.p.	n.p.	n.p.	4,783,250
Average number of supplementary codes ^(a)	1.6	1.6	1.7	1.6	1.7	n.p.	n.p.	n.p.	1.6

(a) The average number of supplementary codes per separation is calculated for separations with a supplementary code.

Source: NHMD.

Table A4: Separations by supplementary codes reported, public hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Obesity	35,249	34,477	56,826	11,338	10,401	2,841	2,432	3,111	156,675
Cystic fibrosis	206	214	198	78	37	22	15	6	776
Dementia (including in Alzheimer's disease)	19,540	13,879	11,827	5,029	6,122	520	1,326	335	58,578
Schizophrenia	8,410	6,650	5,870	1,857	2,426	347	361	328	26,249
Depression	80,617	81,129	77,013	28,321	29,755	6,641	5,867	2,272	311,615
Disorder of intellectual development	6,601	6,060	5,757	2,367	3,544	489	357	271	25,446
Parkinson's disease	7,795	5,656	4,686	1,889	1,892	348	520	98	22,884
Multiple sclerosis	1,141	1,475	731	462	471	113	132	20	4,545
Epilepsy	12,514	10,592	11,915	4,340	4,285	920	973	436	45,975
Cerebral palsy	1,955	1,849	1,879	849	664	134	169	99	7,598
Tetraplegia, paraplegia, diplegia, monoplegia and hemiplegia, due to any cause	3,487	1,962	2,701	1,313	1,156	155	273	133	11,180
Ischaemic heart disease	98,431	74,979	66,887	29,704	25,024	5,197	5,012	3,568	308,802
Chronic heart failure	24,192	22,576	14,693	6,662	8,178	1,493	1,484	457	79,735
Hypertension	312,441	268,535	198,657	90,908	83,474	17,740	18,710	11,203	1,001,668
Emphysema, without mention of chronic obstructive pulmonary disease	2,552	1,748	1,918	1,272	656	165	144	43	8,498
Chronic obstructive pulmonary disease	49,330	42,420	38,897	13,898	14,771	3,850	2,618	1,972	167,756
Asthma, without mention of chronic obstructive pulmonary disease	66,718	65,374	50,566	24,401	23,417	5,414	4,938	2,977	243,805
Bronchiectasis, without mention of cystic fibrosis	1,869	1,283	1,478	900	271	99	289	311	6,500
Chronic respiratory failure	96	56	84	33	37	2	31	1	340
Crohn's disease	2,142	2,061	1,502	916	716	151	212	27	7,727
Ulcerative colitis	1,319	1,484	1,170	564	362	117	163	10	5,189
Chronic liver failure	306	298	243	95	78	14	10	80	1,124
Rheumatoid arthritis	10,653	10,819	8,552	4,305	3,659	1,292	975	185	40,440
Arthritis and osteoarthritis	87,365	77,293	58,971	26,665	31,279	6,902	6,059	1,734	296,268
Systemic lupus erythematosus	1,368	758	1,239	480	182	64	145	68	4,304
Osteoporosis	43,544	31,247	26,955	10,046	12,651	1,871	2,935	546	129,795
Chronic kidney disease, stage 3–5	28,048	25,018	23,911	8,999	6,411	1,667	1,422	1,822	97,298
Spina bifida	421	431	606	192	240	45	36	10	1,981
Down syndrome	837	784	769	302	349	56	60	27	3,184
Total	909,147	791,107	676,501	278,185	272,508	58,669	57,668	32,150	3,075,935

Table A5: Separations by supplementary codes reported, private hospitals, states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Obesity	22,504	11,605	18,510	5,350	5,192	n.p.	n.p.	n.p.	65,579
Cystic fibrosis	39	29	33	19	10	n.p.	n.p.	n.p.	139
Dementia (including in Alzheimer's disease)	3,034	3,331	3,412	1,223	1,017	n.p.	n.p.	n.p.	12,512
Schizophrenia	437	349	311	98	176	n.p.	n.p.	n.p.	1,422
Depression	37,326	25,349	36,455	15,122	12,389	n.p.	n.p.	n.p.	132,726
Disorder of intellectual development	716	381	456	194	202	n.p.	n.p.	n.p.	2,080
Parkinson's disease	3,513	2,818	3,286	1,087	1,092	n.p.	n.p.	n.p.	12,378
Multiple sclerosis	605	770	589	312	486	n.p.	n.p.	n.p.	2,904
Epilepsy	4,218	2,948	3,916	1,540	1,360	n.p.	n.p.	n.p.	14,620
Cerebral palsy	229	193	292	136	71	n.p.	n.p.	n.p.	980
Tetraplegia, paraplegia, diplegia, monoplegia and hemiplegia, due to any cause	907	527	580	322	238	n.p.	n.p.	n.p.	2,737
Ischaemic heart disease	43,883	28,027	39,939	15,337	12,577	n.p.	n.p.	n.p.	144,421
Chronic heart failure	4,906	6,452	4,889	2,149	1,881	n.p.	n.p.	n.p.	21,002
Hypertension	239,354	149,782	167,392	73,705	65,805	n.p.	n.p.	n.p.	730,171
Emphysema, without mention of chronic obstructive pulmonary disease	2,231	947	2,226	908	617	n.p.	n.p.	n.p.	7,330
Chronic obstructive pulmonary disease	12,458	11,106	15,095	4,121	4,881	n.p.	n.p.	n.p.	49,966
Asthma, without mention of chronic obstructive pulmonary disease	57,258	36,567	43,585	20,876	18,438	n.p.	n.p.	n.p.	187,130
Bronchiectasis, without mention of cystic fibrosis	1,949	856	2,251	930	400	n.p.	n.p.	n.p.	6,538
Chronic respiratory failure	24	18	17	10	19	n.p.	n.p.	n.p.	91
Crohn's disease	1,279	919	924	529	587	n.p.	n.p.	n.p.	4,460
Ulcerative colitis	862	678	1,083	381	341	n.p.	n.p.	n.p.	3,515
Chronic liver failure	41	36	46	18	3	n.p.	n.p.	n.p.	154
Rheumatoid arthritis	6,540	5,042	5,416	3,209	2,069	n.p.	n.p.	n.p.	23,496
Arthritis and osteoarthritis	72,227	38,023	49,708	13,743	18,321	n.p.	n.p.	n.p.	204,429
Systemic lupus erythematosus	827	367	491	210	95	n.p.	n.p.	n.p.	2,107
Osteoporosis	15,090	7,139	14,775	4,624	4,807	n.p.	n.p.	n.p.	48,323
Chronic kidney disease, stage 3–5	6,470	5,385	7,870	3,034	1,383	n.p.	n.p.	n.p.	25,069
Spina bifida	143	81	91	33	71	n.p.	n.p.	n.p.	437
Down syndrome	155	105	152	59	30	n.p.	n.p.	n.p.	528
Total	539,226	339,830	423,790	169,279	154,558	n.p.	n.p.	n.p.	1,707,315

Diabetes mellitus and intermediate hyperglycaemia

Changes to the Australian Coding Standard for *Diabetes mellitus and intermediate hyperglycaemia* (ACS 0401) (formerly *Diabetes mellitus and impaired glucose regulation*) between 2011–12 and 2012–13 have affected the comparability over time of data for diabetes. Between 2012–13 and 2015–16, there were no changes to the ACS.

The reporting of diabetes as a principal diagnosis increased by 5.7% between 2011–12 and 2015–16 (Table A6).

The reporting of diabetes as an additional diagnosis increased by 45.0% between 2011–12 and 2015–16 (with most of this increase occurring between 2011–12 and 2012–13), and by 7.8% between 2014–15 and 2015–16.

These changes in the ACS should not affect the comparability over time in the reporting of the chronic condition category of potentially preventable hospitalisations, as the revised specification for the performance indicator only includes counts for principal diagnoses of *Diabetes mellitus* (see ‘Chapter 4 Why did people receive care?’). Information on potentially preventable hospitalisations presented in previous *Australian hospital statistics* reports (using the superseded specification) should be interpreted with caution.

Table A6: Diabetes mellitus and intermediate hyperglycaemia^(a), all hospitals, 2011–12 to 2015–16

	2011–12 (7th edition)	2012–13 (8th edition)	2013–14 (8th edition)	2014–15 (8th edition)	2015–16 (9th edition)	Change (%)	
						Average since 2011–12 (%)	Since 2014–15 (%)
Additional diagnoses	312,886	1,033,963	1,154,991	1,283,458	1,383,235	45.0	7.8
Principal diagnoses	36,745	39,766	39,737	42,541	45,848	5.7	7.8

(a) Diabetes mellitus diagnoses used were: E09—Intermediate hyperglycaemia; E10—Type 1 diabetes mellitus; E11—Type 2 diabetes mellitus; E13—Other specified diabetes mellitus; E14—Unspecified diabetes mellitus; E09–E14—Diabetes mellitus and intermediate hyperglycaemia.

Source: NHMD.

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.

Condition onset flag (COF) information is included in ‘Chapter 8 What was the safety and quality of the care?’ in:

- Section 8.5—‘Condition that arose during the hospital stay’
- Section 8.6—‘Hospital acquired diagnoses’.

Quality of the condition onset flag data for 2015–16

Overall, the provision of COF data for 2015–16 had improved compared with that provided for 2011–12 to 2014–15, particularly for private hospitals.

In 2015–16, the coverage of COF data was 99.8% for public hospitals and 89.7% for private hospitals (Table A7). For New South Wales, COF data were missing for about 35% of separations in private hospitals, and less than 1% of separations in public hospitals.

There was marked variation between states and territories in the overall proportion of records for which a condition was reported as arising during the episode of care. For public

hospitals, the proportion of overnight separations for which a condition was reported as arising during the episode of care ranged from 13.0% for the Northern Territory to 27.7% in Victoria (Table 8.6).

For private hospitals, the proportion of overnight separations for which a condition was reported as arising during the episode of care ranged from 16.2% for Western Australia to 22.9% for Victoria (Table 8.7).

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 COF values.

Table A7: Proportion of separations with condition onset flag reported^(a) (%), public and private hospitals, states and territories, 2015–16

	Public hospitals	Private hospitals
New South Wales	99.3	64.8
Victoria	100.0	100.0
Queensland	100.0	100.0
Western Australia	100.0	100.0
South Australia	100.0	100.0
Tasmania	100.0	100.0
Australian Capital Territory	100.0	100.0
Northern Territory	100.0	100.0
Australia	99.8	89.7

(a) The proportion of separations for which the condition onset flag was reported may include records where the flag was provided for some diagnoses and not for others.

Source: NHMD.

AR-DRG versions used in this report

In this report, 2 AR-DRG versions are presented:

- AR-DRG version 6.0x was used for time series presentations of average cost weights and relative stay indexes (tables 2.19, 7.1, 7.2 and 7.3)
- AR-DRG version 7.0 was used for all other presentations by MDCs or AR-DRGs, and for 2015–16 relative stay indexes (tables 2.20, 2.21, 5.6 to 5.12, 6.20, 6.21, 6.33, 6.34 and A2).

There are major differences in the way records are assigned to AR-DRGs between AR-DRG version 6.0x and version 7.0 that may affect the comparability of data across separate analyses and across reporting periods.

For a full list of changes, refer to the AR-DRG version 7.0 definitions manual (NCCC 2012).

Differences in AR-DRG versions affecting reporting

Haemorrhoid procedures

In AR-DRG version 6.0x (used in 2011–12 and 2012–13), the majority of records (94%) with a procedure for *Rubber band ligation of haemorrhoids* (ACHI procedure code 32135-00) were assigned to a *Surgical DRG (G11Z Anal and stomal procedures)* in MDC 06 *Diseases and disorders of the digestive system*.

In AR-DRG version 7.0 (used from 2013–14 to 2015–16), most of these records were allocated to AR-DRGs classified as *Other DRGs* in MDC 06. This means that the numbers of separations for *Surgical DRGs* and *Other DRGs* differ depending on the AR-DRG version.

Normal deliveries

In AR-DRG version 6.0x, records with a principal diagnosis of O80 *Single spontaneous delivery* were assigned to O60A *Vaginal delivery with catastrophic or severe complications or comorbidities*, O60B *Vaginal delivery with severe complications or comorbidities* or O60C *Vaginal delivery single uncomplicated without other condition*. Using AR-DRG version 6.0x, about 16% of records for ‘normal’ deliveries would have been assigned to O60C.

Using AR-DRG version 7.0, the majority of records with a principal diagnosis of O80 are allocated to the AR-DRG version 7.0 O60C *Vaginal delivery, single uncomplicated*. Therefore, caution should be used in comparing the data for vaginal deliveries over time and across different AR-DRG versions. For this reason, the proportion of vaginal and caesarean deliveries in the lowest resource AR-DRG (using AR-DRG version 7.0) is not comparable with the same proportion presented in earlier reports using AR-DRG version 6.0x (see ‘Apparent variation in reporting of additional diagnoses’).

Summary of quality of data provided for the Admitted subacute and non-acute hospital care Data Set Specification

Some information on subacute and non-acute admitted patient care has been reported in the *Australian hospital statistics* reports since the first report on the 1993–94 and 1994–95 collection periods. Earlier reports presented counts of separations by the type of subacute and non-acute care. From the 2008–09 collection period, more detailed information on patient demographics, diagnoses and procedures have been included in the *Australian hospital statistics* reports.

From the 2014–15 collection period, additional information based on the Admitted subacute and non-acute hospital care data set specification (ASNHC DSS) has been provided to the AIHW by most states and territories for public hospitals. Information about contracted subacute and non-acute care for public patients provided in private hospitals has also been provided. This information was provided as part of the annual submission of admitted patient care data for the NHMD.

The ASNHC DSS aims to collect information about care provided to subacute and non-acute admitted public and private patients in activity-based funded public hospitals.

The scope of the DSS is (METeOR id. 556874):

- Same-day and overnight admitted subacute and non-acute care episodes.
- Admitted public patients provided on a contracted basis by private hospitals.
- Admitted patients in rehabilitation care, palliative care, geriatric evaluation and management, psychogeriatric and maintenance care treated in the hospital-in-the-home.

For the purpose of analysing subset of separations in the NHMD that are considered in scope for reporting to the ASNHC DSS, the AIHW has defined the subset as all subacute and non-acute care episodes (for patients aged 16 and older, as specified for the DSS) in activity-based funded public hospitals (that is, not listed as block-funded hospitals for 2015–16), and subacute and non-acute care episodes for public patients with a funding source of *Other hospital or public authority* provided by private hospitals.

For 2015–16, about 187,000 episodes (accounting for about 34% of all subacute and non-acute separations in public and private hospitals) were in scope for the ASNHC DSS (Table A8). Table A8 also presents the numbers of subacute and non-acute activity-based funded episodes by care type.

Clinical assessment only indicator

Table A9 presents the numbers of subacute and non-acute activity-based funded episodes by clinical assessment indicator, which is used to define the scope of records that are required to report the remaining data elements. If the *Clinical assessment only indicator* is reported as 'No' then the other data elements should be reported.

In 2015–16, the *Clinical assessment only indicator* was not reported/unknown or not stated for about 8% of records in scope for the DSS. The *Clinical assessment only indicator* was not reported/unknown or not stated for relatively large proportions of records in scope for the DSS for the Northern Territory, Tasmania and Western Australia (78%, 35% and 33%, respectively).

Where the *Clinical assessment only indicator* was not reported/unknown or not stated, it was not possible to determine whether these records were in scope for reporting the remaining ASNHC DSS data elements.

Table A10 presents a summary of the provision of data for the ASNHC DSS for 2015–16, by states and territories.

Primary impairment type

The data element *Primary impairment type* should be reported for all *Rehabilitation care* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 99,574 *Rehabilitation care* separations in scope for the ASNHC DSS. *Primary impairment type* was provided for about 88% of these separations (Table A10).

The 3 most common primary impairments reported were *Orthopaedic conditions – fractures (includes dislocation)* (14,400 separations), *Post-orthopaedic surgery* (10,700) and *Stroke – ischaemic* (10,700). *Primary impairment type* was not stated/inadequately described for about 19,000 *Rehabilitation care* separations (Table A11).

Type of maintenance care

The data element *Type of maintenance care* should be reported for all *Maintenance care* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 22,239 *Maintenance care* separations in scope for the ASNHC DSS. *Type of maintenance care* was provided for about 81% of these separations (Table A10).

Functional independence measure scores

Functional independence measure scores should be reported for all *Rehabilitation care* and *Geriatric evaluation and management* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 130,061 *Rehabilitation care* and *Geriatric evaluation and management* separations in scope for the ASNHC DSS. *Functional independence measure scores* were provided for about 59% of these separations (Table A10).

Resource Utilisation Groups – activities of daily living scores

Resource Utilisation Groups - activities of daily living scores should be reported for all *Palliative care* and *Maintenance care* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 55,489 *Maintenance care* and *Palliative care* separations in scope for the ASNHC DSS of which 49,112 had a *Clinical assessment only indicator* of 'No'. *Resource Utilisation Groups – activities of daily living scores* were provided for about 66% of in scope separations (Table A10).

Health of the Nation Outcome Scale 65+ scores

Health of the Nation Outcome Scale 65+ scores (HoNOS65+) should be reported for all *Psychogeriatric care* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 1,277 *Psychogeriatric care* for which the *Clinical assessment only indicator* was reported as 'No'. HoNOS65+ scores were provided for about 75% of these separations (Table A10).

Standardised mini-mental state examination scores

Standardised mini-mental state examination scores (SMMSEs) should be reported for all *Geriatric evaluation and management* separations in scope for the ASNHC DSS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2015–16, there were 28,494 *Geriatric evaluation and management* for which the *Clinical assessment only indicator* was reported as 'No'. SMMSEs scores were provided for about 95% of these separations (Table A10).

Palliative care phase data

Up to 12 'phases' of palliative care could be provided for activity-based funding episodes with a palliative care type. About 65,300 records were provided for palliative care phase data by 7 jurisdictions.

Nationally (excluding data for Western Australia and the Australian Capital Territory), for about 23% of palliative care phases, the patient's palliative care phase type was *Stable*. This proportion varied among jurisdictions – from 14% in Tasmania to 36% in South Australia.

For Western Australia palliative care phase type was not reported for about 92% of records.

Table A8: Subacute and non-acute separations, public hospitals, private hospitals and activity-based funded episodes^(a), states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	70,933	44,090	44,076	13,722	18,176	3,039	4,557	1,010	199,603
Private hospitals	212,511	31,825	59,936	6,484	25,827	n.p.	n.p.	n.p.	349,726
Subacute and non-acute separations	283,444	75,915	104,012	20,206	44,003	n.p.	n.p.	n.p.	549,329
Subacute and non-acute hospital care									
DSS in-scope episodes ^(a)									
Rehabilitation care	38,155	18,042	22,274	6,232	11,248	986	2,315	322	99,574
Palliative care	12,858	7,662	7,541	1,571	1,775	658	813	372	33,250
Geriatric evaluation and management	4,243	17,237	4,299	2,536	1,784	3	307	78	30,487
Psychogeriatric care	539	0	302	523	2	0	17	1	1,384
Maintenance care	9,860	631	5,123	1,624	2,831	886	1,098	186	22,239
Total	65,655	43,572	39,539	12,486	17,640	2,533	4,550	959	186,934

(a) Subacute and non-acute care episodes (for patients aged 16 years and older) in activity-based funded public hospitals, and for public patients with a funding source of *Other hospital or public authority* provided by private hospitals.

Source: National Hospital Morbidity Database.

Table A9: Subacute and non-acute separations by clinical assessment only indicator, activity-based funded episodes^(a), states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Clinical assessment only	148	2,969	2,880	116	0	0	5	0	6,118
Other	61,827	39,860	36,659	8,222	17,640	1,644	3,847	215	169,914
Not reported/unknown/not stated	3,680	743	0	4,148	0	889	698	744	10,902
Total	65,655	43,572	39,539	12,486	17,640	2,533	4,550	959	186,934

(a) Subacute and non-acute care episodes (for patients aged 16 years and older) in activity-based funded public hospitals, and for public patients with a funding source of *Other hospital or public authority* provided by private hospitals.

Source: National Hospital Morbidity Database.

Table A10: Subacute and non-acute activity based funded episodes^(a) – provision of data elements, states and territories, 2015–16

Data element	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Clinical assessment only indicator									
Number of in-scope episodes	65,655	43,572	39,539	12,486	17,640	2,533	4,550	959	186,934
In-scope episodes with valid values ^(b)	61,975	42,829	39,539	8,338	17,640	1,644	3,852	215	176,032
Invalid/not reported/unknown values (%)	5.6	1.7	0.0	33.2	0.0	35.1	15.3	77.6	5.8
Primary impairment type									
Number of in-scope episodes ^(c)	38,155	18,042	22,274	6,232	11,248	986	2,315	322	99,574
In-scope episodes with valid values	35,017	16,424	19,546	5,418	8,210	610	2,067	212	87,504
Invalid/not reported/unknown values (%)	8.2	9.0	12.2	13.1	27.0	38.1	10.7	34.2	12.1
Type of maintenance care									
Number of in-scope episodes ^(d)	9,860	631	5,123	1,624	2,831	886	1,098	186	22,239
In-scope episodes with valid values	9,604	0	5,116	0	2,831	0	991	0	18,542
Invalid/not reported/unknown values (%)	2.6	100.0	0.1	100.0	0.0	100.0	9.7	100.0	16.6
Functional independence measure scores									
Number of in-scope episodes ^(e)	42,398	35,279	26,573	8,768	13,032	989	2,622	400	130,061
In-scope episodes with valid values ^{(f)(g)}	26,261	35,151	0	7,791	5,079	609	1,639	215	76,745
Invalid/not reported/unknown values (%)	38.1	0.4	100.0	11.1	61.0	38.4	37.5	46.3	41.0
Resource Utilisation Groups - activities of daily living scores									
Number of in-scope episodes ⁽ⁱ⁾	22,131	7,634	12,629	0	4,606	658	1,454	0	49,112
In-scope episodes with valid values ^(g)	9,673	7,634	10,697	0	2,535	349	1,447	0	32,335
Invalid/not reported/unknown values (%)	56.3	0.0	15.3	..	45.0	47.0	0.5	..	34.2

(continued)

Table A10 (continued): Subacute and non-acute activity-based funded episodes^(a) – provision of data elements, states and territories, 2015–16

Data element	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Health of the Nation Outcome Scale 65+ scores									
Number of in-scope episodes ^(f)	530	0	299	430	2	0	16	0	1,277
In-scope episodes with valid values ^(g)	530	0	0	407	0	0	16	0	953
Invalid/not reported/unknown values (%)	2.6	..	100.0	5.3	100.0	..	0.0	..	25.4
Standardised mini-mental state examination scores									
Number of in-scope episodes ^(f)	4,148	15,801	4,185	2,275	1,784	0	299	2	28,494
In-scope episodes with valid values ^(k)	4,148	15,801	4,185	2,245	796	0	28	2	27,205
Invalid/not reported/unknown values (%)	0.0	0.0	0.0	1.3	55.4	..	9.4	0.0	4.5

(a) Subacute and non-acute care episodes (for patients aged 16 years and older) in activity-based funded public hospitals, and for public patients with a funding source of *Other hospital or public authority* provided by private hospitals.

(b) Clinical assessment only indicator reported as Yes, No, Unknown or Not stated.

(c) Rehabilitation care episodes for which the Clinical assessment only indicator was reported as No.

(d) Maintenance care episodes for which the Clinical assessment only indicator was reported as Yes, unknown, Not stated or was invalid.

(e) Rehabilitation care and Geriatric evaluation and management for which the Clinical assessment only indicator was reported as No.

(f) Includes records for which at least one score was valid.

(g) Queensland provided aggregated scores, rather than individual scores as specified.

(h) Palliative care and Maintenance care episodes for which the Clinical assessment only indicator was reported as No.

(i) Psychogeriatric care episodes for which the Clinical assessment only indicator was reported as No.

(j) Geriatric evaluation and management care episodes for which the Clinical assessment only indicator was reported as No.

(k) Excludes records for which all scores were null.

Table A11: Rehabilitation care separations by type of impairment, activity-based funded episodes^(a), states and territories, 2015–16

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Stroke—haemorrhagic	1,775	884	1,045	188	786	28	225	20	4,951
Stroke—ischæmic	2,868	1,453	4,219	515	1,128	84	399	40	10,706
Brain dysfunction—non-traumatic	622	586	1,141	193	342	18	27	5	2,934
Brain dysfunction—traumatic	444	245	752	131	207	10	61	16	1,866
Neurological conditions	2,776	1,526	1,601	301	935	21	97	29	7,286
Non traumatic spinal cord dysfunction	352	301	226	94	135	7	21	1	1,137
Traumatic spinal cord dysfunction	190	118	190	47	113	4	20	1	683
Amputation of limb—not resulting from trauma	402	416	338	117	233	24	165	21	1,716
Amputation of limb—resulting from trauma	50	44	65	9	13	4	28	2	215
Arthritis	727	98	100	26	3	3	6	2	965
Pain syndromes	2,049	745	211	107	30	16	42	1	3,201
Orthopaedic conditions—fractures (includes dislocation)	5,481	3,648	2,386	1,364	1,063	134	316	20	14,412
Post-orthopaedic surgery	6,035	2,665	1,095	376	379	84	92	11	10,737
Soft tissue injury	311	134	464	163	18	0	22	1	1,113
Cardiac	650	461	242	129	79	20	29	3	1,613
Pulmonary	798	365	300	132	16	18	31	2	1,662
Burns	13	20	119	3	8	0	0	1	164
Congenital deformities	42	22	15	0	0	0	0	0	79
Other disabling impairments	320	188	1,625	84	40	4	5	4	2,270
Major multiple trauma	192	168	134	85	140	8	22	8	757
Developmental disabilities	11	3	4	0	0	0	1	0	19
Re-conditioning/restorative	8,909	2,334	3,274	1,354	2,542	123	469	20	19,025
Not stated/inadequately described	0	0	0	0	0	0	0	5	5
Total	38,155	18,042	22,274	6,232	11,248	986	2,315	322	99,574

(a) Rehabilitation care episodes (for patients aged 16 and older) in activity-based funded public hospitals, and for public patients with a funding source of *Other hospital or public authority* provided by private hospitals.

Table A12: Palliative care phase type, activity-based funded episodes^(a), states and territories, 2015–16

	NSW	Vic	Qld ^(a)	WA ^(a)	SA	Tas	ACT	NT	Total
Palliative care phase data									
Stable	7,580	3,109	2,410	54	458	82	0	181	13,874
Unstable	7,622	4,739	2,301	84	321	184	0	253	15,504
Deteriorating	7,818	4,964	3,843	73	339	132	0	181	17,350
Terminal	6,326	3,583	4,153	132	172	177	0	173	14,716
Not reported	0	0	0	3,887	0	0	0	0	3,887
Total	29,346	16,395	12,707	4,230	1,290	575	0	788	65,331

(a) Palliative care phase data were also provided for records not in scope for the ASNHC DSS.

Appendix B: Technical appendix

This appendix covers:

- definitions and classifications used
- the presentation of data in this report
- analysis methods.

Definitions and classifications

If not otherwise indicated, data elements were defined according to the definitions in the *National health data dictionary, versions 16, 16.1 and 16.2* (AIHW 2012, 2015c, 2015d), summarised in the Glossary.

Data element definitions for the following NMDS are also available online for:

- Admitted patient care NMDS 2015–16 at <<http://meteor.aihw.gov.au/content/index.phtml/itemId/588909>>
- Admitted subacute and non-acute hospital care DSS 2015–16 at <<http://meteor.aihw.gov.au/content/index.phtml/itemId/588098>>
- Elective surgery waiting times (removals data) NMDS 2015–16 at <<http://meteor.aihw.gov.au/content/index.phtml/itemId/600056>>.

Geographical classifications

Remoteness areas

Data on geographical location of the patient's usual residence and of the hospital location are defined using the ABS' Australian Statistical Geography Standard (ASGS). Data on remoteness area of usual residence are defined using the ABS' ASGS Remoteness Structure 2011 (ABS 2011).

The ASGS Remoteness Structure 2011 categorises geographical areas in Australia into remoteness areas, described in detail at <www.abs.gov.au>. The classification is as follows:

- *Major cities* – for example; Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra and Newcastle
- *Inner regional* – for example; Hobart, Launceston, Wagga Wagga, Bendigo and Murray Bridge
- *Outer regional* – for example; Darwin, Moree, Mildura, Cairns, Charters Towers, Whyalla and Albany
- *Remote* – for example; Port Lincoln, Esperance, Queenstown and Alice Springs
- *Very remote* – for example; Mount Isa, Cobar, Coober Pedy, Port Hedland and Tennant Creek.

Reporting data on geographical location of usual residence of the patient

Data on geographical location are collected on the area of usual residence of patients in the NHMD. These data are specified in the NMDS as state or territory of residence and Statistical Area level 2 (SA2), a small area unit within the ABS's ASGS.

In 2015–16, New South Wales provided Statistical Local Area (SLA) codes for geography of usual residence. All other states and territories were able to provide SA2 codes both for patients usually resident in the jurisdiction and for patients not usually resident in the jurisdiction, with the exception of 1 hospital included in the Victorian data collection, for which postcode of usual residence was provided.

For New South Wales, the AIHW mapped SLA to SA2 using ABS correspondence information. For the hospital included in the Victorian collection where postcode was provided, postcode was mapped to SA2. The AIHW then mapped the SA2 of area of usual residence for each separation to remoteness area categories based on the ASGS Remoteness Structure 2011. These mappings were undertaken on a probabilistic basis as necessary, using ABS correspondence information describing the distribution of the population by remoteness areas and SA2s. Because of the probabilistic nature of this mapping, the SA2 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, about 99.5% of records included data on the area of usual residence in the form of an SA2. For the remaining 0.5% of records, about 50% were for overseas residents, 17% were of no fixed abode, and the remainder had invalid SA2 data or no data were reported.

Socioeconomic status

Data on SES groups are defined using the ABS's Socio-Economic Indexes For Areas 2011 (SEIFA 2011 [ABS 2013]).

The ABS generate the SEIFA 2011 data using a combination of 2011 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, and are also compiled for higher levels of aggregation. The SEIFAs are described in detail at <www.abs.gov.au>.

The SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) is 1 of the ABS' SEIFA indexes. The relative disadvantage scores indicate the collective SES 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.

The AIHW generated separation rates by SES using the IRSD scores for the SA2 of usual residence of the patient reported or derived for each separation. The '1 – Lowest' group represents the areas containing the 20% of the national population with the most disadvantage, and the '5 – Highest' group represents the areas containing the 20% of the national population with the least disadvantage. These SES groups do not necessarily represent 20% of the population in each state or territory. Disaggregation by SES group is based on the area of usual residence of the patient, not the location of the hospital.

The following labels for each socioeconomic group have been used throughout this report:

- 1 – Lowest: the *Most disadvantaged* SES
- 2: the *Second most disadvantaged* SES
- 3: the *Middle* SES
- 4: the *Second least disadvantaged* SES
- 5 – Highest: the *Least disadvantaged* SES.

Public hospital peer groups

This report uses a public hospital peer group classification, developed by the AIHW in consultation with the Australian Hospital Statistics Advisory Committee and the Australian Private Hospital Statistics Advisory Committee in 2013 and 2014. More information on the peer group classification is available in *Australian hospital peer groups* (AIHW 2015b).

Classifications of clinical data

ICD-10-AM/ACHI

Diagnosis, procedure and external cause data for 2015–16 were reported to the NHMD by all states and territories using the 9th edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) (ACCD 2014), incorporating the *Australian classification of health interventions* (ACHI) (ACCD 2015).

In tables and figures presenting information on diagnoses, external causes and procedures, the codes and abbreviated descriptions of the ICD-10-AM/ACHI classification are used. Full descriptions of the categories are available in ICD-10-AM/ACHI publications (ACCD 2014, 2015).

Diagnoses

One or more diagnoses can be reported for each separation. 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 co-exists with the principal diagnosis or arises during the episode of care. An additional diagnosis is reported if the condition affects patient management.

The ICD-10-AM comprises classifications of diseases and external causes of injuries and poisoning, based on the World Health Organization's version of ICD-10.

The disease 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 disease groupings can be divided into an even larger number of very specific disease categories represented by 4-character and 5-character codes.

Most of the information about principal diagnoses in this report is presented using 2 methods of grouping records based on the ICD-10-AM disease classification:

- ICD-10-AM disease chapters – these 20 groups provide information combined at the ICD-10-AM chapter level
- 3-character ICD-10-AM groupings – 1,674 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) at <www.aihw.gov.au/hospitals/>.

External causes

The external cause classification (Chapter 20 of ICD-10-AM) is hierarchical, consisting of 397 3-character categories (including place of occurrence and activity when injured). Some of the information in Chapter 4 is presented by categorising the ICD-10-AM external cause codes into 16 groups to provide an overview of the reported external causes.

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 ACHI classification is divided into 20 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, ordered from the least invasive to the most invasive. The blocks, which are numbered sequentially, group the very specific procedure information.

The procedure information is presented using 3 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 1,413 categories describe procedures at a specific level. Detailed information is presented for the 20 procedure blocks with the highest number of separations and summary information is provided for all the groups (for which separations were reported) at <www.aihw.gov.au/hospitals/>
- ACHI procedures – there are more than 6,300 individual procedures; information at this level is included in Section 5.4 – 'Rehabilitation care'.

Australian Refined Diagnosis Related Groups

Australian Refined Diagnosis Related Groups (AR-DRG) is an Australian admitted patient classification system that 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.

The AR-DRG classification is partly hierarchical, with 23 MDCs, divided into *Surgical*, *Medical* and *Other* partitions, and then into 771 individual AR-DRGs (version 7.0).

The MDCs are mostly defined by body system or disease type, and correspond with particular medical specialties. In general, episodes are allocated 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 801A–801C and 960Z–963Z), even if they were assigned to an MDC (*Error DRGs* are included within the *Other* DRGs in the *Surgical/Medical/Other* DRG partition).

Episodes are allocated 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 are also used for AR-DRG assignment, including the patient's age, complicating diagnoses/procedures and/or patient clinical complexity level, the length of stay, and the mode of separation.

AR-DRG versions

Following receipt of the data from states and territories, the AIHW regrouped the data (using the mapping facility in the DRGroup™ software) to ensure that the same grouping method was used for all data. The AR-DRGs that resulted from this regrouping are presented in this report, and may differ slightly from those derived by the states and territories.

For 2015–16, each separation in the NHMD was classified to AR-DRG versions 6.0x (DoHA 2010) and AR-DRG version 7.0 (NCCC 2012) on the basis of demographic and clinical characteristics of the patient.

Each AR-DRG version is based on a specific edition of the ICD-10-AM/ACHI (Table B1). However, AR-DRGs can be mapped from other ICD-10-AM/ACHI editions.

In this report, AR-DRG version 7.0 was used in tables presenting counts of separations by MDC or AR-DRG. For tables using cost weight information, AR-DRG version 6.0x was used, including in time series.

Table B1: ICD-10-AM and AR-DRG versions, 2011–12 to 2015–16

Year	ICD-10-AM edition	Relevant AR-DRG version	AR-DRG version reported in Australian hospital statistics
2011–12	7th edition	Version 6.0	Version 6.0
2012–13	7th edition	Version 6.0x	Version 6.0x
2013–14 ^(a)	8th edition	Version 7.0	Version 7.0
2014–15 ^(b)	8th edition	Version 7.0	Version 7.0
2015–16	9th edition	Version 7.0	Version 7.0

(a) For *Admitted patient care 2013–14: Australian hospital statistics* in analyses where cost weights were required, AR-DRG version 6.0x Round 16 cost weights (2011–12) were applied to AR-DRG version 6.0x.

(b) For *Admitted patient care 2014–15: Australian hospital statistics* in analyses where cost weights were required, AR-DRG version 6.0x Round 17 cost weights (2012–13) were applied to AR-DRG version 6.0x.

Presentation of data

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, 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 2.

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.

Except as noted below, the totals in tables include data only for those states and territories for which data were available, as indicated.

Throughout the publication, percentages may not add up to 100.0 because of rounding. Percentages and rates printed as 0.0 or 0 generally indicate a zero. The symbol '<0.1' has been used to denote less than 0.05 but greater than 0.

Suppression of data

The AIHW operates under a strict privacy regime which has its basis in Section 29 of the *Australian Institute of Health and Welfare Act 1987* (AIHW Act). Section 29 requires that confidentiality of data relating to persons (living and deceased) and organisations be maintained. The Privacy Act governs confidentiality of information about living individuals.

The AIHW is committed to reporting that maximises the value of information released for users while being statistically reliable and meeting legislative requirements described above.

Data (cells) in tables may be suppressed to maintain the privacy or confidentiality of a person or organisation, or because a proportion or other measure related to a small number of events and may therefore not be reliable.

Data have been suppressed to avoid attribute disclosure. Some measures have been suppressed if there were fewer than 100 separations in the category being presented (for example, for length of stay, separations rates and elective surgery waiting times). The abbreviation 'n.p.' has been used in tables to denote these suppressions. For these tables, the totals include the suppressed information.

The data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory were not published for confidentiality reasons.

In addition, private hospital data are suppressed for a particular diagnosis, procedure or AR-DRG where:

- there are fewer than 3 reporting units
- there are 3 or more reporting units and 1 of them contributed more than 85% of the total separations, or
- there are 3 or more reporting units and 2 of them contributed more than 90% of the total separations.

Analysis methods

Admitted patient care data analyses

Records for 2015–16 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2015 to 30 June 2016. Data on patients who were admitted on any date before 1 July 2015 are included, provided that they also separated between 1 July 2015 and 30 June 2016. A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than 1 record in the NHMD.

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 2015 to 30 June 2016), 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 2015–16, but who

were admitted before 1 July 2015, will be counterbalanced overall by the patient days for patients in hospital on 30 June 2016 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.

Unless otherwise noted in footnotes, records for *Hospital boarders* and *Posthumous organ procurement* have been excluded from statistics on separations.

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 1 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 4.

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.

Age and sex of patient

The patient's age is calculated at the date of admission. In tables by age group and sex, separations for which age and/or sex were not reported are included in the totals.

In 2015–16, there were:

- 181 separations for which sex was not reported as male or female (that is, the sex of the patient was reported as 'intersex or indeterminate' or was not reported)
- 103 separations for which date of birth was not reported (and therefore age could not be calculated).

Estimated resident populations

All populations are based on the estimated resident population as at 30 June (that is, for the reporting period 2015–16, the estimated resident population as at 30 June 2015 was used), drawn from the 2011 Census data.

Age-standardised rates

Unless noted otherwise, population rates (separation rates and patient day rates) presented in this report are age-standardised, calculated using the direct standardisation method and 5-year age groups.

The ABS' population estimates for 30 June at the beginning of the reporting period were used for the observed rates (see tables B.S1 to B.S3, accompanying this report online).

All populations are based on the 2011 Census data. For time series tables in this report, the age-standardised separation (and patient day) rates (per 1,000 population) have been calculated using estimated resident populations relevant to the reporting period.

The total Australian population for 30 June 2001 was used as the standard population against which expected rates were calculated.

There was some variation in the age group used for age-standardising. For example:

- Separation rates (by hospital state, residence state, remoteness areas and by quintiles of socioeconomic advantage/disadvantage) were directly age-standardised, using the estimated resident populations as at 30 June 2014. The estimated resident populations use a highest age group of 85 and over.
- Separation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2015. The population for other Australians was based on the estimated resident populations as at 30 June 2015. As the projected Indigenous population estimates use a highest age group of 65 and over, standardised rates calculated for analyses by Indigenous status are not directly comparable with the rates presented in this report which use a highest age group of 85 and over.

Standardised separation rate ratios

For some tables reporting comparative separation rates, standardised separation rate ratios (SRRs) are presented. The SRRs 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). The calculation is as follows:

$$\text{Standardised separation rate ratio (SRR)} = \text{observed rate/expected rate}$$

An SSR 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.

The populations used for the observed and expected rates vary in this report, for example:

- For Indigenous status, the SRR 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 state or territory of residence, remoteness areas and SES of area of residence, the SRR is equal to the separation rate for the state or territory of residence, remoteness area, or SES group, divided by the separation rate for Australia.

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 1 diagnosis/procedure/external cause reported within the group. As more than 1 diagnosis, procedure or external cause can be reported for each separation, the totals in the tables may not equal the sum of counts in the rows.

Counts of procedures

Tables with numbers of procedures are counts of ACHI procedure codes. It is possible that a single procedure code may represent multiple procedures (for example, for electroconvulsive therapy the final 2 digits of the procedure code represent the number of procedures) or that a specific procedure may require the reporting of more than 1 code (for example, for some

laparoscopic procedures). Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

ICD-10-AM codes used for selected analyses

Some tables in this report use ICD-10-AM/ACHI codes to define diagnoses and procedures. The codes are presented in tables accompanying this report online and relate to:

- selected AR-DRGs (see 'Chapter 2 How much activity was there?')
- potentially preventable hospitalisations (see 'Chapter 4 Why did people receive care?')
- selected procedures (see 'Chapter 6 What procedures were performed?')
- adverse events (see 'Chapter 8 What was the safety and quality of the care?')
- unplanned/unexpected readmissions (see 'Chapter 8 What was the safety and quality of the care?').

Broad categories of service

Separations have been categorised as *Childbirth*, *Specialist mental health*, *Surgical*, *Medical* or *Other* based mainly on the AR-DRG version 7.0 recorded for the separation:

- *Childbirth*: separations for which the AR-DRG was associated with childbirth:
 - O01A *Caesarean delivery with catastrophic complication or comorbidity*
 - O01B *Caesarean delivery with severe complication or comorbidity*
 - O01C *Caesarean delivery without catastrophic or severe complication or comorbidity*
 - O02A *Vaginal delivery with operating room procedure with catastrophic or severe complication or comorbidity*
 - O02B *Vaginal delivery with operating room procedure without catastrophic or severe complication or comorbidity*
 - O60A *Vaginal delivery with catastrophic or severe complication or comorbidity*
 - O60B *Vaginal delivery without catastrophic or severe complication or comorbidity*
 - O60C *Vaginal delivery single uncomplicated.*

Does not include newborn care.

- *Specialist mental health*: separations for which the care type was reported as *Mental health* care or for which at least 1 specialised psychiatric care day was reported. Excludes separations for *Childbirth* that also reported specialised psychiatric care days.
- *Surgical*: separations for which the AR-DRG belonged to the *Surgical* partition (involving an operating room procedure), excluding separations for *Childbirth* and *Specialist mental health*.
- *Medical*: separations for which the AR-DRG belonged to the *Medical* partition (not involving an operating room procedure), excluding separations for *Childbirth* and *Specialist mental health*.
- *Other*: separations for which the AR-DRG did not belong to the *Surgical* or *Medical* partitions (involving a non-operating room procedure, such as endoscopy), excluding separations for *Childbirth* and *Specialist mental health*.

National elective surgery waiting times data analyses

Elective surgery waiting times

The waiting times data presented in this report are for patients who complete their wait and are admitted for their surgery as either an elective or emergency admission. In reports before 2011–12, this information was presented for elective admissions only. Therefore, the data presented are not directly comparable with the data reported before 2011–12.

See *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016c) for information about ‘Median and 90th percentiles’.

Relative stay index analysis

Relative stay indexes (RSIs) have been identified as indicators of efficiency and are presented in Chapter 2.

The RSI method includes acute care separations only, and excludes separations for patients who died or were transferred within 2 days of admission, or had 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 tables accompanying this report online)
- *Error AR-DRGs*.

Comparisons with RSIs presented in earlier reports should be made with caution, due to the use of different AR-DRG versions.

RSI standardisation methods—direct and indirect RSIs

The 2 methods for standardisation of the length of stay data used in this report are analogous to direct and indirect age-standardisation methods.

Indirect RSI

The indirect RSI method applies the national average length of stay (ALOS) for each AR-DRG 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 RSI

For the direct RSI 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.

For those jurisdictions and sectors for which RSI statistics are presented in 'Chapter 2 How much activity was there?', there were between 502 and 672 AR-DRGs represented, meaning that ALOS data was estimated for up to 170 AR-DRGs (see Table BS.9, accompanying this report online). In particular, the data presented for the direct standardised method in the public sector for the Northern Territory should be interpreted with caution.

Due to the issues with the direct RSI detailed above, this report mainly presents RSI information using the indirect standardised method. However, the direct standardised method has also been presented to allow comparison between the 2 methods and more direct comparison for those jurisdictions and sectors for which the data are presented.

Appendix C: Hospital performance indicators

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

National health performance reporting

In Australia, national public reporting of hospital performance is undertaken by a number of organisations under nationally agreed arrangements.

The national arrangements for hospital performance reporting in Australia comprise the:

- National Health Performance Framework (NHPF) – a conceptual framework for performance assessment that is not linked to any agreement related to health service provision or funding.
- National Healthcare Agreement (NHA) – agreed performance indicators and benchmarks are reported annually. The performance indicators presented here are based on data for 2015–16 and on specifications used for reporting the 2017 NHA performance indicators.
- Performance and Accountability Framework – information on the performance of public and private hospitals and Local Hospital Networks are reported by the AIHW on the *MyHospitals* website.
- The Australian Commission on Safety and Quality in Health Care (ACSQHC) also has performance reporting-related roles under the NHRA, reporting publicly on the state of safety and quality, including performance against national standards (ACSQHC 2013).
- *Review of Government Service Provision* – information on the equity, efficiency and effectiveness of government services (including hospitals) are reported by the Steering Committee for the Review of Government Service Provision in the annual Report on Government Services (SCRGSP 2017).

The AIHW provides data from its national hospitals databases to support this range of reporting, and reports many of the hospitals-related performance indicators in the *Australian hospital statistics* series each year.

This appendix presents information about the hospital performance indicators and other performance indicators that are based on hospital data and reported in the *Australian hospital statistics* reports, within the context of the National Health Performance Framework (NHPF).

The National Health Performance Framework

The National Health Performance Framework (NHPF) was developed in 2001 by the National Health Performance Committee (NHPC) under the auspices of the Australian Health Ministers Advisory Committee (AHMAC). The NHPF was designed as an enduring framework – it is not linked to any particular agreement nor was it designed to support performance reporting relating to a specific policy agenda. Instead, it serves as a general support for performance assessment, planning and benchmarking in the health sector. It is consistent with health performance frameworks used internationally (International Organization for Standardization 2010, ISO 2010) and therefore can also support comparisons of Australia’s performance internationally.

The NHPF provides a conceptual framework to understand and evaluate the health of Australians and the health system. It has 14 health dimensions under 3 domains: ‘Health Status’, ‘Determinants of Health’ and ‘Health System Performance’.

A set of indicators was developed to populate these domains and, since 2008, at the request of health ministers, the AIHW has reported on these National Health Performance Indicators biennially in *Australia’s health* (AIHW 2016b and previous reports). There are 40 indicators across the 14 dimensions of the 3 domains.

The Health System Performance domain is most directly relevant to the assessment of the provision of hospital and other health-care services. Its 6 dimensions are: *Effectiveness, Safety, Responsiveness, Continuity of care, Accessibility and Efficiency and sustainability* (Table C.1).

The questions asked for the Health System Performance domain in the NHPF 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?

Table C.1: The National Health Performance Framework – Health System Performance domain

<p>Effectiveness Care/intervention/action provided is relevant to the client’s needs and based on established standards. Care, intervention or action achieves desired outcome.</p>	<p>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.</p>
<p>Continuity of care Ability to provide uninterrupted, co-ordinated care or service across programs, practitioners, organisations and levels over time.</p>	<p>Accessibility People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.</p>
<p>Responsiveness Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.</p>	<p>Efficiency and 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.</p>

What data are reported?

This report presents 14 hospital performance indicators and 5 other indicators based on data for 2015–16 have been included in other AIHW hospitals reports (see Table C.2).

Indicators related to hospital performance are listed in Table C.2 against the dimensions of the NHPF. Some indicators can be related to more than 1 dimension of the NHPF, even though they are presented here against only 1 dimension. Table C.2 also shows which set of nationally agreed performance indicators the indicator relates to.

Information for another 3 indicators that are calculated using hospitals data but do not relate to hospital performance is also included; they are listed in Table C.3.

Table C.2: National hospital performance indicators, by National Health Performance Framework dimension

Where in <i>Australian hospital statistics</i> (AHS) reports?	Indicator	Related national indicator set	
		NHA	NHPF
Effectiveness			
No indicators available			
Safety			
Tables 8.1 and 8.2	Adverse events treated in hospitals		✓
Table 8.3	Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital)	✓	
AHS: SAB 2015–16	Health-care associated infections	✓	
Table 8.4	Falls resulting in patient harm in hospitals		✓
Responsiveness			
Table 8.5	Patient satisfaction/experience	✓	
Continuity of care			
No indicators available			
Accessibility			
Figure 2.1	OECD indicator: Hospital discharge rates		
Table 6.11	OECD indicator: Number of caesarean sections per 100 live births		
Table 6.11	OECD indicator: Number of coronary revascularisation procedures per 100,000 population		
Table 6.11	OECD indicator: Number of hip and knee replacement surgeries per 100,000 population		
Tables 6.14, 6.15, S6.1, S6.2 and S6.3	Rates of services: hospital procedures		✓
AHS: ED 2015–16	Waiting time for emergency hospital care: proportion seen on time	✓	
AHS: ED 2015–16	Waiting time for emergency hospital care: proportion of emergency department presentations completed in 4 hours or less	✓	
AHS: ESWT 2015–16	Waiting times for elective surgery: waiting times in days	✓	
AHS: ESWT 2015–16	Waiting times for elective surgery: proportion seen on time ^(a)	✓	

(continued)

Table C.2 (continued): National hospital performance indicators, by National Health Performance Framework dimension

Where in <i>Australian hospital statistics</i> (AHS) reports?	Indicator	Related national indicator set	
		NHA	NHPF
	Efficiency & sustainability		
Method for this indicator is currently under review	Cost per casemix-adjusted separation for acute care episodes		✓
Tables 2.18, 2.19 and 2.20	Relative stay index		✓
Figure 2.3	Average length of stay for selected AR-DRGs		✓
Figure 2.2	OECD indicator: Length of stay		
Table 6.11	OECD indicator: Proportion of cataract surgeries that were performed on a same-day basis		
Table 6.11	OECD indicator: Proportion of appendicectomies that were performed laparoscopically		
Table 6.11	OECD indicator: Proportion of cholecystectomies that were performed laparoscopically		
Table 6.11	OECD indicator: Proportion of tonsillectomies that were performed on a same-day basis		

AHS: ED 2015–16—*Emergency department care 2015–16: Australian hospital statistics.*

AHS: ESWT 2015–16—*Elective surgery waiting times 2015–16: Australian hospital statistics.*

AHS: SAB 2015–16—*Staphylococcus aureus bacteraemia in Australian public hospitals 2015–16: Australian hospitals statistics.*

AR-DRG—Australian Refined Diagnosis Related Group.

NHA—National Healthcare Agreement.

NHPF—National Health Performance Framework.

OECD—Organisation for Economic Cooperation and Development.

(a) The data presented for this indicator are not comparable among states and territories.

Table C.3: Other performance indicators that use hospitals data in this report

Indicator	Related national indicator set		Where
	NHA	NHPF	
Selected potentially preventable hospitalisations	✓	✓	Chapter 4. Tables 4.21, 4.22, 4.23 and 4.24.
Hospitalisations for injury and poisoning		✓	Chapter 4. Tables 4.17 and 4.18.
Hospital patient days used by those eligible and waiting for residential aged care	✓ Proxy		Chapter 4. Table 4.25.

NHA—National Healthcare Agreement.

NHPF—National Health Performance Framework.

Glossary

Some definitions in the Glossary contain 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 (NMDs). METeOR can be viewed on the AIHW website at <www.aihw.gov.au>.

acute: Having a short and relatively severe course.

acute care: See **care type**.

acute care hospital: See **establishment type**.

additional diagnosis: A condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care, episode of residential care or attendance at a health care establishment. METeOR identifier: 588981.

admitted patient: A patient who undergoes a hospital's 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.

adverse event: An incident in which harm resulted to a person receiving health care. This includes infections, falls and other injuries, and reactions or complications due to surgery and other procedures, medical devices or medication, some of which may be preventable.

age-standardisation: A set of techniques used to remove, as far as possible, the effects of differences in age when comparing 2 or more populations.

alcohol and drug treatment centre: See **establishment type**.

Australian Classification of Health Interventions (ACHI): ACHI was developed by the Australian Consortium for Classification Development. The 9th edition was used for the 2015–16 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.

average length of stay (ALOS): The average number of patient days for admitted patient episodes. Patients admitted and separated on the same date are allocated a length of stay of 1 day.

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 (care other than admitted care). METeOR identifier: 584408.

Admitted patient care consists of the following categories:

- acute care
- rehabilitation care
- palliative care
- geriatric evaluation and management
- psychogeriatric care
- maintenance care
- newborn care
- mental health care
- other admitted patient care – this is where the principal clinical intent does not meet the criteria for any of the above.

Care other than admitted care include:

- posthumous organ procurement
- hospital boarder.

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.

condition onset flag (COF): A means of differentiating those conditions which arise during, or arose 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. METeOR identifier: 496512.

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.

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, AR-DRGs are used. METeOR identifier: 391295.

elective surgery: 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. METeOR identifier: 568780.

elective admissions involving surgery: Separation for which the urgency of admission was reported as elective (admission could be delayed by at least 24 hours) and where the assigned AR-DRG was surgical (excluding childbirth-related AR-DRGs).

emergency admissions involving surgery: Separation for which the urgency of admission was reported as emergency (admission required within 24 hours) and where the assigned AR-DRG was surgical (excluding childbirth-related AR-DRGs).

episode of care: The period of admitted patient care between a formal or statistical admission and a formal or statistical separation, characterised by only 1 care type (see **care type** and **separation**). METeOR identifier: 584408 (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. METeOR identifier: 269971.

external cause: The environmental event, circumstance or condition as the cause of injury, poisoning and other adverse effect. METeOR identifier: 589014.

funding source for hospital patient: The principal source of funds for an admitted patient episode or non-admitted patient service event. METeOR identifier: 553314.

geriatric evaluation and management: See **care type**.

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 (HITH): 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.

Index of Relative Socio-Economic Disadvantage: One of the set of Socio-Economic Indexes for Areas for ranking the average socioeconomic conditions of the population in an area. It summarises attributes of the population such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations.

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 performance in particular areas of elective care provision. METeOR identifier: 514033.

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 2 of 3 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.

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 of hospital care (contracting hospital) and a provider of an admitted service (contracted hospital) and for which the activity is recorded by both hospitals. METeOR identifier: 472024.

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.

maintenance care: See **care type**.

Major Diagnostic Categories (MDCs): The category into which the patient's diagnosis and the associated AR-DRG falls. They correspond generally to the major organ systems of the body. METeOR identifier: 391298.

mode of admission: The mechanism by which a person begins an episode of admitted patient care. METeOR identifier: 269976.

mode of separation: Status at separation of a person (discharge/transfer/death) and place to which a person is released (where applicable). METeOR identifier: 270094.

newborn care: See **care type**.

non-admitted patient: A patient who does not undergo a hospital's formal admission process. There are three categories of non-admitted patient: emergency department patient; outpatient; and other non-admitted patient (treated by hospital employees off the hospital site – includes community/outreach services). METeOR identifier: 268973.

other care: See **care type**.

outpatient: See **non-admitted patient**. METeOR identifier: 268973.

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 all 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. METeOR identifier: 270045.

patient election status: Accommodation chargeable status elected by patient on admission. METeOR identifier: 326619. The categories are **public patient** and **private patient**.

peer group: Groupings of hospitals into broadly similar groups in terms of characteristics.

percentile: Any 1 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 directly or indirectly, reflect either the extent to which an expected outcome is achieved or the quality of processes leading to that outcome.

place of occurrence of external cause: The place where the external cause of injury, poisoning or adverse effect occurred. METeOR identifier: 589028.

posthumous organ procurement: See **care type**.

potentially preventable hospitalisation (PPH) (selected): Hospital separations from a specified range of conditions where hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals). The PPH conditions are classified as vaccine-preventable, chronic and acute.

Pre-MDC (Pre-Major Diagnostic Category): 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, an episode of residential care or an attendance at the health care establishment. METeOR identifier: 588987.

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**.

private patient: Person admitted to a private hospital, or person admitted to a public hospital who decides to choose the doctor(s) who will treat them or to have private ward accommodation. This means they will be charged for medical services, food and accommodation.

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 an acute care setting. METeOR identifier: 589101.

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: A patient admitted to a public hospital who has agreed to be treated by doctors of the hospital's choice and to accept shared ward accommodation. This means that the patient is not charged. This includes separations with a funding source of *Health service budget*, *Other hospital or public authority* (with a public patient election status), *Health service budget (due to eligibility for Reciprocal health care agreements)* and *Health service budget – no charge raised due to hospital decision* (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. METeOR identifier: 268957 (Admitted patient). METeOR identifier: 327254 (Newborn qualification status). A newborn day is acute (qualified) when a newborn meets at least 1 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 Commonwealth Minister for the purpose of the provision of special care
- is admitted to, or remains in hospital without its mother.

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.

remoteness area: A classification of the remoteness of a location using the Australian Statistical Geography Standard Remoteness Structure (2011), 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.

same-day patient: An admitted patient who is admitted and separated 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 care 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.

separation rate ratio (SRR): The separation rate for 1 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.

surgical specialty: The area of clinical expertise held by the doctor who will perform the surgery of interest. METeOR identifier: 270146.

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. METeOR identifier: 471744.

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Related publications

This report, *Admitted patient care 2015–16: Australian hospital statistics*, is part of an annual series. The earlier editions and any published subsequently can be downloaded for free from the Australian Institute of Health and Welfare (AIHW) website <www.aihw.gov.au/hospitals-publications/>.

The website also includes information on ordering printed copies.

Recent related reports include:

- AIHW 2015. Australian hospital peer groups. Health services series no. 66. Cat. no. HSE 170. Canberra: AIHW.
- AIHW 2016. Admitted patient care 2014–15: Australian hospital statistics. Health services series no. 68. Cat. no. HSE 172. Canberra: AIHW.
- AIHW 2016. Australia's hospitals 2014–15: at a glance. Health services series no. 67. Cat. no. HSE 171. Canberra: AIHW.
- AIHW 2016. Emergency department care 2015–16: Australian hospital statistics. Health services series no. 72. Cat. no. HSE 182. Canberra: AIHW.
- AIHW 2016. Elective surgery waiting times 2015–16: Australian hospital statistics. Health services series no. 73. Cat. no. HSE 183. Canberra: AIHW.
- AIHW 2016. Hospital resources 2014–15: Australian hospital statistics. Health services series no. 71. Cat. no. HSE 176. Canberra: AIHW.
- AIHW 2016. Non-admitted patient care 2014–15: Australian hospital statistics. Health services series no. 69. Cat. no. HSE 174. Canberra: AIHW.
- AIHW 2017. *Staphylococcus aureus* bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics. Health services series no. 74. Cat. no. HSE 184. Canberra: AIHW.
- AIHW, forthcoming. Weight loss surgery 2015–16: Australian hospital statistics. Health services series. Canberra: AIHW.

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In 2015–16, there were about 10.6 million separations in Australia's public and private hospitals—about 59% occurred in public hospitals. There were 30 million days of patient care reported for admitted patients—20.2 million in public hospitals and 9.7 million in private hospitals.

Between 2011–12 and 2015–16:

- the number of separations rose by 3.5% on average each year
- the number of public patient separations rose by an average of 2.9% each year, compared with 5.5% per year for separations paid for by private health insurance.