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Admitted patient care

2016–17

Australian
hospital 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 |
| AHPF | Australian Health Performance Framework |
| 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 |
| HAC | hospital-acquired complication |
| 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 |
| 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 |
| SRR | standardised rate ratio |
| 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 2016–17, there were 11.0 million separations (episodes of admitted patient care) in Australia's public and private hospitals—60% of these occurred in public hospitals, compared with 59% for the previous 4 years.

Between 2012–13 and 2016–17, the number of separations rose by 4.1% on average each year—by 4.5% for public hospitals and by 3.6% for private hospitals. After adjusting for coverage changes between 2012–13 and 2016–17, public hospital separations increased by 4.3% on average each year.

There were 31 million days of patient care reported for admitted patients—21.1 million in public hospitals and 9.8 million in private hospitals. Between 2012–13 and 2016–17, the number of patient days rose by 2.9% on average each year. After adjusting for coverage changes between 2012–13 and 2016–17, public hospital patient days increased by 2.2% on average each year.

Who used these services and why did they receive care?

In 2016–17, 42% of separations and 48% of patient days were for people aged 65 and over. Aboriginal and Torres Strait Islander people made up 4.7% of separations (522,000), and they were hospitalised at 2.6 times the rate for other Australians.

In public hospitals, a large proportion of separations were emergency admissions (43%), while in private hospitals separations were more likely to be elective or other planned care (94%).

In 2016–17, diseases of the digestive system accounted for 10% of separations (over 1.0 million) and injuries or poisoning accounted for a further 7% of separations.

How were patient admissions funded?

In 2016–17, in public hospitals 83% of separations (5.5 million) were for public patients. The remaining 17% of separations were funded by other sources—the majority (912,000, 14%) were for patients who used private health insurance to fund all or part of their admission. In contrast, 82% of separations in private hospitals were funded by private health insurance, 7% were self-funded and 4% were for public patients.

Between 2012–13 and 2016–17, the number of public patient separations rose by an average of 4.6% each year (and accounted for 51% of separations in 2016–17), compared with 4.3% on average each year for patients who used private health insurance to fund all or part of their admission (41% in 2016–17).

What services and procedures were reported?

In 2016–17, public hospitals accounted for the majority of childbirth separations (76%), medical separations (77%) and emergency admissions (92%). Private hospitals accounted for 59% of surgical separations and 55% of mental health care 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 39 days overall—42 days for public patients and 21 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 2016–17, one or more of the national list of 16 hospital-acquired complications (developed by the Australian Commission on Safety and Quality in Health Care) was reported for more than 186,000 separations, from a total of 8.6 million separations that were in-scope for this measure (about 2.2% of admissions).

There were 103,600 admissions (1.2% of in-scope admissions) with *Healthcare-associated infections* acquired in hospital. Other hospital-acquired complications included *Cardiac complications* (0.6% of in-scope admissions), *Delirium* (0.4%) and *Medication complications* (0.2%).

1 Introduction

Admitted patient care 2016–17: 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 2016 to 30 June 2017. 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.

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:

- the day and month of admission—to demonstrate seasonal and weekly variations in the numbers of hospital admissions (Chapter 4)
- the numbers of separations that were affected by a hospital-acquired complication (Chapter 8).

Reports on some other aspects of Australia's hospitals for 2016–17 have already been published in:

- *Emergency department care 2016–17: Australian hospital statistics* (AIHW 2017c)
- *Elective surgery waiting times 2016–17: Australian hospital statistics* (AIHW 2017b)
- *Staphylococcus aureus bacteraemia in Australian hospitals 2016–17: Australian hospital statistics* (AIHW 2017f).

Reports on care provided for non-admitted patients and on hospital resources for 2016–17 will be published later in 2018. A shorter companion report, aimed at a general readership—*Australia's hospitals 2016–17: at a glance*—will also be released, providing a summary of all hospitals-related information for 2016–17.

The AIHW also reports information on hospital funding and expenditure in its *Health expenditure Australia* series (AIHW 2017d and earlier editions).

1.1 What's in this report?

Structure of this report

This introductory chapter presents information on what is covered in this report, what data are reported, and where to go for more information. It also 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 2016–17
- 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 2016).

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

Hospitals-related performance indicators included in this report

This report presents the following hospital performance indicator information:

- Average length of stay for selected Australian Refined Diagnosis Related Groups (AR-DRGs)—see ‘Chapter 2 How much activity was there?’ (previously an NHPF indicator)
- Relative stay index—see ‘Chapter 2 How much activity was there?’ (an AHPF indicator)
- Differential access to hospital procedures—see ‘Chapter 6 What procedures were performed?’ (an AHPF indicator)

- Adverse events treated in hospitals—see ‘Chapter 8 What was the safety and quality of the care?’ (an AHPF indicator)
- Falls resulting in patient harm in hospitals—see ‘Chapter 8 What was the safety and quality of the care?’ (an AHPF indicator)
- Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital)—see ‘Chapter 8 What was the safety and quality of the care?’ (a NHA indicator).

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 (an AHPF indicator)
- Selected potentially preventable hospitalisations (an indicator for both AHPF and NHA)
- Hospital patient days used by those eligible and waiting for residential aged care (a NHA indicator).

International hospital performance indicators

This report presents selected international indicators that are reported by the Organisation for Economic Co-operation and Development (OECD) (OECD 2017) 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, conditions that arose during the episode 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 2016–17, 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 2016–17, 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 either 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 2016–17, 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. There have also been changes in models of care over time, with some procedures that previously required admission becoming available as outpatient services. The following changes in admission practice should be considered when interpreting these data:

- between 2014–15 and 2016–17, the numbers of same-day separations increased for Queensland due to changes in admission practices for chemotherapy for several large public hospitals
- between 2015–16 and 2016–17, the numbers of separations decreased for South Australia due to changes in admission practices for some rehabilitation care at one large hospital.

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

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 2012–13 and 2016–17, changes in coverage, data supply or policy over this period for New South Wales, Queensland, Western Australia and South 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 and 2016–17 will not be comparable with data for earlier periods.

All states and territories provided some separations with the care type *Mental health* in 2016–17. 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. See Appendix A for more information.

In 2015–16, Queensland statistically discharged and readmitted a number of mental health patients in *Public hospitals* on 1 July 2015 to record the change in care type, resulting in increases in separations and patient days between 2014–15 and 2015–16 that would not otherwise have been recorded.

(continued)

Box 1.2 (continued): Limitations of the data

During 2016–17, New South Wales statistically discharged and readmitted a number of mental health-related patients in *Public hospitals* to record the change in care type, resulting in increases in separations and patient days between 2015–16 and 2016–17 that would not otherwise have been recorded. See Appendix A for more information.

Other issues to consider

The following issues should also be noted and caution should be exercised when interpreting these data:

- For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, private hospital data for the Australian Capital Territory are not included in analyses by funding source.
- 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 17% of separations in 2016–17 were for patients who lived in New South Wales.
- Indigenous identification—in 2011–12, it was estimated that 88% of Indigenous patients were correctly identified in Australian public hospitals (AIHW 2013).
- 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.
- For 2016–17, New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute care* is likely to be underestimated.
- Changes in AR-DRG versions—there can be differences in whether a separation is assigned to a *Surgical DRG*, depending on the AR-DRG version used. For this reason, comparisons of the numbers of surgical separations over time should take into consideration the AR-DRG versions used for different periods.

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 2015a).

Changes over time

Time series data in this report show average annual changes from 2012–13 to 2016–17, and annual change between 2015–16 and 2016–17.

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

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

It should be noted that there are not similar confidentiality concerns about the Tasmanian private hospital data (in aggregate) and the Tasmanian Department of Health would support the release of their private hospital information.

AR-DRG versions used

For 2016–17, information by AR-DRGs is presented using AR-DRG version 8.0; this version was used by the Independent Hospital Pricing Authority in its National Efficient Price Determination 2016–17. For time series, AR-DRG version 6.0x was used.

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?' and in the hospital-acquired diagnoses analyses in Section 8.6.

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/reports-statistics/health-welfare-services/hospitals/overview> in PDF format and all tables are available as downloadable Excel spreadsheets.

The website also includes additional information in Excel spreadsheets 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 tables.

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:

- patient admissions by broad category of service
- healthcare-associated *Staphylococcus aureus* infections
- hand hygiene rates
- elective surgery waiting times, including cancer surgery waiting times
- costs of acute admitted patients in public hospitals
- length of stay in public hospitals for selected conditions/procedures.

Although the peer groupings used in this report (see Appendix C) and on the *MyHospitals* website are based 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 2016–17 (using ICD-10-AM to classify diagnoses)
- AR-DRGs from 1997–98 to 2016–17, presented using the relevant version of AR-DRGs for each reporting period
- procedures from 1997–98 to 2016–17, presented using the relevantACHI 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, as well as age-standardised separations per 1,000 population—to enable comparisons across years and/or jurisdictions (without being affected by differences in age distributions) by state and territory, over time and for 2016–17; same-day/overnight status; broad type of care and by state of usual residence
- the number of patient days and patient days per 1,000 population—for public and private hospitals, by state and territory, over time and for 2016–17
- the average length of stay (ALOS)—as the proportion of same-day separations affects the overall ALOS, 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 (OECD indicators) of hospital separation rates and ALOS.

Key findings

Separations

In 2016–17, there were 11.0 million separations in Australia's public and private hospitals. Almost 60% of these (6.6 million) occurred in public hospitals.

Between 2012–13 and 2016–17, the number of separations rose by 4.1% on average each year—by 4.5% for public hospitals and by 3.6% for private hospitals. After adjusting for coverage changes, public hospital separations increased by 4.3% on average each year.

In 2016–17, there were 423 separations per 1,000 population, compared with 390 per 1,000 in 2012–13.

Patient days

Just under 31.0 million days of patient care were reported for admitted patients—21.1 million in public hospitals and 9.8 million in private hospitals. Between 2012–13 and 2016–17, the number of days of patient care increased by 2.9% on average each year. After adjusting for coverage changes for public hospitals, days of patient care increased by 2.2% on average each year.

In 2016–17, the average length of stay for an overnight separation was 5.6 days, overall. It was 5.7 days in public hospitals and 5.2 days in private 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 2016–17.

Counts of separations are presented separately for same-day and overnight separations. The number of overnight separations is considered 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 2012–13 and 2016–17, the overall number of hospital separations rose by an average of 4.1% per year from 9.4 million to 11.0 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 public hospitals (4.5%) than for private hospitals (3.6%). After adjusting for coverage changes between 2012–13 and 2016–17, public hospital separations increased by 4.3% on average each year.

Private hospitals accounted for between 40% and 41% of separations between 2012–13 and 2016–17.

From 2015–16 to 2016–17, separations rose by 3.9%, and the increase in separations was higher in public hospitals (5.0%) than in private hospitals (2.3%).

Between 2015–16 and 2016–17, separations in *Public psychiatric hospitals* increased by 7.3%.

In 2015–16, Queensland statistically discharged and readmitted all mental health-related patients in *Public hospitals* to record the change in care type, resulting in the reporting of a large number of patient days that would not have been included otherwise.

During 2016–17, New South Wales statistically discharged and readmitted all mental health-related patients in *Public hospitals* to record the change in care type, resulting in the reporting of a large number of patient days that would not have been included otherwise. See Box 1.2 for more information.

States and territories

Between 2012–13 and 2016–17, the number of public hospital separations increased at a greater rate than the national average (4.1%) in Victoria, Queensland, the Australian Capital Territory and the Northern Territory (Table 2.2). For South Australia, a change in admission practice for some rehabilitation care at the Repatriation General Hospital between 2014–15 and 2016–17 accounted for some of the decrease in separations in public hospitals.

Between 2012–13 and 2016–17, 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 2015–16 and 2016–17, the largest increase in public hospital separations was in Queensland (7.8%).

Table 2.1: Separations, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|------------------|------------------|-------------------|-------------------|-------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Public acute hospitals | 5,516,399 | 5,702,106 | 5,967,265 | 6,256,986 | 6,570,727 | 4.5 | 5.0 |
| Public psychiatric hospitals | 13,797 | 12,764 | 13,073 | 15,495 | 16,621 | 4.8 | 7.3 |
| <i>Total public hospitals^(a)</i> | <i>5,530,196</i> | <i>5,714,870</i> | <i>5,980,338</i> | <i>6,272,481</i> | <i>6,587,348</i> | 4.5 | 5.0 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 854,843 | 875,529 | 940,703 | 959,743 | 939,950 | 2.4 | –2.1 |
| Other private hospitals | 2,984,218 | 3,106,376 | 3,229,326 | 3,367,544 | 3,486,517 | 4.0 | 3.5 |
| <i>Total private hospitals</i> | <i>3,839,061</i> | <i>3,981,905</i> | <i>4,170,029</i> | <i>4,327,287</i> | <i>4,426,467</i> | 3.6 | 2.3 |
| All hospitals | 9,369,257 | 9,696,775 | 10,150,367 | 10,599,768 | 11,013,815 | 4.1 | 3.9 |

(a) Following the implementation of the *Mental health* care type on 1 July 2015, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both *Public acute* and *Public psychiatric* hospitals.

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

Same-day and overnight separations

Between 2012–13 and 2016–17, the number of same-day separations increased at a greater rate than overnight separations (5.2% and 2.6% average per year, respectively) (Table 2.3). The rate of increase for same-day separations was higher in public hospitals (6.0%) than in private hospitals (4.4%).

In 2016–17, same-day separations accounted for 60% of all separations, an increase from 58% in 2012–13.

For overnight separations, the average annual rate of increase was higher for public hospitals (2.9%), than for private hospitals (1.9%).

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, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-----------------------|-------------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales^(a) | | | | | | | |
| Public hospitals | 1,716,790 | 1,771,521 | 1,813,998 | 1,861,163 | 1,931,552 | 3.0 | 3.8 |
| Private hospitals | 1,082,499 | 1,099,811 | 1,184,539 | 1,261,170 | 1,292,716 | 4.5 | 2.5 |
| <i>All hospitals</i> | <i>2,799,289</i> | <i>2,871,332</i> | <i>2,998,537</i> | <i>3,122,333</i> | <i>3,224,268</i> | <i>3.6</i> | <i>3.3</i> |
| Victoria^(a) | | | | | | | |
| Public hospitals | 1,429,453 | 1,509,766 | 1,587,951 | 1,669,562 | 1,772,448 | 5.5 | 6.2 |
| Private hospitals | 943,381 | 978,912 | 1,009,337 | 1,021,913 | 1,044,650 | 2.6 | 2.2 |
| <i>All hospitals</i> | <i>2,372,834</i> | <i>2,488,678</i> | <i>2,597,288</i> | <i>2,691,475</i> | <i>2,817,098</i> | <i>4.4</i> | <i>4.7</i> |
| Queensland^(a) | | | | | | | |
| Public hospitals | 1,044,011 | 1,087,073 | 1,202,798 | 1,293,125 | 1,394,557 | 7.5 | 7.8 |
| Private hospitals | 933,661 | 984,057 | 1,032,957 | 1,072,557 | 1,102,673 | 4.2 | 2.8 |
| <i>All hospitals</i> | <i>1,977,672</i> | <i>2,071,130</i> | <i>2,235,755</i> | <i>2,365,682</i> | <i>2,497,230</i> | <i>6.0</i> | <i>5.6</i> |
| Western Australia^(a) | | | | | | | |
| Public hospitals | 606,809 | 595,884 | 600,723 | 630,739 | 652,610 | 1.8 | 3.5 |
| Private hospitals | 447,673 | 468,986 | 480,740 | 497,498 | 507,138 | 3.2 | 1.9 |
| <i>All hospitals</i> | <i>1,054,482</i> | <i>1,064,870</i> | <i>1,081,463</i> | <i>1,128,237</i> | <i>1,159,748</i> | <i>2.4</i> | <i>2.8</i> |
| South Australia | | | | | | | |
| Public hospitals | 413,756 | 415,778 | 422,295 | 438,831 | 437,537 | 1.4 | –0.3 |
| Private hospitals | 298,159 | 309,836 | 315,856 | 321,748 | 319,328 | 1.7 | –0.8 |
| <i>All hospitals</i> | <i>711,915</i> | <i>725,614</i> | <i>738,151</i> | <i>760,579</i> | <i>756,865</i> | <i>1.5</i> | <i>–0.5</i> |
| Tasmania | | | | | | | |
| Public hospitals | 106,358 | 114,033 | 119,506 | 122,604 | 124,412 | 4.0 | 1.5 |
| 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 | 94,712 | 96,968 | 100,784 | 108,041 | 115,421 | 5.1 | 6.8 |
| 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> |
| Northern Territory | | | | | | | |
| Public hospitals | 118,307 | 123,847 | 132,283 | 148,416 | 158,811 | 7.6 | 7.0 |
| 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> |
| All hospitals | | | | | | | |
| Public hospitals | 5,530,196 | 5,714,870 | 5,980,338 | 6,272,481 | 6,587,348 | 4.5 | 5.0 |
| Private hospitals | 3,839,061 | 3,981,905 | 4,170,029 | 4,327,287 | 4,426,467 | 3.6 | 2.3 |
| <i>All hospitals</i> | <i>9,369,257</i> | <i>9,696,775</i> | <i>10,150,367</i> | <i>10,599,768</i> | <i>11,013,815</i> | <i>4.1</i> | <i>3.9</i> |

(a) There were changes in coverage, policies or practices between 2012–13 and 2016–17 for New South Wales, Queensland and Western Australia that may affect the interpretation of these data. 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, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|------------------|------------------|------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Same-day separations | | | | | | | |
| Public acute hospitals ^(a) | 2,782,780 | 2,933,355 | 3,121,406 | 3,295,226 | 3,509,225 | 6.0 | 6.5 |
| Public psychiatric hospitals ^{(a)(b)} | 900 | 730 | 1,001 | 1,656 | 2,089 | 23.4 | 26.1 |
| <i>Total public hospitals^(a)</i> | <i>2,783,680</i> | <i>2,934,085</i> | <i>3,122,407</i> | <i>3,296,882</i> | <i>3,511,314</i> | <i>6.0</i> | <i>6.5</i> |
| Private free-standing day hospital facilities ^(b) | 853,412 | 873,915 | 938,817 | 953,917 | 938,443 | 2.4 | –1.6 |
| Other private hospitals | 1,789,245 | 1,884,102 | 1,988,489 | 2,097,603 | 2,197,572 | 5.3 | 4.8 |
| <i>Total private hospitals</i> | <i>2,642,657</i> | <i>2,758,017</i> | <i>2,927,306</i> | <i>3,051,520</i> | <i>3,136,015</i> | <i>4.4</i> | <i>2.8</i> |
| All hospitals | 5,426,337 | 5,692,102 | 6,049,713 | 6,348,402 | 6,647,329 | 5.2 | 4.7 |
| Overnight separations | | | | | | | |
| Public acute hospitals ^(a) | 2,733,619 | 2,768,751 | 2,845,859 | 2,961,760 | 3,061,502 | 2.9 | 3.4 |
| Public psychiatric hospitals ^{(a)(b)} | 12,897 | 12,034 | 12,072 | 13,839 | 14,532 | 3.0 | 5.0 |
| <i>Total public hospitals^(a)</i> | <i>2,746,516</i> | <i>2,780,785</i> | <i>2,857,931</i> | <i>2,975,599</i> | <i>3,076,034</i> | <i>2.9</i> | <i>3.4</i> |
| Private free-standing day hospital facilities ^(b) | 1,431 | 1,614 | 1,886 | 5,826 | 1,507 | 1.3 | –74.1 |
| Other private hospitals | 1,194,973 | 1,222,274 | 1,240,837 | 1,269,941 | 1,288,945 | 1.9 | 1.5 |
| <i>Total private hospitals</i> | <i>1,196,404</i> | <i>1,223,888</i> | <i>1,242,723</i> | <i>1,275,767</i> | <i>1,290,452</i> | <i>1.9</i> | <i>1.2</i> |
| All hospitals | 3,942,920 | 4,004,673 | 4,100,654 | 4,251,366 | 4,366,486 | 2.6 | 2.7 |

(a) Following the *Mental health* care type implementation on 1 July 2015, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both *Public acute* and *Public psychiatric* hospitals.

(b) Due to the low and variable numbers of same-day separations in *Public psychiatric hospitals* and 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.

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 2012–13 and 2016–17 were for same-day acute medical separations (6.5% per year) (Table 2.4). For private hospitals, same-day subacute and non-acute separations increased by an average of 12.2% per year between 2012–13 and 2016–17.

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 and 2016–17 will not be comparable with data presented for earlier periods.

Table 2.4: Separations, by type of care, public and private hospitals, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|------------------|------------------|-------------------|-------------------|-------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| <i>Acute</i> ^(b) | 5,334,794 | 5,523,256 | 5,783,039 | 5,939,718 | 6,243,963 | 4.0 | 5.1 |
| <i>Same-day</i> | 2,751,061 | 2,899,623 | 3,086,074 | 3,238,657 | 3,457,085 | 5.9 | 6.7 |
| Surgical ^(c) | 384,522 | 400,044 | 410,876 | 421,071 | 435,625 | 3.2 | 3.5 |
| Medical | 2,095,861 | 2,220,435 | 2,375,676 | 2,511,901 | 2,694,343 | 6.5 | 7.3 |
| Other ^(c) | 270,678 | 279,144 | 299,522 | 305,685 | 327,117 | 4.8 | 7.0 |
| <i>Overnight</i> | 2,583,733 | 2,623,633 | 2,696,965 | 2,701,061 | 2,786,878 | 1.9 | 3.2 |
| Surgical ^(d) | 573,306 | 589,020 | 598,507 | 614,613 | 625,243 | 2.2 | 1.7 |
| Medical | 1,714,517 | 1,733,107 | 1,792,067 | 1,768,694 | 1,839,435 | 1.8 | 4.0 |
| Other ^(c) | 295,910 | 301,506 | 306,391 | 317,754 | 322,200 | 2.2 | 1.4 |
| <i>Subacute and non-acute</i> ^(e) | 195,323 | 191,536 | 197,222 | 199,603 | 197,023 | 0.2 | -1.3 |
| Same-day | 32,589 | 34,440 | 36,313 | 37,222 | 29,047 | -2.8 | -22.0 |
| Overnight | 162,734 | 157,096 | 160,909 | 162,381 | 167,976 | 0.8 | 3.4 |
| <i>Mental health</i> ^(f) | .. | .. | .. | 133,143 | 146,354 | .. | 9.9 |
| Same-day | .. | .. | .. | 21,002 | 25,181 | .. | 19.9 |
| Overnight | .. | .. | .. | 112,141 | 121,173 | .. | 8.1 |
| <i>Total public hospitals</i> ^(g) | 5,530,196 | 5,714,870 | 5,980,338 | 6,272,481 | 6,587,348 | 4.5 | 5.0 |
| Private hospitals | | | | | | | |
| <i>Acute</i> ^(b) | 3,583,706 | 3,710,951 | 3,844,817 | 3,806,645 | 3,864,316 | 1.9 | 1.5 |
| <i>Same-day</i> | 2,458,748 | 2,561,321 | 2,682,155 | 2,654,001 | 2,706,506 | 2.4 | 2.0 |
| Surgical ^(c) | 818,013 | 837,326 | 885,424 | 902,768 | 902,596 | 2.5 | -0.0 |
| Medical | 918,050 | 977,547 | 1,018,469 | 965,007 | 1,010,967 | 2.4 | 4.8 |
| Other ^(c) | 722,685 | 746,448 | 778,262 | 786,226 | 792,943 | 2.3 | 0.9 |
| <i>Overnight</i> | 1,124,958 | 1,149,630 | 1,162,662 | 1,152,644 | 1,157,810 | 0.7 | 0.4 |
| Surgical ^(d) | 593,205 | 613,262 | 623,054 | 641,261 | 642,391 | 2.0 | 0.2 |
| Medical | 397,398 | 403,441 | 409,307 | 380,004 | 385,382 | -0.8 | 1.4 |
| Other ^(c) | 134,355 | 132,927 | 130,301 | 131,379 | 130,037 | -0.8 | -1.0 |
| <i>Subacute and non-acute</i> ^(e) | 255,351 | 270,949 | 325,211 | 349,726 | 382,144 | 10.6 | 9.3 |
| Same-day | 183,908 | 196,694 | 245,150 | 265,105 | 291,082 | 12.2 | 9.8 |
| Overnight | 71,443 | 74,255 | 80,061 | 84,621 | 91,062 | 6.3 | 7.6 |
| <i>Mental health</i> ^(f) | .. | .. | .. | 170,909 | 180,007 | .. | 5.3 |
| Same-day | .. | .. | .. | 132,413 | 138,427 | .. | 4.5 |
| Overnight | .. | .. | .. | 38,496 | 41,580 | .. | 8.0 |
| <i>Total private hospitals</i> ^(g) | 3,839,061 | 3,981,905 | 4,170,029 | 4,327,287 | 4,426,467 | 3.6 | 2.3 |
| Total | 9,369,257 | 9,696,775 | 10,150,367 | 10,599,768 | 11,013,815 | 4.1 | 3.9 |

(a) There were changes in coverage, policies or practices between 2012–13 and 2015–16 for New South Wales, Queensland and Western Australia that may affect the interpretation of these data. 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.

(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 8.0 (IHPA 2014).

(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. Between 2015–16 and 2016–17, a change in admission practice for some rehabilitation care in South Australia's Repatriation General Hospital resulted in a decrease of about 7,000 same-day separations.

(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 2016–17?

In 2016–17, 60% of separations (6.6 million) occurred in public hospitals (Table 2.5). Public hospitals accounted for 70% of overnight separations and 53% of same-day separations.

For the 4.4 million separations from private hospitals, 21% of separations (940,000) occurred in *Private free-standing day hospital facilities* and the remainder were in *Other private hospitals* (that can provide overnight care).

In 2016–17, overnight separations made up 47% of separations in public hospitals and 29% in private hospitals.

The proportion of overnight separations that were in public hospitals (rather than private hospitals) varied among states and territories, ranging from 65% in Queensland to 76% in New South Wales (for jurisdictions whose private data could be reported).

For public hospitals, the proportion of separations that were same-day separations ranged from 46% in New South Wales to 71% in the Northern Territory.

For *Private free-standing day hospital facilities* and *Other private hospitals* combined, the proportion of separations that were same-day ranged from 67% in Victoria to 75% in New South Wales (for jurisdictions whose private hospital data could be reported).

Cross-border flows

For 2016–17, 96% of separations (10.6 million) were for people who were hospitalised in their state or territory of residence (Table 2.6). However, in the Australian Capital Territory, 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|------------------|------------------|----------------|----------------|----------------|----------------|-------------------|
| Separations | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 1,923,930 | 1,770,887 | 1,394,096 | 648,688 | 435,511 | 123,383 | 115,421 | 158,811 | 6,570,727 |
| Public psychiatric hospitals | 7,622 | 1,561 | 461 | 3,922 | 2,026 | 1,029 | .. | .. | 16,621 |
| <i>Total public hospitals</i> | <i>1,931,552</i> | <i>1,772,448</i> | <i>1,394,557</i> | <i>652,610</i> | <i>437,537</i> | <i>124,412</i> | <i>115,421</i> | <i>158,811</i> | <i>6,587,348</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 252,834 | 217,820 | 226,675 | 152,905 | 73,336 | n.p. | n.p. | n.p. | 939,950 |
| Other private hospitals | 1,039,882 | 826,830 | 875,998 | 354,233 | 245,992 | n.p. | n.p. | n.p. | 3,486,517 |
| <i>Total private hospitals</i> | <i>1,292,716</i> | <i>1,044,650</i> | <i>1,102,673</i> | <i>507,138</i> | <i>319,328</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>4,426,467</i> |
| <i>Public acute and private hospitals</i> | <i>3,216,646</i> | <i>2,815,537</i> | <i>2,496,769</i> | <i>1,155,826</i> | <i>754,839</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>10,997,194</i> |
| All hospitals | 3,224,268 | 2,817,098 | 2,497,230 | 1,159,748 | 756,865 | n.p. | n.p. | n.p. | 11,013,815 |
| Overnight separations | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 1,036,753 | 735,743 | 610,140 | 289,878 | 227,624 | 59,657 | 54,893 | 46,814 | 3,061,502 |
| Public psychiatric hospitals | 6,747 | 1,540 | 451 | 3,060 | 1,765 | 969 | .. | .. | 14,532 |
| <i>Total public hospitals</i> | <i>1,043,500</i> | <i>737,283</i> | <i>610,591</i> | <i>292,938</i> | <i>229,389</i> | <i>60,626</i> | <i>54,893</i> | <i>46,814</i> | <i>3,076,034</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 9 | 10 | 0 | 1,488 | 0 | n.p. | n.p. | n.p. | 1,507 |
| Other private hospitals | 323,312 | 347,043 | 326,351 | 146,602 | 92,934 | n.p. | n.p. | n.p. | 1,288,945 |
| <i>Total private hospitals</i> | <i>323,321</i> | <i>347,053</i> | <i>326,351</i> | <i>148,090</i> | <i>92,934</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1,290,452</i> |
| <i>Public acute and private hospitals</i> | <i>1,360,074</i> | <i>1,082,796</i> | <i>936,491</i> | <i>437,968</i> | <i>320,558</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>4,351,954</i> |
| All hospitals | 1,366,821 | 1,084,336 | 936,942 | 441,028 | 322,323 | n.p. | n.p. | n.p. | 4,366,486 |

(continued)

Table 2.5 (continued): Separation statistics, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|------------------|----------------|----------------|---------------|---------------|----------------|------------------|
| Same-day separations | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 887,177 | 1,035,144 | 783,956 | 358,810 | 207,887 | 63,726 | 60,528 | 111,997 | 3,509,225 |
| Public psychiatric hospitals | 875 | 21 | 10 | 862 | 261 | 60 | .. | .. | 2,089 |
| <i>Total public hospitals</i> | <i>888,052</i> | <i>1,035,165</i> | <i>783,966</i> | <i>359,672</i> | <i>208,148</i> | <i>63,786</i> | <i>60,528</i> | <i>111,997</i> | <i>3,511,314</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 252,825 | 217,810 | 226,675 | 151,417 | 73,336 | n.p. | n.p. | n.p. | 938,443 |
| Other private hospitals | 716,570 | 479,787 | 549,647 | 207,631 | 153,058 | n.p. | n.p. | n.p. | 2,197,572 |
| <i>Total private hospitals</i> | <i>969,395</i> | <i>697,597</i> | <i>776,322</i> | <i>359,048</i> | <i>226,394</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>3,136,015</i> |
| <i>Public acute and private hospitals</i> | <i>1,856,572</i> | <i>1,732,741</i> | <i>1,560,278</i> | <i>717,858</i> | <i>434,281</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>6,645,240</i> |
| All hospitals | 1,857,447 | 1,732,762 | 1,560,288 | 718,720 | 434,542 | n.p. | n.p. | n.p. | 6,647,329 |
| Same-day separations as % of total | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 46.1 | 58.5 | 56.2 | 55.3 | 47.7 | 51.6 | 52.4 | 70.5 | 53.4 |
| Public psychiatric hospitals | 11.5 | 1.3 | 2.2 | 22.0 | 12.9 | 5.8 | .. | .. | 12.6 |
| <i>Total public hospitals</i> | <i>46.0</i> | <i>58.4</i> | <i>56.2</i> | <i>55.1</i> | <i>47.6</i> | <i>51.3</i> | <i>52.4</i> | <i>70.5</i> | <i>53.3</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 100.0 | 100.0 | 100.0 | 99.0 | 100.0 | n.p. | n.p. | n.p. | 99.8 |
| Other private hospitals | 68.9 | 58.0 | 62.7 | 58.6 | 62.2 | n.p. | n.p. | n.p. | 63.0 |
| <i>Total private hospitals</i> | <i>75.0</i> | <i>66.8</i> | <i>70.4</i> | <i>70.8</i> | <i>70.9</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>70.8</i> |
| <i>Public acute and private hospitals</i> | <i>57.7</i> | <i>61.5</i> | <i>62.5</i> | <i>62.1</i> | <i>57.5</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>60.4</i> |
| All hospitals | 57.6 | 61.5 | 62.5 | 62.0 | 57.4 | n.p. | n.p. | n.p. | 60.4 |

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, 2016–17

| State or territory of usual residence | State or territory of hospitalisation | | | | | | | | Total | Separations per 1,000 Population |
|--|---------------------------------------|------------------|------------------|------------------|----------------|----------------|----------------|----------------|-------------------|----------------------------------|
| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | | |
| Public hospitals | | | | | | | | | | |
| New South Wales | 1,897,842 | 29,518 | 14,307 | 629 | 1,721 | 393 | 19,577 | 626 | 1,964,613 | 233.5 |
| Victoria | 4,295 | 1,732,603 | 3,344 | 672 | 2,087 | 402 | 326 | 532 | 1,744,261 | 264.2 |
| Queensland | 12,317 | 1,388 | 1,363,980 | 540 | 546 | 271 | 258 | 627 | 1,379,927 | 272.1 |
| Western Australia | 713 | 621 | 671 | 646,337 | 363 | 105 | 70 | 3,468 | 652,348 | 246.9 |
| South Australia | 867 | 2,674 | 759 | 292 | 429,879 | 70 | 97 | 3,351 | 437,989 | 228.8 |
| Tasmania | 339 | 2,408 | 435 | 101 | 98 | 122,978 | 29 | 75 | 126,463 | 216.9 |
| Australian Capital Territory | 3,971 | 254 | 259 | 45 | 44 | 22 | 94,701 | 23 | 99,319 | 250.3 |
| Northern Territory | 261 | 286 | 720 | 204 | 1,679 | 15 | 20 | 149,684 | 152,869 | 683.8 |
| Other Australian territories ^(a) | 246 | 129 | 0 | 249 | 0 | 0 | 7 | 0 | 631 | n.a. |
| Not elsewhere classified/Not reported ^(b) | 10,701 | 2,567 | 10,082 | 3,541 | 1,120 | 156 | 336 | 425 | 28,928 | n.a. |
| Total | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 | 254.9 |
| Private hospitals | | | | | | | | | | |
| New South Wales | 1,267,863 | 7,456 | 42,319 | 215 | 1,783 | n.p. | n.p. | n.p. | 1,329,897 | 155.1 |
| Victoria | 13,415 | 1,031,819 | 2,051 | 210 | 1,666 | n.p. | n.p. | n.p. | 1,049,404 | 157.2 |
| Queensland | 4,263 | 936 | 1,054,670 | 208 | 362 | n.p. | n.p. | n.p. | 1,060,624 | 203.7 |
| Western Australia | 664 | 382 | 453 | 505,727 | 148 | n.p. | n.p. | n.p. | 507,566 | 190.8 |
| South Australia | 531 | 824 | 435 | 98 | 313,355 | n.p. | n.p. | n.p. | 315,337 | 155.3 |
| Tasmania | 507 | 1,822 | 411 | 33 | 66 | n.p. | n.p. | n.p. | 96,583 | 158.3 |
| Australian Capital Territory | 3,670 | 239 | 375 | 14 | 49 | n.p. | n.p. | n.p. | 43,678 | 110.6 |
| Northern Territory | 558 | 442 | 1,072 | 155 | 1,216 | n.p. | n.p. | n.p. | 19,209 | 90.7 |
| Other Australian territories ^(a) | 18 | 0 | 3 | 76 | 0 | n.p. | n.p. | n.p. | 150 | n.a. |
| Not elsewhere classified/Not reported ^(b) | 1,227 | 730 | 884 | 402 | 683 | n.p. | n.p. | n.p. | 4,019 | n.a. |
| Total | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 | 167.8 |
| All hospitals | 3,224,268 | 2,817,098 | 2,497,230 | 1,159,748 | 756,865 | n.p. | n.p. | n.p. | 11,013,815 | 422.7 |

(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 2016–17. 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. Separation rates are generally presented by the state of hospitalisation, rather than by the patient's state of residence. The exceptions to this are for Table 2.6, for potentially preventable hospitalisations in Section 4.5, and in tables presenting separation rates by remoteness of area of usual residence or by socioeconomic status of area of usual residence.

Changes over time

The number of separations per 1,000 population increased from 390 in 2012–13 to 423 in 2016–17, an average increase of 2.0% per year (Table 2.7). The rates increased for all types of hospitals.

The implementation of the *Mental health* care type from 1 July 2015 affected separation rates for all hospitals (particularly for *Public psychiatric hospitals*) as there were increased numbers of statistical separations due to care type changes (see Box 1.2). Therefore, the data reported for 2015–16 and 2016–17 may not be comparable with previous years.

The number of overnight separations per 1,000 population was relatively stable between 2012–13 and 2014–15. The increase in overnight separation rates between 2014–15 and 2015–16 may, in part, be due to the implementation of the *Mental health* care type from 1 July 2015.

The number of same-day separations per 1,000 population increased for both public and private hospitals between 2012–13 and 2016–17.

Separation rates in 2016–17

In 2016–17, there were 255 separations per 1,000 population in public hospitals and 168 per 1,000 in private hospitals (Table 2.8).

For public hospitals, separation rates ranged from 213 per 1,000 in Tasmania to 712 in the Northern Territory.

For private hospitals, separation rates ranged from 157 per 1,000 in South Australia to 212 in Queensland (for jurisdictions whose private hospital data could be reported).

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 2016–17, there were 255 same-day separations per 1,000 population (Table 2.9)—136 per 1,000 for public hospitals and 119 per 1,000 for private hospitals.

Rates of same-day separations in public hospitals ranged from 105 per 1,000 in New South Wales to 497 per 1,000 in the Northern Territory.

For private hospitals, rates of same-day separations ranged from 105 per 1,000 in Victoria to 149 per 1,000 in Queensland (for jurisdictions whose private hospital data could be reported).

Table 2.7: Separations per 1,000 population, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|--------------|--------------|--------------|--------------|--------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Public acute hospitals | 231.2 | 233.9 | 239.7 | 246.9 | 254.2 | 2.4 | 3.0 |
| Public psychiatric hospitals ^(a) | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 3.2 | 5.7 |
| <i>Total public hospitals</i> | <i>231.8</i> | <i>234.4</i> | <i>240.2</i> | <i>247.5</i> | <i>254.9</i> | <i>2.4</i> | <i>3.0</i> |
| Same-day separations | 116.4 | 120.1 | 125.1 | 129.7 | 135.6 | 3.9 | 4.5 |
| Overnight separations | 115.4 | 114.3 | 115.1 | 117.8 | 119.3 | 0.8 | 1.3 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 35.3 | 35.2 | 37.0 | 37.0 | 35.6 | 0.2 | –3.9 |
| Other private hospitals | 123.1 | 125.3 | 127.4 | 130.3 | 132.2 | 1.8 | 1.5 |
| <i>Total private hospitals</i> | <i>158.4</i> | <i>160.5</i> | <i>164.4</i> | <i>167.3</i> | <i>167.8</i> | <i>1.5</i> | <i>0.3</i> |
| Same-day separations | 109.1 | 111.2 | 115.5 | 118.1 | 119.0 | 2.2 | 0.8 |
| Overnight separations | 49.3 | 49.3 | 48.9 | 49.3 | 48.8 | –0.2 | –0.9 |
| All hospitals | 390.2 | 394.9 | 404.6 | 414.8 | 422.7 | 2.0 | 1.9 |
| Same-day separations | 225.5 | 231.3 | 240.6 | 247.8 | 254.6 | 3.1 | 2.7 |
| Overnight separations | 164.7 | 163.6 | 164.0 | 167.1 | 168.1 | 0.5 | 0.6 |

(a) Following the *Mental health* care type implementation on 1 July 2015, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both *Public acute* and *Public psychiatric* hospitals.

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

Table 2.8: Separations per 1,000 population, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 228.6 | 268.2 | 274.9 | 245.5 | 227.5 | 211.0 | 290.9 | 712.0 | 254.2 |
| Public psychiatric hospitals | 1.0 | 0.3 | 0.1 | 1.5 | 1.2 | 2.0 | .. | .. | 0.7 |
| <i>Total public hospitals</i> | <i>229.6</i> | <i>268.5</i> | <i>275.0</i> | <i>247.0</i> | <i>228.7</i> | <i>213.0</i> | <i>290.9</i> | <i>712.0</i> | <i>254.9</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 29.6 | 32.8 | 43.1 | 57.7 | 34.7 | n.p. | n.p. | n.p. | 35.6 |
| Other private hospitals | 121.3 | 123.7 | 168.5 | 133.0 | 122.7 | n.p. | n.p. | n.p. | 132.2 |
| <i>Total private hospitals</i> | <i>150.9</i> | <i>156.5</i> | <i>211.6</i> | <i>190.6</i> | <i>157.4</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>167.8</i> |
| All hospitals | 380.5 | 425.0 | 486.6 | 437.6 | 386.1 | n.p. | n.p. | n.p. | 422.7 |

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

Table 2.9: Same-day separations per 1,000 population, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|----------------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|
| Public hospitals | 105.2 | 157.0 | 154.0 | 135.5 | 108.9 | 107.1 | 154.0 | 497.4 | 135.6 |
| Private hospitals | 112.9 | 105.4 | 148.8 | 134.9 | 111.3 | n.p. | n.p. | n.p. | 119.0 |
| All hospitals | 218.1 | 262.4 | 302.7 | 270.4 | 220.2 | n.p. | n.p. | n.p. | 254.6 |

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

Overnight separations

In 2016–17, there were 168 overnight separations per 1,000 population (Table 2.10)—119 per 1,000 for public hospitals and 49 per 1,000 for private hospitals.

Rates of overnight separations in public hospitals ranged from 106 per 1,000 in Tasmania to 215 per 1,000 in the Northern Territory.

For private hospitals, rates of overnight separations ranged from 38 per 1,000 in New South Wales to 63 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|----------------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|
| Public hospitals | 124.4 | 111.5 | 121.1 | 111.5 | 119.9 | 105.9 | 136.9 | 214.6 | 119.3 |
| Private hospitals | 38.1 | 51.1 | 62.8 | 55.7 | 46.0 | n.p. | n.p. | n.p. | 48.8 |
| All hospitals | 162.4 | 162.6 | 183.9 | 167.2 | 165.9 | n.p. | n.p. | n.p. | 168.1 |

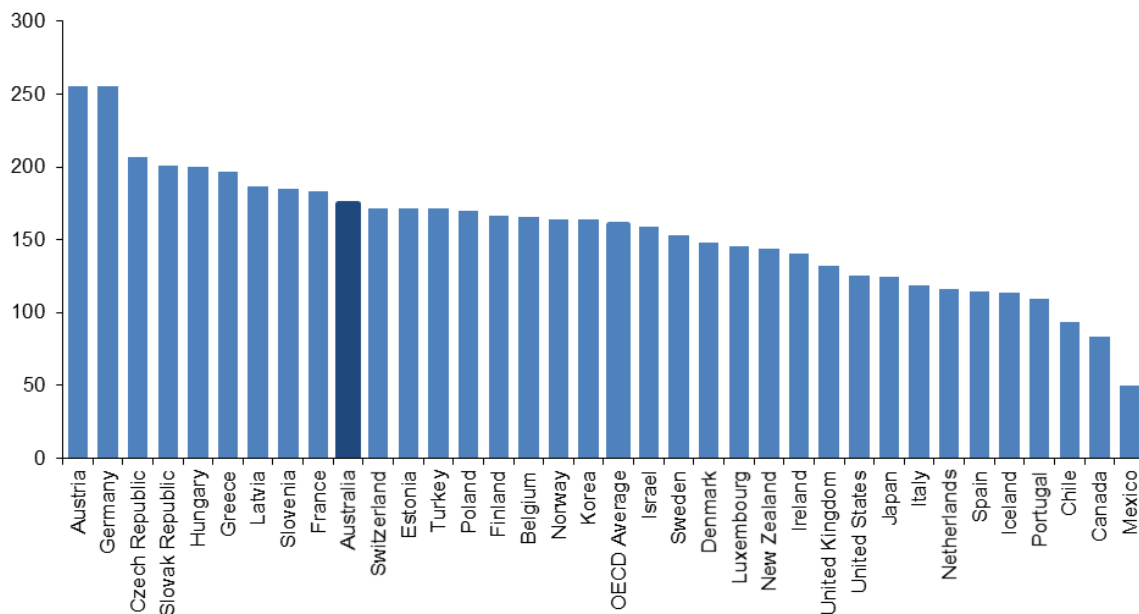
Note: See boxes 1.1, 1.2 and appendixes A and B for notes on data limitations and methods.

How does Australia compare?

OECD indicator: Hospital discharge rates

The number of overnight separations per 1,000 population in Australia for 2016–17 (168.1) was in the middle of the range reported for other OECD countries in recent years (Figure 2.1) (OECD 2017). The comparability of international separation rates is likely to be affected by differences in definitions of hospitals, collection periods and admission practices.

Separations per 1,000 population



Note: Data collection periods vary for OECD countries (2015, 2014 and 2010). Data for Australia are for 2016–17 and are not standardised using the OECD standard population.

Figure 2.1: Overnight separations per 1,000 population, Australia (2016–17) 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 mental health care, 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 2016–17.

Changes over time

Between 2012–13 and 2016–17, the number of patient days increased by an average of 2.9% each year, from 27.7 million to 31.0 million (Table 2.11). After adjusting for public hospital coverage changes for New South Wales, Queensland, Western Australia and South Australia, it is estimated that patient days increased by an average of 2.2% each year.

Between 2012–13 and 2016–17, the number of patient days in private hospitals increased by 2.7%. Private hospitals accounted for 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 2016–17 was, in part, due to the introduction of the *Mental health* care type from 1 July 2015 (see Box 1.2). After adjusting for the implementation of the mental health care type in New South Wales and Queensland, it is estimated that patient days increased by an average of 6.0% on average each year between 2012–13 and 2016–17.

States and territories

Between 2012–13 and 2016–17, the number of public hospital patient days increased in most states and territories; however they decreased in South Australia and Western Australia by an average of 1.5% and 0.7% respectively each year (Table 2.12). For South Australia, a change in admission practice for some rehabilitation care may account for some of this decrease.

For private hospitals, the numbers of patient days increased at a higher rate than the national average (2.7%) for New South Wales (3.5%), Queensland (3.0%) and Western Australia (2.8%) over the same period (for jurisdictions whose private hospital data could be reported).

The decrease in patient days for Western Australia's public hospitals between 2012–13 and 2013–14, reflects changes in that jurisdiction's emergency department admission policy.

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

Between 2015–16 and 2016–17, the increase in public hospital patient days in New South Wales reflects, in part, the implementation of the *Mental health* care type in some hospitals.

Table 2.11: Patient days, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) ^(a) | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Public acute hospitals | 18,178,567 | 18,200,554 | 18,720,308 | 19,207,927 | 19,812,887 | 2.2 | 3.1 |
| Public psychiatric hospitals | 644,289 | 623,518 | 643,390 | 976,416 | 1,305,174 | 19.3 | 33.7 |
| <i>Total public hospitals</i> | <i>18,822,856</i> | <i>18,824,072</i> | <i>19,363,698</i> | <i>20,184,343</i> | <i>21,118,061</i> | <i>2.9</i> | <i>4.6</i> |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 854,933 | 875,545 | 940,870 | 960,603 | 940,096 | 2.4 | –2.1 |
| Other private hospitals | 8,013,743 | 8,180,639 | 8,448,971 | 8,701,444 | 8,932,867 | 2.8 | 2.7 |
| <i>Total private hospitals</i> | <i>8,868,676</i> | <i>9,056,184</i> | <i>9,389,841</i> | <i>9,662,047</i> | <i>9,872,963</i> | <i>2.7</i> | <i>2.2</i> |
| All hospitals | 27,691,532 | 27,880,256 | 28,753,539 | 29,846,390 | 30,991,024 | 2.9 | 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, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both Public acute and Public psychiatric hospitals.

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

Patient days in 2016–17

In 2016–17, public hospitals accounted for 68% of patient days (21.1 million) (Table 2.13). After adjusting for separations in New South Wales that were statistically discharged for a change in care type during 2016–17 (and for which patient days would mostly 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 20% in New South Wales to 40% 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, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------|-------------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales^{(a)(b)} | | | | | | | |
| Public hospitals | 6,387,047 | 6,465,446 | 6,616,974 | 6,708,339 | 7,591,818 | 4.4 | 13.2 |
| Private hospitals | 2,464,339 | 2,487,934 | 2,651,820 | 2,778,833 | 2,829,223 | 3.5 | 1.8 |
| <i>All hospitals</i> | <i>8,851,386</i> | <i>8,953,380</i> | <i>9,268,794</i> | <i>9,487,172</i> | <i>10,421,041</i> | <i>4.2</i> | <i>9.8</i> |
| Victoria | | | | | | | |
| Public hospitals | 4,629,716 | 4,690,977 | 4,840,236 | 4,967,532 | 5,163,907 | 2.8 | 4.0 |
| Private hospitals | 2,310,738 | 2,376,811 | 2,432,231 | 2,476,379 | 2,541,823 | 2.4 | 2.6 |
| <i>All hospitals</i> | <i>6,940,454</i> | <i>7,067,788</i> | <i>7,272,467</i> | <i>7,443,911</i> | <i>7,705,730</i> | <i>2.6</i> | <i>3.5</i> |
| Queensland^{(a)(b)} | | | | | | | |
| Public hospitals | 3,295,250 | 3,308,998 | 3,524,825 | 4,052,756 | 3,875,714 | 4.1 | -4.4 |
| Private hospitals | 2,219,627 | 2,282,019 | 2,378,372 | 2,431,184 | 2,500,535 | 3.0 | 2.9 |
| <i>All hospitals</i> | <i>5,514,877</i> | <i>5,591,017</i> | <i>5,903,197</i> | <i>6,483,940</i> | <i>6,376,249</i> | <i>3.7</i> | <i>-1.7</i> |
| Western Australia^(a) | | | | | | | |
| Public hospitals | 1,920,265 | 1,828,364 | 1,807,878 | 1,836,151 | 1,864,685 | -0.7 | 1.6 |
| Private hospitals | 906,675 | 938,189 | 947,984 | 988,625 | 1,013,210 | 2.8 | 2.5 |
| <i>All hospitals</i> | <i>2,826,940</i> | <i>2,766,553</i> | <i>2,755,862</i> | <i>2,824,776</i> | <i>2,877,895</i> | <i>0.4</i> | <i>1.9</i> |
| South Australia | | | | | | | |
| Public hospitals | 1,600,110 | 1,508,854 | 1,513,227 | 1,530,868 | 1,506,184 | -1.5 | -1.6 |
| Private hospitals | 639,419 | 642,097 | 644,376 | 643,975 | 637,699 | -0.1 | -1.0 |
| <i>All hospitals</i> | <i>2,239,529</i> | <i>2,150,951</i> | <i>2,157,603</i> | <i>2,174,843</i> | <i>2,143,883</i> | <i>-1.1</i> | <i>-1.4</i> |
| Tasmania | | | | | | | |
| Public hospitals | 359,760 | 380,908 | 392,138 | 401,157 | 409,506 | 3.3 | 2.1 |
| 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> |
| Australian Capital Territory | | | | | | | |
| Public hospitals | 327,728 | 332,798 | 344,014 | 358,674 | 359,564 | 2.3 | 0.2 |
| 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 | 302,980 | 307,727 | 324,406 | 328,866 | 346,683 | 3.4 | 5.4 |
| 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 | 18,822,856 | 18,824,072 | 19,363,698 | 20,184,343 | 21,118,061 | 2.9 | 4.6 |
| Private hospitals | 8,868,676 | 9,056,184 | 9,389,841 | 9,662,047 | 9,872,963 | 2.7 | 2.2 |
| <i>All hospitals</i> | <i>27,691,532</i> | <i>27,880,256</i> | <i>28,753,539</i> | <i>29,846,390</i> | <i>30,991,024</i> | <i>2.9</i> | <i>3.8</i> |

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

(b) Following the implementation of the *Mental health* care type on 1 July 2015, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both *Public acute* and *Public psychiatric* 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|-------------------|------------------|------------------|------------------|------------------|----------------|----------------|----------------|-------------------|
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 6,618,904 | 5,106,809 | 3,774,549 | 1,782,442 | 1,435,900 | 388,036 | 359,564 | 346,683 | 19,812,887 |
| Public psychiatric hospitals | 972,914 | 57,098 | 101,165 | 82,243 | 70,284 | 21,470 | .. | .. | 1,305,174 |
| <i>Total public hospitals</i> | <i>7,591,818</i> | <i>5,163,907</i> | <i>3,875,714</i> | <i>1,864,685</i> | <i>1,506,184</i> | <i>409,506</i> | <i>359,564</i> | <i>346,683</i> | <i>21,118,061</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 252,838 | 217,962 | 226,675 | 152,905 | 73,336 | n.p. | n.p. | n.p. | 940,096 |
| Other private hospitals | 2,576,385 | 2,323,861 | 2,273,860 | 860,305 | 564,363 | n.p. | n.p. | n.p. | 8,932,867 |
| <i>Total private hospitals</i> | <i>2,829,223</i> | <i>2,541,823</i> | <i>2,500,535</i> | <i>1,013,210</i> | <i>637,699</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>9,872,963</i> |
| <i>Public acute and private hospitals</i> | <i>9,448,127</i> | <i>7,648,632</i> | <i>6,275,084</i> | <i>2,795,652</i> | <i>2,073,599</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>29,685,850</i> |
| All hospitals | 10,421,041 | 7,705,730 | 6,376,249 | 2,877,895 | 2,143,883 | n.p. | n.p. | n.p. | 30,991,024 |

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 2016–17.

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 2012–13 and 2016–17, overall patient days per 1,000 population fluctuated for *Public acute hospitals*, *Private free-standing day hospital facilities* and *Other private hospitals* but there was an overall increase over time (Table 2.14).

The increase in patient days between 2014–15 and 2016–17 (particularly for *Public psychiatric hospitals*) was 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, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|----------------|----------------|----------------|----------------|----------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Public acute hospitals | 747.1 | 731.6 | 736.1 | 741.5 | 750.4 | 0.1 | 1.2 |
| Public psychiatric hospitals ^(a) | 28.2 | 26.5 | 27.4 | 41.8 | 54.5 | 17.9 | 30.3 |
| <i>Total public hospitals</i> | <i>775.3</i> | <i>758.1</i> | <i>763.5</i> | <i>783.4</i> | <i>804.8</i> | <i>0.9</i> | <i>2.7</i> |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 35.3 | 35.2 | 37.0 | 37.0 | 35.6 | 0.2 | –4.0 |
| Other private hospitals | 323.8 | 323.0 | 326.0 | 328.8 | 330.8 | 0.5 | 0.6 |
| <i>Total private hospitals</i> | <i>359.1</i> | <i>358.3</i> | <i>363.0</i> | <i>365.8</i> | <i>366.4</i> | <i>0.5</i> | <i>0.2</i> |
| All hospitals | 1,134.4 | 1,116.3 | 1,126.5 | 1,149.1 | 1,171.2 | 0.8 | 1.9 |

(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, New South Wales (in 2016–17) and Queensland (in 2015–16) statistically discharged and readmitted all mental health-related patients in all public hospitals to record the change in care type, resulting in increases in separations and patient days for both *Public acute* and *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 2016–17

In 2016–17, there were 1,171 patient days per 1,000 population overall (Table 2.15). The patient day rate varied among states and territories, from 1,054 in South Australia to 1,234 in Queensland (for jurisdictions whose private hospital data could be reported).

For public hospitals, it ranged from 675 days per 1,000 in Tasmania to 1,696 per 1,000 in the Northern Territory.

For private hospitals, it ranged from 303 per 1,000 in South Australia to 475 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|----------------|----------------|----------------|----------------|--------------|--------------|----------------|----------------|
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 764.8 | 755.0 | 738.3 | 671.4 | 711.9 | 636.2 | 909.0 | 1,696.0 | 750.4 |
| Public psychiatric hospitals | 128.9 | 9.3 | 20.3 | 31.8 | 39.0 | 38.4 | .. | .. | 54.5 |
| <i>Total public hospitals</i> | <i>893.7</i> | <i>764.3</i> | <i>758.6</i> | <i>703.2</i> | <i>751.0</i> | <i>674.6</i> | <i>909.0</i> | <i>1,696.0</i> | <i>804.8</i> |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 29.6 | 32.8 | 43.1 | 57.7 | 34.7 | n.p. | n.p. | n.p. | 35.6 |
| Other private hospitals | 293.3 | 336.5 | 432.0 | 321.5 | 268.5 | n.p. | n.p. | n.p. | 330.8 |
| <i>Total private hospitals</i> | <i>322.9</i> | <i>369.4</i> | <i>475.1</i> | <i>379.2</i> | <i>303.2</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>366.4</i> |
| All hospitals | 1,216.6 | 1,133.6 | 1,233.7 | 1,082.4 | 1,054.2 | n.p. | n.p. | n.p. | 1,171.2 |

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 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 2016–17.

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 2012–13 and 2016–17, the overall ALOS for public and private hospitals combined decreased by an average of 1.2% per year (Table 2.16) from 3.0 days to 2.8 days.

The increases in average length of stay for *Public psychiatric hospitals* between 2014–15 and 2015–16 and between 2015–16 and 2016–17 were, in part, due to the introduction of the *Mental health care* type from 1 July 2015 (see Box 1.2). The statistical discharge and readmission of mental health-related patients in *Public hospitals* (to record a change in care type), resulted in large increases in patient days for a relatively small number of separations in Queensland (2015–16) and New South Wales (2016–17), and increased the average length of stay for *Public hospitals* over this period.

For overnight separations, the ALOS in all hospitals combined was relatively stable between 2012–13 and 2016–17. For *Public acute hospitals*, the ALOS excluding same-day separations decreased from 5.6 to 5.3 days over the same period.

Length of stay in 2016–17

In 2016–17, 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). It varied across states and territories, ranging from 5.0 days in the Northern Territory to 5.7 days in South Australia and Tasmania.

For New South Wales, the implementation of the *Mental health care* type contributed to the increase in the ALOS for *Public psychiatric hospitals* (and overall) between 2015–16 and 2016–17, due to the statistical discharge and readmission of mental health-related patients (see Box 1.2).

Table 2.16: Average length of stay, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------|------------|------------|------------|------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Average length of stay (days) | | | | | | | |
| Public hospitals | | | | | | | |
| Public acute hospitals | 3.3 | 3.2 | 3.1 | 3.1 | 3.0 | -2.2 | -1.8 |
| Public psychiatric hospitals ^(a) | 46.7 | 48.8 | 49.2 | 63.0 | 78.5 | 13.9 | 24.6 |
| <i>Total public hospitals</i> | 3.4 | 3.3 | 3.2 | 3.2 | 3.2 | -1.5 | -0.4 |
| Private hospitals | | | | | | | |
| 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 | 2.6 | 2.6 | 2.6 | 2.6 | -1.2 | -0.8 |
| <i>Total private hospitals</i> | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | -0.9 | -0.1 |
| All hospitals | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 | -1.2 | -0.1 |
| Average length of stay, excluding same-day separations (days) | | | | | | | |
| Public hospitals | | | | | | | |
| Public acute hospitals | 5.6 | 5.5 | 5.5 | 5.4 | 5.3 | -1.4 | -0.9 |
| Public psychiatric hospitals ^(a) | 49.9 | 51.8 | 53.2 | 70.4 | 89.7 | 15.8 | 27.3 |
| <i>Total public hospitals</i> | 5.8 | 5.7 | 5.7 | 5.7 | 5.7 | -0.5 | 0.9 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities ^(b) | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 0.8 | -4.4 |
| Other private hospitals | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 0.1 | 0.5 |
| <i>Total private hospitals</i> | 5.2 | 5.1 | 5.2 | 5.2 | 5.2 | 0.1 | 0.8 |
| All hospitals | 5.6 | 5.5 | 5.5 | 5.5 | 5.6 | -0.3 | 0.9 |

(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.

(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.

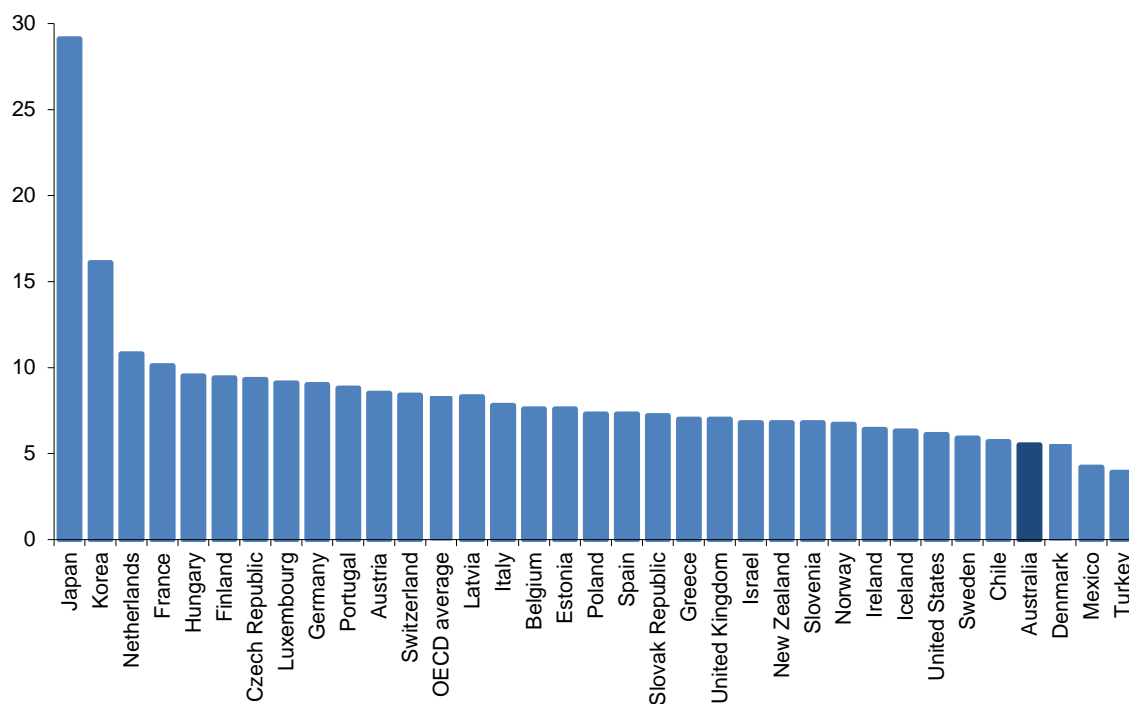
How does Australia compare?

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 2016–17 was 5.5 days, which was lower than the OECD average length of stay of 8.3 days (Figure 2.2) (OECD 2017).

Average length of stay (days)



Note: Data collection periods vary for OECD countries (2015; 2014; 2012).

Figure 2.2: Overnight length of stay, Australia, 2016–17 and selected OECD countries

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 mental health, 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------|------------|------------|------------|------------|-------------|-------------|-------------|------------|
| Average length of stay (days) | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 3.4 | 2.9 | 2.7 | 2.7 | 3.3 | 3.1 | 3.1 | 2.2 | 3.0 |
| Public psychiatric hospitals ^(a) | 127.6 | 36.6 | 219.4 | 21.0 | 34.7 | 20.9 | .. | .. | 78.5 |
| <i>Total public hospitals</i> | 3.9 | 2.9 | 2.8 | 2.9 | 3.4 | 3.3 | 3.1 | 2.2 | 3.2 |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities ^(b) | 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 | 2.5 | 2.4 | 2.7 | n.p. | n.p. | n.p. | 2.7 |
| All hospitals | 3.2 | 2.7 | 2.6 | 2.5 | 2.8 | n.p. | n.p. | n.p. | 2.8 |
| Average length of stay, excluding same-day separations (days) | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 5.5 | 5.5 | 4.9 | 4.9 | 5.4 | 5.4 | 5.4 | 5.0 | 5.3 |
| Public psychiatric hospitals ^(a) | 144.1 | 37.1 | 224.3 | 26.6 | 39.7 | 22.1 | .. | .. | 89.7 |
| <i>Total public hospitals</i> | 6.4 | 5.6 | 5.1 | 5.1 | 5.7 | 5.7 | 5.4 | 5.0 | 5.7 |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities ^(b) | 1.4 | n.p. | .. | 1.0 | .. | n.p. | n.p. | n.p. | 1.1 |
| Other private hospitals | 5.8 | 5.3 | 5.3 | 4.5 | 4.4 | n.p. | n.p. | n.p. | 5.2 |
| <i>Total private hospitals</i> | 5.8 | 5.3 | 5.3 | 4.4 | 4.4 | n.p. | n.p. | n.p. | 5.2 |
| <i>Public acute and private hospitals</i> | 5.6 | 5.5 | 5.0 | 4.7 | 5.1 | n.p. | n.p. | n.p. | 5.3 |
| All hospitals | 6.3 | 5.5 | 5.1 | 4.9 | 5.3 | n.p. | n.p. | n.p. | 5.6 |

(a) Separations from *Public psychiatric hospitals* include some with very long individual lengths of stay, including some as long as several years. In 2016–17, New South Wales statistically discharged and readmitted all mental health-related patients in *Public hospitals* to record a change in care type to *Mental health care*, resulting in a large number of patient days being reported, and affecting the average length of stay.

(b) Average length of stay, excluding same-day separations for *Private free-standing day hospital facilities* in Victoria is not shown as it 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.

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

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

The selected AR-DRGs (Figure 2.3) 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, 7.0 and 8.0, 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).

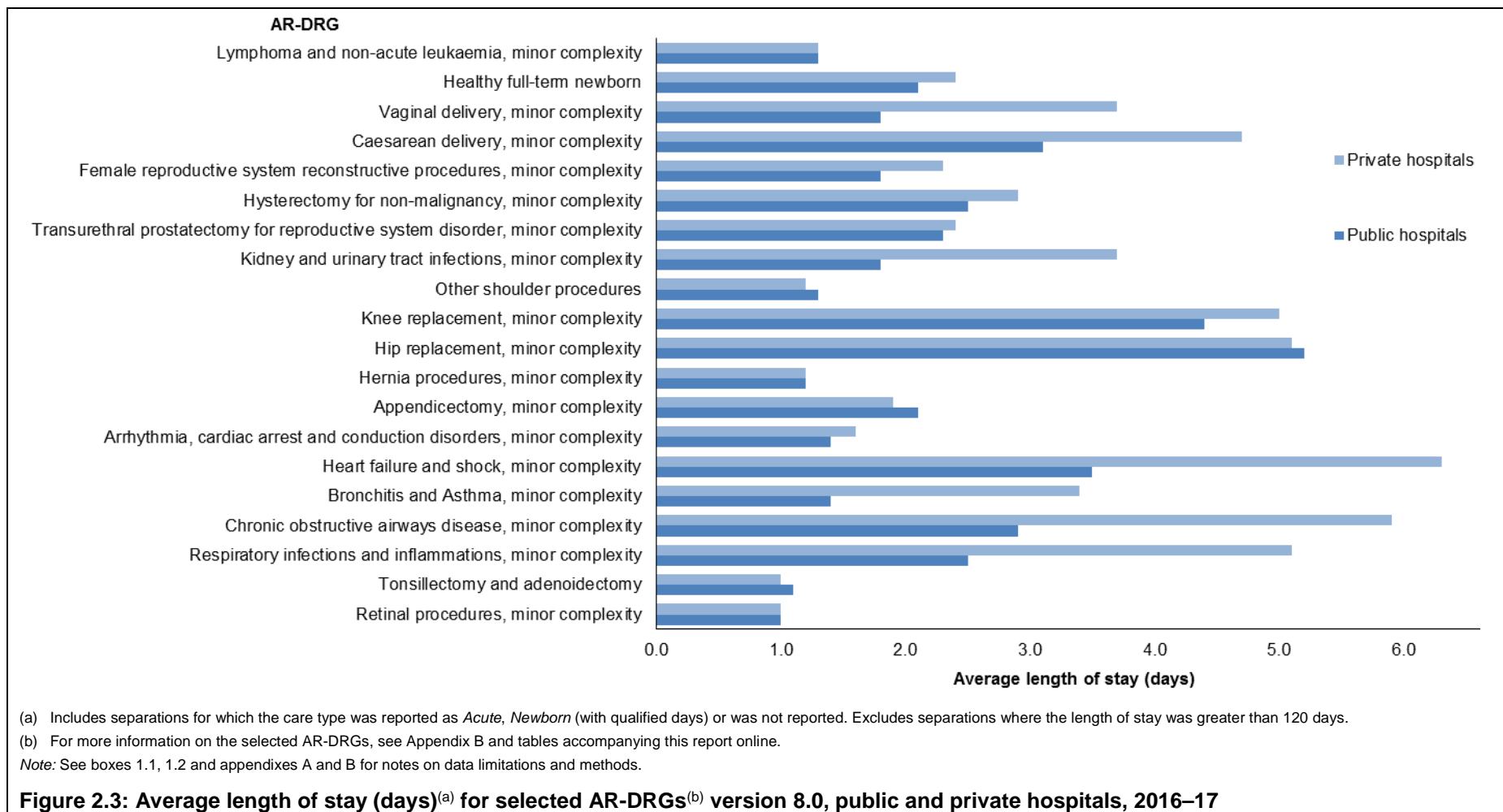
There were notable differences (more than 1 day) in the ALOS between public and private hospitals for 7 of the 20 selected AR-DRGs (Figure 2.3). For example, the ALOS for E65B *Chronic obstructive airways disease, minor complexity* was 2.9 days for public hospitals and 5.9 days for private hospitals.

There were some notable differences in ALOS among states and territories. For example, for F62B *Heart failure and shock, minor complexity*, the ALOS in public hospitals ranged from 2.9 days in Queensland to 4.0 days in Tasmania (see Table S2.1, accompanying this report online). For private hospitals, the ALOS for F62B *Heart failure and shock, minor complexity* ranged from 5.5 days in Western Australia to 6.9 days in New South Wales (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 8.0, public and private hospitals, states and territories, 2016–17', accompanying this report online.

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



2.7 Performance indicator: Relative stay index

'Relative stay index' is presented as an indicator of *Efficiency and sustainability* under the AHPF (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 reports for 2014–15 and earlier, 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. It should be noted that the data presented for 2015–16 and 2016–17 are 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 2012–13 and 2016–17 (Table 2.18) indicating relatively shorter lengths of stay in the public sector than would be expected and longer lengths of stay than would be expected in the private sector based on the casemix of each sector.

Relative stay indexes in 2016–17

Overall, the directly standardised RSI for private hospitals was 1.20, compared with 0.98 for public acute hospitals, indicating relatively shorter lengths of stay than expected in the public sector (Table 2.19).

There were relatively shorter lengths of stay than expected for *Medical* separations in public hospitals compared with private hospitals, and for *Surgical* separations in private hospitals compared with 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 (0.97) and private hospitals (0.94) (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 (0.91), and relatively higher lengths of stay than expected in private hospitals (1.28).

Table 2.18: Relative stay index^(a), public acute^(b) and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|-------------|-------------|-------------|-------------|-------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Indirectly standardised relative stay index^(c) | | | | | | | |
| Public hospitals | | | | | | | |
| Public acute hospitals | 1.03 | 0.99 | 0.97 | 0.93 | 0.92 | .. | .. |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 0.84 | 0.81 | 0.83 | 0.82 | 0.82 | .. | .. |
| Other private hospitals | 1.14 | 1.12 | 1.10 | 1.06 | 1.06 | .. | .. |
| <i>Total private hospitals</i> | <i>1.12</i> | <i>1.10</i> | <i>1.08</i> | <i>1.04</i> | <i>1.03</i> | .. | .. |
| All hospitals | 1.06 | 1.03 | 1.00 | 0.96 | 0.95 | .. | .. |
| Directly standardised relative stay index^(d) | | | | | | | |
| Public hospitals | | | | | | | |
| Public acute hospitals | 1.04 | 1.01 | 0.98 | 0.93 | 0.92 | –3.1 | –1.3 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 0.46 | 0.47 | 0.53 | 0.49 | 0.46 | –0.4 | –5.7 |
| Other private hospitals | 1.23 | 1.21 | 1.19 | 1.20 | 1.16 | –1.6 | –3.2 |
| <i>Total private hospitals</i> | <i>1.22</i> | <i>1.19</i> | <i>1.17</i> | <i>1.18</i> | <i>1.14</i> | –1.6 | –3.0 |
| All hospitals | 1.06 | 1.03 | 1.00 | 0.95 | 0.94 | –3.1 | –1.5 |

(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. Therefore, the data presented for 2015–16 and 2016–17 are 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 and 2016–17.

(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^(a) by Medical/Surgical/Other type of AR-DRG version 8.0, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Indirectly standardised relative stay index^(b) | | | | | | | | | |
| <i>Public hospitals</i> | 1.05 | 0.93 | 0.86 | 0.90 | 1.04 | 1.01 | 1.02 | 1.11 | 0.97 |
| Medical | 1.03 | 0.92 | 0.83 | 0.90 | 1.02 | 1.03 | 0.98 | 1.04 | 0.95 |
| Surgical | 1.09 | 0.95 | 0.92 | 0.90 | 1.06 | 0.99 | 1.08 | 1.30 | 1.00 |
| Other | 1.12 | 0.97 | 0.98 | 0.96 | 1.20 | 0.96 | 1.12 | 1.16 | 1.03 |
| <i>Private hospitals</i> | 1.08 | 1.10 | 1.09 | 1.01 | 0.99 | 1.09 | n.p. | n.p. | 1.08 |
| Medical | 1.32 | 1.26 | 1.21 | 1.15 | 1.00 | 1.33 | n.p. | n.p. | 1.23 |
| Surgical | 1.01 | 1.02 | 1.01 | 0.95 | 0.98 | 0.99 | n.p. | n.p. | 1.00 |
| Other | 0.93 | 1.00 | 1.00 | 0.96 | 0.97 | 0.96 | n.p. | n.p. | 0.97 |
| All hospitals | 1.06 | 0.98 | 0.94 | 0.94 | 1.02 | 1.04 | n.p. | n.p. | 1.00 |
| Medical | 1.07 | 0.99 | 0.93 | 0.95 | 1.01 | 1.09 | n.p. | n.p. | 1.00 |
| Surgical | 1.06 | 0.98 | 0.96 | 0.92 | 1.02 | 0.99 | n.p. | n.p. | 1.00 |
| Other | 1.02 | 0.98 | 0.99 | 0.96 | 1.06 | 0.96 | n.p. | n.p. | 1.00 |
| Directly standardised relative stay index^(c) | | | | | | | | | |
| <i>Public hospitals</i> | 1.06 | 0.94 | 0.89 | 0.91 | 1.06 | 1.03 | 1.04 | 1.16 | 0.98 |
| Medical | 1.04 | 0.92 | 0.83 | 0.91 | 1.02 | 1.04 | 0.99 | 1.06 | 0.95 |
| Surgical | 1.10 | 0.97 | 0.94 | 0.91 | 1.07 | 1.02 | 1.10 | 1.31 | 1.01 |
| Other | 1.12 | 0.98 | 1.03 | 0.97 | 1.24 | 0.99 | 1.13 | 1.17 | 1.04 |
| <i>Private hospitals</i> | 1.26 | 1.21 | 1.20 | 1.11 | 1.14 | 1.23 | n.p. | n.p. | 1.20 |
| Medical | 1.45 | 1.33 | 1.32 | 1.22 | 1.25 | 1.41 | n.p. | n.p. | 1.33 |
| Surgical | 1.03 | 1.05 | 1.05 | 0.96 | 1.00 | 0.98 | n.p. | n.p. | 1.03 |
| Other | 0.97 | 1.06 | 1.04 | 1.00 | 1.03 | 1.00 | n.p. | n.p. | 1.02 |
| All hospitals | 1.06 | 0.99 | 0.95 | 0.95 | 1.03 | 1.05 | n.p. | n.p. | 1.00 |
| Medical | 1.07 | 0.99 | 0.93 | 0.96 | 1.03 | 1.09 | n.p. | n.p. | 1.00 |
| Surgical | 1.06 | 0.99 | 0.97 | 0.92 | 1.04 | 1.00 | n.p. | n.p. | 1.00 |
| Other | 1.02 | 0.98 | 0.99 | 0.96 | 1.06 | 0.96 | n.p. | n.p. | 1.00 |

(a) Includes separations for which the care type was reported as *Acute, Newborn* (with qualified days) or was not reported.

(b) 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 8.0.

(c) The directly standardised RSI is comparable between cells. Casemix-adjusted, based on AR-DRG version 8.0.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Public hospitals | | | | | | | | | |
| Public patient ^(b) | 1.06 | 0.93 | 0.86 | 0.90 | 1.02 | 1.01 | 1.01 | 1.11 | 0.96 |
| Private health insurance | 1.04 | 0.96 | 0.88 | 0.91 | 1.14 | 1.04 | 1.15 | 1.05 | 0.99 |
| Self-funded | 1.02 | 0.93 | 0.85 | 0.91 | 0.92 | 0.93 | 1.20 | 0.97 | 0.97 |
| Workers compensation | 1.11 | 0.96 | 0.98 | 0.92 | 1.24 | 0.93 | 1.05 | 1.38 | 1.03 |
| Motor vehicle third party personal claim | 1.19 | 0.89 | 0.98 | 1.00 | 1.24 | 1.08 | 1.11 | 1.27 | 1.03 |
| Department of Veterans' Affairs | 0.95 | 0.92 | 0.76 | 0.80 | 1.01 | 1.05 | 0.93 | 0.86 | 0.91 |
| Other ^(c) | 2.89 | 0.95 | 0.89 | 0.95 | 1.09 | 0.81 | 1.04 | 1.19 | 1.00 |
| <i>Total</i> | <i>1.05</i> | <i>0.93</i> | <i>0.86</i> | <i>0.90</i> | <i>1.04</i> | <i>1.01</i> | <i>1.02</i> | <i>1.11</i> | <i>0.97</i> |
| Private hospitals | | | | | | | | | |
| Public patient ^(b) | 1.07 | 1.22 | 1.14 | 0.96 | 2.20 | n.p | n.p | n.p | 1.11 |
| Private health insurance | 1.08 | 1.10 | 1.08 | 1.01 | 0.98 | n.p | n.p | n.p | 1.07 |
| Self-funded | 0.97 | 0.96 | 0.88 | 0.88 | 0.88 | n.p | n.p | n.p | 0.94 |
| Workers compensation | 1.00 | 1.00 | 0.97 | 0.86 | 0.87 | n.p | n.p | n.p | 0.97 |
| Motor vehicle third party personal claim | 1.16 | 1.11 | 1.09 | 0.90 | 1.17 | n.p | n.p | n.p | 1.09 |
| Department of Veterans' Affairs | 1.35 | 1.25 | 1.29 | 1.23 | 1.19 | n.p | n.p | n.p | 1.28 |
| Other ^(c) | 1.34 | 1.05 | 0.91 | 0.93 | 0.94 | n.p | n.p | n.p | 1.00 |
| <i>Total</i> | <i>1.08</i> | <i>1.10</i> | <i>1.09</i> | <i>1.01</i> | <i>0.99</i> | <i>n.p</i> | <i>n.p</i> | <i>n.p</i> | <i>1.08</i> |
| All hospitals | | | | | | | | | |
| Public patient ^(b) | 1.06 | 0.93 | 0.87 | 0.90 | 1.02 | n.p | n.p | n.p | 0.96 |
| Private health insurance | 1.07 | 1.07 | 1.04 | 0.99 | 1.02 | n.p | n.p | n.p | 1.05 |
| Self-funded | 0.98 | 0.95 | 0.87 | 0.88 | 0.89 | n.p | n.p | n.p | 0.95 |
| Workers compensation | 1.04 | 0.98 | 0.97 | 0.87 | 0.96 | n.p | n.p | n.p | 0.99 |
| Motor vehicle third party personal claim | 1.19 | 0.92 | 0.98 | 0.99 | 1.24 | n.p | n.p | n.p | 1.03 |
| Department of Veterans' Affairs | 1.10 | 1.12 | 1.17 | 1.08 | 1.11 | n.p | n.p | n.p | 1.12 |
| Other ^(c) | 1.76 | 0.97 | 0.90 | 0.95 | 1.04 | n.p | n.p | n.p | 1.00 |
| Total | 1.06 | 0.98 | 0.94 | 0.94 | 1.02 | n.p | n.p | n.p | 1.00 |

- (a) Includes separations for which the care type was reported as *Acute, Newborn* (with qualified days) or was not reported. 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 8.0.
- (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 2016–17, admitted patient care data was provided by 675 public hospitals (Table 2.21).

The 31 *Principal referral hospitals* accounted for the highest proportion of public hospital separations (2.4 million separations, or 36%) and public hospital patient days (7.4 million patient days, or 35%), with an ALOS of 3.1 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 63 *Public acute group A hospitals* accounted for a further 34% of separations and 30% of patient days.

The 112 *Very small hospitals* accounted for fewer than 1% of both separations and patient days.

The 38 *Subacute and non-acute hospitals* accounted for 1% of separations and 4% of patient days, with an average length of stay of 13.3 days.

Table 2.21: Count of hospitals, separations and patient days by hospital peer group, public hospitals, 2016–17

| Hospital peer group | Number of hospitals | Separations | Patient days | Average length of stay |
|----------------------------------|---------------------|------------------|-------------------|------------------------|
| Principal referral hospitals | 31 | 2,399,540 | 7,405,687 | 3.1 |
| Women's and children's hospitals | 12 | 284,798 | 826,291 | 2.9 |
| Public acute group A hospitals | 63 | 2,212,721 | 6,357,591 | 2.9 |
| Public acute group B hospitals | 44 | 813,949 | 2,103,423 | 2.6 |
| Public acute group C hospitals | 141 | 549,112 | 1,413,528 | 2.6 |
| Public acute group D hospitals | 189 | 106,455 | 450,932 | 4.2 |
| Very small hospitals | 112 | 9,993 | 111,496 | 11.2 |
| Psychiatric hospitals | 22 | 16,621 | 1,305,174 | 78.5 |
| Subacute and non-acute hospitals | 38 | 65,493 | 871,396 | 13.3 |
| Other | 23 | 128,666 | 272,543 | 2.1 |
| All public hospitals | 675 | 6,587,348 | 21,118,061 | 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

The term 'acute separations' refers to all separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. It excludes separations for subacute and non-acute care, and for mental health care. It also excludes newborns who did not have at least one qualified day. 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* or *Geriatric evaluation and management*). Therefore, data presented by care type for 2015–16 and 2016–17 are not comparable with data presented for earlier periods.

Changes over time

Same-day acute care

From 2015–16 to 2016–17, same-day acute separations rose by 4.6% to 6.2 million (Table 2.22). This was similar to the overall average annual increase per year between 2012–13 and 2016–17 (4.3%, Table 2.22).

Between 2012–13 and 2016–17, same-day acute separations increased by an average of 5.9% per year in public hospitals and by 2.4% per year in private hospitals.

Table 2.22: Same-day acute separations, public and private hospitals, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|------------------|------------------|------------------|------------------|------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| <i>Total public hospitals</i> ^(b) | 2,751,061 | 2,899,623 | 3,086,074 | 3,238,657 | 3,457,085 | 5.9 | 6.7 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 852,073 | 872,579 | 937,405 | 953,183 | 937,723 | 2.4 | –1.6 |
| Other private hospitals | 1,606,675 | 1,688,742 | 1,744,750 | 1,700,818 | 1,768,783 | 2.4 | 4.0 |
| <i>Total private hospitals</i> | 2,458,748 | 2,561,321 | 2,682,155 | 2,654,001 | 2,706,506 | 2.4 | 2.0 |
| All hospitals | 5,209,809 | 5,460,944 | 5,768,229 | 5,892,658 | 6,163,591 | 4.3 | 4.6 |

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, Western Australia and South Australia that affect the interpretation of these data. In addition, data presented for *Acute* care for 2015–16 and 2016–17 are 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*.

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

Between 2012–13 and 2016–17, the highest annual average increase in public hospital same-day acute separations occurred in Queensland (10.6% per year) (Table 2.23).

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 2012–13 and 2016–17 (3.7% per year).

Large single-year rises in same-day acute separations between 2015–16 and 2016–17 were recorded for public hospitals in Queensland (11.3%), Victoria (7.4%), the Northern Territory (7.4%) and the Australian Capital Territory (7.2%).

Table 2.23: Same-day acute separations, public and private hospitals, states and territories, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-------------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales^(a) | | | | | | | |
| Public hospitals | 757,835 | 791,347 | 816,110 | 830,765 | 864,970 | 3.4 | 4.1 |
| Private hospitals | 654,772 | 661,856 | 705,566 | 705,453 | 715,514 | 2.2 | 1.4 |
| <i>All hospitals</i> | <i>1,412,607</i> | <i>1,453,203</i> | <i>1,521,676</i> | <i>1,536,218</i> | <i>1,580,484</i> | <i>2.8</i> | <i>2.9</i> |
| Victoria | | | | | | | |
| Public hospitals | 787,362 | 867,584 | 915,407 | 962,484 | 1,033,778 | 7.0 | 7.4 |
| Private hospitals | 618,398 | 648,742 | 671,479 | 653,382 | 663,930 | 1.8 | 1.6 |
| <i>All hospitals</i> | <i>1,405,760</i> | <i>1,516,326</i> | <i>1,586,886</i> | <i>1,615,866</i> | <i>1,697,708</i> | <i>4.8</i> | <i>5.1</i> |
| Queensland^(a) | | | | | | | |
| Public hospitals | 509,595 | 539,253 | 631,178 | 683,937 | 761,481 | 10.6 | 11.3 |
| Private hospitals | 609,674 | 643,747 | 677,780 | 655,210 | 672,656 | 2.5 | 2.7 |
| <i>All hospitals</i> | <i>1,119,269</i> | <i>1,183,000</i> | <i>1,308,958</i> | <i>1,339,147</i> | <i>1,434,137</i> | <i>6.4</i> | <i>7.1</i> |
| Western Australia^(a) | | | | | | | |
| Public hospitals | 326,687 | 317,427 | 323,921 | 339,213 | 358,214 | 2.3 | 5.6 |
| Private hospitals | 309,715 | 326,328 | 337,777 | 349,528 | 358,186 | 3.7 | 2.5 |
| <i>All hospitals</i> | <i>636,402</i> | <i>643,755</i> | <i>661,698</i> | <i>688,741</i> | <i>716,400</i> | <i>3.0</i> | <i>4.0</i> |
| South Australia^(a) | | | | | | | |
| Public hospitals | 185,094 | 188,818 | 192,223 | 199,863 | 204,506 | 2.5 | 2.3 |
| Private hospitals | 189,061 | 200,123 | 204,857 | 207,396 | 204,821 | 2.0 | -1.2 |
| <i>All hospitals</i> | <i>374,155</i> | <i>388,941</i> | <i>397,080</i> | <i>407,259</i> | <i>409,327</i> | <i>2.3</i> | <i>0.5</i> |
| Tasmania | | | | | | | |
| Public hospitals | 55,765 | 60,011 | 63,507 | 62,679 | 62,722 | 3.0 | 0.1 |
| 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> |
| Australian Capital Territory | | | | | | | |
| Public hospitals | 49,298 | 51,540 | 52,774 | 55,465 | 59,485 | 4.8 | 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 | | | | | | | |
| Private hospitals | 79,425 | 83,643 | 90,954 | 104,251 | 111,929 | 9.0 | 7.4 |
| 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 | 2,751,061 | 2,899,623 | 3,086,074 | 3,238,657 | 3,457,085 | 5.9 | 6.7 |
| Private hospitals | 2,458,748 | 2,561,321 | 2,682,155 | 2,654,001 | 2,706,506 | 2.4 | 2.0 |
| <i>All hospitals</i> | <i>5,209,809</i> | <i>5,460,944</i> | <i>5,768,229</i> | <i>5,892,658</i> | <i>6,163,591</i> | <i>4.3</i> | <i>4.6</i> |

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, Western Australia and South Australia that affect the interpretation of these data. In addition, data presented by care type for 2015–16 and 2016–17 are not 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 2012–13 and 2016–17, the number of overnight acute separations in public hospitals increased by 1.9% on average each year and was relatively stable for private hospitals (0.7% 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* reflected a number of separations for *Sleep apnoea* reported as overnight separations. Between 2015–16 and 2016–17, some *Private free-standing day hospital facilities* in New South Wales that provided treatments for sleep disorders were reclassified as *Other private hospitals*.

Table 2.24: Overnight acute separations, public and private hospitals, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|------------------|------------------|------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| <i>Total public hospitals</i> ^(b) | 2,583,733 | 2,623,633 | 2,696,965 | 2,701,061 | 2,786,878 | 1.9 | 3.2 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities ^(c) | 1,431 | 1,614 | 1,885 | 5,826 | 1,507 | 1.3 | -74.1 |
| Other private hospitals | 1,123,527 | 1,148,016 | 1,160,777 | 1,146,818 | 1,156,303 | 0.7 | 0.8 |
| <i>Total private hospitals</i> | 1,124,958 | 1,149,630 | 1,162,662 | 1,152,644 | 1,157,810 | 0.7 | 0.4 |
| All hospitals | 3,708,691 | 3,773,263 | 3,859,627 | 3,853,705 | 3,944,688 | 1.6 | 2.4 |

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland and Western Australia that affect the interpretation of these data. In addition, data presented by care type for 2015–16 and 2016–17 are not 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*.

(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.

Between 2012–13 and 2016–17, the Australian Capital Territory had the greatest annual average rise in the number of public hospital separations for overnight acute care (4.7% 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 (1.5% and 1.0%, respectively) (among jurisdictions whose private hospital data could be reported).

How much acute care was there in 2016–17?

In 2016–17, 10.1 million same-day and overnight acute separations were reported for public and private hospitals combined, accounting for 92% of all separations (tables 2.26 and 2.27).

Overall, 61% 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).

The proportion of acute care that were same-day separations also varied among states and territories. For the Northern Territory, 71% of public hospital acute separations were on a same-day basis, reflecting the relatively high volume of separations for dialysis care.

For private hospitals, the proportion varied from 68% in Victoria to 72% in New South Wales and Western Australia (tables 2.26 and 2.27) (for jurisdictions whose private hospital data could be reported).

Table 2.25: Overnight acute separations, public and private hospitals, states and territories, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-------------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales | | | | | | | |
| Public hospitals | 893,396 | 910,355 | 926,904 | 915,493 | 945,364 | 1.4 | 3.3 |
| Private hospitals | 279,584 | 285,186 | 283,711 | 283,956 | 279,375 | 0.0 | -1.6 |
| <i>All hospitals</i> | <i>1,172,980</i> | <i>1,195,541</i> | <i>1,210,615</i> | <i>1,199,449</i> | <i>1,224,739</i> | <i>1.1</i> | <i>2.1</i> |
| Victoria | | | | | | | |
| Public hospitals | 601,095 | 600,472 | 629,019 | 637,464 | 665,766 | 2.6 | 4.4 |
| Private hospitals | 298,661 | 301,561 | 306,830 | 300,060 | 307,474 | 0.7 | 2.5 |
| <i>All hospitals</i> | <i>899,756</i> | <i>902,033</i> | <i>935,849</i> | <i>937,524</i> | <i>973,240</i> | <i>2.0</i> | <i>3.8</i> |
| Queensland | | | | | | | |
| Public hospitals | 486,426 | 504,747 | 527,038 | 534,444 | 553,668 | 3.3 | 3.6 |
| Private hospitals | 281,780 | 293,255 | 301,348 | 297,256 | 298,633 | 1.5 | 0.5 |
| <i>All hospitals</i> | <i>768,206</i> | <i>798,002</i> | <i>828,386</i> | <i>831,700</i> | <i>852,301</i> | <i>2.6</i> | <i>2.5</i> |
| Western Australia | | | | | | | |
| Public hospitals | 262,872 | 264,118 | 263,446 | 264,528 | 265,900 | 0.3 | 0.5 |
| Private hospitals | 131,053 | 134,568 | 134,978 | 136,060 | 136,482 | 1.0 | 0.3 |
| <i>All hospitals</i> | <i>393,925</i> | <i>398,686</i> | <i>398,424</i> | <i>400,588</i> | <i>402,382</i> | <i>0.5</i> | <i>0.4</i> |
| South Australia | | | | | | | |
| Public hospitals | 213,145 | 210,988 | 212,999 | 207,075 | 207,200 | -0.7 | 0.1 |
| Private hospitals | 86,755 | 87,068 | 86,853 | 86,347 | 86,565 | -0.1 | 0.3 |
| <i>All hospitals</i> | <i>299,900</i> | <i>298,056</i> | <i>299,852</i> | <i>293,422</i> | <i>293,765</i> | <i>-0.5</i> | <i>0.1</i> |
| Tasmania | | | | | | | |
| Public hospitals | 47,877 | 51,277 | 52,807 | 53,528 | 54,871 | 3.5 | 2.5 |
| 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 | 40,940 | 42,389 | 44,372 | 46,393 | 49,163 | 4.7 | 6.0 |
| 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> |
| Northern Territory | | | | | | | |
| Public hospitals | 37,982 | 39,287 | 40,380 | 42,136 | 44,946 | 4.3 | 6.7 |
| 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 | 2,583,733 | 2,623,633 | 2,696,965 | 2,701,061 | 2,786,878 | 1.9 | 3.2 |
| Private hospitals | 1,124,958 | 1,149,630 | 1,162,662 | 1,152,644 | 1,157,810 | 0.7 | 0.4 |
| <i>All hospitals</i> | <i>3,708,691</i> | <i>3,773,263</i> | <i>3,859,627</i> | <i>3,853,705</i> | <i>3,944,688</i> | <i>1.6</i> | <i>2.4</i> |

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland and Western Australia that affect the interpretation of these data. In addition, data presented by care type for 2015–16 and 2016–17 are not 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.

Same-day acute care

In 2016–17, there were 6.2 million same-day acute separations (Table 2.26).

Almost 93% of all same-day separations were acute separations, with a higher proportion in the public sector (98%) than in the private sector (86%) (tables 2.5 and 2.26).

For private hospitals, the proportion of same-day separations that were acute separations varied among states and territories, ranging from 74% in New South Wales to almost 100% in Western Australia (tables 2.26 and 2.27) (for jurisdictions whose private hospital data could be reported).

Overnight acute care

In 2016–17, there were 3.9 million overnight acute separations (Table 2.27).

More than 90% of all overnight separations were acute separations, accounting for 91% in public hospitals and 90% in private hospitals (tables 2.5 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).

For private hospitals, the proportion of overnight separations that were acute separations ranged from 86% in New South Wales to 93% in South Australia (tables 2.26 and 2.27) (for jurisdictions whose private hospital data could be reported).

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|------------------|----------------|----------------|-------------|-------------|-------------|------------------|
| Public hospitals | | | | | | | | | |
| <i>Total public hospitals</i> ^(a) | 864,970 | 1,033,778 | 761,481 | 358,214 | 204,506 | 62,722 | 59,485 | 111,929 | 3,457,085 |
| Separations per 1,000 population | 102.6 | 156.8 | 149.5 | 135.0 | 106.8 | 105.2 | 151.4 | 497.0 | 133.5 |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 252,825 | 217,810 | 225,955 | 151,417 | 73,336 | n.p. | n.p. | n.p. | 937,723 |
| Other private hospitals | 462,689 | 446,120 | 446,701 | 206,769 | 131,485 | n.p. | n.p. | n.p. | 1,768,783 |
| <i>Total private hospitals</i> | 715,514 | 663,930 | 672,656 | 358,186 | 204,821 | n.p. | n.p. | n.p. | 2,706,506 |
| Separations per 1,000 population | 84.4 | 100.2 | 128.5 | 134.6 | 101.4 | n.p. | n.p. | n.p. | 103.0 |
| All hospitals | 1,580,484 | 1,697,708 | 1,434,137 | 716,400 | 409,327 | n.p. | n.p. | n.p. | 6,163,591 |
| Separations per 1,000 population | 187.0 | 257.0 | 278.0 | 269.6 | 208.2 | n.p. | n.p. | n.p. | 236.5 |

(a) The numbers of *Acute* care separations in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|------------------|
| Public hospitals | | | | | | | | | |
| <i>Total public hospitals</i> ^(a) | 945,364 | 665,766 | 553,668 | 265,900 | 207,200 | 54,871 | 49,163 | 44,946 | 2,786,878 |
| Separations per 1,000 population | 113.0 | 101.1 | 109.9 | 101.2 | 108.4 | 96.1 | 122.4 | 204.1 | 108.4 |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 9 | 10 | 0 | 1,488 | 0 | n.p. | n.p. | n.p. | 1,507 |
| Other private hospitals | 279,366 | 307,464 | 298,633 | 134,994 | 86,565 | n.p. | n.p. | n.p. | 1,156,303 |
| <i>Total private hospitals</i> | 279,375 | 307,474 | 298,633 | 136,482 | 86,565 | n.p. | n.p. | n.p. | 1,157,810 |
| Separations per 1,000 population | 33.1 | 45.4 | 57.5 | 51.4 | 43.2 | n.p. | n.p. | n.p. | 43.9 |
| All hospitals | 1,224,739 | 973,240 | 852,301 | 402,382 | 293,765 | n.p. | n.p. | n.p. | 3,944,688 |
| Separations per 1,000 population | 146.1 | 146.5 | 167.4 | 152.5 | 151.6 | n.p. | n.p. | n.p. | 152.3 |

(a) The numbers of *Acute* care separations in *Total public hospitals* includes acute care separations for both *Public acute hospitals* and *Public psychiatric hospitals*.

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 2016–17, 53% of separations were for women and girls.

Age of patient

In 2016–17, people aged 65 and over accounted for 42% of separations and 48% of patient days.

Between 2012–13 and 2016–17, separations for people aged 65 to 74 increased by 28%, an average increase of 6.3% each year. This was faster than the population growth for this age group during that period (4.1% each year).

Aboriginal and Torres Strait Islander people

In 2016–17, there were 522,000 separations reported for Aboriginal and Torres Strait Islander people (4.7% of separations). Almost 90% of separations for Indigenous Australians were from public hospitals, compared with 58% for other Australians.

Indigenous Australians were hospitalised at 2.6 times the rate for other Australians (1,047 and 409 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* (711 and 236 per 1,000, respectively).

For private hospitals, separation rates were highest for patients living in *Major cities* and lowest for patients living in *Remote* areas (184 and 107 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 (338 separations per 1,000 population).

For private hospitals, separation rates were highest for patients living in areas classified as being the highest SES group (233 per 1,000).

3.1 Age group and sex

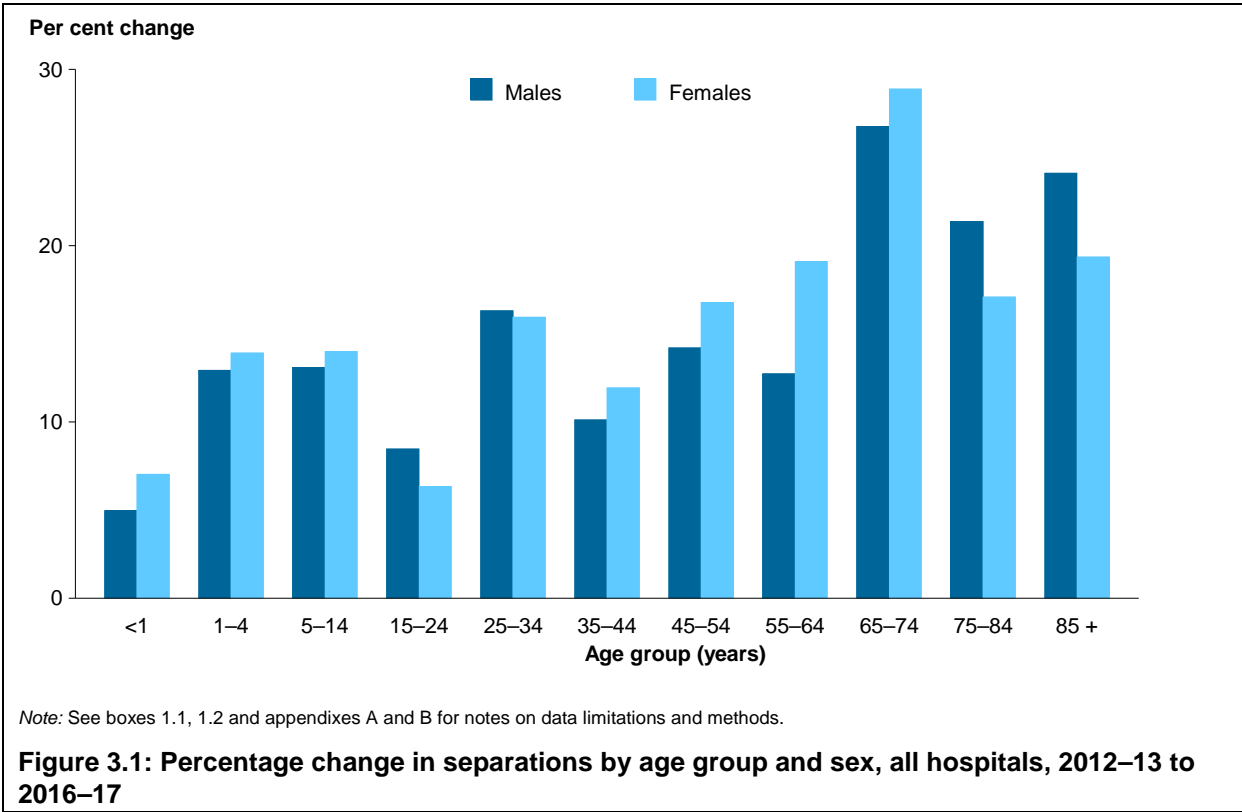
This section presents information on the age group and sex of the patient, including the numbers of separations and patient days in public and private hospitals, over time and for 2016–17.

Changes over time

Between 2012–13 and 2016–17, there were large increases in separations for people aged 65–74 and 85 and over.

For people aged 65–74, separations rose by 28% overall (Figure 3.1), an average increase of 6.3% each year. This was faster than the population growth for this age group (4.1% each year over the same period).

For people aged 85 and over, separations rose by 22% overall, an average increase of 5.0% each year, compared with the population growth for this age group of 3.5% each year over the same period.



Age group and sex, 2016–17

In 2016–17, 5.8 million separations were for females (53%), and 5.2 million separations were for males (Table 3.1). In particular, women accounted for 68% of separations for people aged 20–39 (the age range that includes most separations for childbirth). Females also accounted for more patient days than males (16.1 million and 14.9 million patient days, respectively).

People aged 65 and over (who make up 15% of the population) accounted for 42% of separations and 48% of patient days in 2016–17. People aged 85 and over (who make up 2% of the population) accounted for 7% of separations and 12% of patient days in 2016–17.

Table 3.1: Separations and patient days, by age group and sex, all hospitals, 2016–17

| Age group (years) | Separations | | | Patient days | | |
|-------------------------------|------------------|------------------|------------------------|-------------------|-------------------|------------------------|
| | Males | Females | Persons ^(a) | Males | Females | Persons ^(a) |
| 0–4 | 230,199 | 166,982 | 397,192 | 676,137 | 540,340 | 1,216,509 |
| 5–9 | 89,939 | 69,000 | 158,942 | 134,656 | 107,290 | 241,949 |
| 10–14 | 70,653 | 59,206 | 129,866 | 130,460 | 125,527 | 256,012 |
| 15–19 | 106,506 | 143,819 | 250,342 | 241,832 | 327,992 | 569,884 |
| 20–24 | 130,534 | 241,038 | 371,607 | 379,908 | 521,699 | 901,785 |
| 25–29 | 138,504 | 322,947 | 461,455 | 432,233 | 759,246 | 1,191,494 |
| 30–34 | 161,271 | 394,853 | 556,134 | 548,535 | 965,926 | 1,514,487 |
| 35–39 | 183,453 | 343,267 | 526,723 | 630,440 | 836,572 | 1,467,015 |
| 40–44 | 222,145 | 309,845 | 531,997 | 659,401 | 719,392 | 1,378,801 |
| 45–49 | 271,676 | 329,052 | 600,733 | 755,155 | 760,638 | 1,515,814 |
| 50–54 | 337,040 | 363,530 | 700,581 | 850,917 | 806,966 | 1,657,914 |
| 55–59 | 398,843 | 407,563 | 806,411 | 1,005,606 | 937,372 | 1,942,990 |
| 60–64 | 476,902 | 445,526 | 922,455 | 1,175,557 | 1,045,544 | 2,221,164 |
| 65–69 | 577,357 | 500,024 | 1,077,393 | 1,437,762 | 1,254,708 | 2,692,497 |
| 70–74 | 585,851 | 494,976 | 1,080,853 | 1,522,546 | 1,360,646 | 2,883,246 |
| 75–79 | 518,363 | 434,573 | 952,936 | 1,458,075 | 1,385,575 | 2,843,650 |
| 80–84 | 385,397 | 348,718 | 734,115 | 1,290,309 | 1,372,475 | 2,662,784 |
| 85+ | 345,948 | 408,125 | 754,074 | 1,570,313 | 2,262,344 | 3,832,658 |
| Total^{(a)(b)} | 5,230,586 | 5,783,045 | 11,013,815 | 14,899,847 | 16,090,618 | 30,991,024 |

(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.

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

Funding source

For separations with a funding source of *Private health insurance*, patients aged 75 and over, and those aged 19 and under, accounted for higher proportions of *Private health insurance*-funded separations in public hospitals (30% and 12%, respectively), compared with private hospitals (22% and 5%, respectively) (Table 3.4).

Table 3.2: Separations, by age group and sex, public hospitals, states and territories, 2016–17

| Sex | Age Group | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|-------------------------------|----------------------------|------------------|------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Males | Under 1 | 36,069 | 20,913 | 17,557 | 8,075 | 5,644 | 1,237 | 1,690 | 1,674 | 92,859 |
| | 1–4 | 28,957 | 25,019 | 23,707 | 9,637 | 7,303 | 1,423 | 1,711 | 1,768 | 99,525 |
| | 5–14 | 36,627 | 30,599 | 29,203 | 12,106 | 8,293 | 2,071 | 2,233 | 2,146 | 123,278 |
| | 15–24 | 49,086 | 41,459 | 37,897 | 14,202 | 10,666 | 2,761 | 3,254 | 2,826 | 162,151 |
| | 25–34 | 58,715 | 54,416 | 46,022 | 20,898 | 12,587 | 3,642 | 4,306 | 5,690 | 206,276 |
| | 35–44 | 71,904 | 68,902 | 58,059 | 27,430 | 17,356 | 5,229 | 5,892 | 8,546 | 263,318 |
| | 45–54 | 104,307 | 98,753 | 83,135 | 42,994 | 25,122 | 6,523 | 6,124 | 16,420 | 383,378 |
| | 55–64 | 144,578 | 138,596 | 110,373 | 49,719 | 32,592 | 11,224 | 7,651 | 14,314 | 509,047 |
| | 65–74 | 184,233 | 182,252 | 131,323 | 64,608 | 37,421 | 13,640 | 11,408 | 8,326 | 633,211 |
| | 75–84 | 169,613 | 157,534 | 95,100 | 50,819 | 39,028 | 10,541 | 9,342 | 2,888 | 534,865 |
| 85 and over | 72,953 | 57,961 | 36,977 | 20,975 | 18,326 | 3,525 | 3,357 | 538 | 214,612 | |
| | <i>Total^(a)</i> | <i>957,045</i> | <i>876,404</i> | <i>669,353</i> | <i>321,463</i> | <i>214,339</i> | <i>61,816</i> | <i>56,968</i> | <i>65,136</i> | <i>3,222,524</i> |
| Females | Under 1 | 29,820 | 15,443 | 13,418 | 6,076 | 4,396 | 909 | 1,281 | 1,297 | 72,640 |
| | 1–4 | 20,656 | 17,210 | 17,043 | 6,547 | 5,099 | 924 | 1,036 | 1,258 | 69,773 |
| | 5–14 | 27,973 | 23,823 | 22,410 | 9,458 | 6,834 | 1,664 | 1,792 | 1,613 | 95,567 |
| | 15–24 | 71,231 | 64,219 | 72,815 | 24,024 | 18,188 | 5,146 | 4,767 | 5,956 | 266,346 |
| | 25–34 | 133,963 | 126,789 | 111,144 | 45,866 | 30,765 | 7,852 | 9,670 | 11,752 | 477,801 |
| | 35–44 | 97,942 | 102,210 | 80,649 | 35,158 | 21,293 | 6,052 | 7,335 | 13,675 | 364,314 |
| | 45–54 | 92,358 | 102,264 | 85,380 | 42,511 | 24,488 | 7,272 | 6,289 | 20,927 | 381,489 |
| | 55–64 | 113,648 | 116,742 | 94,674 | 48,991 | 28,533 | 9,138 | 6,043 | 21,223 | 438,992 |
| | 65–74 | 146,872 | 135,855 | 102,201 | 50,116 | 31,307 | 10,379 | 7,953 | 12,010 | 496,693 |
| | 75–84 | 146,432 | 130,148 | 81,776 | 40,361 | 31,753 | 9,070 | 7,483 | 3,337 | 450,360 |
| 85 and over | 93,592 | 61,295 | 43,692 | 22,037 | 20,542 | 4,161 | 4,800 | 623 | 250,742 | |
| | <i>Total^(a)</i> | <i>974,488</i> | <i>895,998</i> | <i>725,202</i> | <i>331,145</i> | <i>223,198</i> | <i>62,567</i> | <i>58,449</i> | <i>93,671</i> | <i>3,364,718</i> |
| Total^{(a)(b)} | | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 |

(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, 2016–17

| Sex | Age Group | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|-------------------------------|----------------------------|------------------|------------------|------------------|----------------|----------------|-------------|-------------|-------------|------------------|
| Males | Under 1 | 3,401 | 3,376 | 2,543 | 1,556 | 690 | n.p. | n.p. | n.p. | 11,807 |
| | 1–4 | 8,002 | 5,613 | 5,433 | 3,658 | 2,143 | n.p. | n.p. | n.p. | 26,008 |
| | 5–14 | 11,299 | 8,277 | 8,570 | 5,094 | 2,628 | n.p. | n.p. | n.p. | 37,314 |
| | 15–24 | 21,064 | 20,070 | 17,125 | 8,173 | 5,599 | n.p. | n.p. | n.p. | 74,889 |
| | 25–34 | 27,449 | 23,081 | 21,177 | 12,160 | 6,069 | n.p. | n.p. | n.p. | 93,499 |
| | 35–44 | 42,450 | 34,020 | 33,943 | 18,554 | 8,510 | n.p. | n.p. | n.p. | 142,280 |
| | 45–54 | 62,971 | 52,495 | 55,686 | 31,587 | 14,204 | n.p. | n.p. | n.p. | 225,338 |
| | 55–64 | 105,782 | 84,164 | 92,328 | 43,809 | 26,581 | n.p. | n.p. | n.p. | 366,698 |
| | 65–74 | 155,722 | 113,165 | 142,701 | 59,286 | 40,812 | n.p. | n.p. | n.p. | 529,997 |
| | 75–84 | 104,946 | 84,042 | 95,209 | 42,187 | 30,347 | n.p. | n.p. | n.p. | 368,895 |
| | 85 and over | 37,880 | 31,725 | 32,097 | 14,658 | 10,562 | n.p. | n.p. | n.p. | 131,336 |
| | <i>Total^(a)</i> | <i>580,966</i> | <i>460,028</i> | <i>506,812</i> | <i>240,722</i> | <i>148,146</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>2,008,062</i> |
| Females | Under 1 | 2,318 | 2,423 | 1,706 | 920 | 421 | n.p. | n.p. | n.p. | 7,966 |
| | 1–4 | 5,106 | 3,603 | 3,486 | 2,394 | 1,288 | n.p. | n.p. | n.p. | 16,603 |
| | 5–14 | 10,054 | 7,362 | 7,274 | 4,339 | 2,321 | n.p. | n.p. | n.p. | 32,639 |
| | 15–24 | 33,126 | 31,014 | 30,216 | 12,932 | 6,906 | n.p. | n.p. | n.p. | 118,511 |
| | 25–34 | 69,101 | 63,855 | 57,616 | 28,020 | 12,192 | n.p. | n.p. | n.p. | 239,999 |
| | 35–44 | 83,862 | 77,834 | 67,719 | 33,642 | 15,416 | n.p. | n.p. | n.p. | 288,798 |
| | 45–54 | 83,993 | 77,327 | 77,742 | 39,605 | 20,202 | n.p. | n.p. | n.p. | 311,093 |
| | 55–64 | 120,271 | 94,913 | 100,908 | 48,716 | 33,565 | n.p. | n.p. | n.p. | 414,097 |
| | 65–74 | 154,092 | 109,943 | 126,110 | 50,512 | 39,964 | n.p. | n.p. | n.p. | 498,307 |
| | 75–84 | 103,248 | 76,785 | 83,313 | 32,027 | 26,049 | n.p. | n.p. | n.p. | 332,931 |
| | 85 and over | 46,541 | 39,534 | 39,771 | 13,308 | 12,850 | n.p. | n.p. | n.p. | 157,383 |
| | <i>Total^(a)</i> | <i>711,712</i> | <i>584,593</i> | <i>595,861</i> | <i>266,415</i> | <i>171,174</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>2,418,327</i> |
| Total^{(a)(b)} | | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 |

(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 3.4: Separations, by age group and funding source, public and private hospitals, 2016–17

| Age group (years) | Public hospitals | | | | Private hospitals ^(a) | | | |
|----------------------------|--------------------------------|--------------------------|-------------------------------|------------------|----------------------------------|--------------------------|-------------------------------|------------------|
| | Public patients ^(b) | Private health insurance | Other patients ^(c) | Total | Public patients ^(b) | Private health insurance | Other patients ^(c) | Total |
| 0–4 | 279,732 | 49,361 | 5,704 | 334,797 | 713 | 54,145 | 6,437 | 61,295 |
| 5–9 | 95,255 | 20,921 | 2,047 | 118,223 | 818 | 33,917 | 5,169 | 39,904 |
| 10–14 | 80,581 | 18,672 | 1,369 | 100,622 | 384 | 25,182 | 3,230 | 28,796 |
| 15–19 | 143,280 | 21,406 | 6,308 | 170,994 | 1,411 | 65,877 | 11,269 | 78,557 |
| 20–24 | 226,082 | 18,041 | 13,380 | 257,503 | 1,864 | 86,154 | 25,002 | 113,020 |
| 25–29 | 290,612 | 21,394 | 16,032 | 328,038 | 3,842 | 96,046 | 32,257 | 132,145 |
| 30–34 | 308,832 | 34,171 | 13,036 | 356,039 | 4,199 | 158,585 | 35,104 | 197,888 |
| 35–39 | 270,574 | 33,729 | 10,057 | 314,360 | 5,671 | 169,487 | 34,839 | 209,997 |
| 40–44 | 274,503 | 30,689 | 8,080 | 313,272 | 10,288 | 172,803 | 33,166 | 216,257 |
| 45–49 | 312,142 | 34,643 | 7,910 | 354,695 | 13,402 | 198,083 | 31,342 | 242,827 |
| 50–54 | 360,111 | 41,586 | 8,475 | 410,172 | 17,140 | 236,625 | 33,396 | 287,161 |
| 55–59 | 385,635 | 55,391 | 9,158 | 450,184 | 17,841 | 299,866 | 34,709 | 352,416 |
| 60–64 | 417,382 | 71,527 | 8,946 | 497,855 | 20,471 | 363,494 | 35,776 | 419,741 |
| 65–69 | 459,156 | 87,938 | 13,445 | 560,539 | 23,007 | 436,758 | 51,561 | 511,326 |
| 70–74 | 461,479 | 94,291 | 13,595 | 569,365 | 21,390 | 435,872 | 48,495 | 505,757 |
| 75–79 | 432,184 | 99,540 | 10,802 | 542,526 | 18,684 | 353,848 | 33,101 | 405,633 |
| 80–84 | 345,124 | 85,258 | 12,317 | 442,699 | 13,062 | 246,926 | 28,425 | 288,413 |
| 85+ | 322,258 | 93,145 | 49,951 | 465,354 | 8,785 | 197,333 | 79,358 | 285,476 |
| Total^(d) | 5,465,027 | 911,707 | 210,614 | 6,587,348 | 182,972 | 3,631,071 | 562,643 | 4,426,467 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospital totals.

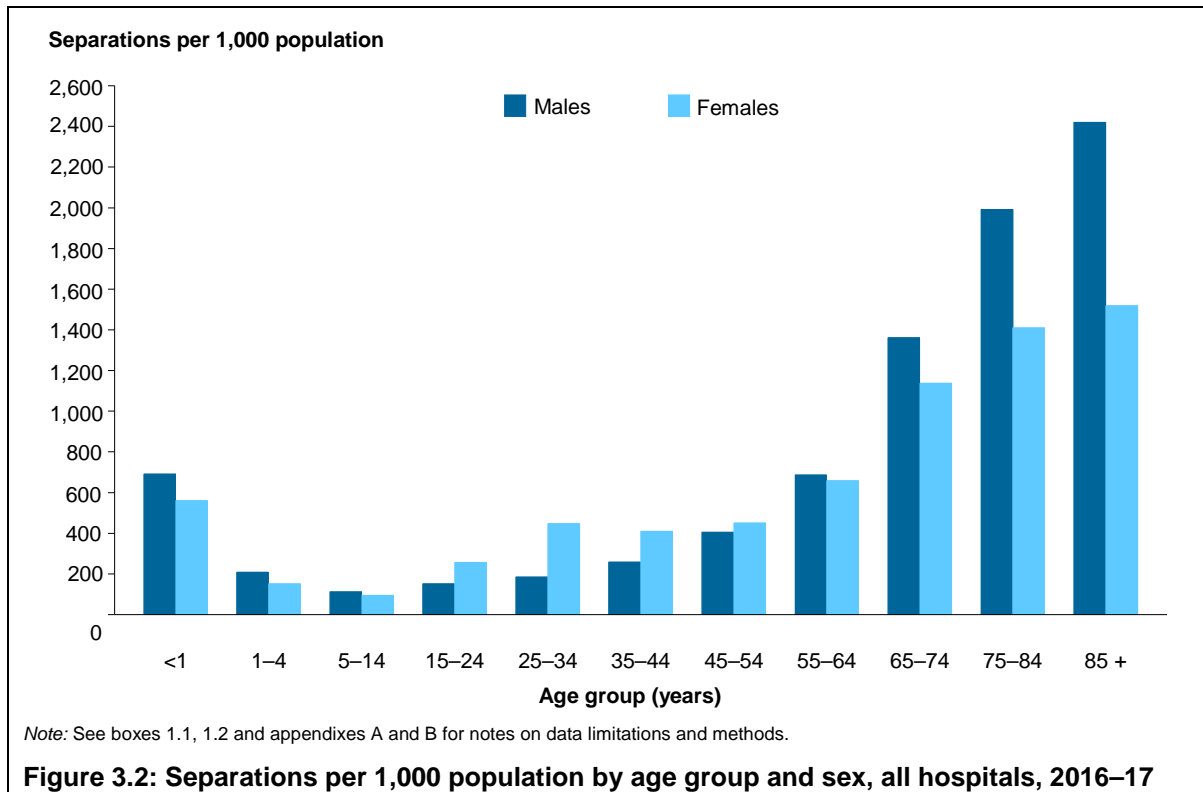
(b) *Public patient* includes separations with a funding source of *Health service budget (including Health service budget due to Reciprocal health care agreements)* and *Health service budget—no charge raised due to hospital decision* (in public hospitals) and *Other hospital or public authority (with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

(c) *Other patients* includes separations with a funding source of *Self-funded, Workers compensation, Motor vehicle third party personal claim, Department of Veterans' Affairs, 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.

(d) Totals include separations for which the date of birth was not reported. The private hospital totals includes separations from private hospitals in the Australian Capital Territory.

Separation rates

In 2016–17, overall there were 423 separations per 1,000 population (age-standardised), with higher age-specific rates for females than males in the 15–54 age groups, and higher age-specific rates 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 3.5). However, there were more same-day acute separations for boys than girls aged 0–14 and more for men aged 60 and over, than women in the same age group.

People aged 55 and over accounted for almost 60% of all same-day acute separations.

Overnight acute separations

Females accounted for more than half (54%) of overnight acute separations (Table 3.5). There were, however, more overnight acute separations for males than females in the age groups 0–14 and 55–79.

People aged 55 and over accounted for 52% of all overnight acute separations.

Table 3.5: Acute separations, by age group, sex and same-day/overnight status, all hospitals, 2016–17

| Age group (years) | Same-day acute separations | | | Overnight acute separations | | |
|-------------------------------|----------------------------|------------------|------------------------|-----------------------------|------------------|------------------------|
| | Males | Females | Persons ^(a) | Males | Females | Persons ^(a) |
| 0–4 | 83,761 | 54,975 | 138,740 | 145,852 | 111,545 | 257,404 |
| 5–9 | 50,698 | 37,753 | 88,454 | 38,191 | 30,783 | 68,974 |
| 10–14 | 37,846 | 29,841 | 67,687 | 31,232 | 27,154 | 58,390 |
| 15–19 | 56,224 | 71,293 | 127,521 | 43,304 | 59,557 | 102,870 |
| 20–24 | 66,377 | 117,699 | 184,079 | 50,721 | 103,461 | 154,194 |
| 25–29 | 72,145 | 143,548 | 215,695 | 51,743 | 160,402 | 212,146 |
| 30–34 | 87,352 | 177,378 | 264,734 | 57,353 | 197,336 | 254,694 |
| 35–39 | 102,369 | 179,442 | 281,814 | 61,899 | 142,907 | 204,806 |
| 40–44 | 129,364 | 186,227 | 315,595 | 73,037 | 100,765 | 173,805 |
| 45–49 | 162,524 | 202,725 | 365,251 | 88,819 | 98,657 | 187,477 |
| 50–54 | 212,402 | 231,607 | 444,014 | 102,805 | 103,151 | 205,961 |
| 55–59 | 248,086 | 258,549 | 506,638 | 123,908 | 113,012 | 236,921 |
| 60–64 | 299,847 | 282,831 | 582,694 | 144,656 | 121,812 | 266,478 |
| 65–69 | 364,995 | 308,667 | 673,668 | 171,401 | 141,848 | 313,253 |
| 70–74 | 368,804 | 298,293 | 667,101 | 174,017 | 144,673 | 318,691 |
| 75–79 | 322,653 | 244,123 | 566,776 | 156,838 | 142,146 | 298,984 |
| 80–84 | 219,610 | 170,212 | 389,822 | 133,191 | 133,826 | 267,017 |
| 85+ | 149,818 | 133,486 | 283,305 | 154,100 | 208,520 | 362,620 |
| Total^{(a)(b)} | 3,034,878 | 3,128,649 | 6,163,591 | 1,803,069 | 2,141,556 | 3,944,688 |

(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 2016–17 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 2016–17, 522,000 separations were reported for Aboriginal and Torres Strait Islander people (Table 3.6). 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 3.6: Separations by Indigenous status, age group and sex, all hospitals, 2016–17

| Age group (years) | Indigenous Australians | | | Other Australians ^(a) | | |
|----------------------------|------------------------|----------------|------------------------|----------------------------------|------------------|------------------------|
| | Males | Females | Persons ^(b) | Males | Females | Persons ^(b) |
| 0–4 | 17,376 | 12,999 | 30,377 | 212,823 | 153,983 | 366,815 |
| 5–9 | 5,859 | 4,706 | 10,565 | 84,080 | 64,294 | 148,377 |
| 10–14 | 4,601 | 4,153 | 8,759 | 66,052 | 55,053 | 121,107 |
| 15–19 | 5,757 | 11,700 | 17,457 | 100,749 | 132,119 | 232,885 |
| 20–24 | 7,486 | 18,263 | 25,749 | 123,048 | 222,775 | 345,858 |
| 25–29 | 8,426 | 19,300 | 27,726 | 130,078 | 303,647 | 433,729 |
| 30–34 | 9,910 | 17,076 | 26,986 | 151,361 | 377,777 | 529,148 |
| 35–39 | 11,521 | 16,385 | 27,906 | 171,932 | 326,882 | 498,817 |
| 40–44 | 19,369 | 23,704 | 43,073 | 202,776 | 286,141 | 488,924 |
| 45–49 | 23,796 | 28,201 | 51,997 | 247,880 | 300,851 | 548,736 |
| 50–54 | 28,342 | 31,989 | 60,331 | 308,698 | 331,541 | 640,250 |
| 55–59 | 25,481 | 33,304 | 58,785 | 373,362 | 374,259 | 747,626 |
| 60–64 | 20,160 | 31,351 | 51,511 | 456,742 | 414,175 | 870,944 |
| 65+ | 33,659 | 47,055 | 80,714 | 2,379,257 | 2,139,361 | 4,518,657 |
| Total^(c) | 221,743 | 300,186 | 521,936 | 5,008,843 | 5,482,859 | 10,491,879 |

(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 2016–17, 4.7% of separations were for people of Aboriginal and Torres Strait Islander origin (Table 3.7), who represent 3.3% of the Australian population.

Almost 90% of separations for Indigenous Australians were from public hospitals (468,000), compared with 58% of separations for other Australians. For public hospitals, 7.1% of separations were 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 (69.7%). 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, 92.5% 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 3.7).

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).

The report included 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 569,000 separations were for Indigenous Australians in 2016–17. As other Australians may include unidentified Indigenous Australians, the ‘true’ number of separations for other Australians would be reduced and could be estimated at 10,445,000 separations.

Using the same method (and assuming that the age distributions for unidentified and identified Indigenous Australians is similar), the ‘true’ separation rates for 2016–17 could be estimated as 1,141 per 1,000 population for Indigenous Australians and 407 per 1,000 for other Australians. These rates indicate that, after adjusting for under-identification, Indigenous Australians were hospitalised at 2.8 times the rate for other Australians.

It is unknown to what extent Indigenous Australians might be under-identified in private hospital admissions data.

Separation rates

In 2016–17, there were 1,047 separations per 1,000 population for Indigenous Australians, 2.6 times the separation rate for other Australians. About 80% of this difference is due to the markedly higher rate of separations for dialysis for Indigenous Australians compared with other Australians (Table 3.9).

The Northern Territory had the highest separation rate for Indigenous Australians in public hospitals (2,222 separations per 1,000), more than 5 times the rate for other Australians (Table 3.7).

For Indigenous Australians, there were 310 overnight separations per 1,000 population, which was 89% higher than the rate for other Australians (164 per 1,000) (Table 3.8).

Same-day acute separations

In 2016–17, 5.5% 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 (730 and 226 per 1,000 population, respectively) (Table 3.9). The Northern Territory had the highest rate of overall same-day acute separations for Indigenous Australians (1,791 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 almost 13 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, Queensland, Western Australia and South Australia.

Overnight acute separations

Nationally, 4.3% of overnight acute separations were for Indigenous Australians.

In 2016–17, the overnight acute separation rate for Indigenous Australians (285 per 1,000 population) was 91% higher than the rate for other Australians (149 per 1,000 population) (Table 3.9).

In the Northern Territory, Indigenous Australians had an overnight acute separation rate of 391 per 1,000 population, which was 3 times as high as the rate for other Australians (128 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 and mental health care
- 'Chapter 6 What procedures were performed?'—for emergency and elective admissions involving surgery.

For detailed information on the under-identification of Indigenous people, 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 3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) |
|---|------------------|------------------|------------------|------------------|----------------|--------------------|--------------------|-------------------|----------------------|
| Public hospitals | | | | | | | | | |
| Aboriginal but not Torres Strait Islander origin | 96,646 | 22,445 | 96,899 | 77,263 | 24,859 | 4,606 | 3,011 | 108,992 | 434,721 |
| Torres Strait Islander but not Aboriginal origin | 1,533 | 503 | 13,817 | 380 | 146 | 178 | 24 | 723 | 17,304 |
| Aboriginal and Torres Strait Islander origin | 2,098 | 2,227 | 8,824 | 904 | 283 | 535 | 118 | 900 | 15,889 |
| <i>Indigenous Australians</i> | <i>100,277</i> | <i>25,175</i> | <i>119,540</i> | <i>78,547</i> | <i>25,288</i> | <i>5,319</i> | <i>3,153</i> | <i>110,615</i> | <i>467,914</i> |
| Neither Aboriginal nor Torres Strait Islander origin | 1,824,964 | 1,728,663 | 1,269,227 | 574,063 | 394,287 | 117,598 | 110,829 | 47,952 | 6,067,583 |
| Not reported | 6,311 | 18,610 | 5,790 | 0 | 17,962 | 1,495 | 1,439 | 244 | 51,851 |
| <i>Total</i> | <i>1,931,552</i> | <i>1,772,448</i> | <i>1,394,557</i> | <i>652,610</i> | <i>437,537</i> | <i>124,412</i> | <i>115,421</i> | <i>158,811</i> | <i>6,587,348</i> |
| Private hospitals | | | | | | | | | |
| Aboriginal but not Torres Strait Islander origin | 5,526 | 869 | 6,693 | 31,686 | 723 | n.p | n.p | n.p | 48,037 |
| Torres Strait Islander but not Aboriginal origin | 431 | 235 | 1,092 | 253 | 95 | n.p | n.p | n.p | 2,320 |
| Aboriginal and Torres Strait Islander origin | 756 | 460 | 1,589 | 438 | 147 | n.p | n.p | n.p | 3,665 |
| <i>Indigenous Australians</i> | <i>6,713</i> | <i>1,564</i> | <i>9,374</i> | <i>32,377</i> | <i>965</i> | <i>n.p</i> | <i>n.p</i> | <i>n.p</i> | <i>54,022</i> |
| Neither Aboriginal nor Torres Strait Islander origin | 1,227,394 | 1,032,308 | 1,005,261 | 474,761 | 293,057 | n.p | n.p | n.p | 4,172,036 |
| Not reported | 58,609 | 10,778 | 88,038 | 0 | 25,306 | n.p | n.p | n.p | 200,409 |
| <i>Total</i> | <i>1,292,716</i> | <i>1,044,650</i> | <i>1,102,673</i> | <i>507,138</i> | <i>319,328</i> | <i>n.p</i> | <i>n.p</i> | <i>n.p</i> | <i>4,426,467</i> |
| All hospitals | | | | | | | | | |
| Indigenous Australians | 106,990 | 26,739 | 128,914 | 110,924 | 26,253 | n.p | n.p | n.p | 521,936 |
| Other Australians | 3,117,278 | 2,790,359 | 2,368,316 | 1,048,824 | 730,612 | n.p | n.p | n.p | 10,491,879 |
| Total | 3,224,268 | 2,817,098 | 2,497,230 | 1,159,748 | 756,865 | n.p | n.p | n.p | 11,013,815 |
| Separations per 1,000 population^(c) | | | | | | | | | |
| Indigenous Australians | 650.9 | 745.7 | 920.5 | 1,816.0 | 910.1 | 343.1 | 959.7 | 2,222.4 | 1,047.1 |
| Other Australians | 373.9 | 421.6 | 471.2 | 402.9 | 377.0 | 367.1 | 406.6 | 397.7 | 408.5 |
| Total | 379.5 | 423.3 | 483.1 | 434.7 | 385.3 | 365.0 | 411.1 | 797.0 | 420.8 |
| Separation rate ratio ^(d) | 1.7 | 1.8 | 2.0 | 4.5 | 2.4 | 0.9 | 2.4 | 5.6 | 2.6 |

(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 in this table are not directly comparable with the rates presented elsewhere 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: Overnight separations, by Indigenous status, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) |
|---|------------------|------------------|----------------|----------------|----------------|--------------------|--------------------|-------------------|----------------------|
| Public hospitals | | | | | | | | | |
| Aboriginal but not Torres Strait Islander origin | 48,653 | 9,606 | 38,053 | 26,241 | 9,504 | 2,532 | 1,591 | 25,065 | 161,245 |
| Torres Strait Islander but not Aboriginal origin | 765 | 241 | 4,523 | 172 | 74 | 106 | 14 | 136 | 6,031 |
| Aboriginal and Torres Strait Islander origin | 1,303 | 938 | 3,793 | 474 | 192 | 188 | 82 | 368 | 7,338 |
| <i>Indigenous Australians</i> | <i>50,721</i> | <i>10,785</i> | <i>46,369</i> | <i>26,887</i> | <i>9,770</i> | <i>2,826</i> | <i>1,687</i> | <i>25,569</i> | <i>174,614</i> |
| Neither Aboriginal nor Torres Strait Islander origin | 989,003 | 718,586 | 561,743 | 266,051 | 209,457 | 57,082 | 52,315 | 21,141 | 2,875,378 |
| Not reported | 3,776 | 7,912 | 2,479 | 0 | 10,162 | 718 | 891 | 104 | 26,042 |
| <i>Total</i> | <i>1,043,500</i> | <i>737,283</i> | <i>610,591</i> | <i>292,938</i> | <i>229,389</i> | <i>60,626</i> | <i>54,893</i> | <i>46,814</i> | <i>3,076,034</i> |
| Private hospitals | | | | | | | | | |
| Aboriginal but not Torres Strait Islander origin | 1,863 | 326 | 1,883 | 462 | 235 | n.p. | n.p. | n.p. | 5,808 |
| Torres Strait Islander but not Aboriginal origin | 150 | 68 | 233 | 56 | 39 | n.p. | n.p. | n.p. | 623 |
| Aboriginal and Torres Strait Islander origin | 197 | 165 | 285 | 61 | 56 | n.p. | n.p. | n.p. | 875 |
| <i>Indigenous Australians</i> | <i>2,210</i> | <i>559</i> | <i>2,401</i> | <i>579</i> | <i>330</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>7,306</i> |
| Neither Aboriginal nor Torres Strait Islander origin | 309,082 | 343,728 | 301,720 | 147,511 | 90,661 | n.p. | n.p. | n.p. | 1,239,977 |
| Not reported | 12,029 | 2,766 | 22,230 | 0 | 1,943 | n.p. | n.p. | n.p. | 43,169 |
| <i>Total</i> | <i>323,321</i> | <i>347,053</i> | <i>326,351</i> | <i>148,090</i> | <i>92,934</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1,290,452</i> |
| All hospitals | | | | | | | | | |
| Indigenous Australians | 52,931 | 11,344 | 48,770 | 27,466 | 10,100 | n.p. | n.p. | n.p. | 181,920 |
| Other Australians | 1,313,890 | 1,072,992 | 888,172 | 413,562 | 312,223 | n.p. | n.p. | n.p. | 4,184,566 |
| Total | 1,366,821 | 1,084,336 | 936,942 | 441,028 | 322,323 | n.p | n.p | n.p | 4,366,486 |
| Separations per 1,000 population^(c) | | | | | | | | | |
| Indigenous Australians | 285.8 | 275.3 | 307.1 | 357.5 | 297.3 | 161.2 | 396.1 | 416.9 | 310.4 |
| Other Australians | 159.8 | 162.3 | 178.0 | 160.1 | 163.8 | 152.2 | 175.9 | 175.1 | 164.3 |
| Total | 162.9 | 163.1 | 182.3 | 166.2 | 166.8 | 152.2 | 178.3 | 238.3 | 168.0 |
| Separation rate ratio ^(d) | 1.8 | 1.7 | 1.7 | 2.2 | 1.8 | 1.1 | 2.3 | 2.4 | 1.9 |

(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 in this table are not directly comparable with the rates presented elsewhere 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 3.9: Same-day and overnight acute separations per 1,000 population, by Indigenous status, all hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) |
|---|-----------|-----------|-----------|---------|---------|--------------------|--------------------|-------------------|----------------------|
| Indigenous Australians | | | | | | | | | |
| Same-day acute separations | 53,032 | 15,356 | 78,692 | 83,417 | 15,908 | 2,450 | 1,459 | 85,021 | 336,867 |
| Same-day separations per 1,000 population ^(c) | 357.1 | 469.3 | 603.1 | 1,457.7 | 604.4 | 139.0 | 464.2 | 1,790.9 | 730.0 |
| Same-day separations per 1,000 population excluding dialysis ^(c) | 138.3 | 210.3 | 219.0 | 132.0 | 134.8 | 96.7 | 179.4 | 202.5 | 173.3 |
| Overnight acute separations | 47,815 | 10,139 | 44,877 | 25,819 | 9,221 | 2,569 | 1,515 | 24,697 | 167,841 |
| Overnight separations per 1,000 population ^(c) | 256.6 | 243.9 | 280.6 | 334.4 | 271.3 | 122.3 | 308.7 | 390.5 | 284.7 |
| Other Australians | | | | | | | | | |
| Same-day acute separations | 1,527,452 | 1,682,352 | 1,355,445 | 632,983 | 393,419 | 60,272 | 58,026 | 26,908 | 5,826,724 |
| Same-day separations per 1,000 population ^(c) | 182.8 | 253.8 | 268.2 | 241.9 | 201.4 | 103.9 | 146.7 | 169.0 | 226.0 |
| Same-day separations per 1,000 population ^(c) excluding dialysis | 143.1 | 205.9 | 227.5 | 184.1 | 163.6 | 78.0 | 93.7 | 130.4 | 182.5 |
| Overnight acute separations | 1,176,924 | 963,101 | 807,424 | 376,563 | 284,544 | 52,302 | 47,648 | 20,249 | 3,776,847 |
| Overnight separations per 1,000 population ^(c) | 143.6 | 146.1 | 162.1 | 145.8 | 149.6 | 94.7 | 118.8 | 127.7 | 148.7 |
| Total | | | | | | | | | |
| Same-day acute separations | 1,580,484 | 1,697,708 | 1,434,137 | 716,400 | 409,327 | 62,722 | 59,485 | 111,929 | 6,163,591 |
| Same-day separations per 1,000 population ^(c) | 185.6 | 254.8 | 276.2 | 267.6 | 206.6 | 104.4 | 148.7 | 513.9 | 234.7 |
| Same-day separations per 1,000 population excluding dialysis ^(c) | 143.2 | 206.0 | 227.8 | 183.1 | 163.3 | 78.3 | 94.7 | 149.6 | 182.6 |
| Overnight acute separations | 1,224,739 | 973,240 | 852,301 | 402,382 | 293,765 | 54,871 | 49,163 | 44,946 | 3,944,688 |
| Overnight separations per 1,000 population ^(c) | 146.4 | 146.8 | 166.1 | 151.7 | 152.3 | 95.4 | 120.9 | 196.2 | 152.1 |

(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 in this table are not directly comparable to the rates presented elsewhere 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 2016–17.

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 (824 and 521 per 1,000 population, respectively) (Table 3.10).

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* (711 and 236 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 *Remote* areas (184 and 107 per 1,000, respectively). In part, this may reflect the distribution of private hospitals across remoteness areas.

Table 3.10: Selected separation statistics, by remoteness area of usual residence, public and private hospitals, 2016–17

| | Remoteness area of usual residence | | | | | Total |
|---|------------------------------------|------------------|----------------|----------------|----------------|-------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Public hospitals | | | | | | |
| Separations | 4,234,088 | 1,327,684 | 726,952 | 130,289 | 126,983 | 6,587,348 |
| Separations per 1,000 population ^(b) | 235.5 | 268.8 | 314.2 | 413.3 | 711.3 | 255.2 |
| Separation rate ratio | 0.9 | 1.1 | 1.2 | 1.6 | 2.8 | .. |
| Private hospitals | | | | | | |
| Separations | 3,332,385 | 758,397 | 270,188 | 34,300 | 19,670 | 4,426,467 |
| Separations per 1,000 population ^(b) | 184.2 | 143.1 | 111.5 | 107.3 | 112.3 | 168.2 |
| Separation rate ratio | 1.1 | 0.9 | 0.7 | 0.6 | 0.7 | .. |
| All hospitals | | | | | | |
| Separations | 7,566,473 | 2,086,081 | 997,140 | 164,589 | 146,653 | 11,013,815 |
| Separations per 1,000 population^(b) | 419.7 | 411.9 | 425.7 | 520.6 | 823.6 | 423.4 |
| Separation rate ratio | 1.0 | 1.0 | 1.0 | 1.2 | 1.9 | .. |

(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 in this table differ from national rates presented elsewhere in this report.

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

Funding source

Patients who lived in *Major cities* accounted for 66% of *private health insurance*-funded separations in public hospitals, compared with 77% in private hospitals (Table 3.11).

Table 3.11: Separations by funding source and remoteness of area of usual residence, public and private hospitals, 2016–17

| Remoteness area | Public patients ^(a) | Private health insurance | Other patients ^(b) | Total |
|---|--------------------------------|--------------------------|-------------------------------|------------------|
| Public hospitals | | | | |
| Major cities | 3,506,732 | 599,953 | 127,403 | 4,234,088 |
| Inner regional | 1,082,630 | 203,283 | 41,771 | 1,327,684 |
| Outer regional | 610,337 | 93,033 | 23,582 | 726,952 |
| Remote | 117,851 | 9,780 | 2,658 | 130,289 |
| Very remote | 122,610 | 2,769 | 1,604 | 126,983 |
| <i>Total public hospitals</i> ^(c) | <i>5,465,027</i> | <i>911,707</i> | <i>210,614</i> | <i>6,587,348</i> |
| Private hospitals^(d) | | | | |
| Major cities | 105,150 | 2,778,450 | 407,918 | 3,332,385 |
| Inner regional | 36,140 | 609,208 | 107,289 | 758,397 |
| Outer regional | 19,440 | 209,259 | 39,813 | 270,188 |
| Remote | 10,714 | 20,345 | 3,227 | 34,300 |
| Very remote | 11,235 | 7,264 | 1,167 | 19,670 |
| <i>Total private hospitals</i> ^(c) | <i>182,972</i> | <i>3,631,071</i> | <i>562,643</i> | <i>4,426,467</i> |

(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 patients* includes separations with a funding source of *Self-funded, Workers compensation, Motor vehicle third party personal claim, Department of Veterans' Affairs, 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.

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

(d) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals, but are included in the overall total.

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

Same-day acute separations

In 2016–17, people who lived in *Very remote* areas had 536 same-day acute separations per 1,000 population, compared with 237 per 1,000 nationally (Table 3.12). The standardised separation rate ratio (SRR) for people living in *Very remote* areas was 2.3, indicating that the separation rate was more than twice the national same-day acute separation rate.

Overnight acute separations

In 2016–17, people living in *Very remote* areas of Australia had 273 overnight acute separations per 1,000 population, compared with 153 per 1,000 nationally (Table 3.12).

The SRR of 1.8 for this area indicates that the overnight acute separation rate for people living in *Very remote* areas was 80% higher than the national rate.

Table 3.12: Selected separation statistics, for same-day and overnight acute separations, by remoteness area of usual residence, all hospitals, 2016–17

| | Remoteness area of usual residence | | | | | Total ^(a) |
|---|------------------------------------|----------------|----------------|--------|-------------|----------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Same-day acute separations | | | | | | |
| Separations | 4,241,397 | 1,158,802 | 547,828 | 96,578 | 96,915 | 6,163,591 |
| Separations per 1,000 population ^(b) | 236.5 | 225.7 | 230.1 | 298.5 | 536.4 | 236.9 |
| Separation rate ratio | 1.0 | 1.0 | 1.0 | 1.3 | 2.3 | .. |
| Overnight acute separations | | | | | | |
| Separations | 2,614,314 | 788,834 | 405,219 | 64,091 | 47,629 | 3,944,688 |
| Separations per 1,000 population ^(b) | 144.5 | 159.5 | 177.1 | 208.8 | 272.9 | 152.5 |
| Separation rate ratio | 0.9 | 1.0 | 1.2 | 1.4 | 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 in this table differ from national rates presented elsewhere in this report.

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, palliative care and mental health 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 2016–17. 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 2016–17, 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 (338 separations per 1,000 population) (Table 3.13). For private hospitals, the highest separation rates were for patients living in areas classified as being the highest (least disadvantaged) SES group (233 per 1,000). See Appendix B for more information on SES groups.

Table 3.13: Selected separation statistics by socioeconomic status of area of usual residence, public and private hospitals, 2016–17

| | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|---|---|------------------|------------------|------------------|------------------|----------------------|
| | 1—Lowest | 2 | 3 | 4 | 5—Highest | |
| Public hospitals | | | | | | |
| Separations | 1,786,706 | 1,493,493 | 1,304,929 | 1,112,852 | 846,536 | 6,587,348 |
| Separations per 1,000 population ^(b) | 337.7 | 280.7 | 253.3 | 224.1 | 169.7 | 255.3 |
| Separation rate ratio | 1.3 | 1.1 | 1.0 | 0.9 | 0.7 | .. |
| Private hospitals | | | | | | |
| Separations | 623,561 | 747,699 | 880,031 | 981,404 | 1,181,493 | 4,426,467 |
| Separations per 1,000 population ^(b) | 113.5 | 136.4 | 167.1 | 196.4 | 233.3 | 168.3 |
| Separation rate ratio | 0.7 | 0.8 | 1.0 | 1.2 | 1.4 | .. |
| All hospitals | | | | | | |
| Separations | 2,410,267 | 2,241,192 | 2,184,960 | 2,094,256 | 2,028,029 | 11,013,815 |
| Separations per 1,000 population^(b) | 451.1 | 417.2 | 420.5 | 420.5 | 403.0 | 423.5 |
| 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 in this table differ from national rates presented elsewhere in this report.

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

Funding source

For public hospitals, *Private health insurance*-funded separations were relatively evenly distributed across SES groups, with 18% to 21% of these separations being for patients living in areas classified as being in each of the 5 socioeconomic status groups (Table 3.14).

For private hospitals, *Private health insurance*-funded separations were more likely to be for patients who lived in areas classified as being in the higher socioeconomic groups, including 28% in the highest (least disadvantaged) group.

Table 3.14: Separations by funding source and socioeconomic status of area of usual residence, public and private hospitals, 2016–17

| | Public patients ^(a) | Private health insurance | Other patients ^(b) | Total |
|--|--------------------------------|--------------------------|-------------------------------|------------------|
| Public hospitals | | | | |
| 1–Lowest | 1,571,717 | 164,339 | 50,650 | 1,786,706 |
| 2 | 1,257,315 | 190,897 | 45,281 | 1,493,493 |
| 3 | 1,083,880 | 183,892 | 37,157 | 1,304,929 |
| 4 | 899,580 | 178,829 | 34,443 | 1,112,852 |
| 5–Highest | 626,477 | 190,724 | 29,335 | 846,536 |
| <i>Total public hospitals^(c)</i> | <i>5,465,027</i> | <i>911,707</i> | <i>210,614</i> | <i>6,587,348</i> |
| Private hospitals^(d) | | | | |
| 1–Lowest | 46,127 | 460,989 | 115,101 | 622,217 |
| 2 | 45,288 | 589,776 | 110,751 | 745,815 |
| 3 | 42,996 | 717,271 | 116,216 | 876,483 |
| 4 | 26,151 | 828,160 | 114,833 | 969,144 |
| 5–Highest | 22,114 | 1,027,812 | 102,387 | 1,152,313 |
| <i>Total private hospitals^(c)</i> | <i>182,972</i> | <i>3,631,071</i> | <i>562,643</i> | <i>4,426,467</i> |

(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 patients* includes separations with a funding source of *Self-funded, Workers compensation, Motor vehicle third party personal claim, Department of Veterans' Affairs, 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.

(c) Total includes separations for which the socioeconomic status of the area of usual residence could not be categorised.

(d) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals, but are included in the overall total.

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 18% and 22% of total same-day acute separations. The separation rates varied from 227 per 1,000 population for people living in areas classified as having the highest (least disadvantaged) SES group to 252 per 1,000 for the lowest (most disadvantaged) SES group (Table 3.15).

Overnight acute separations

Each SES group accounted for between 17% and 23% of total overnight acute separations. Separation rates varied from 131 per 1,000 population for patients living in areas classified as being the highest (least disadvantaged) SES group to 171 per 1,000 for the lowest (most disadvantaged) SES group (Table 3.15).

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

Table 3.15: Selected separation statistics, for same-day acute and overnight acute separations, by socioeconomic status of area of usual residence, all hospitals, 2016–17

| | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|---|---|-----------|-----------|-----------|-----------|----------------------|
| | 1—Lowest | 2 | 3 | 4 | 5—Highest | |
| Same-day acute separations | | | | | | |
| Separations | 1,349,575 | 1,228,450 | 1,229,602 | 1,192,529 | 1,140,222 | 6,163,591 |
| Separations per 1,000 population ^(b) | 252.3 | 228.1 | 236.4 | 240.4 | 226.7 | 237.0 |
| Separation rate ratio | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | .. |
| Overnight acute separations | | | | | | |
| Separations | 909,526 | 852,373 | 782,278 | 717,254 | 657,749 | 3,944,688 |
| Separations per 1,000 population ^(b) | 171.2 | 160.1 | 151.4 | 143.5 | 131.4 | 152.5 |
| 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 in this table differ from national rates presented elsewhere in this report.

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, palliative care and mental health 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 poisonings)
- whether the patient was waiting for residential aged care.

Key findings

Mode and urgency of admission

In 2016–17, most separations (94%) began as a new admission to hospital. Almost 5% of separations in public hospitals and 3% in private hospitals began as a transfer from another hospital.

Almost 28% of separations were emergency admissions, and 92% of these were 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), compared with private hospitals.

Emergency admissions were relatively constant across the week, while non-emergency admissions were less likely to occur on a weekend.

Care type

In 2016–17, almost 91% of separations were for *Acute* care, 4% for *Rehabilitation* care and 3% for both *Newborn* care and *Mental health* care. There were 43,000 separations (0.4%) for *Palliative care*, and the remainder were for other subacute and non-acute types of care.

Public hospitals accounted for 62% of *Acute* care, while private hospitals accounted for 79% of *Rehabilitation* care.

Principal diagnosis

In 2016–17, 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 individual reason for care (1.4 million separations), followed by *Other medical care* (548,000, mostly for chemotherapy).

Potentially preventable hospitalisations

In 2016–17, PPHs, accounted for 7% of all separations, with *Chronic obstructive pulmonary disease* being the most common PPH condition (78,000 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

The following modes of admission can be reported:

- *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, the 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 2016–17, 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 (4.6% 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 (6.0% 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 (3.6%).

It should be noted that in New South Wales, the implementation of the *Mental health care* type was effected by statistically discharging and readmitting mental health-related patients during 2016–17 to record the change in care type. Therefore, the number of separations with an admission mode of *Statistical admission: care type change* for New South Wales, and nationally, for 2016–17 are not comparable with previous years. See Box 1.2 and Appendix A for more information.

Table 4.1: Separations by mode of admission, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|------------------|------------------|------------------|----------------|----------------|----------------|----------------|-------------------|
| Public hospitals | | | | | | | | | |
| New admission to hospital ^(a) | 1,777,812 | 1,669,823 | 1,317,900 | 603,523 | 408,862 | 115,366 | 107,723 | 156,612 | 6,157,621 |
| Admitted patient transferred from another hospital | 104,365 | 83,970 | 47,060 | 39,308 | 22,091 | 3,585 | 3,564 | 153 | 304,096 |
| Statistical admission: care type change | 42,331 | 18,184 | 29,597 | 9,779 | 5,400 | 2,734 | 4,134 | 2,046 | 114,205 |
| Not reported | 7,044 | 471 | 0 | 0 | 1,184 | 2,727 | 0 | 0 | 11,426 |
| <i>Total public hospitals</i> | <i>1,931,552</i> | <i>1,772,448</i> | <i>1,394,557</i> | <i>652,610</i> | <i>437,537</i> | <i>124,412</i> | <i>115,421</i> | <i>158,811</i> | <i>6,587,348</i> |
| Private hospitals | | | | | | | | | |
| New admission to hospital ^(a) | 1,240,334 | 1,002,409 | 1,063,856 | 493,616 | 312,160 | n.p. | n.p. | n.p. | 4,243,340 |
| Admitted patient transferred from another hospital | 44,841 | 36,878 | 27,676 | 10,702 | 6,622 | n.p. | n.p. | n.p. | 133,126 |
| Statistical admission: care type change | 6,330 | 5,363 | 11,141 | 2,820 | 504 | n.p. | n.p. | n.p. | 27,613 |
| Not reported | 1,211 | 0 | 0 | 0 | 42 | n.p. | n.p. | n.p. | 22,388 |
| <i>Total private hospitals</i> | <i>1,292,716</i> | <i>1,044,650</i> | <i>1,102,673</i> | <i>507,138</i> | <i>319,328</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>4,426,467</i> |
| All hospitals | | | | | | | | | |
| New admission to hospital ^(a) | 3,018,146 | 2,672,232 | 2,381,756 | 1,097,139 | 721,022 | n.p. | n.p. | n.p. | 10,400,961 |
| Admitted patient transferred from another hospital | 149,206 | 120,848 | 74,736 | 50,010 | 28,713 | n.p. | n.p. | n.p. | 437,222 |
| Statistical admission: care type change | 48,661 | 23,547 | 40,738 | 12,599 | 5,904 | n.p. | n.p. | n.p. | 141,818 |
| Not reported | 8,255 | 471 | 0 | 0 | 1,226 | n.p. | n.p. | n.p. | 33,814 |
| Total | 3,224,268 | 2,817,098 | 2,497,230 | 1,159,748 | 756,865 | n.p. | n.p. | n.p. | 11,013,815 |

(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 data limitations and methods.

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 0.2%, 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. Almost 6.5% of overnight acute separations in public hospitals and 6.2% in private hospitals were transferred from another hospital.

Table 4.2: Acute separations, by mode of admission and same-day/overnight status, public and private hospitals, 2016–17

| Mode of admission | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|------------------|
| Same-day acute separations | | | |
| New admission to hospital ^(a) | 3,409,860 | 2,687,752 | 6,097,612 |
| Admitted patient transferred from another hospital | 39,808 | 6,538 | 46,346 |
| Statistical admission: type change | 599 | 454 | 1,053 |
| Not reported | 6,818 | 11,762 | 18,580 |
| Total | 3,457,085 | 2,706,506 | 6,163,591 |
| Overnight acute separations | | | |
| New admission to hospital ^(a) | 2,593,104 | 1,076,233 | 3,669,337 |
| Admitted patient transferred from another hospital | 180,327 | 72,262 | 252,589 |
| Statistical admission: type change | 10,229 | 3,012 | 13,241 |
| Not reported | 3,218 | 6,303 | 9,521 |
| Total | 2,786,878 | 1,157,810 | 3,944,688 |

(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 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 2012–13 and 2016–17, emergency admissions in public hospitals rose from 2.3 million to 2.8 million, an average increase of 5.2% per year, compared with an average increase of 3.8% for private hospitals (Table 4.3). Over this period, elective admissions in private hospitals increased by an average of 3.4% per year, compared with a 2.9% average increase in public hospitals. The number of separations with an urgency of admission of *Not assigned* increased 6.2% on average each year in public hospitals and 4.9% in private hospitals.

Table 4.3: Separations by urgency of admission, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Emergency | 2,283,421 | 2,383,578 | 2,514,638 | 2,655,379 | 2,800,301 | 5.2 | 5.5 |
| Elective | 2,253,439 | 2,328,197 | 2,384,343 | 2,436,994 | 2,527,982 | 2.9 | 3.7 |
| Not assigned | 990,199 | 1,002,098 | 1,080,644 | 1,179,538 | 1,258,487 | 6.2 | 6.7 |
| Not reported ^(a) | 3,137 | 997 | 713 | 570 | 578 | –34.5 | 1.4 |
| Total | 5,530,196 | 5,714,870 | 5,980,338 | 6,272,481 | 6,587,348 | 4.5 | 5.0 |
| Private hospitals | | | | | | | |
| Emergency | 205,825 | 205,300 | 213,810 | 222,862 | 238,970 | 3.8 | 7.2 |
| Elective | 3,162,304 | 3,292,873 | 3,441,036 | 3,551,977 | 3,613,632 | 3.4 | 1.7 |
| Not assigned | 466,880 | 479,587 | 508,984 | 546,973 | 566,343 | 4.9 | 3.5 |
| Not reported ^(a) | 4,052 | 4,145 | 6,199 | 5,475 | 7,522 | 16.7 | 37.4 |
| Total | 3,839,061 | 3,981,905 | 4,170,029 | 4,327,287 | 4,426,467 | 3.6 | 2.3 |

(a) The percentage changes for *Not reported* are based on small numbers of records.

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

Urgency of admission by funding source

Overall, 40% of separations for *Public patients* were emergency admissions, 39% were elective admissions, and the urgency of admission was *Not assigned* for 22% of separations (Table 4.4). For *Public patients* in private hospitals, 65% had a *Not assigned* urgency of admission—consistent with the numbers of publicly funded dialysis separations (for which the urgency should be *Not assigned*) in private hospitals in Western Australia and South Australia.

Over 74% 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. In public hospitals, 49% of *Private health insurance* separations were emergency admissions.

In both public and private hospitals, separations with a funding source of *Self-funded* were more often reported as elective admissions (90% overall). For *Self-funded* separations in public hospitals, 29% were emergency admissions.

For separations with a funding source of *Motor vehicle third party personal claim*, 69% were emergency admissions. In public hospitals, 85% of separations with a funding source of *Motor vehicle third party personal claim* were emergency admissions.

Table 4.4: Separations by funding source and urgency of admission, public and private hospitals, 2016–17

| Funding source | Urgency of admission | | | Total ^(a) |
|--|----------------------|------------------|------------------|----------------------|
| | Emergency | Elective | Not assigned | |
| Public hospitals | | | | |
| Public patients ^(b) | 2,236,914 | 2,123,562 | 1,103,992 | 5,465,027 |
| Private health insurance | 442,588 | 340,939 | 128,167 | 911,707 |
| Self-funded | 14,365 | 27,716 | 6,818 | 48,900 |
| Workers compensation | 17,292 | 4,670 | 807 | 22,770 |
| Motor vehicle third party personal claim | 25,195 | 2,985 | 1,312 | 29,492 |
| Department of Veterans' Affairs | 47,882 | 19,363 | 11,586 | 78,835 |
| Other ^(c) | 16,065 | 8,747 | 5,805 | 30,617 |
| <i>Total public hospitals</i> | <i>2,800,301</i> | <i>2,527,982</i> | <i>1,258,487</i> | <i>6,587,348</i> |
| Private hospitals | | | | |
| Public patients ^(b) | 9,655 | 54,714 | 118,600 | 182,972 |
| Private health insurance | 200,242 | 3,019,509 | 406,203 | 3,631,071 |
| Self-funded | 3,142 | 280,723 | 8,354 | 292,225 |
| Workers compensation | 2,081 | 54,858 | 930 | 57,998 |
| Motor vehicle third party personal claim | 323 | 6,808 | 267 | 7,398 |
| Department of Veterans' Affairs | 22,541 | 117,980 | 25,005 | 165,633 |
| Other ^(c) | 977 | 32,154 | 4,871 | 39,389 |
| <i>Total private hospitals^(d)</i> | <i>238,970</i> | <i>3,613,632</i> | <i>566,343</i> | <i>4,426,467</i> |
| All hospitals | | | | |
| Public patients ^(b) | 2,246,569 | 2,178,276 | 1,222,592 | 5,647,999 |
| Private health insurance | 642,830 | 3,360,448 | 534,370 | 4,542,778 |
| Self-funded | 17,507 | 308,439 | 15,172 | 341,125 |
| Workers compensation | 19,373 | 59,528 | 1,737 | 80,768 |
| Motor vehicle third party personal claim | 25,518 | 9,793 | 1,579 | 36,890 |
| Department of Veterans' Affairs | 70,423 | 137,343 | 36,591 | 244,468 |
| Other ^(c) | 17,042 | 40,901 | 10,676 | 70,006 |
| Total^(d) | 3,039,271 | 6,141,614 | 1,824,830 | 11,013,815 |

(a) The total includes 8,100 separations for which the urgency of admission was not reported. For 2016-17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and all hospitals.

(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.

(d) The totals include separations from private hospitals in the Australian Capital Territory.

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

Same-day acute care

In 2016–17, 13% of same-day acute separations were emergency admissions; 97% of these were in public hospitals. Just over 67% of same-day acute separations were elective admissions, and more than half of these occurred in private hospitals (54%) (Table 4.5).

Overnight acute care

In 2016–17, over half (53%) of all overnight acute separations were emergency admissions; 90% of these were in public hospitals. Almost 36% of overnight acute separations were elective admissions, with 62% of these occurring in private hospitals (Table 4.5).

Table 4.5: Acute separations, by same-day/overnight status and urgency of admission, public and private hospitals, 2016–17

| Urgency of admission | Public hospitals | Private hospitals | Total |
|------------------------------------|------------------|-------------------|------------------|
| Same-day acute separations | | | |
| Emergency | 810,100 | 21,210 | 831,310 |
| Elective | 1,898,258 | 2,244,094 | 4,142,352 |
| Not assigned | 748,696 | 439,569 | 1,188,265 |
| Total | 3,457,085 | 2,706,506 | 6,163,591 |
| Overnight acute separations | | | |
| Emergency | 1,879,578 | 213,657 | 2,093,235 |
| Elective | 539,491 | 861,706 | 1,401,197 |
| Not assigned | 367,728 | 81,409 | 449,137 |
| Total | 2,786,878 | 1,157,810 | 3,944,688 |

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

When were patients admitted?

On average, there were 8,300 emergency admissions and 21,800 non-emergency admissions to hospitals across Australia each day.

Month of admission

The highest number of admissions occurred in May (1.0 million, at an average of 32,500 per day) and the lowest occurred in January (823,000 admissions, at an average of 26,600 per day) (Figure 4.1).

The number of emergency admissions per day was relatively stable, ranging from almost 8,000 per day in July to more than 8,600 per day in May.

The number of non-emergency admissions per day was more variable, ranging from 18,400 per day in January to 23,900 per day in May.

Day of admission

The majority of admissions (9.7 million admissions, or 88.2%) occurred on a weekday (Figure 4.2). The highest proportion of admissions occurred on Wednesdays (18.4%) and the lowest on Sundays (4.7%).

Emergency admissions were relatively uniform across the week, with 12.8% occurring on a Sunday and 15.2% on a Monday. Non-emergency admissions were less likely to occur on a weekend, and the number of emergency admissions exceeded the number of non-emergency admissions on Saturdays and Sundays. The highest proportion of non-emergency admissions occurred on Wednesdays (19.7%) and the lowest occurred on Sundays (1.7%).

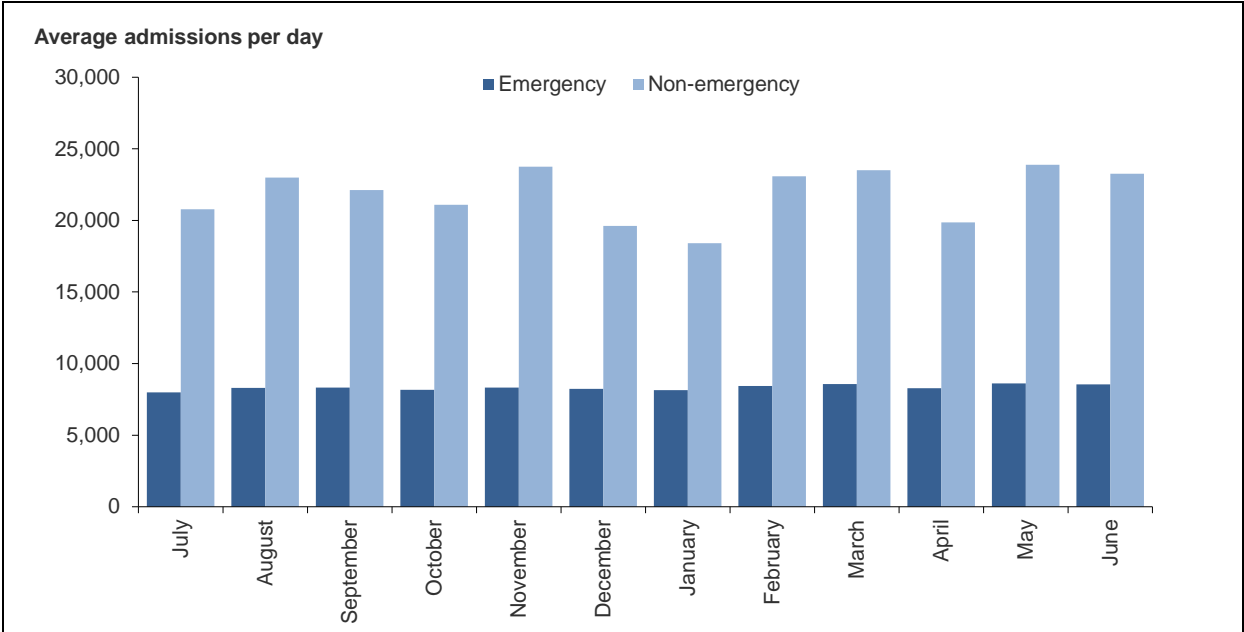


Figure 4.1: Average number of separations per day, by urgency of admission and month of admission, all hospitals, 2016–17

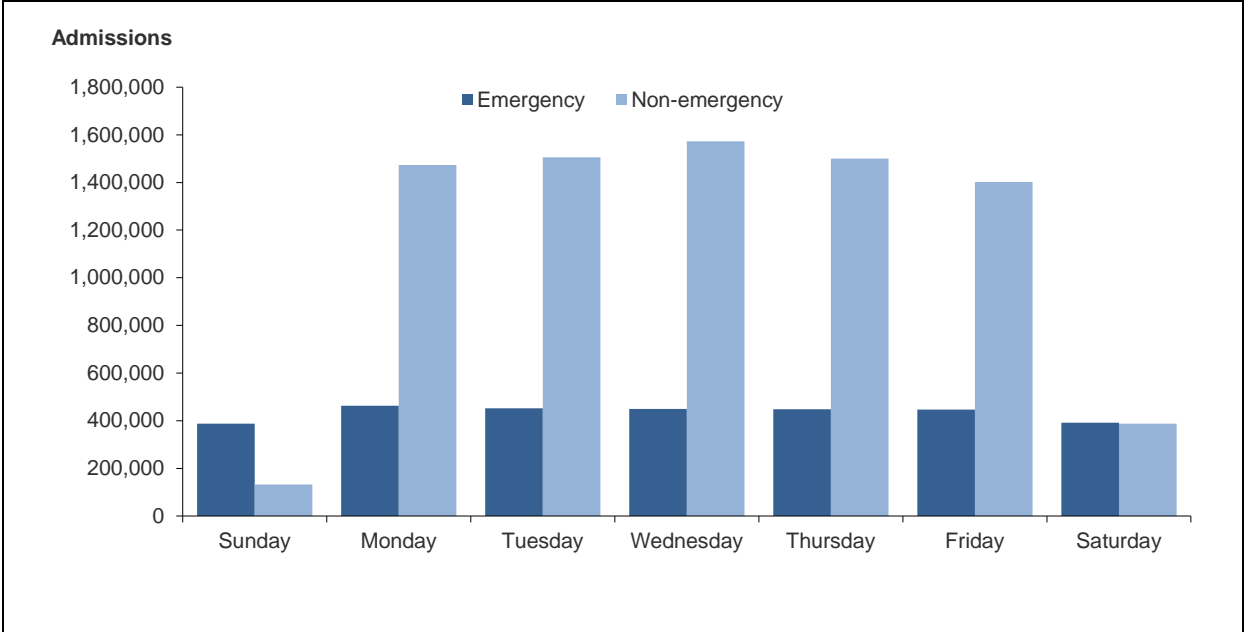


Figure 4.2: Separations by urgency of admission and day of admission, all hospitals, 2016–17

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 mental health care, rehabilitation care and palliative care
- 'Chapter 6 What procedures were performed?'—for emergency and elective admissions involving surgery.

More information on separations by funding source 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 2016–17: Australian hospital statistics* (AIHW 2017c).

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 2016–17. Information on patient days and average length of stay are for 2016–17.

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 from 2015–16 onward are not comparable with data presented for earlier periods.

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 2012–13 and 2016–17, the number of separations for *Acute care* increased by 4.0% on average per year for public hospitals, and by 1.9% per year for private hospitals (Table 4.6).

Between 2015–16 and 2016–17, the number of separations for *Acute care* increased by 5.2% for public hospitals and by 1.6% 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 2012–13 and 2016–17, the number of separations for *Subacute and non-acute care* rose from 451,000 to 579,000, an average increase of 6.5% per year. Separations for subacute and non-acute care rose by 0.2% on average each year for public hospitals and by 10.6% each year for private hospitals. The decrease in *Rehabilitation care* separations between 2015–16 and 2016–17 is, in part, due to the reclassification of some rehabilitation care provided by a hospital in South Australia from admitted patient care to non-admitted patient care (see Box 1.2 and Appendix A).

Table 4.6: Separations by care type, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|-------------------|-------------------|-------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Acute | 5,259,399 | 5,447,244 | 5,705,939 | 5,860,520 | 6,163,262 | 4.0 | 5.2 |
| Subacute and non-acute care | | | | | | | |
| Rehabilitation ^(a) | 103,220 | 99,091 | 102,815 | 102,784 | 95,041 | -2.0 | -7.5 |
| Palliative care | 33,272 | 32,585 | 34,594 | 36,499 | 37,315 | 2.9 | 2.2 |
| Geriatric evaluation and management | 33,284 | 34,321 | 32,446 | 32,171 | 35,312 | 1.5 | 9.8 |
| Psychogeriatric care | 2,485 | 2,416 | 1,895 | 1,455 | 1,219 | -16.3 | -16.2 |
| Maintenance care | 23,062 | 23,123 | 25,472 | 26,694 | 28,136 | 5.1 | 5.4 |
| <i>Subacute and non-acute care</i> | <i>195,323</i> | <i>191,536</i> | <i>197,222</i> | <i>199,620</i> | <i>197,031</i> | <i>0.2</i> | <i>-1.3</i> |
| Newborn (qualified) | 64,587 | 65,687 | 66,294 | 67,313 | 67,354 | 1.1 | 0.1 |
| Newborn (unqualified) | 166,742 | 169,228 | 170,762 | 175,643 | 173,073 | 0.9 | -1.5 |
| Mental health care ^(b) | .. | .. | .. | 133,143 | 146,354 | .. | 9.9 |
| <i>Total public hospitals^(c)</i> | <i>5,530,196</i> | <i>5,714,870</i> | <i>5,980,338</i> | <i>6,272,481</i> | <i>6,587,348</i> | <i>4.5</i> | <i>5.0</i> |
| Private hospitals | | | | | | | |
| Acute | 3,565,913 | 3,694,442 | 3,828,761 | 3,790,717 | 3,850,352 | 1.9 | 1.6 |
| Subacute and non-acute care | | | | | | | |
| Rehabilitation | 240,519 | 255,567 | 309,862 | 331,998 | 349,934 | 9.8 | 5.4 |
| Palliative care | 6,007 | 6,392 | 6,217 | 5,721 | 6,169 | 0.7 | 7.8 |
| Geriatric evaluation and management | 204 | 211 | 119 | 124 | 142 | -8.7 | 14.5 |
| Psychogeriatric care | 6,321 | 7,116 | 7,216 | 6,730 | 8,377 | 7.3 | 24.5 |
| Maintenance care ^(d) | 2,300 | 1,663 | 1,797 | 5,153 | 17,522 | n.p. | n.p. |
| <i>Subacute and non-acute care</i> | <i>255,351</i> | <i>270,949</i> | <i>325,211</i> | <i>349,733</i> | <i>382,144</i> | <i>10.6</i> | <i>9.3</i> |
| Newborn (qualified) | 15,220 | 14,218 | 13,887 | 11,394 | 8,552 | -13.4 | -24.9 |
| Newborn (unqualified) | 48,138 | 47,322 | 45,013 | 46,747 | 45,605 | -1.3 | -2.4 |
| Mental health care ^(b) | .. | .. | .. | 170,909 | 180,007 | .. | 5.3 |
| <i>Total private hospitals^(c)</i> | <i>3,839,061</i> | <i>3,981,905</i> | <i>4,170,029</i> | <i>4,327,287</i> | <i>4,426,467</i> | <i>3.6</i> | <i>2.3</i> |
| All hospitals^(c) | 9,369,257 | 9,696,775 | 10,150,367 | 10,599,768 | 11,013,815 | 4.1 | 3.9 |

(a) The decrease in *Rehabilitation care* separations between 2015–16 and 2016–17 is, in part, due to the reclassification of some rehabilitation care from admitted patient care to non-admitted patient care by South Australia's Repatriation General Hospital.

(b) The care type *Mental health* was implemented from 1 July 2015. Therefore, data presented for 2015–16 and 2016–17 may not be comparable with data presented for earlier periods.

(c) Totals exclude separations for *Newborns* without qualified days, and include separations for *Other admitted care* (data not shown).

(d) For 2016–17, New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute care* is likely to be underestimated.

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 2016–17?

In 2016–17, for the public and private sectors combined, 89% of separations were classified as episodes of *Acute care*, 4.0% as *Rehabilitation care*, 2.9% as *Mental health care* and 0.7% as *Newborn* (with qualified days) (Table 4.7).

The proportions of separations for each care type varied by hospital sector. Public hospitals accounted for 62% of separations for *Acute care*, while private hospitals accounted for 79% 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 2.0% in New South Wales. In private hospitals, it ranged from 0.9% in Western Australia to 16.9% in New South Wales (among jurisdictions whose private hospital data could be reported).

The proportion of separations for *Mental health care* in public hospitals ranged from 0.6% in the Northern Territory to 3.2% in South Australia. Among jurisdictions whose private hospital data could be reported, the proportion of separations for *Mental health care* ranged from 0.6% in South Australia to 5.9% in Queensland.

Patient days

In 2016–17, for the public and private sectors combined, *Acute care* accounted for 70% of patient days, *Mental health care* accounted for 12% and *Rehabilitation care* (the largest component of subacute and non-acute care) accounted for 9% (Table 4.8).

Public hospitals accounted for 67% of patient days for *Acute care*, 77% of patient days for *Mental health care*, and 50% 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 14.3 days in public hospitals, and 3.9 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 mental health care in the admitted patient setting is available in the AIHW report *Mental health services in Australia* (AIHW 2018).

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, 2016–17

| Care type | NSW | Vic ^(a) | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|--------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Public hospitals | | | | | | | | | |
| Acute care | 1,771,501 | 1,683,711 | 1,303,219 | 617,985 | 407,288 | 116,649 | 107,112 | 155,797 | 6,163,262 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 38,910 | 17,940 | 23,484 | 6,320 | 4,664 | 1,102 | 2,324 | 297 | 95,041 |
| Palliative care | 14,986 | 7,595 | 8,438 | 2,527 | 1,834 | 704 | 827 | 404 | 37,315 |
| Geriatric evaluation and management | 6,050 | 19,798 | 4,616 | 2,445 | 1,862 | 3 | 444 | 94 | 35,312 |
| Psychogeriatric care | 531 | 0 | 159 | 498 | 8 | 6 | 17 | 0 | 1,219 |
| Maintenance care | 11,902 | 701 | 7,441 | 2,606 | 3,039 | 1,235 | 1,022 | 190 | 28,136 |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 34,831 | 12,378 | 9,443 | 4,346 | 3,137 | 862 | 1,313 | 1,044 | 67,354 |
| Newborn–qualified and unqualified days | 3,998 | 3,455 | 2,487 | 1,783 | 1,281 | 82 | 223 | 34 | 13,343 |
| Newborn–unqualified days only | 41,765 | 49,780 | 36,854 | 21,437 | 12,334 | 3,758 | 4,109 | 3,036 | 173,073 |
| <i>Total newborn care</i> | <i>80,594</i> | <i>65,613</i> | <i>48,784</i> | <i>27,566</i> | <i>16,752</i> | <i>4,702</i> | <i>5,645</i> | <i>4,114</i> | <i>253,770</i> |
| Mental health care | 48,839 | 26,870 | 35,270 | 14,100 | 14,424 | 3,762 | 2,139 | 950 | 146,354 |
| <i>Total^(b)</i> | <i>1,973,317</i> | <i>1,822,228</i> | <i>1,431,411</i> | <i>674,047</i> | <i>449,871</i> | <i>128,170</i> | <i>119,530</i> | <i>161,847</i> | <i>6,760,421</i> |
| Private hospitals | | | | | | | | | |
| Acute care | 990,412 | 968,246 | 969,010 | 493,037 | 290,588 | n.p. | n.p. | n.p. | 3,850,352 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 221,843 | 25,416 | 62,082 | 4,489 | 25,547 | n.p. | n.p. | n.p. | 349,934 |
| Palliative care | 417 | 839 | 2,234 | 1,980 | 385 | n.p. | n.p. | n.p. | 6,169 |
| Geriatric evaluation and management | 0 | 0 | 58 | 35 | 5 | n.p. | n.p. | n.p. | 142 |
| Psychogeriatric care | 2 | 8,321 | 4 | 50 | 0 | n.p. | n.p. | n.p. | 8,377 |
| Maintenance care ^(c) | 16,209 | 123 | 1,061 | 96 | 2 | n.p. | n.p. | n.p. | 17,522 |

(continued)

Table 4.7 (continued): Separations, by care type, public and private hospitals, states and territories, 2016–17

| Care type | NSW | Vic ^(a) | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|--------------------|------------------|------------------|----------------|-------------|-------------|-------------|-------------------|
| Private hospitals (continued) | | | | | | | | | |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 1,967 | 2,906 | 1,717 | 1,125 | 798 | n.p. | n.p. | n.p. | 8,552 |
| Newborn–qualified and unqualified days | 2,510 | 252 | 562 | 506 | 0 | n.p. | n.p. | n.p. | 3,962 |
| Newborn–unqualified days only | 18,124 | 1,928 | 13,277 | 8,186 | 674 | n.p. | n.p. | n.p. | 45,605 |
| <i>Total newborn care</i> | <i>22,601</i> | <i>5,086</i> | <i>15,556</i> | <i>9,817</i> | <i>1,472</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>58,119</i> |
| Mental health care | 59,356 | 38,547 | 65,945 | 5,820 | 2,003 | n.p. | n.p. | n.p. | 180,007 |
| Total^(b) | 1,310,840 | 1,046,578 | 1,115,950 | 515,324 | 320,002 | n.p. | n.p. | n.p. | 4,472,072 |
| All hospitals | | | | | | | | | |
| Acute care | 2,761,913 | 2,651,957 | 2,272,229 | 1,111,022 | 697,876 | n.p. | n.p. | n.p. | 10,013,614 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 260,753 | 43,356 | 85,566 | 10,809 | 30,211 | n.p. | n.p. | n.p. | 444,975 |
| Palliative care | 15,403 | 8,434 | 10,672 | 4,507 | 2,219 | n.p. | n.p. | n.p. | 43,484 |
| Geriatric evaluation and management | 6,050 | 19,798 | 4,674 | 2,480 | 1,867 | n.p. | n.p. | n.p. | 35,454 |
| Psychogeriatric care | 533 | 8,321 | 163 | 548 | 8 | n.p. | n.p. | n.p. | 9,596 |
| Maintenance care ^(c) | 28,111 | 824 | 8,502 | 2,702 | 3,041 | n.p. | n.p. | n.p. | 45,658 |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 36,798 | 15,284 | 11,160 | 5,471 | 3,935 | n.p. | n.p. | n.p. | 75,906 |
| Newborn–qualified and unqualified days | 6,508 | 3,707 | 3,049 | 2,289 | 1,281 | n.p. | n.p. | n.p. | 17,305 |
| Newborn–unqualified days only | 59,889 | 51,708 | 50,131 | 29,623 | 13,008 | n.p. | n.p. | n.p. | 218,678 |
| <i>Total newborn care</i> | <i>103,195</i> | <i>70,699</i> | <i>64,340</i> | <i>37,383</i> | <i>18,224</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>311,889</i> |
| Mental health care | 108,195 | 65,417 | 101,215 | 19,920 | 16,427 | n.p. | n.p. | n.p. | 326,361 |
| Total^(b) | 3,284,158 | 2,868,806 | 2,547,361 | 1,189,371 | 769,873 | n.p. | n.p. | n.p. | 11,232,493 |

(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*.

(c) New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute care* is likely to be underestimated.

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, 2016–17

| Care type | NSW | Vic ^(a) | Qld | WA | SA | Tas | ACT | NT | Total |
|-------------------------------------|------------------|--------------------|------------------|------------------|------------------|----------------|----------------|----------------|-------------------|
| Public hospitals | | | | | | | | | |
| Acute care | 4,902,116 | 3,714,570 | 2,721,851 | 1,346,610 | 1,081,837 | 307,966 | 266,057 | 300,753 | 14,641,761 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 497,447 | 355,562 | 244,324 | 122,026 | 88,624 | 24,635 | 22,984 | 8,750 | 1,364,352 |
| Palliative care | 144,266 | 85,366 | 67,621 | 20,840 | 16,847 | 5,901 | 7,667 | 3,943 | 352,451 |
| Geriatric evaluation and management | 69,068 | 420,872 | 72,306 | 35,548 | 32,137 | 14 | 3,589 | 1,669 | 635,203 |
| Psychogeriatric care | 12,180 | 0 | 3,951 | 18,365 | 61 | 335 | 445 | 0 | 35,337 |
| Maintenance care | 195,367 | 12,311 | 167,732 | 79,356 | 81,724 | 16,403 | 18,137 | 9,402 | 580,467 |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 165,343 | 116,697 | 86,146 | 44,631 | 34,393 | 10,769 | 11,905 | 8,393 | 478,379 |
| Newborn (mixed)–qualified days | 11,808 | 18,971 | 6,023 | 4,118 | 2,896 | 598 | 783 | 466 | 45,663 |
| Newborn (mixed)–unqualified days | 7,262 | 8,910 | 4,381 | 3,838 | 2,399 | 227 | 288 | 45 | 27,350 |
| Newborn–unqualified days only | 98,636 | 113,186 | 68,819 | 45,118 | 24,000 | 8,285 | 7,658 | 7,155 | 372,755 |
| Mental health care | 1,594,219 | 439,558 | 505,760 | 193,191 | 167,665 | 42,676 | 27,997 | 13,203 | 2,984,269 |
| <i>Total^(b)</i> | <i>7,697,716</i> | <i>5,286,003</i> | <i>3,948,914</i> | <i>1,913,641</i> | <i>1,532,583</i> | <i>417,983</i> | <i>367,510</i> | <i>353,780</i> | <i>21,518,166</i> |
| Private hospitals | | | | | | | | | |
| Acute care | 1,863,468 | 1,926,735 | 1,906,358 | 825,103 | 526,819 | n.p. | n.p. | n.p. | 7,328,380 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 636,197 | 329,544 | 234,976 | 64,214 | 73,075 | n.p. | n.p. | n.p. | 1,376,383 |
| Palliative care | 5,430 | 8,713 | 31,965 | 22,588 | 6,159 | n.p. | n.p. | n.p. | 78,704 |
| Geriatric evaluation and management | 0 | 0 | 1,711 | 1,444 | 35 | n.p. | n.p. | n.p. | 3,769 |
| Psychogeriatric care | 2 | 37,612 | 21 | 3,711 | 0 | n.p. | n.p. | n.p. | 41,346 |
| Maintenance care ^(c) | 21,424 | 1,028 | 25,249 | 2,485 | 368 | n.p. | n.p. | n.p. | 50,585 |

(continued)

Table 4.8 (continued): Patient days, by care type, public and private hospitals, states and territories, 2016–17

| Care type | NSW | Vic ^(a) | Qld | WA | SA | Tas | ACT | NT | Total |
|--------------------------------------|-------------------|--------------------|------------------|------------------|------------------|-------------|-------------|-------------|-------------------|
| Private hospitals (continued) | | | | | | | | | |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 15,870 | 19,896 | 20,408 | 7,405 | 6,311 | n.p. | n.p. | n.p. | 70,084 |
| Newborn (mixed)–qualified days | 5,121 | 618 | 1,270 | 1,704 | 0 | n.p. | n.p. | n.p. | 9,571 |
| Newborn (mixed)–unqualified days | 8,029 | 634 | 1,569 | 1,369 | 0 | n.p. | n.p. | n.p. | 12,411 |
| Newborn–unqualified days only | 77,730 | 7,880 | 52,018 | 31,261 | 2,835 | n.p. | n.p. | n.p. | 185,590 |
| Mental health care | 281,711 | 217,677 | 278,577 | 84,556 | 24,932 | n.p. | n.p. | n.p. | 912,515 |
| Total^(b) | 2,914,982 | 2,550,337 | 2,554,122 | 1,045,840 | 640,534 | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | 10,070,964 |
| All hospitals | | | | | | | | | |
| Acute care | 6,765,584 | 5,641,305 | 4,628,209 | 2,171,713 | 1,608,656 | n.p. | n.p. | n.p. | 21,970,141 |
| <i>Subacute and non-acute care</i> | | | | | | | | | |
| Rehabilitation care | 1,133,644 | 685,106 | 479,300 | 186,240 | 161,699 | n.p. | n.p. | n.p. | 2,740,735 |
| Palliative care | 149,696 | 94,079 | 99,586 | 43,428 | 23,006 | n.p. | n.p. | n.p. | 431,155 |
| Geriatric evaluation and management | 69,068 | 420,872 | 74,017 | 36,992 | 32,172 | n.p. | n.p. | n.p. | 638,972 |
| Psychogeriatric care | 12,182 | 37,612 | 3,972 | 22,076 | 61 | n.p. | n.p. | n.p. | 76,683 |
| Maintenance care ^(c) | 216,791 | 13,339 | 192,981 | 81,841 | 82,092 | n.p. | n.p. | n.p. | 631,052 |
| <i>Newborn care</i> | | | | | | | | | |
| Newborn–qualified days only | 181,213 | 136,593 | 106,554 | 52,036 | 40,704 | n.p. | n.p. | n.p. | 548,463 |
| Newborn (mixed)–qualified days | 16,929 | 19,589 | 7,293 | 5,822 | 2,896 | n.p. | n.p. | n.p. | 55,234 |
| Newborn (mixed)–unqualified days | 15,291 | 9,544 | 5,950 | 5,207 | 2,399 | n.p. | n.p. | n.p. | 39,761 |
| Newborn–unqualified days only | 176,366 | 121,066 | 120,837 | 76,379 | 26,835 | n.p. | n.p. | n.p. | 558,345 |
| Mental health care | 1,875,930 | 657,235 | 784,337 | 277,747 | 192,597 | n.p. | n.p. | n.p. | 3,896,784 |
| Total^(b) | 10,612,698 | 7,836,340 | 6,503,036 | 2,959,481 | 2,173,117 | n.p. | n.p. | n.p. | 31,589,130 |

(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*.

(c) New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute* care is likely to be underestimated.

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 2016–17.

ICD-10-AM disease chapters

In 2016–17, over one-quarter (24%, 2.6 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, 84% of separations for both *Certain infectious and parasitic diseases* and *Certain conditions originating in the perinatal period* 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*, 72% of separations were from private hospitals.

Aboriginal and Torres Strait Islander people

In 2016–17, 49% of separations for Indigenous Australians 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 76% 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. It accounted for 7.1% of separations for other Australians.

Separation rates for Indigenous Australians were almost 7 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 4.9: Separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|-------------------|
| A00–B99 | Certain infectious and parasitic diseases | 156,835 | 29,199 | 186,034 |
| C00–D48 | Neoplasms | 313,265 | 370,818 | 684,083 |
| D50–D89 | Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 120,424 | 70,151 | 190,575 |
| E00–E89 | Endocrine, nutritional and metabolic diseases | 111,432 | 72,661 | 184,093 |
| F00–F99 | Mental and behavioural disorders | 242,751 | 213,320 | 456,071 |
| G00–G99 | Diseases of the nervous system | 190,144 | 140,570 | 330,714 |
| H00–H59 | Diseases of the eye and adnexa | 114,448 | 295,736 | 410,184 |
| H60–H95 | Diseases of the ear and mastoid process | 39,905 | 32,057 | 71,962 |
| I00–I99 | Diseases of the circulatory system | 384,637 | 191,879 | 576,516 |
| J00–J99 | Diseases of the respiratory system | 385,599 | 113,254 | 498,853 |
| K00–K93 | Diseases of the digestive system | 504,712 | 555,296 | 1,060,008 |
| L00–L99 | Diseases of the skin and subcutaneous tissue | 130,931 | 51,189 | 182,120 |
| M00–M99 | Diseases of the musculoskeletal system and connective tissue | 241,892 | 531,407 | 773,299 |
| N00–N99 | Diseases of the genitourinary system | 290,103 | 208,532 | 498,635 |
| O00–O99 | Pregnancy, childbirth and the puerperium | 369,268 | 130,140 | 499,408 |
| P00–P96 | Certain conditions originating in the perinatal period | 59,268 | 10,986 | 70,254 |
| Q00–Q99 | Congenital malformations, deformations and chromosomal abnormalities | 28,195 | 11,820 | 40,015 |
| R00–R99 | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 605,249 | 298,511 | 903,760 |
| S00–T98 | Injury, poisoning and certain other consequences of external causes | 613,581 | 169,399 | 782,980 |
| Z00–Z99 | Factors influencing health status and contact with health services | 1,684,510 | 929,523 | 2,614,033 |
| | Not reported | 199 | 19 | 218 |
| Total | | 6,587,348 | 4,426,467 | 11,013,815 |

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

Table 4.10: Separations by principal diagnosis in ICD-10-AM chapters, by Indigenous status, all hospitals, 2016–17

| 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 | 8,795 | 13.8 | 177,239 | 7.1 | 186,034 | 7.2 |
| C00–D48 | Neoplasms | 7,931 | 18.8 | 676,152 | 25.0 | 684,083 | 24.9 |
| D50–D89 | Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 3,675 | 7.8 | 186,900 | 7.1 | 190,575 | 7.2 |
| E00–E89 | Endocrine, nutritional and metabolic diseases | 8,874 | 17.3 | 175,219 | 7.0 | 184,093 | 7.2 |
| F00–F99 | Mental and behavioural disorders | 21,167 | 33.7 | 434,904 | 18.1 | 456,071 | 18.6 |
| G00–G99 | Diseases of the nervous system | 7,564 | 13.0 | 323,150 | 12.8 | 330,714 | 12.9 |
| H00–H59 | Diseases of the eye and adnexa | 4,280 | 11.9 | 405,904 | 14.4 | 410,184 | 14.4 |
| H60–H95 | Diseases of the ear and mastoid process | 3,455 | 4.0 | 68,507 | 2.9 | 71,962 | 2.9 |
| I00–I99 | Diseases of the circulatory system | 14,789 | 35.2 | 561,727 | 20.3 | 576,516 | 20.6 |
| J00–J99 | Diseases of the respiratory system | 27,567 | 45.9 | 471,286 | 18.7 | 498,853 | 19.3 |
| K00–K93 | Diseases of the digestive system | 24,996 | 43.7 | 1,035,012 | 41.5 | 1,060,008 | 41.5 |
| L00–L99 | Diseases of the skin and subcutaneous tissue | 11,167 | 17.3 | 170,953 | 6.9 | 182,120 | 7.2 |
| M00–M99 | Diseases of the musculoskeletal system and connective tissue | 11,713 | 23.9 | 761,586 | 28.7 | 773,299 | 28.7 |
| N00–N99 | Diseases of the genitourinary system | 13,493 | 24.8 | 485,142 | 19.5 | 498,635 | 19.6 |
| O00–O99 | Pregnancy, childbirth and the puerperium | 26,253 | 31.3 | 473,155 | 20.8 | 499,408 | 21.3 |
| P00–P96 | Certain conditions originating in the perinatal period | 5,129 | 3.8 | 65,125 | 2.9 | 70,254 | 2.9 |
| Q00–Q99 | Congenital malformations, deformations and chromosomal abnormalities | 1,700 | 1.5 | 38,315 | 1.7 | 40,015 | 1.7 |
| R00–R99 | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 27,813 | 51.2 | 875,947 | 34.2 | 903,760 | 34.6 |
| S00–T98 | Injury, poisoning and certain other consequences of external causes | 35,649 | 55.4 | 747,331 | 29.9 | 782,980 | 30.7 |
| Z00–Z99 | Factors influencing health status and contact with health services | 255,903 | 590.0 | 2,358,130 | 88.5 | 2,614,033 | 96.9 |
| | Not reported | 23 | 0.0 | 195 | 0.0 | 218 | 0.0 |
| Total | | 521,936 | 1,044.0 | 10,491,879 | 408.0 | 11,013,815 | 420.0 |

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

Same-day acute separations

In 2016–17, 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, 64% of same-day acute separations for *Factors influencing health status and contact with health services* were from public hospitals, while 74% 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 34% of same-day acute separations in public hospitals (Table 4.13).

Between 2012–13 and 2016–17, separations involving dialysis (*Haemodialysis*) rose by 3.0% 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 *Pain in throat and chest* (91%) and *Care involving dialysis* (82%) (Table 4.13).

Private hospitals provided a large majority of same-day acute separations for *Procreative management* (95%), *Other retinal disorders* (93%), *Embedded and impacted teeth* (91%) and *Benign neoplasm of colon, rectum, anus and anal canal* (79%). The principal diagnoses of *Other cataract* (69%) and *Other medical care* (which includes chemotherapy, 56%) also contributed to high counts of private hospital same-day acute separations.

Overnight acute separations

Overall, over half of all overnight acute separations in 2016–17 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*, 59% 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, 2016–17

| Principal diagnosis | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|------------------|----------------|----------------|----------------|---------------|---------------|----------------|------------------|
| A00–B99 Certain infectious and parasitic diseases | 10,669 | 12,799 | 13,374 | 3,231 | 2,583 | 770 | 920 | 846 | 45,192 |
| C00–D48 Neoplasms | 33,920 | 48,924 | 32,117 | 16,190 | 10,605 | 3,905 | 1,336 | 1,243 | 148,240 |
| D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 16,705 | 35,824 | 19,486 | 10,186 | 3,905 | 1,082 | 1,072 | 656 | 88,916 |
| E00–E89 Endocrine, nutritional and metabolic diseases | 8,562 | 17,839 | 8,876 | 6,524 | 1,895 | 967 | 716 | 1,481 | 46,860 |
| F00–F99 Mental and behavioural disorders | 8,560 | 12,693 | 7,916 | 2,665 | 2,440 | 332 | 603 | 1,468 | 36,677 |
| G00–G99 Diseases of the nervous system | 18,989 | 36,012 | 21,112 | 7,190 | 5,360 | 2,268 | 1,722 | 770 | 93,423 |
| H00–H59 Diseases of the eye and adnexa | 27,255 | 31,591 | 14,113 | 13,536 | 8,097 | 3,015 | 1,469 | 1,164 | 100,240 |
| H60–H95 Diseases of the ear and mastoid process | 4,525 | 5,607 | 7,996 | 1,703 | 1,606 | 302 | 365 | 393 | 22,497 |
| I00–I99 Diseases of the circulatory system | 24,287 | 24,373 | 20,014 | 7,413 | 6,876 | 1,607 | 1,888 | 876 | 87,334 |
| J00–J99 Diseases of the respiratory system | 18,629 | 23,158 | 26,413 | 3,983 | 5,048 | 1,463 | 1,040 | 1,467 | 81,201 |
| K00–K93 Diseases of the digestive system | 58,899 | 69,889 | 44,398 | 23,666 | 11,866 | 5,554 | 4,425 | 3,559 | 222,256 |
| L00–L99 Diseases of the skin and subcutaneous tissue | 9,718 | 10,603 | 10,362 | 3,931 | 4,270 | 1,386 | 572 | 796 | 41,638 |
| M00–M99 Diseases of the musculoskeletal system and connective tissue | 20,927 | 27,839 | 19,528 | 6,847 | 6,615 | 2,088 | 2,768 | 1,289 | 87,901 |
| N00–N99 Diseases of the genitourinary system | 36,494 | 41,759 | 31,841 | 11,573 | 8,864 | 2,622 | 2,193 | 1,488 | 136,834 |
| O00–O99 Pregnancy, childbirth and the puerperium | 22,900 | 16,569 | 29,710 | 6,013 | 7,365 | 1,004 | 1,390 | 2,666 | 87,617 |
| P00–P96 Certain conditions originating in the perinatal period | 909 | 772 | 725 | 230 | 140 | 26 | 57 | 74 | 2,933 |
| Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities | 4,050 | 3,891 | 2,670 | 1,297 | 925 | 317 | 245 | 98 | 13,493 |
| R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 80,093 | 102,103 | 76,095 | 28,109 | 17,567 | 4,819 | 6,557 | 3,886 | 319,229 |
| S00–T98 Injury, poisoning and certain other consequences of external causes | 59,518 | 54,677 | 57,893 | 15,109 | 14,188 | 3,148 | 5,717 | 4,713 | 214,963 |
| Z00–Z99 Factors influencing health status and contact with health services | 399,322 | 456,856 | 316,842 | 188,818 | 84,291 | 26,047 | 24,429 | 82,996 | 1,579,601 |
| Not reported | 39 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 40 |
| Total | 864,970 | 1,033,778 | 761,481 | 358,214 | 204,506 | 62,722 | 59,485 | 111,929 | 3,457,085 |

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, 2016–17

| Principal diagnosis | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|------------------|
| A00–B99 Certain infectious and parasitic diseases | 3,837 | 2,676 | 3,275 | 1,464 | 996 | n.p. | n.p. | n.p. | 12,782 |
| C00–D48 Neoplasms | 64,992 | 57,351 | 67,871 | 26,797 | 23,171 | n.p. | n.p. | n.p. | 248,214 |
| D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 11,193 | 13,369 | 25,452 | 3,635 | 4,540 | n.p. | n.p. | n.p. | 59,825 |
| E00–E89 Endocrine, nutritional and metabolic diseases | 6,288 | 8,703 | 9,999 | 4,816 | 2,053 | n.p. | n.p. | n.p. | 32,792 |
| F00–F99 Mental and behavioural disorders | 13,772 | 1,964 | 927 | 32 | 32 | n.p. | n.p. | n.p. | 18,949 |
| G00–G99 Diseases of the nervous system | 11,607 | 10,299 | 15,124 | 6,049 | 2,759 | n.p. | n.p. | n.p. | 47,013 |
| H00–H59 Diseases of the eye and adnexa | 91,399 | 53,984 | 69,784 | 31,525 | 20,570 | n.p. | n.p. | n.p. | 285,435 |
| H60–H95 Diseases of the ear and mastoid process | 7,221 | 6,090 | 4,215 | 2,859 | 2,417 | n.p. | n.p. | n.p. | 24,048 |
| I00–I99 Diseases of the circulatory system | 16,669 | 8,730 | 8,406 | 5,327 | 3,184 | n.p. | n.p. | n.p. | 45,820 |
| J00–J99 Diseases of the respiratory system | 8,187 | 4,957 | 6,457 | 1,388 | 1,508 | n.p. | n.p. | n.p. | 23,160 |
| K00–K93 Diseases of the digestive system | 119,041 | 132,067 | 95,821 | 40,708 | 31,427 | n.p. | n.p. | n.p. | 433,618 |
| L00–L99 Diseases of the skin and subcutaneous tissue | 7,685 | 8,297 | 6,475 | 3,613 | 4,332 | n.p. | n.p. | n.p. | 31,582 |
| M00–M99 Diseases of the musculoskeletal system and connective tissue | 38,068 | 31,851 | 30,153 | 19,614 | 14,200 | n.p. | n.p. | n.p. | 139,364 |
| N00–N99 Diseases of the genitourinary system | 39,601 | 31,605 | 24,478 | 12,941 | 6,897 | n.p. | n.p. | n.p. | 120,304 |
| O00–O99 Pregnancy, childbirth and the puerperium | 9,920 | 16,195 | 13,179 | 7,068 | 794 | n.p. | n.p. | n.p. | 48,018 |
| P00–P96 Certain conditions originating in the perinatal period | 94 | 153 | 41 | 91 | 23 | n.p. | n.p. | n.p. | 416 |
| Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities | 1,969 | 1,711 | 1,410 | 987 | 534 | n.p. | n.p. | n.p. | 6,822 |
| R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 56,573 | 57,934 | 40,681 | 23,361 | 10,975 | n.p. | n.p. | n.p. | 196,113 |
| S00–T98 Injury, poisoning and certain other consequences of external causes | 9,935 | 8,875 | 7,471 | 4,436 | 4,964 | n.p. | n.p. | n.p. | 37,304 |
| Z00–Z99 Factors influencing health status and contact with health services | 197,462 | 207,119 | 241,437 | 161,475 | 69,444 | n.p. | n.p. | n.p. | 894,914 |
| Not reported | 1 | 0 | 0 | 0 | 1 | n.p. | n.p. | n.p. | 13 |
| Total | 715,514 | 663,930 | 672,656 | 358,186 | 204,821 | n.p. | n.p. | n.p. | 2,706,506 |

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, 2016–17

| Principal diagnosis | | Public hospitals | Private free-standing day facilities | Other private hospitals | Total |
|---------------------|---|------------------|--------------------------------------|-------------------------|------------------|
| Z49 | Care involving dialysis | 1,161,757 | 146,921 | 114,104 | 1,422,782 |
| Z51 | Other medical care | 242,676 | 78,765 | 227,307 | 548,748 |
| H26 | Other cataract | 66,679 | 77,235 | 73,352 | 217,266 |
| R10 | Abdominal and pelvic pain | 65,214 | 23,534 | 38,732 | 127,480 |
| C44 | Other malignant neoplasms of skin | 26,997 | 31,243 | 39,411 | 97,651 |
| R07 | Pain in throat and chest | 81,652 | 1,251 | 6,712 | 89,615 |
| D12 | Benign neoplasm of colon, rectum, anus and anal canal | 17,829 | 24,222 | 44,103 | 86,154 |
| R19 | Other symptoms and signs involving the digestive system and abdomen | 27,347 | 14,179 | 36,675 | 78,201 |
| Z45 | Adjustment and management of drug delivery or implanted device | 24,181 | 8,428 | 45,519 | 78,128 |
| Z09 | Follow-up examination after treatment for conditions other than malignant neoplasms | 24,236 | 17,343 | 35,307 | 76,886 |
| K01 | Embedded and impacted teeth | 6,776 | 17,028 | 48,407 | 72,211 |
| H35 | Other retinal disorders | 4,610 | 53,893 | 11,202 | 69,705 |
| Z31 | Procreative management | 3,762 | 40,880 | 23,545 | 68,187 |
| K21 | Gastro-oesophageal reflux disease | 16,655 | 17,329 | 31,911 | 65,895 |
| Z12 | Special screening examination for neoplasms | 12,421 | 18,370 | 28,678 | 59,469 |
| K92 | Other diseases of digestive system | 25,204 | 7,910 | 24,528 | 57,642 |
| Z08 | Follow-up examination after treatment for malignant neoplasms | 22,561 | 4,615 | 26,889 | 54,065 |
| D50 | Iron deficiency anaemia | 33,133 | 6,300 | 13,028 | 52,461 |
| M54 | Dorsalgia | 16,316 | 2,798 | 25,943 | 45,057 |
| M23 | Internal derangement of knee | 9,039 | 1,894 | 31,672 | 42,605 |
| K64 | Haemorrhoids and perianal venous thrombosis | 10,775 | 12,833 | 15,524 | 39,132 |
| | Other | 1,557,265 | 330,752 | 826,234 | 2,714,251 |
| Total | | 3,457,085 | 937,723 | 1,768,783 | 6,163,591 |

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

Most common principal diagnoses

The 20 most common principal diagnoses included several childbirth-related and heart-related conditions, as well as respiratory conditions.

The most common principal diagnosis (at the 3-character level) reported for overnight acute separations was *Single spontaneous delivery*, which accounted for 4.0% of overnight acute separations in public hospitals and 2.2% in private hospitals (Table 4.16). Private hospitals accounted for 72% 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, 2016–17

| Principal diagnosis | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|------------------|
| A00–B99 Certain infectious and parasitic diseases | 38,143 | 25,161 | 20,802 | 10,543 | 7,359 | 1,799 | 1,776 | 2,302 | 107,885 |
| C00–D48 Neoplasms | 41,717 | 41,551 | 27,487 | 12,561 | 10,862 | 2,892 | 2,423 | 1,087 | 140,580 |
| D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 10,960 | 7,564 | 5,752 | 2,535 | 2,712 | 592 | 457 | 282 | 30,854 |
| E00–E89 Endocrine, nutritional and metabolic diseases | 18,717 | 14,807 | 13,359 | 5,945 | 5,211 | 1,117 | 875 | 1,714 | 61,745 |
| F00–F99 Mental and behavioural disorders | 26,575 | 13,655 | 11,704 | 7,869 | 6,759 | 1,438 | 1,134 | 1,185 | 70,319 |
| G00–G99 Diseases of the nervous system | 24,250 | 25,937 | 16,266 | 6,919 | 4,619 | 2,085 | 1,131 | 887 | 82,094 |
| H00–H59 Diseases of the eye and adnexa | 5,242 | 3,265 | 2,685 | 1,531 | 761 | 151 | 260 | 176 | 14,071 |
| H60–H95 Diseases of the ear and mastoid process | 5,373 | 3,987 | 3,283 | 1,751 | 1,274 | 343 | 286 | 414 | 16,711 |
| I00–I99 Diseases of the circulatory system | 91,108 | 64,347 | 55,585 | 25,199 | 20,430 | 5,952 | 4,751 | 3,183 | 270,555 |
| J00–J99 Diseases of the respiratory system | 100,309 | 65,696 | 58,512 | 28,224 | 25,277 | 5,523 | 5,187 | 5,670 | 294,398 |
| K00–K93 Diseases of the digestive system | 93,508 | 67,413 | 54,894 | 27,707 | 19,566 | 5,685 | 5,186 | 3,549 | 277,508 |
| L00–L99 Diseases of the skin and subcutaneous tissue | 28,920 | 17,662 | 20,639 | 9,068 | 5,537 | 1,333 | 1,330 | 3,045 | 87,534 |
| M00–M99 Diseases of the musculoskeletal system and connective tissue | 44,232 | 34,014 | 25,012 | 14,060 | 8,892 | 3,029 | 2,273 | 1,575 | 133,087 |
| N00–N99 Diseases of the genitourinary system | 49,315 | 34,915 | 32,823 | 14,085 | 10,845 | 2,756 | 3,024 | 2,216 | 149,979 |
| O00–O99 Pregnancy, childbirth and the puerperium | 90,754 | 70,061 | 55,220 | 30,678 | 18,540 | 5,357 | 5,983 | 4,845 | 281,438 |
| P00–P96 Certain conditions originating in the perinatal period | 18,835 | 14,508 | 10,205 | 5,864 | 3,772 | 901 | 1,390 | 854 | 56,329 |
| Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities | 5,326 | 3,552 | 2,745 | 1,364 | 890 | 219 | 238 | 127 | 14,461 |
| R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 95,755 | 61,960 | 52,579 | 20,069 | 20,334 | 5,293 | 3,878 | 3,606 | 263,474 |
| S00–T98 Injury, poisoning and certain other consequences of external causes | 121,747 | 81,173 | 72,580 | 36,426 | 26,634 | 7,271 | 6,809 | 7,334 | 359,974 |
| Z00–Z99 Factors influencing health status and contact with health services | 34,479 | 14,538 | 11,536 | 3,502 | 6,926 | 1,132 | 763 | 894 | 73,770 |
| Not reported | 99 | 0 | 0 | 0 | 0 | 3 | 9 | 1 | 112 |
| Total | 945,364 | 665,766 | 553,668 | 265,900 | 207,200 | 54,871 | 49,163 | 44,946 | 2,786,878 |

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, 2016–17

| Principal diagnosis | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|----------------|----------------|----------------|---------------|-------------|-------------|-------------|------------------|
| A00–B99 Certain infectious and parasitic diseases | 2,166 | 4,799 | 5,323 | 1,513 | 799 | n.p. | n.p. | n.p. | 15,092 |
| C00–D48 Neoplasms | 28,197 | 29,780 | 26,486 | 11,976 | 8,353 | n.p. | n.p. | n.p. | 109,012 |
| D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 1,753 | 2,977 | 2,853 | 1,081 | 892 | n.p. | n.p. | n.p. | 9,863 |
| E00–E89 Endocrine, nutritional and metabolic diseases | 9,737 | 7,903 | 11,002 | 5,718 | 2,138 | n.p. | n.p. | n.p. | 37,712 |
| F00–F99 Mental and behavioural disorders | 2,404 | 1,691 | 1,381 | 547 | 164 | n.p. | n.p. | n.p. | 6,796 |
| G00–G99 Diseases of the nervous system | 16,870 | 19,350 | 20,089 | 8,651 | 4,649 | n.p. | n.p. | n.p. | 72,657 |
| H00–H59 Diseases of the eye and adnexa | 2,517 | 1,590 | 1,493 | 2,018 | 700 | n.p. | n.p. | n.p. | 8,661 |
| H60–H95 Diseases of the ear and mastoid process | 2,097 | 1,551 | 1,821 | 901 | 686 | n.p. | n.p. | n.p. | 7,358 |
| I00–I99 Diseases of the circulatory system | 26,844 | 32,578 | 30,821 | 12,545 | 7,825 | n.p. | n.p. | n.p. | 114,250 |
| J00–J99 Diseases of the respiratory system | 19,238 | 20,851 | 23,375 | 8,775 | 6,314 | n.p. | n.p. | n.p. | 82,039 |
| K00–K93 Diseases of the digestive system | 25,720 | 30,495 | 31,180 | 12,676 | 8,906 | n.p. | n.p. | n.p. | 114,551 |
| L00–L99 Diseases of the skin and subcutaneous tissue | 3,468 | 4,692 | 5,825 | 1,827 | 1,175 | n.p. | n.p. | n.p. | 17,914 |
| M00–M99 Diseases of the musculoskeletal system and connective tissue | 48,090 | 49,822 | 41,435 | 26,336 | 16,879 | n.p. | n.p. | n.p. | 191,540 |
| N00–N99 Diseases of the genitourinary system | 21,494 | 22,175 | 21,831 | 9,568 | 7,044 | n.p. | n.p. | n.p. | 86,175 |
| O00–O99 Pregnancy, childbirth and the puerperium | 24,560 | 20,472 | 17,780 | 10,678 | 4,402 | n.p. | n.p. | n.p. | 82,091 |
| P00–P96 Certain conditions originating in the perinatal period | 3,245 | 2,702 | 2,166 | 1,516 | 740 | n.p. | n.p. | n.p. | 10,566 |
| Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities | 1,100 | 1,117 | 898 | 515 | 334 | n.p. | n.p. | n.p. | 4,105 |
| R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 12,646 | 23,614 | 22,404 | 6,040 | 5,367 | n.p. | n.p. | n.p. | 72,729 |
| S00–T98 Injury, poisoning and certain other consequences of external causes | 17,258 | 22,114 | 24,165 | 10,457 | 7,257 | n.p. | n.p. | n.p. | 84,621 |
| Z00–Z99 Factors influencing health status and contact with health services | 9,971 | 7,201 | 6,305 | 3,144 | 1,939 | n.p. | n.p. | n.p. | 30,073 |
| Not reported | 0 | 0 | 0 | 0 | 2 | n.p. | n.p. | n.p. | 5 |
| Total | 279,375 | 307,474 | 298,633 | 136,482 | 86,565 | n.p. | n.p. | n.p. | 1,157,810 |

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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|------------------|
| O80 | Single spontaneous delivery | 111,900 | 25,357 | 137,257 |
| O82 | Single delivery by caesarean section | 64,534 | 32,523 | 97,057 |
| G47 | Sleep disorders | 21,524 | 56,108 | 77,632 |
| J18 | Pneumonia, organism unspecified | 55,891 | 10,491 | 66,382 |
| R07 | Pain in throat and chest | 53,373 | 11,747 | 65,120 |
| J44 | Other chronic obstructive pulmonary disease | 56,268 | 8,296 | 64,564 |
| K80 | Cholelithiasis | 38,867 | 18,701 | 57,568 |
| M17 | Gonarthrosis [arthrosis of knee] | 19,057 | 38,312 | 57,369 |
| L03 | Cellulitis | 47,688 | 8,043 | 55,731 |
| R10 | Abdominal and pelvic pain | 43,605 | 10,103 | 53,708 |
| I50 | Heart failure | 41,647 | 11,760 | 53,407 |
| I21 | Acute myocardial infarction | 39,328 | 6,966 | 46,294 |
| I48 | Atrial fibrillation and flutter | 27,989 | 15,734 | 43,723 |
| N39 | Other disorders of urinary system | 32,976 | 10,075 | 43,051 |
| O81 | Single delivery by forceps and vacuum extractor | 26,989 | 10,871 | 37,860 |
| A41 | Other sepsis | 32,121 | 4,313 | 36,434 |
| K40 | Inguinal hernia | 15,379 | 20,550 | 35,929 |
| T81 | Complications of procedures, not elsewhere classified | 26,025 | 9,024 | 35,049 |
| M16 | Coxarthrosis [arthrosis of hip] | 11,620 | 22,379 | 33,999 |
| I25 | Chronic ischaemic heart disease | 13,265 | 20,633 | 33,898 |
| K35 | Acute appendicitis | 28,379 | 4,870 | 33,249 |
| | Other | 1,978,453 | 800,954 | 2,779,407 |
| Total | | 2,786,878 | 1,157,810 | 3,944,688 |

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, palliative care and mental health 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 Performance indicator: Hospitalisation for injury and poisoning

'Hospitalisation for injury and poisoning' is presented as an indicator of *Health condition* under the *Health Status* domain in the AHPF.

This section presents information for 2016–17 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 2016–17

In 2016–17, 783,000 separations (31 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).

Over 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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---|--|------------------|-------------------|----------------|
| S00–S19 | Injuries to head and neck | 117,091 | 11,532 | 128,623 |
| S20–S39 | Injuries to thorax, abdomen, back, spine and pelvis | 64,958 | 15,443 | 80,401 |
| S40–S99 | Injuries to upper and lower limbs | 263,084 | 91,008 | 354,092 |
| T00–T19 | Injuries to multi- or unspecified region; foreign body effects | 10,440 | 1,181 | 11,621 |
| T20–T35 | Burns and frostbite | 8,440 | 300 | 8,740 |
| T36–T65 | Poisoning and toxic effects | 45,954 | 524 | 46,478 |
| T66–T79 | Other and unspecified effects of external causes | 17,789 | 954 | 18,743 |
| T80–T88 | Complications of medical and surgical care | 85,823 | 48,456 | 134,279 |
| T89–T98 | Other trauma complications; external cause sequelae | 2 | 1 | 3 |
| Total | | 613,581 | 169,399 | 782,980 |
| Separations per 1,000 population | | 24.1 | 6.4 | 30.5 |

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 (55 per 1,000 and 30 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, 2016–17

| 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 & neck | 8,590 | 12.9 | 120,033 | 4.9 | 128,623 | 5.1 |
| S20–S39 Injuries to thorax, abdomen, back, spine & pelvis | 2,828 | 4.9 | 77,573 | 3.0 | 80,401 | 3.0 |
| S40–S99 Injuries to upper and lower limbs | 13,900 | 20.8 | 340,192 | 13.6 | 354,092 | 13.9 |
| T00–T19 Injuries to multi- or unspecified region; foreign body effects | 603 | 0.8 | 11,018 | 0.5 | 11,621 | 0.5 |
| T20–T35 Burns and frostbite | 720 | 0.9 | 8,020 | 0.3 | 8,740 | 0.4 |
| T36–T65 Poisoning and toxic effects | 3,340 | 4.7 | 43,138 | 1.9 | 46,478 | 2.0 |
| T66–T79 Other and unspecified effects of external causes | 911 | 1.3 | 17,832 | 0.7 | 18,743 | 0.8 |
| T80–T88 Complications of medical and surgical care | 4,756 | 9.2 | 129,523 | 5.0 | 134,279 | 5.1 |
| T89–T98 Other trauma complications; external cause sequelae | 1 | 0.0 | 2 | 0.0 | 3 | 0.0 |
| Total | 35,649 | 55.4 | 747,331 | 29.9 | 782,980 | 30.7 |

(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.

In addition, for 2016–17, external causes were not reported for about 80% of separations (45,000) with a principal diagnosis of an injury or poisoning in private hospitals in New South Wales. These 45,000 separations accounted for about 27% of all private hospital separations with a principal diagnosis of an injury or poisoning, and 6% of separations with a principal diagnosis of an injury or poisoning in public and private hospitals combined.

The ICD-10-AM subchapter groups *Falls* (35%, 273,000 separations) and *Complications of medical and surgical care* (17%, 130,000 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, Legal intervention and operations of war, Accidental drowning and submersion, and Exposure to smoke, fire, flames, hot substances* than private hospitals.

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, 2016–17

| External cause | | Public hospitals | Private hospitals | Total |
|----------------|--|------------------|-------------------|----------------|
| V01–V99 | Transport accidents | 66,301 | 6,226 | 72,527 |
| W00–W19 | Falls | 233,320 | 39,839 | 273,159 |
| W20–W64 | Exposure to mechanical forces | 94,416 | 9,767 | 104,183 |
| W65–W74 | Accidental drowning and submersion | 641 | 13 | 654 |
| W75–W84 | Other accidental threats to breathing | 849 | 44 | 893 |
| W85–W99 | Exposure to electricity, radiation, extreme temperature/pressure | 826 | 36 | 862 |
| X00–X19 | Exposure to smoke, fire, flames, hot substances | 6,721 | 159 | 6,880 |
| X20–X39 | Exposure to venomous plants, animals, forces of nature | 4,462 | 138 | 4,600 |
| X40–X49 | Accidental poisoning | 11,585 | 228 | 11,813 |
| X50–X59 | Other external causes of accidental injury | 36,853 | 30,218 | 67,071 |
| X60–X84 | Intentional self-harm | 34,710 | 143 | 34,853 |
| X85–Y09 | Assault | 23,178 | 279 | 23,457 |
| Y10–Y34 | Events of undetermined intent | 5,046 | 167 | 5,213 |
| Y35–Y36 | Legal intervention and operations of war | 121 | 2 | 123 |
| Y40–Y84 | Complications of medical and surgical care | 93,447 | 36,656 | 130,103 |
| Y85–Y98 | Sequelae and supplementary factors | 414 | 80 | 494 |
| | Not reported | 691 | 45,404 | 46,095 |
| Total | | 613,581 | 169,399 | 782,980 |

(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.

Aboriginal and Torres Strait Islander people

For Indigenous Australians, the ICD-10-AM subchapter groups *Falls* (21%) and *Assault* (19%) were the most commonly reported external cause of injury and poisoning, accounting for 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 (36%), followed by *Complications of medical and surgical care* (17%).

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

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, 2016–17

| External cause | | Indigenous Australians | Other Australians | Total |
|----------------|--|---------------------------|----------------------|----------------|
| V01–V99 | Transport accidents | 3,090 | 69,437 | 72,527 |
| W00–W19 | Falls | 7,333 | 265,826 | 273,159 |
| W20–W64 | Exposure to mechanical forces | 5,853 | 98,330 | 104,183 |
| W65–W74 | Accidental drowning and submersion | 46 | 608 | 654 |
| W75–W84 | Other accidental threats to breathing | 27 | 866 | 893 |
| W85–W99 | Exposure to electricity, radiation, extreme temperature/pressure | 34 | 828 | 862 |
| X00–X19 | Exposure to smoke, fire, flames, hot substances | 598 | 6,282 | 6,880 |
| X20–X39 | Exposure to venomous plants, animals, forces of nature | 230 | 4,370 | 4,600 |
| X40–X49 | Accidental poisoning | 854 | 10,959 | 11,813 |
| X50–X59 | Other external causes of accidental injury | 2,220 | 64,851 | 67,071 |
| X60–X84 | Intentional self-harm | 3,008 | 31,845 | 34,853 |
| X85–Y09 | Assault | 6,680 | 16,777 | 23,457 |
| Y10–Y34 | Events of undetermined intent | 454 | 4,759 | 5,213 |
| Y35–Y36 | Legal intervention and operations of war | 30 | 93 | 123 |
| Y40–Y84 | Complications of medical and surgical care | 4,893 | 125,210 | 130,103 |
| Y85–Y98 | Sequelae and supplementary factors | 21 | 473 | 494 |
| | Not reported | 278 | 45,817 | 46,095 |
| Total | | 35,649 | 747,331 | 782,980 |

(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 a 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.

'Selected potentially preventable hospitalisations' is also an indicator of *Effectiveness* of primary care under the *Health system* domain in the AHPF.

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 2012–13 and 2016–17, overall rates of PPHs increased from 23.9 per 1,000 population to 27.3 per 1,000 (Table 4.21). Over this period, PPHs consistently accounted for 6% of total separations (11,013,815, Table 2.1).

For *Chronic conditions*, the rate increased from 12.0 per 1,000 in 2015–16 to 12.5 per 1,000 in 2016–17 (Table 4.21).

Between 2012–13 and 2016–17, rates of *Vaccine-preventable* PPHs rose by 23.8% on average each year. 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 therefore may, in part, be responsible for some of this increase. See Box 4.2 for more information.

In addition, changes to ACS 2104 *Rehabilitation* implemented from 1 July 2015, 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 and 2016–17 compared with previous years (for example, for respiratory and cardiac disorders). Therefore, the data for PPHs for 2015–16 and 2016–17 are not comparable with the data reported for 2012–13 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, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|-------------|-------------|-------------|-------------|-------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Vaccine preventable conditions ^(a) | 0.9 | 1.3 | 1.8 | 2.0 | 2.1 | 23.8 | 7.4 |
| Acute conditions | 11.9 | 12.0 | 12.2 | 12.6 | 13.0 | 2.2 | 2.6 |
| <i>Chronic conditions</i> ^(b) | 11.3 | 11.2 | 11.4 | 12.0 | 12.5 | 2.7 | 3.7 |
| Diabetes complications | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.5 | -1.8 |
| Chronic conditions (excluding diabetes) | 9.6 | 9.6 | 9.7 | 10.2 | 10.7 | 2.9 | 4.7 |
| Total^(c) | 23.9 | 24.4 | 25.2 | 26.4 | 27.3 | 3.4 | 3.4 |

(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*.

(c) As more than 1 PPH condition may be reported for a separation, the sum of *Vaccine-preventable conditions*, *Acute conditions* and *Chronic conditions* does not necessarily equal the total number of separations.

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 2016–17?

In 2016–17, 715,000 separations in public and private hospitals were classified as PPHs (Table 4.22).

PPHs accounted for 6.5% of all hospital separations—8.4% 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 14% of separations that were classified as *Chronic condition* PPHs.

How do rates of PPHs vary across jurisdictions?

For *Vaccine-preventable conditions*, rates ranged from 1.1 per 1,000 population in Tasmania to 10.7 per 1,000 in the Northern Territory (Table 4.23).

For *Acute conditions*, rates ranged from 10.9 per 1,000 population in the Australian Capital Territory to 26.1 per 1,000 in the Northern Territory. Overall, *Urinary tract infections* (23%), *Dental conditions* (21%) and *Cellulitis* (21%) accounted for almost two-thirds of *Acute condition* PPHs.

Table 4.22: Separations for potentially preventable hospitalisations, public and private hospitals, 2016–17

| PPH category | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| Vaccine preventable conditions | 48,498 | 7,747 | 56,245 |
| Acute conditions | 244,986 | 81,773 | 326,759 |
| <i>Chronic conditions</i> ^(a) | 267,013 | 72,588 | 339,601 |
| Diabetes complications | 38,367 | 8,708 | 47,075 |
| Chronic conditions (excluding diabetes) | 228,646 | 63,880 | 292,526 |
| Total ^(b) | 553,921 | 161,401 | 715,322 |
| Proportion of total separations (%) | 8.4 | 3.6 | 6.5 |

(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) As more than 1 PPH condition may be reported for a separation, the sum of *Vaccine-preventable conditions*, *Acute conditions* and *Chronic conditions* does not necessarily equal the total number of separations.

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 9.0 per 1,000 population in Tasmania to 20.2 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. *Rheumatic heart disease* accounted for 8% 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 Western Australia to 7.2% in South Australia and 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 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 2016–17, the overall rate of PPHs was highest for residents of *Remote* and *Very remote* areas (43 and 67 per 1,000 population, respectively) and lowest for residents of *Major cities* (26 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 22 per 1,000 for residents of areas classified as being in the highest SES group (least disadvantaged) to 33 per 1,000 for residents of areas classified as being in the lowest (most disadvantaged) SES group (Table 4.24).

Table 4.23: Separations for selected potentially preventable hospitalisations^(a), by state or territory of usual residence, all hospitals, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total ^(b) |
|---|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|----------------------|
| Vaccine preventable conditions | | | | | | | | | |
| Pneumonia and vaccine-preventable influenza | 10,265 | 5,595 | 7,183 | 1,977 | 2,566 | 467 | 485 | 721 | 29,472 |
| Other vaccine-preventable conditions | 8,243 | 6,881 | 5,077 | 2,670 | 1,887 | 204 | 258 | 1,629 | 27,026 |
| <i>Total vaccine-preventable conditions^(c)</i> | <i>18,415</i> | <i>12,437</i> | <i>12,204</i> | <i>4,629</i> | <i>4,438</i> | <i>668</i> | <i>743</i> | <i>2,322</i> | <i>56,245</i> |
| <i>Vaccine-preventable PPH separations per 1,000 population</i> | <i>2.1</i> | <i>1.8</i> | <i>2.4</i> | <i>1.7</i> | <i>2.2</i> | <i>1.1</i> | <i>1.9</i> | <i>10.7</i> | <i>2.1</i> |
| Acute conditions | | | | | | | | | |
| Pneumonia (not vaccine-preventable) | 836 | 452 | 556 | 373 | 265 | 21 | 69 | 24 | 2,614 |
| Cellulitis | 21,749 | 13,569 | 19,193 | 6,136 | 4,654 | 1,307 | 815 | 1,663 | 69,735 |
| Convulsions and epilepsy | 12,389 | 9,315 | 9,101 | 3,366 | 2,803 | 754 | 656 | 912 | 39,598 |
| Eclampsia | 22 | 14 | 22 | 8 | 6 | 2 | 0 | 4 | 78 |
| Dental conditions | 18,997 | 17,278 | 13,708 | 9,661 | 7,087 | 1,678 | 844 | 798 | 70,151 |
| Ear, nose and throat infections | 13,972 | 10,704 | 11,680 | 4,187 | 3,196 | 744 | 581 | 982 | 46,345 |
| Gangrene | 3,039 | 4,088 | 2,839 | 1,891 | 745 | 225 | 149 | 484 | 13,563 |
| Pelvic inflammatory disease | 1,175 | 1,155 | 1,250 | 497 | 298 | 86 | 85 | 240 | 4,828 |
| Perforated/bleeding ulcer | 1,907 | 1,387 | 1,060 | 637 | 451 | 121 | 82 | 40 | 5,751 |
| Urinary tract infections including pyelonephritis | 22,037 | 16,431 | 19,578 | 7,178 | 5,480 | 1,245 | 1,079 | 989 | 74,597 |
| <i>Total acute conditions^(c)</i> | <i>96,018</i> | <i>74,238</i> | <i>78,885</i> | <i>33,863</i> | <i>24,967</i> | <i>6,176</i> | <i>4,352</i> | <i>6,107</i> | <i>326,759</i> |
| <i>Acute PPH separations per 1,000 population</i> | <i>11.8</i> | <i>11.5</i> | <i>15.8</i> | <i>13.0</i> | <i>13.6</i> | <i>11.3</i> | <i>10.9</i> | <i>26.1</i> | <i>13.0</i> |

(continued)

Table 4.23 (continued): Separations for selected potentially preventable hospitalisations^(a), by state or territory of usual residence, all hospitals, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total ^(b) |
|--|----------------|----------------|----------------|---------------|---------------|---------------|--------------|---------------|----------------------|
| Chronic conditions | | | | | | | | | |
| Angina | 9,879 | 7,005 | 8,507 | 3,495 | 2,927 | 760 | 513 | 525 | 33,750 |
| Asthma | 10,877 | 9,334 | 7,724 | 2,314 | 2,592 | 778 | 456 | 379 | 34,598 |
| Chronic obstructive pulmonary disease | 25,591 | 17,310 | 17,862 | 6,596 | 6,469 | 1,728 | 969 | 1,327 | 78,030 |
| Congestive cardiac failure | 19,843 | 16,368 | 12,458 | 6,401 | 4,818 | 1,265 | 910 | 568 | 62,834 |
| Diabetes complications | 12,702 | 12,581 | 10,560 | 4,906 | 3,896 | 1,100 | 538 | 593 | 47,075 |
| Diabetes complications per 1,000 population | 1.5 | 1.9 | 2.1 | 1.8 | 2.0 | 1.8 | 1.4 | 2.8 | 1.8 |
| Hypertension | 3,356 | 2,795 | 3,098 | 627 | 702 | 126 | 97 | 93 | 10,962 |
| Iron deficiency anaemia | 15,064 | 21,864 | 12,011 | 5,071 | 3,328 | 1,171 | 497 | 306 | 59,383 |
| Nutritional deficiencies | 258 | 193 | 240 | 82 | 43 | 7 | 15 | 20 | 862 |
| Rheumatic heart disease ^(d) | 1,131 | 683 | 1,139 | 465 | 387 | 64 | 41 | 361 | 4,386 |
| Bronchiectasis | 2,215 | 1,655 | 2,408 | 704 | 289 | 152 | 51 | 227 | 7,725 |
| <i>Total chronic conditions^(c)</i> | <i>100,916</i> | <i>89,788</i> | <i>76,005</i> | <i>30,661</i> | <i>25,449</i> | <i>7,151</i> | <i>4,087</i> | <i>4,399</i> | <i>339,601</i> |
| <i>Chronic PPH separations per 1,000 population</i> | <i>11.2</i> | <i>13.0</i> | <i>14.4</i> | <i>11.5</i> | <i>11.9</i> | <i>10.8</i> | <i>10.6</i> | <i>22.9</i> | <i>12.5</i> |
| <i>Total chronic conditions, excluding diabetes</i> | <i>88,214</i> | <i>77,207</i> | <i>65,445</i> | <i>25,755</i> | <i>21,553</i> | <i>6,051</i> | <i>3,549</i> | <i>3,806</i> | <i>292,526</i> |
| <i>Chronic PPH (excluding diabetes) separations per 1,000 population</i> | <i>9.7</i> | <i>11.1</i> | <i>12.4</i> | <i>9.6</i> | <i>9.9</i> | <i>9.0</i> | <i>9.2</i> | <i>20.2</i> | <i>10.7</i> |
| Total selected potentially preventable hospitalisations^(c) | 213,072 | 175,053 | 165,428 | 68,473 | 54,238 | 13,894 | 9,080 | 12,439 | 715,322 |
| Total PPH separations per 1,000 population | 24.8 | 26.2 | 32.3 | 26.0 | 27.4 | 23.1 | 23.1 | 57.9 | 27.3 |
| Proportion of all separations | 6.5 | 6.3 | 6.8 | 5.9 | 7.2 | 6.2 | 6.4 | 7.2 | 6.5 |

(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, 2016–17

| | Vaccine-preventable conditions | Acute conditions | Total chronic conditions ^(a) | Diabetes complications | Chronic conditions (excluding diabetes) | Total |
|--|--------------------------------|------------------|---|------------------------|---|-------------|
| Indigenous status^(b) | | | | | | |
| Indigenous Australians | 10.2 | 31.1 | 37.0 | 6.8 | 30.2 | 76.4 |
| Other Australians | 2.0 | 12.5 | 12.0 | 1.7 | 10.3 | 26.2 |
| Remoteness area of residence | | | | | | |
| Major cities | 2.3 | 12.1 | 11.9 | 1.7 | 10.2 | 26.1 |
| Inner regional | 1.4 | 13.3 | 12.7 | 1.9 | 10.8 | 27.1 |
| Outer regional | 1.8 | 15.5 | 14.0 | 2.2 | 11.9 | 31.1 |
| Remote | 3.7 | 21.9 | 17.7 | 2.9 | 14.8 | 42.8 |
| Very remote | 10.5 | 30.6 | 27.9 | 4.6 | 23.3 | 67.1 |
| Socioeconomic status of area of residence | | | | | | |
| 1—Lowest | 3.0 | 14.7 | 15.2 | 2.3 | 12.9 | 32.5 |
| 2 | 2.0 | 13.5 | 13.4 | 2.0 | 11.5 | 28.7 |
| 3 | 2.0 | 13.0 | 12.7 | 1.9 | 10.8 | 27.4 |
| 4 | 2.0 | 12.2 | 11.4 | 1.6 | 9.8 | 25.2 |
| 5—Highest | 1.7 | 11.1 | 9.3 | 1.2 | 8.1 | 21.9 |
| Total | 2.1 | 13.0 | 12.5 | 1.8 | 10.7 | 27.3 |

(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) Separation rates by Indigenous status are directly age-standardised using a highest age group of 65 and over and are not directly comparable with the rates by remoteness area and socioeconomic area 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.

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/reports-statistics/health-welfare-services/hospitals/overview.

Information about the specification used for this performance indicator is available at <http://meteor.aihw.gov.au/content/index.phtml/itemId/658499>.

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 2016–17

In 2016–17, 11.4 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*, *Remote* and *Very remote* areas, and for those living in areas in the 3 lowest (most disadvantaged) SES groups.

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*.

Due to changes in ACS 2105 *Non-acute care* from 1 July 2015, the data presented for this performance indicator for 2015–16 and 2016–17 may not be comparable with data for this performance indicator before the 2015–16 reference period.

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/658477>.

More information on performance indicators is available in Appendix C.

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

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 and socioeconomic status of area of usual residence, all hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Indigenous status | | | | | | | | | |
| Indigenous | 5.7 | 0.0 | 16.2 | 3.2 | 3.1 | 3.9 | 2.9 | 13.3 | 8.7 |
| Other Australians | 10.1 | 0.6 | 19.8 | 20.5 | 23.3 | 10.5 | 12.7 | 6.0 | 11.5 |
| Remoteness of area of usual residence | | | | | | | | | |
| Major cities | 8.5 | 0.1 | 15.1 | 12.4 | 17.2 | n.p. | 14.6 | n.p. | 8.5 |
| Inner regional | 11.0 | 0.7 | 16.0 | 26.5 | 3.2 | 8.2 | 2.4 | n.p. | 9.7 |
| Outer regional | 25.6 | 8.1 | 41.2 | 59.4 | 42.8 | 13.2 | n.p. | 6.4 | 30.8 |
| Remote | 20.4 | 0.0 | 43.0 | 50.2 | 33.7 | 44.9 | n.p. | 7.7 | 34.1 |
| Very remote | 11.5 | 0.0 | 34.1 | 11.1 | 274.5 | 0.0 | n.p. | 15.8 | 36.7 |
| Socioeconomic status of area of usual residence | | | | | | | | | |
| 1–Lowest | 11.0 | 0.2 | 25.5 | 19.3 | 13.5 | 13.2 | 6.7 | 15.7 | 12.8 |
| 2 | 13.8 | 0.6 | 19.4 | 33.8 | 24.5 | 10.7 | 1.9 | 7.7 | 14.4 |
| 3 | 12.9 | 2.0 | 17.6 | 25.4 | 51.0 | 8.4 | 3.8 | 1.7 | 14.5 |
| 4 | 7.9 | 0.1 | 17.6 | 9.8 | 13.4 | 5.7 | 16.1 | 6.0 | 8.2 |
| 5–Highest | 4.4 | 0.1 | 16.1 | 10.0 | 11.9 | 1.7 | 13.7 | 5.7 | 6.6 |
| Total | 9.9 | 0.6 | 19.6 | 19.3 | 22.6 | 10.3 | 12.4 | 10.2 | 11.4 |

(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.

5 What services were provided?

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

- the broad category of service—this includes *Childbirth, Mental health, Surgical, Medical, Other acute care* and *Subacute and non-acute 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 mental health care, rehabilitation care and palliative care includes who used these services, why they received care and who paid for the care.

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 2016–17, 54% of separations were for medical care, 23% were for surgical care and 12% for other acute care. The majority of emergency admissions (92%), medical separations (77%) and childbirth separations (76%) occurred in public hospitals. Private hospitals accounted for 59% of surgical separations and 55% of mental health care separations.

Intensive care

In 2016–17, 1.7% of public hospital separations involved a stay in an intensive care unit. Almost 10.8 million hours of intensive care were reported for public hospitals.

Rehabilitation care

In 2016–17, there were almost 445,000 separations for *Rehabilitation care*, with 79% occurring in private hospitals. Almost 81% of rehabilitation care separations were for people aged over 60, and most (81%) were for people living in *Major cities*.

Palliative care

In 2016–17, there were over 43,000 separations for *Palliative care* in public and private hospitals, with 56% of those having a principal diagnosis that was cancer-related.

Mental health care

In 2016–17, there were 326,000 separations for *Mental health care*, with 55% of these occurring in private hospitals. Most mental health care separations in public hospitals (83%) involved a stay of at least one night, while most mental health care separations in private hospitals (77%) involved same-day care.

5.1 Broad category of service

This section presents information by broad category of service, over time and for 2016–17. It includes the number of separations, and for overnight care also includes the number of patient days and average length of stay.

The broad categories of service include:

- *Childbirth*—separations for which the AR-DRG was associated with childbirth (does not include newborn care)
- *Mental health*: separations for which either the care type was reported as *Mental health* care (for 2015–16 and 2016–17) or for which specialised psychiatric care days were reported (for 2012–13 to 2014–15), excluding separations for childbirth.

More detailed information on the provision of admitted patient mental health care is available in the AIHW report *Mental health services in Australia* (AIHW 2018), which includes separations with a *Mental health* care type and separations for which specialised psychiatric care days and/or a mental health-related principal diagnosis were reported

- *Surgical*—acute separations for which the AR-DRG belonged to the Surgical partition of the AR-DRG classification (involving an operating room procedure)
- *Medical*—acute separations for which the AR-DRG belonged to the Medical partition (not involving an operating room procedure)
- *Other*—acute separations for which the AR-DRG did not belong to the *Surgical* or *Medical* partitions (involving a non-operating room procedure, such as endoscopy)
- *Subacute and non-acute care*: separations for which the care type was *Rehabilitation care*, *Palliative care*, *Psychogeriatric care*, *Geriatric evaluation and management* or *Maintenance care*.

For acute care (surgical, medical or other), this information is also presented by the urgency of admission, as either *Emergency* or *Non-emergency*. See Appendix B for more information.

Due to the implementation of the *Mental health* care type from 1 July 2015, the data for 2015–16 and 2016–17 are not comparable with data reported in earlier years (see Box 1.2 and Appendix A).

In addition, there can be differences in whether a separation is assigned to a *Surgical*, *Medical* or *Other DRG*, depending on the AR-DRG version used. For this reason, comparisons over time should take into consideration the AR-DRG versions used for different periods.

Changes over time

In public hospitals, *Emergency surgical* separations increased by an average of 2.7% each year between 2012–13 and 2016–17, and *Emergency medical* separations increased by an average of 5.6% each year (Table 5.1). In private hospitals, *Non-emergency medical* separations increased by an average of 3.5% each year between 2012–13 and 2016–17.

Between 2015–16 and 2016–17, *Emergency* separations increased by 5.6% in public hospitals and by 7.9% in private hospitals.

How much activity was there in 2016–17?

In 2016–17, 53% of separations were for *Medical care*, 23% were for *Surgical care* and 3% each were for *Childbirth* and *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 *Emergency* admissions (92%), *Medical* separations (77%) and *Childbirth* separations (76%).

Private hospitals accounted for 59% of *Surgical* separations and 55% of *Mental health* separations.

Same-day acute care

In 2016–17, 47% 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 (99%) and *Non-emergency medical* separations (66%). Almost 70% of *Emergency* admissions to public hospitals were overnight separations (tables 5.3 and 5.4).

Private hospitals provided 69% of *Non-emergency surgical* same-day acute separations.

Overnight acute care

In 2016–17, 43% 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 76% of *Childbirth* overnight acute separations, and this proportion varied among jurisdictions whose private hospital data could be reported—from 72% in Western Australia to 79% in South Australia.

Private hospitals provided 51% of all *Surgical* overnight acute separations, including 62% 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 47% in New South Wales to 56% in Western Australia.

Table 5.1: Separations^(a) by broad category of service, public and private hospitals, 2012–13 to 2016–17^(b)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|-------------------|-------------------|-------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Childbirth | 223,814 | 225,323 | 226,997 | 233,788 | 232,188 | 0.9 | –0.7 |
| <i>Surgical total</i> | <i>957,555</i> | <i>977,975</i> | <i>997,363</i> | <i>1,023,069</i> | <i>1,047,376</i> | <i>2.3</i> | <i>2.4</i> |
| Emergency | 260,804 | 265,617 | 272,800 | 283,165 | 290,535 | 2.7 | 2.6 |
| Non-emergency | 696,751 | 712,358 | 724,563 | 739,904 | 756,841 | 2.1 | 2.3 |
| <i>Medical total</i> | <i>3,707,285</i> | <i>3,830,481</i> | <i>4,039,090</i> | <i>4,257,949</i> | <i>4,516,182</i> | <i>5.1</i> | <i>6.1</i> |
| Emergency | 1,858,784 | 1,945,308 | 2,061,202 | 2,182,895 | 2,311,644 | 5.6 | 5.9 |
| Non-emergency | 1,848,501 | 1,885,173 | 1,977,888 | 2,075,054 | 2,204,538 | 4.5 | 6.2 |
| <i>Other acute care total</i> | <i>338,449</i> | <i>380,033</i> | <i>403,745</i> | <i>419,510</i> | <i>448,236</i> | <i>7.3</i> | <i>6.8</i> |
| Emergency | 63,399 | 68,357 | 71,086 | 74,932 | 79,902 | 6.0 | 6.6 |
| Non-emergency | 275,050 | 311,676 | 332,659 | 344,578 | 368,334 | 7.6 | 6.9 |
| Mental health care | 113,706 | 115,142 | 120,870 | 140,040 | 146,335 | 6.5 | 4.5 |
| <i>Subacute and non-acute care total</i> | <i>134,053</i> | <i>129,345</i> | <i>135,034</i> | <i>138,903</i> | <i>132,356</i> | <i>–0.3</i> | <i>–4.7</i> |
| Rehabilitation | 100,787 | 96,764 | 100,444 | 102,405 | 95,041 | –1.5 | –7.2 |
| Palliative care | 33,266 | 32,581 | 34,590 | 36,498 | 37,315 | 2.9 | 2.2 |
| Other subacute and non-acute care | 55,334 | 56,571 | 57,239 | 59,206 | 64,667 | 4.0 | 9.2 |
| <i>Total emergency</i> | <i>2,182,987</i> | <i>2,279,282</i> | <i>2,405,088</i> | <i>2,540,992</i> | <i>2,682,081</i> | <i>5.3</i> | <i>5.6</i> |
| <i>Total non-emergency</i> | <i>2,820,302</i> | <i>2,909,207</i> | <i>3,035,110</i> | <i>3,159,536</i> | <i>3,329,713</i> | <i>4.2</i> | <i>5.4</i> |
| <i>Public hospital total</i> | <i>5,530,196</i> | <i>5,714,870</i> | <i>5,980,338</i> | <i>6,272,481</i> | <i>6,587,348</i> | <i>4.5</i> | <i>5.0</i> |
| Private hospitals | | | | | | | |
| Childbirth | 81,872 | 78,865 | 75,650 | 75,881 | 72,295 | –3.1 | –4.7 |
| <i>Surgical total</i> | <i>1,411,199</i> | <i>1,429,973</i> | <i>1,486,804</i> | <i>1,521,285</i> | <i>1,522,042</i> | <i>1.9</i> | <i>0.0</i> |
| Emergency | 39,385 | 39,124 | 41,460 | 42,738 | 45,280 | 3.5 | 5.9 |
| Non-emergency | 1,371,814 | 1,390,849 | 1,445,344 | 1,478,547 | 1,476,762 | 1.9 | –0.1 |
| <i>Medical total</i> | <i>1,187,619</i> | <i>1,213,449</i> | <i>1,248,109</i> | <i>1,313,010</i> | <i>1,365,615</i> | <i>3.6</i> | <i>4.0</i> |
| Emergency | 145,669 | 145,309 | 150,848 | 158,020 | 171,550 | 4.2 | 8.6 |
| Non-emergency | 1,041,950 | 1,068,140 | 1,097,261 | 1,154,990 | 1,194,065 | 3.5 | 3.4 |
| <i>Other acute care total</i> | <i>769,554</i> | <i>840,136</i> | <i>875,491</i> | <i>894,639</i> | <i>904,369</i> | <i>4.1</i> | <i>1.1</i> |
| Emergency | 15,824 | 16,125 | 16,656 | 16,612 | 17,687 | 2.8 | 6.5 |
| Non-emergency | 753,730 | 824,011 | 858,835 | 878,027 | 886,682 | 4.1 | 1.0 |
| Mental health care | 139,476 | 154,859 | 165,955 | 179,439 | 180,006 | 6.6 | 0.3 |
| <i>Subacute and non-acute care total</i> | <i>249,341</i> | <i>264,623</i> | <i>318,020</i> | <i>343,026</i> | <i>382,140</i> | <i>11.3</i> | <i>11.4</i> |
| Rehabilitation | 240,510 | 255,555 | 309,849 | 331,997 | 349,934 | 9.8 | 5.4 |
| Palliative care | 6,006 | 6,392 | 6,217 | 5,721 | 6,169 | 0.7 | 7.8 |
| Other subacute and non-acute care ^(c) | 2,825 | 2,676 | 1,954 | 5,308 | 26,037 | n.p. | n.p. |
| <i>Total emergency</i> | <i>200,878</i> | <i>200,558</i> | <i>208,964</i> | <i>217,370</i> | <i>234,517</i> | <i>3.9</i> | <i>7.9</i> |
| <i>Total non-emergency</i> | <i>3,167,494</i> | <i>3,283,000</i> | <i>3,401,440</i> | <i>3,511,564</i> | <i>3,557,509</i> | <i>2.9</i> | <i>1.3</i> |
| <i>Private hospital total</i> | <i>3,839,061</i> | <i>3,981,905</i> | <i>4,170,029</i> | <i>4,327,287</i> | <i>4,426,467</i> | <i>3.6</i> | <i>2.3</i> |
| Total separations | 9,369,257 | 9,696,775 | 10,150,367 | 10,599,768 | 11,013,815 | 4.1 | 3.9 |

(a) Excludes separations for *Newborns* without at least one qualified day, and records for *Posthumous organ procurement* and *Hospital boarders*.

(b) Due to the introduction of the *Mental health* care type on 1 July 2015, the data for 2015–16 and 2016–17 are not comparable with data reported in previous years. In addition, revised definitions for care types were introduced from 1 July 2013, and data reported from 2013–14 onwards will not be entirely comparable with data reported for earlier years.

(c) For 2016–17, New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute* care is likely to be underestimated.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Public hospitals | | | | | | | | | |
| Childbirth | 74,531 | 59,794 | 44,682 | 24,809 | 15,406 | 4,377 | 5,214 | 3,375 | 232,188 |
| <i>Surgical total</i> | <i>311,257</i> | <i>297,141</i> | <i>190,065</i> | <i>111,090</i> | <i>80,937</i> | <i>24,201</i> | <i>20,214</i> | <i>12,471</i> | <i>1,047,376</i> |
| Emergency | 93,554 | 69,512 | 52,756 | 33,604 | 22,500 | 6,383 | 6,920 | 5,306 | 290,535 |
| Non-emergency | 217,703 | 227,629 | 137,309 | 77,486 | 58,437 | 17,818 | 13,294 | 7,165 | 756,841 |
| <i>Medical total</i> | <i>1,300,606</i> | <i>1,192,437</i> | <i>1,009,264</i> | <i>427,075</i> | <i>296,550</i> | <i>78,704</i> | <i>75,580</i> | <i>135,966</i> | <i>4,516,182</i> |
| Emergency | 721,715 | 538,260 | 557,147 | 194,103 | 175,745 | 37,094 | 41,678 | 45,902 | 2,311,644 |
| Non-emergency | 578,891 | 654,177 | 452,117 | 232,972 | 120,805 | 41,610 | 33,902 | 90,064 | 2,204,538 |
| <i>Other acute care total</i> | <i>123,955</i> | <i>150,173</i> | <i>71,140</i> | <i>61,140</i> | <i>18,814</i> | <i>10,311</i> | <i>7,640</i> | <i>5,063</i> | <i>448,236</i> |
| Emergency | 26,838 | 18,181 | 15,782 | 8,489 | 5,638 | 2,043 | 1,827 | 1,104 | 79,902 |
| Non-emergency | 97,117 | 131,992 | 55,358 | 52,651 | 13,176 | 8,268 | 5,813 | 3,959 | 368,334 |
| Mental health care | 48,824 | 26,869 | 35,268 | 14,100 | 14,423 | 3,762 | 2,139 | 950 | 146,335 |
| <i>Subacute and non-acute care total</i> | <i>72,379</i> | <i>46,034</i> | <i>44,138</i> | <i>14,396</i> | <i>11,407</i> | <i>3,050</i> | <i>4,634</i> | <i>985</i> | <i>197,023</i> |
| Rehabilitation | 38,910 | 17,940 | 23,484 | 6,320 | 4,664 | 1,102 | 2,324 | 297 | 95,041 |
| Palliative care | 14,986 | 7,595 | 8,438 | 2,527 | 1,834 | 704 | 827 | 404 | 37,315 |
| Other subacute and non-acute care | 18,483 | 20,499 | 12,216 | 5,549 | 4,909 | 1,244 | 1,483 | 284 | 64,667 |
| Public hospital total | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 |

(continued)

Table 5.2 (continued): Separations by broad category of service, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|------------------|------------------|----------------|----------------|-------------|-------------|-------------|------------------|
| Private hospitals | | | | | | | | | |
| Childbirth | 21,867 | 18,410 | 15,046 | 9,433 | 3,975 | n.p. | n.p. | n.p. | 72,295 |
| <i>Surgical total</i> | <i>436,265</i> | <i>371,090</i> | <i>341,143</i> | <i>184,633</i> | <i>119,988</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1,522,042</i> |
| Emergency | 3,943 | 13,462 | 13,515 | 5,563 | 8,143 | n.p. | n.p. | n.p. | 45,280 |
| Non-emergency | 432,322 | 357,628 | 327,628 | 179,070 | 111,845 | n.p. | n.p. | n.p. | 1,476,762 |
| <i>Medical total</i> | <i>283,603</i> | <i>322,493</i> | <i>409,894</i> | <i>205,133</i> | <i>106,512</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1,365,615</i> |
| Emergency | 17,487 | 53,022 | 62,742 | 20,876 | 14,890 | n.p. | n.p. | n.p. | 171,550 |
| Non-emergency | 266,116 | 269,471 | 347,152 | 184,257 | 91,622 | n.p. | n.p. | n.p. | 1,194,065 |
| <i>Other acute care total</i> | <i>253,156</i> | <i>259,411</i> | <i>205,207</i> | <i>95,469</i> | <i>60,911</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>904,369</i> |
| Emergency | 1,340 | 5,340 | 4,721 | 1,664 | 4,395 | n.p. | n.p. | n.p. | 17,687 |
| Non-emergency | 251,816 | 254,071 | 200,486 | 93,805 | 56,516 | n.p. | n.p. | n.p. | 886,682 |
| Mental health care | 59,356 | 38,547 | 65,944 | 5,820 | 2,003 | n.p. | n.p. | n.p. | 180,006 |
| <i>Subacute and non-acute care total</i> | <i>238,469</i> | <i>34,699</i> | <i>65,439</i> | <i>6,650</i> | <i>25,939</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>382,140</i> |
| Rehabilitation | 221,843 | 25,416 | 62,082 | 4,489 | 25,547 | n.p. | n.p. | n.p. | 349,934 |
| Palliative care | 417 | 839 | 2,234 | 1,980 | 385 | n.p. | n.p. | n.p. | 6,169 |
| Other subacute and non-acute care ^(a) | 16,209 | 8,444 | 1,123 | 181 | 7 | n.p. | n.p. | n.p. | 26,037 |
| Private hospital total | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 |

(a) New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute care* is likely to be underestimated.

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

Table 5.3: Same-day acute separations by broad category of service^(a), public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|-------------------------------|----------------|------------------|----------------|----------------|----------------|---------------|---------------|----------------|------------------|
| Public hospitals | | | | | | | | | |
| Childbirth | 2,895 | 1,172 | 2,525 | 1,007 | 811 | 266 | 410 | 176 | 9,262 |
| <i>Surgical total</i> | <i>117,952</i> | <i>130,239</i> | <i>70,190</i> | <i>46,859</i> | <i>36,099</i> | <i>10,504</i> | <i>6,691</i> | <i>4,476</i> | <i>423,010</i> |
| Emergency | 9,447 | 6,819 | 3,677 | 4,083 | 2,250 | 514 | 564 | 173 | 27,527 |
| Non-emergency | 108,505 | 123,420 | 66,513 | 42,776 | 33,849 | 9,990 | 6,127 | 4,303 | 395,483 |
| <i>Medical total</i> | <i>653,148</i> | <i>777,388</i> | <i>637,754</i> | <i>258,483</i> | <i>155,815</i> | <i>44,042</i> | <i>46,638</i> | <i>103,581</i> | <i>2,676,849</i> |
| Emergency | 191,510 | 208,802 | 237,015 | 43,841 | 52,134 | 9,112 | 16,281 | 16,840 | 775,535 |
| Non-emergency | 461,638 | 568,586 | 400,739 | 214,642 | 103,681 | 34,930 | 30,357 | 86,741 | 1,901,314 |
| <i>Other acute care total</i> | <i>90,975</i> | <i>124,979</i> | <i>51,012</i> | <i>51,865</i> | <i>11,781</i> | <i>7,910</i> | <i>5,746</i> | <i>3,696</i> | <i>347,964</i> |
| Emergency | 1,885 | 1,311 | 1,911 | 1,106 | 242 | 169 | 171 | 27 | 6,822 |
| Non-emergency | 89,090 | 123,668 | 49,101 | 50,759 | 11,539 | 7,741 | 5,575 | 3,669 | 341,142 |
| Public hospital total | 864,970 | 1,033,778 | 761,481 | 358,214 | 204,506 | 62,722 | 59,485 | 111,929 | 3,457,085 |
| Private hospitals | | | | | | | | | |
| Childbirth | 25 | 27 | 20 | 16 | 4 | n.p. | n.p. | n.p. | 143 |
| <i>Surgical total</i> | <i>263,136</i> | <i>211,852</i> | <i>195,266</i> | <i>102,104</i> | <i>67,811</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>881,092</i> |
| Emergency | 335 | 560 | 466 | 490 | 3,556 | n.p. | n.p. | n.p. | 5,450 |
| Non-emergency | 262,801 | 211,292 | 194,800 | 101,614 | 64,255 | n.p. | n.p. | n.p. | 875,642 |
| <i>Medical total</i> | <i>211,369</i> | <i>211,496</i> | <i>289,356</i> | <i>165,185</i> | <i>80,429</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>979,855</i> |
| Emergency | 1,433 | 2,811 | 3,931 | 1,567 | 1,711 | n.p. | n.p. | n.p. | 11,502 |
| Non-emergency | 209,936 | 208,685 | 285,425 | 163,618 | 78,718 | n.p. | n.p. | n.p. | 968,353 |
| <i>Other acute care total</i> | <i>240,984</i> | <i>240,555</i> | <i>188,014</i> | <i>90,881</i> | <i>56,577</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>845,416</i> |
| Emergency | 197 | 287 | 285 | 200 | 3,254 | n.p. | n.p. | n.p. | 4,249 |
| Non-emergency | 240,787 | 240,268 | 187,729 | 90,681 | 53,323 | n.p. | n.p. | n.p. | 841,167 |
| Private hospital total | 715,514 | 663,930 | 672,656 | 358,186 | 204,821 | n.p. | n.p. | n.p. | 2,706,506 |

(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.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|------------------|
| Public hospitals | | | | | | | | | |
| Childbirth | 71,621 | 58,621 | 42,155 | 23,802 | 14,594 | 4,111 | 4,804 | 3,199 | 222,907 |
| <i>Surgical total</i> | <i>193,305</i> | <i>166,902</i> | <i>119,875</i> | <i>64,231</i> | <i>44,838</i> | <i>13,697</i> | <i>13,523</i> | <i>7,995</i> | <i>624,366</i> |
| Emergency | 84,107 | 62,693 | 49,079 | 29,521 | 20,250 | 5,869 | 6,356 | 5,133 | 263,008 |
| Non-emergency | 109,198 | 104,209 | 70,796 | 34,710 | 24,588 | 7,828 | 7,167 | 2,862 | 361,358 |
| <i>Medical total</i> | <i>647,458</i> | <i>415,049</i> | <i>371,510</i> | <i>168,592</i> | <i>140,735</i> | <i>34,662</i> | <i>28,942</i> | <i>32,385</i> | <i>1,839,333</i> |
| Emergency | 530,205 | 329,458 | 320,132 | 150,262 | 123,611 | 27,982 | 25,397 | 29,062 | 1,536,109 |
| Non-emergency | 117,253 | 85,591 | 51,378 | 18,330 | 17,124 | 6,680 | 3,545 | 3,323 | 303,224 |
| <i>Other acute care total</i> | <i>32,980</i> | <i>25,194</i> | <i>20,128</i> | <i>9,275</i> | <i>7,033</i> | <i>2,401</i> | <i>1,894</i> | <i>1,367</i> | <i>100,272</i> |
| Emergency | 24,953 | 16,870 | 13,871 | 7,383 | 5,396 | 1,874 | 1,656 | 1,077 | 73,080 |
| Non-emergency | 8,027 | 8,324 | 6,257 | 1,892 | 1,637 | 527 | 238 | 290 | 27,192 |
| Public hospital total | 945,364 | 665,766 | 553,668 | 265,900 | 207,200 | 54,871 | 49,163 | 44,946 | 2,786,878 |
| Private hospitals | | | | | | | | | |
| Childbirth | 21,840 | 18,383 | 15,025 | 9,417 | 3,971 | n.p. | n.p. | n.p. | 72,147 |
| <i>Surgical total</i> | <i>173,129</i> | <i>159,238</i> | <i>145,877</i> | <i>82,529</i> | <i>52,177</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>640,950</i> |
| Emergency | 3,608 | 12,902 | 13,049 | 5,073 | 4,587 | n.p. | n.p. | n.p. | 39,830 |
| Non-emergency | 169,521 | 146,336 | 132,828 | 77,456 | 47,590 | n.p. | n.p. | n.p. | 601,120 |
| <i>Medical total</i> | <i>72,234</i> | <i>110,997</i> | <i>120,538</i> | <i>39,948</i> | <i>26,083</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>385,760</i> |
| Emergency | 16,054 | 50,211 | 58,811 | 19,309 | 13,179 | n.p. | n.p. | n.p. | 160,048 |
| Non-emergency | 56,180 | 60,786 | 61,727 | 20,639 | 12,904 | n.p. | n.p. | n.p. | 225,712 |
| <i>Other acute care total</i> | <i>12,172</i> | <i>18,856</i> | <i>17,193</i> | <i>4,588</i> | <i>4,334</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>58,953</i> |
| Emergency | 1,143 | 5,053 | 4,436 | 1,464 | 1,141 | n.p. | n.p. | n.p. | 13,438 |
| Non-emergency | 11,029 | 13,803 | 12,757 | 3,124 | 3,193 | n.p. | n.p. | n.p. | 45,515 |
| Private hospital total | 279,375 | 307,474 | 298,633 | 136,482 | 86,565 | n.p. | n.p. | n.p. | 1,157,810 |

(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.

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.

Emergency admissions in public hospitals had shorter stays (4.3 days, on average) compared with *Emergency* admissions in private hospitals (6.1 days).

For *Childbirth* separations, *Emergency medical* and *Emergency surgery*, 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, 2016–17

| 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 | 666,461 | 3.0 | 333,161 | 4.6 | 999,622 | 3.4 |
| <i>Surgical total</i> | 3,336,644 | 5.3 | 2,161,358 | 3.4 | 5,498,002 | 4.3 |
| Emergency | 1,911,197 | 7.3 | 305,139 | 7.7 | 2,216,336 | 7.3 |
| Non-emergency | 1,425,447 | 3.9 | 1,856,219 | 3.1 | 3,281,666 | 3.4 |
| <i>Medical total</i> | 7,155,326 | 3.9 | 2,018,391 | 5.2 | 9,173,717 | 4.1 |
| Emergency | 5,602,090 | 3.6 | 908,237 | 5.7 | 6,510,327 | 3.8 |
| Non-emergency | 1,553,236 | 5.1 | 1,110,154 | 4.9 | 2,663,390 | 5.0 |
| <i>Other acute care total</i> | 550,291 | 5.5 | 190,245 | 3.2 | 740,536 | 4.7 |
| Emergency | 457,146 | 6.3 | 77,816 | 5.8 | 534,962 | 6.2 |
| Non-emergency | 93,145 | 3.4 | 112,429 | 2.5 | 205,574 | 2.8 |
| Total emergency | 7,970,433 | 4.3 | 1,291,192 | 6.1 | 9,261,625 | 4.4 |
| Total non-emergency | 3,071,828 | 4.4 | 3,078,802 | 3.5 | 6,150,630 | 3.9 |

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/reports-statistics/health-welfare-services/hospitals/overview>.

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 2016–17 using AR-DRG version 8.0. It includes the number 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 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 (IHPA 2014).

The AR-DRG classification is partly hierarchical, with 23 MDCs, divided into *Surgical*, *Medical* and *Other* partitions, and then into 807 individual AR-DRGs (AR-DRG version 8.0). 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.

The data presented for 2015–16 and 2016–17 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.

In addition, there can be differences in whether a separation is assigned to a *Surgical*, *Medical* or *Other DRG*, depending on the AR-DRG version used. For this reason, comparisons over time should take into consideration the AR-DRG versions used for different periods. Therefore, caution should be used when interpreting changes over time.

MDC overview

In 2016–17, *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). Just over 70% of acute care separations for *Diseases and disorders of the eye* were from private hospitals.

For public hospitals, *Medical DRGs* accounted for 69% of acute care separations (4.5 million), and *Surgical DRGs* for 16% (1.0 million).

For private hospitals, *Surgical DRGs* accounted for 34% of acute care separations (1.5 million), and *Medical DRGs* for 31% (1.4 million).

Same-day acute care

MDCs

In 2016–17, *Diseases and disorders of the kidney and urinary tract* was the most common MDC reported for same-day acute separations. It accounted for 26% 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 71% of same-day acute separations in public hospitals (Table 5.7).

Just over 73% of same-day acute separations for *Diseases and disorders of the eye*, and 64% of *Diseases and disorders of the female reproductive system* were from private hospitals (tables 5.7 and 5.8).

AR-DRGs

In 2016–17, the 20 most common AR-DRGs accounted for almost two-thirds (65%) 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 (9%). Public hospitals provided the majority (82%) of same-day acute separations for *Haemodialysis*.

Private hospitals provided 93% of same-day acute separations for *Retinal procedures* and 70% of *Lens procedures* (Table 5.9).

Table 5.6: Acute care separations by Major Diagnostic Category AR-DRG version 8.0 and medical/surgical/ other partition, public and private hospitals, 2016–17

| Major Diagnostic Category | | Public hospitals | Private hospitals | Total |
|---------------------------|---|------------------|-------------------|-------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 13,151 | 4,839 | 17,990 |
| 01 | Diseases and disorders of the nervous system | 341,772 | 91,748 | 433,520 |
| 02 | Diseases and disorders of the eye | 125,894 | 299,866 | 425,760 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 235,238 | 238,855 | 474,093 |
| 04 | Diseases and disorders of the respiratory system | 381,228 | 118,114 | 499,342 |
| 05 | Diseases and disorders of the circulatory system | 497,918 | 191,219 | 689,137 |
| 06 | Diseases and disorders of the digestive system | 664,749 | 669,015 | 1,333,764 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 112,696 | 37,620 | 150,316 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 450,459 | 411,157 | 861,616 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 239,964 | 220,595 | 460,559 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 97,814 | 69,884 | 167,698 |
| 11 | Diseases and disorders of the kidney and urinary tract | 1,421,187 | 394,782 | 1,815,969 |
| 12 | Diseases and disorders of the male reproductive system | 50,747 | 70,276 | 121,023 |
| 13 | Diseases and disorders of the female reproductive system | 126,948 | 183,810 | 310,758 |
| 14 | Pregnancy, childbirth and puerperium | 392,195 | 133,638 | 525,833 |
| 15 | Newborns and other neonates | 92,533 | 13,717 | 106,250 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 132,730 | 76,200 | 208,930 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 295,321 | 334,769 | 630,090 |
| 18 | Infectious and parasitic diseases | 98,630 | 17,486 | 116,116 |
| 19 | Mental diseases and disorders | 50,298 | 16,589 | 66,887 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 37,503 | 6,951 | 44,454 |
| 21 | Injuries, poisoning and toxic effects of drugs | 197,201 | 26,655 | 223,856 |
| 22 | Burns | 8,673 | 275 | 8,948 |
| 23 | Factors influencing health status and other contacts with health services | 173,374 | 231,719 | 405,093 |
| ED | Error DRGs ^(a) | 5,740 | 4,537 | 10,277 |
| | <i>Surgical</i> | 1,125,560 | 1,557,346 | 2,682,906 |
| | <i>Medical</i> | 4,670,167 | 1,402,601 | 6,072,768 |
| | <i>Other</i> | 448,236 | 904,369 | 1,352,605 |
| Total | | 6,243,963 | 3,864,316 | 10,108,279 |

AR-DRG—Australian Refined 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 8.0, public hospitals, states and territories, 2016–17

| Major Diagnostic Category | | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---------------------------|---|----------------|------------------|----------------|----------------|----------------|---------------|---------------|----------------|------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 78 | 94 | 44 | 81 | 47 | 18 | 0 | 0 | 362 |
| 01 | Diseases and disorders of the nervous system | 33,646 | 50,618 | 37,837 | 10,588 | 9,862 | 2,936 | 2,795 | 1,781 | 150,063 |
| 02 | Diseases and disorders of the eye | 28,997 | 33,328 | 15,972 | 13,968 | 8,569 | 3,122 | 1,628 | 1,348 | 106,932 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 26,257 | 33,327 | 33,802 | 8,391 | 8,391 | 1,853 | 2,034 | 2,117 | 116,172 |
| 04 | Diseases and disorders of the respiratory system | 18,659 | 22,384 | 22,089 | 4,500 | 4,750 | 1,742 | 1,051 | 1,178 | 76,353 |
| 05 | Diseases and disorders of the circulatory system | 48,317 | 53,746 | 45,953 | 13,166 | 14,317 | 2,980 | 4,750 | 2,013 | 185,242 |
| 06 | Diseases and disorders of the digestive system | 93,188 | 108,682 | 70,910 | 39,421 | 13,350 | 7,377 | 6,359 | 4,690 | 343,977 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 5,997 | 7,060 | 5,206 | 2,206 | 1,533 | 778 | 308 | 351 | 23,439 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 44,750 | 46,035 | 38,829 | 12,933 | 11,248 | 3,330 | 5,206 | 2,455 | 164,786 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 26,419 | 29,120 | 28,501 | 10,068 | 9,866 | 2,852 | 1,564 | 1,817 | 110,207 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 7,224 | 14,021 | 7,754 | 5,463 | 1,756 | 747 | 684 | 649 | 38,298 |
| 11 | Diseases and disorders of the kidney and urinary tract | 379,521 | 335,682 | 217,146 | 144,431 | 81,385 | 19,912 | 23,247 | 79,199 | 1,280,523 |
| 12 | Diseases and disorders of the male reproductive system | 7,322 | 9,021 | 5,638 | 4,025 | 2,429 | 739 | 405 | 391 | 29,970 |
| 13 | Diseases and disorders of the female reproductive system | 20,954 | 25,581 | 16,430 | 6,106 | 5,521 | 1,729 | 1,154 | 934 | 78,409 |
| 14 | Pregnancy, childbirth and puerperium | 27,662 | 17,734 | 39,640 | 6,113 | 7,721 | 1,060 | 1,451 | 3,570 | 104,951 |
| 15 | Newborns and other neonates | 3,712 | 1,165 | 1,138 | 338 | 223 | 54 | 66 | 134 | 6,830 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 18,167 | 40,834 | 20,694 | 11,453 | 4,098 | 1,359 | 1,116 | 1,006 | 98,727 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 8,870 | 124,434 | 88,459 | 42,010 | 3,040 | 4,134 | 701 | 3,049 | 274,697 |
| 18 | Infectious and parasitic diseases | 4,597 | 5,697 | 6,614 | 1,165 | 1,124 | 364 | 316 | 373 | 20,250 |
| 19 | Mental diseases and disorders | 5,496 | 9,540 | 3,661 | 1,110 | 1,360 | 180 | 345 | 596 | 22,288 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 2,750 | 2,835 | 3,709 | 1,501 | 966 | 141 | 234 | 883 | 13,019 |
| 21 | Injuries, poisoning and toxic effects of drugs | 22,057 | 22,326 | 21,176 | 5,758 | 5,652 | 1,305 | 2,151 | 1,945 | 82,370 |
| 22 | Burns | 1,520 | 546 | 645 | 415 | 182 | 92 | 51 | 108 | 3,559 |
| 23 | Factors influencing health status and other contacts with health services | 28,377 | 39,240 | 29,445 | 12,594 | 6,980 | 3,890 | 1,856 | 1,332 | 123,714 |
| ED | Error DRGs ^(a) | 433 | 728 | 189 | 410 | 136 | 28 | 13 | 10 | 1,947 |
| Total | | 864,970 | 1,033,778 | 761,481 | 358,214 | 204,506 | 62,722 | 59,485 | 111,930 | 3,457,085 |

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 8.0, private hospitals, states and territories, 2016–17

| Major Diagnostic Category | | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---------------------------|---|----------------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 112 | 256 | 204 | 17 | 73 | n.p. | n.p. | n.p. | 689 |
| 01 | Diseases and disorders of the nervous system | 13,020 | 11,389 | 17,296 | 6,250 | 3,338 | n.p. | n.p. | n.p. | 52,596 |
| 02 | Diseases and disorders of the eye | 92,549 | 54,808 | 71,220 | 32,603 | 20,906 | n.p. | n.p. | n.p. | 290,514 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 48,182 | 42,127 | 34,192 | 22,324 | 16,090 | n.p. | n.p. | n.p. | 169,366 |
| 04 | Diseases and disorders of the respiratory system | 2,906 | 3,083 | 3,384 | 1,238 | 1,057 | n.p. | n.p. | n.p. | 11,958 |
| 05 | Diseases and disorders of the circulatory system | 20,052 | 11,981 | 11,018 | 7,195 | 4,340 | n.p. | n.p. | n.p. | 58,819 |
| 06 | Diseases and disorders of the digestive system | 156,443 | 162,716 | 128,009 | 48,333 | 34,209 | n.p. | n.p. | n.p. | 546,990 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 1,503 | 1,763 | 1,834 | 513 | 801 | n.p. | n.p. | n.p. | 6,690 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 46,927 | 38,127 | 35,968 | 22,744 | 16,149 | n.p. | n.p. | n.p. | 166,375 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 40,696 | 41,214 | 36,813 | 20,077 | 16,510 | n.p. | n.p. | n.p. | 160,101 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 6,170 | 7,506 | 8,603 | 4,229 | 1,872 | n.p. | n.p. | n.p. | 29,065 |
| 11 | Diseases and disorders of the kidney and urinary tract | 59,613 | 61,801 | 86,417 | 103,632 | 23,597 | n.p. | n.p. | n.p. | 340,127 |
| 12 | Diseases and disorders of the male reproductive system | 13,265 | 10,472 | 8,786 | 6,889 | 3,343 | n.p. | n.p. | n.p. | 44,763 |
| 13 | Diseases and disorders of the female reproductive system | 42,083 | 43,158 | 27,145 | 13,362 | 7,967 | n.p. | n.p. | n.p. | 138,914 |
| 14 | Pregnancy, childbirth and puerperium | 10,750 | 17,032 | 13,671 | 7,088 | 814 | n.p. | n.p. | n.p. | 50,354 |
| 15 | Newborns and other neonates | 295 | 312 | 184 | 94 | 85 | n.p. | n.p. | n.p. | 986 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 11,813 | 15,243 | 27,780 | 4,016 | 4,873 | n.p. | n.p. | n.p. | 65,683 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 71,809 | 78,750 | 99,701 | 39,907 | 27,443 | n.p. | n.p. | n.p. | 324,200 |
| 18 | Infectious and parasitic diseases | 491 | 343 | 502 | 100 | 1,994 | n.p. | n.p. | n.p. | 3,480 |
| 19 | Mental diseases and disorders | 9,861 | 601 | 552 | 23 | 31 | n.p. | n.p. | n.p. | 13,275 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 3,873 | 1,360 | 358 | 3 | 0 | n.p. | n.p. | n.p. | 5,608 |
| 21 | Injuries, poisoning and toxic effects of drugs | 2,287 | 2,719 | 2,138 | 1,311 | 882 | n.p. | n.p. | n.p. | 9,687 |
| 22 | Burns | 17 | 31 | 23 | 8 | 5 | n.p. | n.p. | n.p. | 91 |
| 23 | Factors influencing health status and other contacts with health services | 60,108 | 56,420 | 56,522 | 16,045 | 18,278 | n.p. | n.p. | n.p. | 213,987 |
| ED | Error DRGs ^(a) | 689 | 718 | 336 | 185 | 164 | n.p. | n.p. | n.p. | 2,188 |
| Total | | 715,514 | 663,930 | 672,656 | 358,186 | 204,821 | n.p. | n.p. | n.p. | 2,706,506 |

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 8.0 for same-day acute separations, public and private hospitals, 2016–17

| AR-DRG | Public hospitals | Private free-standing day facilities | Other private hospitals | Total |
|--|------------------|--------------------------------------|-------------------------|------------------|
| L61Z Haemodialysis | 1,154,460 | 146,088 | 113,916 | 1,414,464 |
| R63Z Chemotherapy | 236,892 | 77,063 | 226,232 | 540,187 |
| G48B Colonoscopy, minor complexity | 83,436 | 82,414 | 136,959 | 302,809 |
| C16Z Lens procedures | 73,077 | 90,989 | 77,162 | 241,228 |
| G46B Complex endoscopy, minor complexity | 38,834 | 61,282 | 93,438 | 193,554 |
| Z40Z Other contacts with health services with endoscopy, same-day | 49,242 | 38,473 | 80,091 | 167,806 |
| G47C Gastrosocopy, minor complexity | 38,912 | 45,694 | 62,195 | 146,801 |
| D40Z Dental extractions and restorations | 21,295 | 28,174 | 69,535 | 119,004 |
| Z64B Other factors influencing health status, minor complexity | 48,938 | 13,197 | 54,003 | 116,138 |
| Q61B Red blood cell disorders, intermediate complexity | 53,759 | 11,099 | 22,828 | 87,686 |
| J11B Other skin, subcutaneous tissue and breast procedures, minor complexity | 28,213 | 23,851 | 31,808 | 83,872 |
| F74B Chest pain, minor complexity | 72,247 | 599 | 2,895 | 75,741 |
| I82Z Other same-day treatment for musculoskeletal disorders | 46,821 | 2,898 | 25,551 | 75,270 |
| C03B Retinal procedures, minor complexity | 5,350 | 56,993 | 12,629 | 74,972 |
| L41Z Cystourethroscopy for urinary disorder, same-day | 34,418 | 4,410 | 34,693 | 73,521 |
| O66B Antenatal and other obstetric admissions, minor complexity | 55,418 | 29 | 8,595 | 64,042 |
| N07B Other uterus and adnexa procedures for non-malignancy, minor complexity | 11,044 | 21,706 | 26,108 | 58,858 |
| O05Z Abortion with OR procedures | 18,642 | 30,002 | 8,379 | 57,023 |
| I40Z Infusions for musculoskeletal disorders, same-day | 18,638 | 1,894 | 30,411 | 50,943 |
| I18B Other knee procedures, minor complexity | 10,108 | 2,077 | 37,156 | 49,341 |
| Other | 1,357,342 | 198,791 | 614,199 | 2,170,332 |
| Total | 3,457,085 | 937,723 | 1,768,783 | 6,163,591 |

AR-DRG—Australian Refined Diagnosis Related Group; OR—Operating room.

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

Overnight acute care

MDCs

In 2016–17, *Diseases and disorders of the musculoskeletal system and connective tissue* was the most common MDC reported for overnight acute separations, accounting for 13% 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 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 8.0, public hospitals, states and territories, 2016–17

| Major Diagnostic Category | | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---------------------------|---|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 3,950 | 3,471 | 2,714 | 1,126 | 940 | 259 | 201 | 128 | 12,789 |
| 01 | Diseases and disorders of the nervous system | 65,700 | 45,634 | 38,330 | 18,233 | 13,891 | 4,352 | 3,096 | 2,473 | 191,709 |
| 02 | Diseases and disorders of the eye | 7,087 | 4,284 | 3,651 | 1,992 | 1,109 | 206 | 331 | 302 | 18,962 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 37,486 | 29,756 | 24,081 | 11,133 | 9,625 | 2,349 | 2,215 | 2,421 | 119,066 |
| 04 | Diseases and disorders of the respiratory system | 102,391 | 73,416 | 59,453 | 28,634 | 24,262 | 6,415 | 5,071 | 5,233 | 304,875 |
| 05 | Diseases and disorders of the circulatory system | 105,992 | 70,516 | 69,335 | 26,959 | 24,709 | 6,157 | 4,964 | 4,044 | 312,676 |
| 06 | Diseases and disorders of the digestive system | 110,984 | 77,532 | 62,918 | 29,823 | 23,230 | 6,435 | 5,739 | 4,111 | 320,772 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 29,010 | 23,404 | 17,203 | 8,691 | 6,149 | 1,858 | 1,668 | 1,274 | 89,257 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 95,891 | 70,635 | 54,249 | 29,510 | 19,762 | 6,141 | 5,491 | 3,994 | 285,673 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 42,581 | 27,796 | 29,401 | 13,071 | 8,955 | 2,077 | 2,032 | 3,844 | 129,757 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 18,599 | 14,439 | 12,560 | 5,898 | 5,065 | 1,096 | 860 | 999 | 59,516 |
| 11 | Diseases and disorders of the kidney and urinary tract | 46,020 | 34,016 | 29,217 | 12,078 | 11,653 | 2,340 | 2,742 | 2,598 | 140,664 |
| 12 | Diseases and disorders of the male reproductive system | 6,566 | 5,602 | 4,185 | 1,936 | 1,337 | 385 | 492 | 274 | 20,777 |
| 13 | Diseases and disorders of the female reproductive system | 14,647 | 13,161 | 9,923 | 4,735 | 3,367 | 1,142 | 883 | 681 | 48,539 |
| 14 | Pregnancy, childbirth and puerperium | 92,807 | 71,309 | 56,444 | 31,345 | 18,895 | 5,426 | 6,064 | 4,954 | 287,244 |
| 15 | Newborns and other neonates | 38,884 | 17,489 | 13,361 | 7,126 | 4,914 | 1,105 | 1,700 | 1,124 | 85,703 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 11,853 | 8,298 | 6,420 | 2,929 | 2,910 | 651 | 511 | 431 | 34,003 |
| 17 | Neoplastic disorders(haematological and solid neoplasms) | 5,937 | 6,962 | 3,234 | 1,645 | 1,883 | 488 | 318 | 157 | 20,624 |
| 18 | Infectious and parasitic diseases | 28,176 | 18,670 | 15,032 | 7,631 | 4,802 | 1,429 | 1,321 | 1,319 | 78,380 |
| 19 | Mental diseases and disorders | 9,878 | 6,391 | 4,179 | 2,883 | 3,588 | 516 | 260 | 315 | 28,010 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 10,363 | 3,353 | 4,139 | 3,025 | 1,732 | 449 | 665 | 758 | 24,484 |
| 21 | Injuries, poisoning and toxic effects of drugs | 39,007 | 25,287 | 22,915 | 11,708 | 8,967 | 2,367 | 2,015 | 2,565 | 114,831 |
| 22 | Burns | 1,290 | 953 | 1,126 | 721 | 600 | 145 | 45 | 234 | 5,114 |
| 23 | Factors influencing health status and other contacts with health services | 19,103 | 12,354 | 9,000 | 2,632 | 4,536 | 997 | 390 | 648 | 49,660 |
| ED | Error DRGs ^(a) | 1,162 | 1,038 | 598 | 436 | 319 | 86 | 89 | 65 | 3,793 |
| Total | | 945,364 | 665,766 | 553,668 | 265,900 | 207,200 | 54,871 | 49,163 | 44,946 | 2,786,878 |

AR-DRG—Australian Refined 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 8.0, private hospitals, states and territories, 2016–17

| Major Diagnostic Category | | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---------------------------|---|----------------|----------------|----------------|----------------|---------------|-------------|-------------|-------------|------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 1,153 | 1,150 | 1,050 | 328 | 366 | n.p. | n.p. | n.p. | 4,150 |
| 01 | Diseases and disorders of the nervous system | 8,983 | 11,462 | 11,217 | 4,210 | 2,206 | n.p. | n.p. | n.p. | 39,152 |
| 02 | Diseases and disorders of the eye | 2,667 | 1,744 | 1,677 | 2,169 | 731 | n.p. | n.p. | n.p. | 9,352 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 20,322 | 15,652 | 16,213 | 7,551 | 6,352 | n.p. | n.p. | n.p. | 69,489 |
| 04 | Diseases and disorders of the respiratory system | 20,601 | 30,089 | 32,077 | 12,271 | 6,941 | n.p. | n.p. | n.p. | 106,156 |
| 05 | Diseases and disorders of the circulatory system | 29,606 | 38,142 | 36,979 | 14,010 | 9,589 | n.p. | n.p. | n.p. | 132,400 |
| 06 | Diseases and disorders of the digestive system | 25,697 | 33,725 | 34,903 | 13,013 | 8,948 | n.p. | n.p. | n.p. | 122,025 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 7,399 | 8,254 | 8,189 | 3,269 | 2,384 | n.p. | n.p. | n.p. | 30,930 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 59,833 | 63,244 | 56,325 | 32,630 | 21,919 | n.p. | n.p. | n.p. | 244,782 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 14,444 | 16,311 | 16,137 | 6,597 | 4,162 | n.p. | n.p. | n.p. | 60,494 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 11,095 | 8,294 | 11,705 | 5,936 | 2,477 | n.p. | n.p. | n.p. | 40,819 |
| 11 | Diseases and disorders of the kidney and urinary tract | 11,962 | 15,978 | 14,486 | 5,393 | 4,425 | n.p. | n.p. | n.p. | 54,655 |
| 12 | Diseases and disorders of the male reproductive system | 7,391 | 6,542 | 5,949 | 2,720 | 1,835 | n.p. | n.p. | n.p. | 25,513 |
| 13 | Diseases and disorders of the female reproductive system | 12,775 | 10,135 | 10,244 | 5,551 | 3,840 | n.p. | n.p. | n.p. | 44,896 |
| 14 | Pregnancy, childbirth and puerperium | 24,804 | 20,863 | 17,901 | 10,746 | 4,435 | n.p. | n.p. | n.p. | 83,284 |
| 15 | Newborns and other neonates | 4,505 | 3,115 | 2,383 | 1,690 | 803 | n.p. | n.p. | n.p. | 12,731 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 1,837 | 3,206 | 3,033 | 1,159 | 947 | n.p. | n.p. | n.p. | 10,517 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 1,711 | 3,369 | 2,848 | 1,537 | 848 | n.p. | n.p. | n.p. | 10,569 |
| 18 | Infectious and parasitic diseases | 2,481 | 4,053 | 4,617 | 1,551 | 834 | n.p. | n.p. | n.p. | 14,006 |
| 19 | Mental diseases and disorders | 1,466 | 565 | 534 | 159 | 68 | n.p. | n.p. | n.p. | 3,314 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 590 | 436 | 208 | 33 | 29 | n.p. | n.p. | n.p. | 1,343 |
| 21 | Injuries, poisoning and toxic effects of drugs | 2,878 | 4,643 | 5,217 | 2,312 | 1,145 | n.p. | n.p. | n.p. | 16,968 |
| 22 | Burns | 22 | 77 | 48 | 15 | 6 | n.p. | n.p. | n.p. | 184 |
| 23 | Factors influencing health status and other contacts with health services | 4,723 | 5,583 | 4,095 | 1,434 | 1,054 | n.p. | n.p. | n.p. | 17,732 |
| ED | Error DRGs ^(a) | 430 | 842 | 598 | 198 | 221 | n.p. | n.p. | n.p. | 2,349 |
| Total | | 279,375 | 307,474 | 298,633 | 136,482 | 86,565 | n.p. | n.p. | n.p. | 1,157,810 |

AR-DRG—Australian Refined 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 app

AR-DRGs

In 2016–17, the 2 most common AR-DRGs for overnight acute separations were for childbirth, followed by respiratory infections (Table 5.12).

Public hospitals provided the majority of overnight separations for *Vaginal delivery, intermediate complexity* and *Vaginal delivery, minor complexity* (78% and 79%, respectively).

Private hospitals provided more than 85% of overnight separations for *Sleep apnoea, minor complexity* and 81% of overnight separations for *Other shoulder procedures*.

Table 5.12: Separations for the 20 most common AR-DRG version 8.0 for overnight acute separations, public and private hospitals, 2016–17

| AR-DRG | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|------------------|
| O60B Vaginal delivery, intermediate complexity | 65,222 | 18,066 | 83,288 |
| O60C Vaginal delivery, minor complexity | 54,761 | 14,403 | 69,164 |
| E62A Respiratory infections and inflammations, major complexity | 46,805 | 7,004 | 53,809 |
| E63B Sleep apnoea, minor complexity | 9,168 | 43,400 | 52,568 |
| O01C Caesarean delivery, minor complexity | 29,379 | 21,595 | 50,974 |
| G70A Other digestive system disorders, major complexity | 38,760 | 8,022 | 46,782 |
| G10B Hernia procedures, minor complexity | 18,469 | 26,249 | 44,718 |
| J64B Cellulitis, minor complexity | 39,500 | 4,976 | 44,476 |
| F74B Chest pain, minor complexity | 38,212 | 5,979 | 44,191 |
| P68D Neonate, admission weight \geq 2500g without significant OR procedure/ventilation \geq 96hrs, \geq 37 completed weeks gestation, minor complexity | 37,601 | 5,302 | 42,903 |
| O01B Caesarean delivery, intermediate complexity | 31,526 | 11,142 | 42,668 |
| I04B Knee replacement, minor complexity | 14,398 | 28,090 | 42,488 |
| E62B Respiratory infections and inflammations, minor complexity | 33,453 | 6,549 | 40,002 |
| H08B Laparoscopic cholecystectomy, minor complexity | 22,158 | 17,362 | 39,520 |
| I16Z Other shoulder procedures | 7,028 | 30,953 | 37,981 |
| D11Z Tonsillectomy and adenoidectomy | 13,967 | 20,318 | 34,285 |
| I03B Hip replacement, minor complexity | 14,320 | 19,593 | 33,913 |
| E65B Chronic obstructive airways disease, minor complexity | 28,618 | 4,859 | 33,477 |
| G70B Other digestive system disorders, minor complexity | 28,010 | 4,928 | 32,938 |
| F42B Circulatory disorders, not admitted for AMI with invasive cardiac investigative procedures, minor comp | 9,950 | 21,587 | 31,537 |
| Other | 2,205,573 | 837,433 | 3,043,006 |
| Total | 2,786,878 | 1,157,810 | 3,944,688 |

AR-DRG—Australian Refined Diagnosis Related Group; AMI—acute myocardial infarction; OR—operating room; \geq —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 <<https://www.aihw.gov.au/reports-statistics/health-welfare-services/hospitals/data>>
- the IHPA website at <https://www.ihipa.gov.au/what-we-do/ar-drg-classification-system>.

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 2016–17, just over 13 million hours in ICU were reported for 159,000 separations (Table 5.13).

In public hospitals, almost 10.8 million hours (449,000 patient days) were spent in an ICU for 113,000 separations. Just over 1.7% of separations involved time in an ICU and the average period in ICU was 95 hours per separation (just under 4 days).

For private hospitals in New South Wales, Victoria, Queensland, Western Australia and South Australia, 2.3 million hours (96,500 patient days) were spent in an ICU for 46,000 separations. Just over 1.0% of separations involved time in an ICU and the average period in ICU was 50 hours per separation (just over 2 days).

Hours of continuous ventilatory support

In 2016–17, 4.1 million hours of CVS were reported for 48,000 separations (Table 5.14).

Public hospitals provided 3.7 million hours (154,000 patient days) of CVS for 40,000 separations. Overall, 0.6% 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 354,000 hours (15,000 patient days) of CVS was provided for 8,000 separations. Almost 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, 2016–17

| | NSW | Vic ^(a) | Qld | WA | SA | Tas | ACT | NT | Total |
|---|-----------|--------------------|-----------|-----------|---------|---------|---------|---------|------------|
| Public hospitals | | | | | | | | | |
| Number of hospitals reporting separations involving a stay in ICU | 45 | 29 | 8 | 11 | 7 | 2 | 2 | 2 | 106 |
| Separations involving a stay in ICU | 38,165 | 34,271 | 13,153 | 10,687 | 8,509 | 2,909 | 3,441 | 1,846 | 112,981 |
| Hours in ICU | 3,546,415 | 3,322,154 | 1,153,395 | 1,106,199 | 755,324 | 374,612 | 349,155 | 165,561 | 10,772,815 |
| Average duration of stay in ICU (hours) ^(b) | 92.9 | 96.9 | 87.7 | 103.5 | 88.8 | 128.8 | 101.5 | 89.7 | 95.4 |
| Separations that involved a stay in ICU per 1,000 separations | 19.8 | 19.3 | 9.4 | 16.4 | 19.5 | 23.4 | 29.8 | 11.6 | 17.2 |
| Private hospitals^(c) | | | | | | | | | |
| Separations involving a stay in ICU | 16,204 | 15,560 | 5,397 | 2,628 | 6,118 | n.a. | n.a. | n.a. | 45,907 |
| Hours in ICU | 788,615 | 766,772 | 314,281 | 141,833 | 306,668 | n.a. | n.a. | n.a. | 2,318,169 |
| Average duration of stay in ICU (hours) ^(b) | 48.7 | 49.3 | 58.2 | 54.0 | 50.1 | n.a. | n.a. | n.a. | 50.5 |
| Separations that involved a stay in ICU per 1,000 separations | 12.5 | 14.9 | 4.9 | 5.2 | 19.2 | 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|-----------|---------|---------|---------|---------|--------|--------|--------|-----------|
| Public hospitals | | | | | | | | | |
| Number of hospitals reporting separations involving CVS | 80 | 28 | 61 | 21 | 39 | 4 | 2 | 5 | 240 |
| Separations involving CVS | 10,679 | 12,632 | 7,334 | 3,298 | 3,546 | 1,153 | 366 | 534 | 39,542 |
| Hours of CVS | 1,106,241 | 967,624 | 832,967 | 342,677 | 290,624 | 85,762 | 23,329 | 53,974 | 3,703,198 |
| Average duration of CVS ^(a) | 103.6 | 76.6 | 113.6 | 103.9 | 82.0 | 74.4 | 63.7 | 101.1 | 93.7 |
| Separations that involved CVS per 1,000 separations | 5.5 | 7.1 | 5.3 | 5.1 | 8.1 | 9.3 | 3.2 | 3.4 | 6.0 |
| Private hospitals^(b) | | | | | | | | | |
| Separations involving CVS | 3,314 | 2,493 | 962 | 271 | 1,041 | n.a. | n.a. | n.a. | 8,081 |
| Hours of CVS | 86,131 | 87,373 | 110,935 | 18,141 | 51,608 | n.a. | n.a. | n.a. | 354,188 |
| Average duration of CVS ^(a) | 26.0 | 35.1 | 115.3 | 66.9 | 49.6 | n.a. | n.a. | n.a. | 43.8 |
| Separations that involved CVS per 1,000 separations | 2.6 | 2.4 | 0.9 | 0.5 | 3.3 | n.a. | n.a. | n.a. | 1.8 |

(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 2016–17, 159,000 separations reported a stay in ICU and 48,000 separations reported periods of CVS (Table 5.15).

Overall, 25% of separations (40,000) that reported hours in an ICU also reported hours of CVS—29% for public hospitals and 15% for private hospitals.

Over 84% of separations that reported hours of CVS also reported hours in an ICU (40,000 of 47,600).

Table 5.15: Numbers of separations reporting time in an intensive care unit or involving continuous ventilatory support, public and private hospitals, 2016–17

| | Separations that involved a stay in ICU | Separations that did not involve a stay ICU | Separations with ICU hours not reported | Total |
|--------------------------------------|---|---|---|-------------------|
| Public hospitals | | | | |
| Separations that involved CVS | 33,255 | 6,287 | 0 | 39,542 |
| Separations that did not involve CVS | 79,726 | 6,468,080 | 0 | 6,547,806 |
| CVS hours not reported | 0 | 0 | 0 | 0 |
| <i>Total public hospitals</i> | <i>112,981</i> | <i>6,474,367</i> | <i>0</i> | <i>6,587,348</i> |
| Private hospitals | | | | |
| Separations that involved CVS | 6,811 | 1,270 | 0 | 8,081 |
| Separations that did not involve CVS | 39,096 | 4,219,328 | 0 | 4,258,424 |
| CVS hours not reported | 0 | 0 | 159,962 | 159,962 |
| <i>Total private hospitals</i> | <i>45,907</i> | <i>4,220,598</i> | <i>159,962</i> | <i>4,426,467</i> |
| All hospitals | | | | |
| Separations that involved CVS | 40,066 | 7,557 | 0 | 47,623 |
| Separations that did not involve CVS | 118,822 | 10,687,408 | 0 | 10,806,230 |
| CVS hours not reported | 0 | 0 | 159,962 | 159,962 |
| Total | 158,888 | 10,694,965 | 159,962 | 11,013,815 |

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 2016–17, 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 identifier: 584408).

Changes over time

Between 2012–13 and 2016–17, rehabilitation care rose by an average of 9.8% per year in private hospitals and fell by 2.0% per year in public hospitals. For private hospitals, the number of rehabilitation care separations increased by 5.4% between 2015–16 and 2016–17 (Table 4.6).

Between 2015–16 and 2016–17, the number of rehabilitation care separations in public hospitals decreased for Northern Territory (9%), Victoria (2%), Queensland (2%) and New South Wales (1%). For South Australia, the decrease in *Rehabilitation care* separations was, in part, due to the reclassification of some rehabilitation care from admitted patient care to non-admitted patient care for one public hospital—resulting in a decrease of about 7,000 separations. Rehabilitation care in public hospitals increased in other states and territories, with the largest increase in Tasmania (7%).

For Queensland, the number of rehabilitation care separations in private hospitals increased by 9% between 2015–16 and 2016–17 (Table 4.7 and AIHW 2017a).

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 2016–17?

In 2016–17, there were almost 445,000 rehabilitation care separations, with the majority (79%) occurring in private hospitals. Rehabilitation care accounted for 96% of subacute and non-acute separations for private hospitals and 48% 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 0.9% of separations in Western Australia to 7.9% of separations in New South Wales (Table 4.7).

Who used these services?

This section presents information by the patient's sex, age group, Indigenous status and for the remoteness and socioeconomic status (SES) of the patient's area of usual residence.

Age group and sex

Females accounted for more than half (57%) of all rehabilitation care separations (Table 5.16). There were more separations for males than for females in the age groups 0–9 years, 15–19 and 35–39 years. People aged 60 and over accounted for 81% of all rehabilitation care separations.

Table 5.16: Separations for rehabilitation care, by age group and sex, all hospitals, 2016–17

| Age group | Male | Female | Total |
|--------------|----------------|----------------|----------------|
| 0–4 | 149 | 129 | 278 |
| 5–9 | 179 | 132 | 311 |
| 10–14 | 283 | 327 | 610 |
| 15–19 | 1,054 | 984 | 2,038 |
| 20–24 | 1,246 | 1,279 | 2,525 |
| 25–19 | 1,301 | 1,598 | 2,899 |
| 30–34 | 1,637 | 1,814 | 3,451 |
| 35–39 | 2,723 | 2,446 | 5,169 |
| 40–44 | 3,592 | 3,738 | 7,330 |
| 45–49 | 4,932 | 6,376 | 11,308 |
| 50–54 | 8,265 | 10,283 | 18,548 |
| 55–59 | 13,620 | 16,954 | 30,574 |
| 60–64 | 19,998 | 25,482 | 45,480 |
| 65–69 | 27,821 | 35,484 | 63,305 |
| 70–74 | 30,839 | 39,127 | 69,987 |
| 75–79 | 27,841 | 35,766 | 63,607 |
| 80–84 | 21,303 | 31,646 | 52,949 |
| 85 and over | 24,278 | 40,328 | 64,606 |
| Total | 191,061 | 253,893 | 444,975 |

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 2016–17, Indigenous Australians had lower separation rates for rehabilitation care than other Australians (8.0 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 4.2%, respectively).

Table 5.17: Separations for rehabilitation care, by Indigenous status, all hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) | Per 1,000 population |
|--|----------------|---------------|---------------|---------------|---------------|--------------------|--------------------|-------------------|----------------------|----------------------|
| Indigenous Australians | | | | | | | | | | |
| Separations | 1,173 | 191 | 874 | 219 | 193 | 27 | 18 | 162 | 2,975 | 8.0 |
| Proportion of all hospital separations (%) | 1.1 | 0.7 | 0.7 | 0.2 | 0.7 | 0.5 | 0.0 | 0.1 | 0.6 | .. |
| Other Australians^(c) | | | | | | | | | | |
| Separations | 259,580 | 43,165 | 84,692 | 10,590 | 30,018 | 1,075 | 2,306 | 135 | 442,000 | 15.8 |
| Proportion of all hospital separations (%) | 8.3 | 1.5 | 3.6 | 1.0 | 4.1 | 0.9 | 0.0 | 0.3 | 4.2 | .. |
| Total | 260,753 | 43,356 | 85,566 | 10,809 | 30,211 | 1,102 | 2,324 | 297 | 444,975 | 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 2016–17, 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 2.0 per 1,000 population for people living in *Remote* areas to 3.8 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 2.3 per 1,000 for people living in *Remote* areas to 15.3 per 1,000 for people living in *Major cities*.

Table 5.18: Separation statistics for rehabilitation care, by remoteness of area of usual residence, public and private hospitals, 2016–17

| | Remoteness of area of usual residence | | | | | Total ^(a) |
|--------------------------|---------------------------------------|----------------|----------------|--------|-------------|----------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Public hospitals | | | | | | |
| Separations | 70,918 | 16,291 | 6,428 | 572 | 409 | 95,041 |
| Separations per 1,000 | 3.8 | 2.8 | 2.5 | 2.0 | 3.2 | 3.4 |
| Separation rate ratio | 1.1 | 0.8 | 0.7 | 0.6 | 0.9 | .. |
| Private hospitals | | | | | | |
| Separations | 288,918 | 49,530 | 9,818 | 552 | 193 | 349,934 |
| Separations per 1,000 | 15.3 | 8.3 | 3.7 | 2.3 | 3.6 | 12.5 |
| Separation rate ratio | 1.2 | 0.7 | 0.3 | 0.2 | 0.3 | .. |

(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) (for public and private hospitals combined, 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 usual residence, public and private hospitals, 2016–17

| | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|--------------------------|---|--------|--------|--------|-----------|----------------------|
| | 1–Lowest | 2 | 3 | 4 | 5–Highest | |
| Public hospitals | | | | | | |
| Separations | 19,019 | 20,439 | 18,498 | 19,078 | 17,567 | 95,041 |
| Separations per 1,000 | 3.2 | 3.5 | 3.4 | 3.8 | 3.4 | 3.4 |
| Separation rate ratio | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 | .. |
| Private hospitals | | | | | | |
| Separations | 45,985 | 54,205 | 64,572 | 69,365 | 114,872 | 349,934 |
| Separations per 1,000 | 7.6 | 9.0 | 11.5 | 13.7 | 22.1 | 12.5 |
| 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 36% 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 (33%) 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, 2016–17

| Admission mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| New admission to hospital ^(a) | 29,086 | 278,024 | 307,110 |
| Admitted patient transferred from another hospital | 31,291 | 49,166 | 80,457 |
| Statistical admission: care type change | 34,609 | 22,725 | 57,334 |
| Not reported | 55 | 19 | 74 |
| Total | 95,041 | 349,934 | 444,975 |

(a) *New admission to hospital* is equivalent to *Other* in the admission mode 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 2016–17, 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 88% of rehabilitation care separations in private hospitals and 41% in public hospitals. Just over 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, 2016–17

| Urgency of admission | Public hospitals | Private hospitals | Total |
|----------------------------|------------------|-------------------|----------------|
| Emergency | 2,995 | 448 | 3,443 |
| Elective | 38,750 | 309,157 | 347,907 |
| Not assigned | 53,296 | 40,329 | 93,625 |
| Total^(a) | 95,041 | 349,934 | 444,975 |

(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 2016–17, 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* (16%), 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, 92% of separations for *Diseases of the musculoskeletal system and connective tissue* were from private hospitals, and 72% 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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|----------------|
| A00–B99 | Certain infectious and parasitic diseases | 1,321 | 1,133 | 2,454 |
| C00–D48 | Neoplasms | 2,909 | 8,087 | 10,996 |
| D50–D89 | Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 197 | 247 | 444 |
| E00–E89 | Endocrine, nutritional and metabolic diseases | 1,543 | 1,204 | 2,747 |
| F00–F99 | Mental and behavioural disorders | 1,310 | 508 | 1,818 |
| G00–G99 | Diseases of the nervous system | 11,051 | 19,668 | 30,719 |
| H00–H59 | Diseases of the eye and adnexa | 81 | 177 | 258 |
| H60–H95 | Diseases of the ear and mastoid process | 593 | 526 | 1,119 |
| I00–I99 | Diseases of the circulatory system | 18,409 | 31,392 | 49,801 |
| J00–J99 | Diseases of the respiratory system | 3,035 | 6,599 | 9,634 |
| K00–K93 | Diseases of the digestive system | 1,780 | 2,719 | 4,499 |
| L00–L99 | Diseases of the skin and subcutaneous tissue | 888 | 1,375 | 2,263 |
| M00–M99 | Diseases of the musculoskeletal system and connective tissue | 17,641 | 198,727 | 216,368 |
| N00–N99 | Diseases of the genitourinary system | 938 | 1,435 | 2,373 |
| Q00–Q99 | Congenital malformations, deformations and chromosomal abnormalities | 197 | 810 | 1,007 |
| R00–R99 | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 9,468 | 27,881 | 37,349 |
| S00–T99 | Injury, poisoning and certain other consequences of external causes | 22,860 | 46,645 | 69,505 |
| Z00–Z99 | Factors influencing health status and contact with health services | 802 | 796 | 1,598 |
| | Other ICD-10-AM chapters ^(a) | 5 | 4 | 9 |
| | Not reported | 13 | 1 | 14 |
| Total | Total rehabilitation care separations | 95,041 | 349,934 | 444,975 |

(a) All other principal diagnoses for which there were fewer than 100 in the ICD-10-AM chapter, comprising O00-O99 *Pregnancy, childbirth and the puerperium* and P00-P96 *Certain conditions originating in the perinatal period*.

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 two-thirds of rehabilitation care separations, including 55% 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)* (95 and 93% respectively).

Public hospitals provided 63% of rehabilitation care separations for *Cerebral infarction* and *Intracerebral haemorrhage*.

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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|----------------|
| M17 | Gonarthrosis (arthrosis of knee) | 5,172 | 93,168 | 98,340 |
| M16 | Coxarthrosis (arthrosis of hip) | 2,710 | 36,139 | 38,849 |
| S72 | Fracture of femur | 8,210 | 12,298 | 20,508 |
| M54 | Dorsalgia | 1,233 | 15,481 | 16,714 |
| R26 | Abnormalities of gait and mobility | 4,060 | 10,950 | 15,010 |
| M25 | Other joint disorders, not elsewhere classified | 2,263 | 12,605 | 14,868 |
| I63 | Cerebral infarction | 9,306 | 5,442 | 14,748 |
| T84 | Complications of internal orthopaedic prosthetic devices, implants and grafts | 927 | 7,186 | 8,113 |
| S32 | Fracture of lumbar spine and pelvis | 2,602 | 5,457 | 8,059 |
| G20 | Parkinson's disease | 2,180 | 5,551 | 7,731 |
| S82 | Fracture of lower leg, including ankle | 2,032 | 5,692 | 7,724 |
| R29 | Other symptoms and signs involving the nervous and musculoskeletal systems | 1,347 | 6,277 | 7,624 |
| M48 | Other spondylopathies | 834 | 6,741 | 7,575 |
| M51 | Other intervertebral disc disorders | 569 | 5,898 | 6,467 |
| I25 | Chronic ischaemic heart disease | 293 | 5,746 | 6,039 |
| R53 | Malaise and fatigue | 526 | 5,375 | 5,901 |
| G81 | Hemiplegia | 2,252 | 3,273 | 5,525 |
| S06 | Intracranial injury | 2,384 | 1,458 | 3,842 |
| I61 | Intracerebral haemorrhage | 2,222 | 1,288 | 3,510 |
| S42 | Fracture of shoulder and upper arm | 1,044 | 2,428 | 3,472 |
| | Other | 42,875 | 101,481 | 144,356 |
| Total | | 95,041 | 349,934 | 444,975 |

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

Procedures

In 2016–17, 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 84% of procedures reported. They included physiotherapy (33%), occupational therapy (17%) and hydrotherapy (10%).

Some procedures were predominantly provided in private hospitals, such as hydrotherapy (95%) and exercise therapy (98%).

Table 5.24: The 10 most common ACHI procedures for rehabilitation care, public and private hospitals, 2016–17

| Procedure code and description | | Public hospitals | Private hospitals | Total |
|--------------------------------|--|------------------|-------------------|------------------|
| 95550-03 | Allied health intervention, physiotherapy | 84,222 | 393,642 | 477,864 |
| 95550-02 | Allied health intervention, occupational therapy | 66,734 | 180,723 | 247,457 |
| 96153-00 | Hydrotherapy | 7,780 | 141,905 | 149,685 |
| 96129-00 | Exercise therapy, total body | 2,024 | 81,966 | 83,990 |
| 95550-01 | Allied health intervention, social work | 43,263 | 24,333 | 67,596 |
| 95550-00 | Allied health intervention, dietetics | 29,064 | 29,336 | 58,400 |
| 95550-11 | Allied health intervention, other | 3,095 | 46,159 | 49,254 |
| 95550-05 | Allied health intervention, speech pathology | 24,432 | 16,442 | 40,874 |
| 96130-00 | Skills training in activities related to body position/mobility/movement | 101 | 33,368 | 33,469 |
| 95550-09 | Allied health intervention, pharmacy | 17,746 | 7,988 | 25,734 |
| | Other procedures | 43,605 | 187,610 | 231,215 |
| Total procedures | | 322,066 | 1,143,472 | 1,465,538 |

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

Length of stay

In 2016–17, the average length of stay for rehabilitation care separations was 14.4 days in public hospitals, and 3.9 days in private hospitals. In part, this reflects the high proportion of rehabilitation care provided on a same-day basis 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?

Over 69% 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 2% of rehabilitation care separations in public hospitals and 7% in private hospitals. See 'Chapter 7 Costs and funding' for similar information for all separations.

How was care completed?

In 2016–17, the most common mode of separation for rehabilitation care separations was *Discharged home* (93%) (Table 5.26).

Over 9% 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 funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| Public patients ^(a) | 65,866 | 812 | 66,678 |
| Private health insurance | 24,698 | 303,317 | 328,015 |
| Self-funded | 255 | 3,577 | 3,832 |
| Workers compensation | 578 | 7,244 | 7,822 |
| Motor vehicle third party personal claim | 1,145 | 1,985 | 3,130 |
| Department of Veterans' Affairs | 2,151 | 24,787 | 26,938 |
| Other ^(b) | 348 | 767 | 1,115 |
| Total^(c) | 95,041 | 349,934 | 444,975 |

(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.

(c) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and for all hospitals, but are included in the total row.

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, 2016–17

| Separation mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| Discharged home ^(a) | 71,903 | 340,563 | 412,466 |
| Discharge/transfer to an (other) acute hospital | 8,955 | 4,157 | 13,112 |
| Discharge/transfer to residential aged care service ^(b) | 2,750 | 1,185 | 3,935 |
| Discharge/transfer to an (other) psychiatric hospital | 6 | 1 | 7 |
| Discharge/transfer to other health care accommodation | 1,215 | 393 | 1,608 |
| Statistical discharge: type change | 8,976 | 3,216 | 12,192 |
| Left against medical advice/discharge at own risk | 702 | 276 | 978 |
| Statistical discharge from leave | 201 | 15 | 216 |
| Died | 281 | 128 | 409 |
| Total^(c) | 95,041 | 349,934 | 444,975 |

(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 separation mode 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 2016–17 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.

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 *Palliative care services in Australia* (AIHW 2017e), which includes a section describing admitted care separations with a care type of palliative care and/or an additional diagnosis of *Palliative care*.

Palliative care is defined in the NHMD as 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 identifier: 584408).

Changes over time

Between 2012–13 and 2016–17, 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 2016–17, palliative care separations in public hospitals increased for all states and territories except South Australia (AIHW 2017a and Table 4.6). Over the same period, palliative care separations in private hospitals decreased by 8.0%, and by 2.1% 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. Therefore, changes in the care type definitions should be considered when interpreting changes over time.

How much activity was there in 2016–17?

In 2016–17, there were more than 43,000 separations with a care type of palliative care. These 43,000 separations are the focus of this section and are presented in tables 5.28 to 5.36.

However, 77,000 separations were identified as providing some form of palliative care regardless of the care type specified (Table 5.27). These separations are identified either by 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, 2016–17

| | Care type | Diagnosis | Care type and/or diagnosis |
|---|---------------|---------------|----------------------------|
| New South Wales | 15,403 | 22,531 | 23,486 |
| Victoria | 8,434 | 21,570 | 21,572 |
| Queensland | 10,672 | 13,841 | 13,859 |
| Western Australia | 4,507 | 7,005 | 7,005 |
| South Australia | 2,219 | 6,484 | 6,618 |
| Tasmania ^(a) | 704 | 2,177 | 2,192 |
| Australian Capital Territory ^(a) | 827 | 1,232 | 1,244 |
| Northern Territory ^(a) | 404 | 694 | 742 |
| Total ^(b) | 43,484 | 76,170 | 77,369 |

(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.

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, limited to those separations with a *Palliative care* type.

Aboriginal and Torres Strait Islander people

In 2016–17, 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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) | Per 1,000 population |
|--|---------------|--------------|---------------|--------------|--------------|--------------------|--------------------|-------------------|----------------------|----------------------|
| Indigenous Australians | | | | | | | | | | |
| Total Indigenous Australians | 292 | 64 | 264 | 129 | 41 | 20 | 9 | 132 | 955 | 2.7 |
| Proportion of all hospital separations (%) | 0.3 | 0.2 | 0.2 | 0.1 | 0.2 | 0.4 | 0.3 | 0.1 | 0.2 | |
| Other Australians | | | | | | | | | | |
| Total other Australians | 15,111 | 8,370 | 10,408 | 4,378 | 2,178 | 684 | 818 | 272 | 42,529 | 1.5 |
| Proportion of all hospital separations (%) | 0.5 | 0.3 | 0.4 | 0.4 | 0.3 | 0.6 | 0.7 | 0.6 | 0.4 | |
| Total | 15,403 | 8,434 | 10,672 | 4,507 | 2,219 | 704 | 827 | 404 | 43,484 | 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 generally increased with increasing remoteness. From 1.2 per 1,000 population for people living in *Major cities* to 2.0 per 1,000 for people living in *Very remote* areas (Table 5.29).

Table 5.29: Separation statistics for palliative care, by remoteness of area of usual residence, public and private hospitals, 2016–17

| | Remoteness of area of usual residence | | | | | Total ^(a) |
|----------------------------------|---------------------------------------|----------------|----------------|--------|-------------|----------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Public hospitals | | | | | | |
| Separations | 23,424 | 8,648 | 4,486 | 462 | 193 | 37,315 |
| Separations per 1,000 population | 1.2 | 1.4 | 1.7 | 1.7 | 2.0 | 1.3 |
| Separation rate ratio | 0.9 | 1.1 | 1.3 | 1.3 | 1.5 | .. |
| Private hospitals | | | | | | |
| Separations | 4,497 | 1,155 | 469 | 34 | 12 | 6,169 |
| Separations per 1,000 population | 0.3 | 0.2 | 0.3 | 0.2 | 0.1 | 0.3 |
| Separation rate ratio | 1.1 | 0.9 | 1.0 | 0.9 | 0.5 | .. |

(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 1.8 per 1,000 for the lowest SES group (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 0.7 per 1,000 population for people living in areas classified in the highest SES group to 1.2 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, 2016–17

| | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|----------------------------------|---|-------|-------|-------|-----------|----------------------|
| | 1—Lowest | 2 | 3 | 4 | 5—Highest | |
| Public hospitals | | | | | | |
| Separations | 9,798 | 9,015 | 7,415 | 5,904 | 5,078 | 37,315 |
| 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 | 0.7 | .. |
| Private hospitals | | | | | | |
| Separations | 760 | 972 | 1,203 | 1,483 | 1,748 | 6,169 |
| Separations per 1,000 population | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 |
| Separation rate ratio | 0.6 | 0.7 | 1.0 | 1.3 | 1.4 | .. |

(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 (for example, transferred from another hospital), the urgency of admission (for elective or emergency care) and the diagnoses reported.

Mode of admission

Almost 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 43% 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 (37%) of *Admitted patient transferred from another hospital* than public hospitals (18%).

Table 5.31: Separations for palliative care by mode of admission, public and private hospitals, 2016–17

| Admission mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|---------------|
| New admission to hospital ^(a) | 14,140 | 3,110 | 17,250 |
| Admitted patient transferred from another hospital | 6,891 | 2,294 | 9,185 |
| Statistical admission: care type change | 16,117 | 763 | 16,880 |
| Not reported | 167 | 2 | 169 |
| Total | 37,315 | 6,169 | 43,484 |

(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 2016–17, 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. Overall, 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, 2016–17

| Urgency of admission | Public hospitals | Private hospitals | Total |
|----------------------------|------------------|-------------------|---------------|
| Emergency | 7,328 | 797 | 8,125 |
| Elective | 9,646 | 4,388 | 14,034 |
| Not assigned | 20,340 | 984 | 21,324 |
| Total^(a) | 37,315 | 6,169 | 43,484 |

(a) Total includes 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 56% 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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|--|--|------------------|-------------------|---------------|
| Neoplasm-related | | | | |
| C34 | Malignant neoplasm of bronchus and lung | 3,470 | 558 | 4,028 |
| C79 | Secondary malignant neoplasm of other and unspecified sites | 2,053 | 426 | 2,479 |
| C78 | Secondary malignant neoplasm of respiratory and digestive organs | 1,882 | 388 | 2,270 |
| C25 | Malignant neoplasm of pancreas | 1,298 | 310 | 1,608 |
| C61 | Malignant neoplasm of prostate | 911 | 215 | 1,126 |
| | Other neoplasm-related principal diagnosis | 10,479 | 2,180 | 12,659 |
| Other | | | | |
| J44 | Other chronic obstructive pulmonary disease | 1,178 | 116 | 1,294 |
| I50 | Heart failure | 1,095 | 159 | 1,254 |
| A41 | Other sepsis | 1,114 | 64 | 1,178 |
| J18 | Pneumonia, organism unspecified | 881 | 52 | 933 |
| J69 | Pneumonitis due to solids and liquids | 817 | 52 | 869 |
| | Other (excludes neoplasm-related principal diagnoses) | 12,137 | 1,649 | 13,786 |
| Total Palliative care separations | | 37,315 | 6,169 | 43,484 |

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).

Almost 26% of palliative care separations did not report a procedure.

Length of stay

The average length of stay for palliative care separations was 9.5 days in public hospitals, and 12.6 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, 2016–17

| Procedure code and description | | Public hospitals | Private hospitals | Total |
|--------------------------------|--|------------------|-------------------|---------------|
| 95550-01 | Allied health intervention, social work | 15,826 | 1,561 | 17,387 |
| 95550-03 | Allied health intervention, physiotherapy | 14,446 | 2,065 | 16,511 |
| 95550-02 | Allied health intervention, occupational therapy | 9,794 | 846 | 10,640 |
| 95550-00 | Allied health intervention, dietetics | 8,023 | 643 | 8,666 |
| 95550-12 | Allied health intervention, pastoral care | 6,307 | 1,028 | 7,335 |
| 95550-05 | Allied health intervention, speech pathology | 5,820 | 362 | 6,182 |
| 95550-09 | Allied health intervention, pharmacy | 5,483 | 361 | 5,844 |
| 96027-00 | Prescribed/self-selected medication assessment | 2,999 | 6 | 3,005 |
| 13706-02 | Administration of packed cells | 1,046 | 305 | 1,351 |
| 96104-00 | Music therapy | 866 | 56 | 922 |
| | Other procedures | 8,312 | 2,776 | 11,088 |
| | No procedure reported | 9,413 | 1,836 | 11,249 |
| Total procedures | | 78,922 | 10,009 | 88,931 |

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

Who paid for the care?

Just over 75% of palliative care separations from public hospitals and 32% of palliative care separations from private hospitals were for *Public patients* (Table 5.35).

Just over 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 5% in private hospitals.

Table 5.35: Separations for palliative care, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|---------------|
| Public patients ^(a) | 28,159 | 1,966 | 30,125 |
| Private health insurance | 7,654 | 3,354 | 11,008 |
| Self-funded | 73 | 65 | 138 |
| Workers compensation | 36 | 1 | 37 |
| Motor vehicle third party personal claim | 20 | 49 | 69 |
| Department of Veterans Affairs | 1,325 | 336 | 1,661 |
| Other ^(b) | 48 | 398 | 446 |
| Total | 37,315 | 6,169 | 43,484 |

(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 care completed?

In 2016–17, the most common mode of separation for palliative care separations was *Died* (62%) (Table 5.36). Over one-quarter (26%) 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, 2016–17

| Separation mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|---------------|
| Discharged home ^(a) | 9,040 | 2,094 | 11,134 |
| Discharge/transfer to an (other) acute hospital | 2,394 | 223 | 2,617 |
| Discharge/transfer to residential aged care service ^(b) | 1,359 | 117 | 1,476 |
| Discharge/transfer to an (other) psychiatric hospital | 1 | 0 | 1 |
| Discharge/transfer to other health care accommodation | 357 | 7 | 364 |
| Statistical discharge: type change | 608 | 107 | 715 |
| Left against medical advice/discharge at own risk | 118 | 7 | 125 |
| Statistical discharge from leave | 145 | 2 | 147 |
| Died | 23,283 | 3,612 | 26,895 |
| Total^(c) | 37,315 | 6,169 | 43,484 |

(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 at <www.aihw.gov.au/reports-statistics/health-welfare-services/palliative-care-services/overview>.

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

5.6 Mental health care

This section presents an overview of *Mental health care* provided for admitted patients in both public and private hospitals. It includes information for 2016–17 about who used these services, why they received care, who paid for the care and how the episode ended.

In this report, mental health care refers to separations for which the care type was reported as *Mental health*.

Mental health care is defined in the NHMD as 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, and
- may include significant psychosocial components, including family and carer support. (METeOR identifier: 584408).

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* or *Geriatric evaluation and management*).

The number of mental health separations presented in this section differs from the number presented in Section 5.1 'Broad categories of service' (see tables 5.1 and 5.2) as this section includes childbirth separations for which the care type was reported as *Mental health* (which were included in the *Childbirth* category in Section 5.1).

In 2015–16, some jurisdictions advised that the implementation of the mental health care type was not complete in 2015–16. For 2016–17, implementation of the mental health care type was considered almost complete.

During 2016–17, New South Wales statistically discharged and readmitted all mental health-related patients in *Public hospitals* to record the change in care type, which affected the number of separations, patient days and average length of stay (see Box 1.2).

As there have been changes in how mental health care is reported and described over time, information presented by care type for 2015–16 and 2016–17 is not comparable with data for earlier periods and changes over time should be treated with caution (see Chapter 4).

The AIHW report *Mental health services in Australia* (MHSA) (AIHW 2018) includes more detailed information on the provision of admitted patient mental health care. MHSA presents information from a range of data sources and identifies admitted patient mental health care by the reporting of specialised psychiatric care days and/or a mental health-related principal diagnosis. The data presented in MHSA will also differ to those presented in this section due to different data sources, particularly the data for same-day activity in private hospitals which, for MHSA, is sourced from the Private Hospitals Association Private Psychiatric Hospitals Data Reporting and Analysis Service. Data presented in MHSA lags this publication, and will be updated with 2016–17 data later in 2018.

For information on the numbers of separations for which specialised psychiatric care days and/or a mental health-related principal diagnosis were reported, see Appendix A.

How much activity was there in 2016–17?

In 2016–17, there were 326,000 mental health care separations, with the majority (55%) occurring in private hospitals (Table 5.37). The proportion of admitted patient care that was mental health care varied among states and territories (whose private hospital data could be reported), ranging from 1.7% of separations in Western Australia to 4.0% in Queensland.

The majority (83%) of mental health care separations in public hospitals involved a stay of at least one night. For private hospitals, the majority (77%) of mental health care separations was for same-day care.

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 (57%) of all mental health care separations (Table 5.38). There were more separations for females than for males in all age groups except those aged 0 to 9 years. People aged 0 to 59 accounted for 82% of mental health care separations.

Aboriginal and Torres Strait Islander people

In 2016–17, Indigenous Australians had higher separation rates for mental health care than other Australians (18.2 per 1,000 and 13.3 per 1,000, respectively) (Table 5.39). However, mental health care accounted for a smaller proportion of all separations for Indigenous Australians compared with other Australians (2.3% and 3.0%, respectively).

Remoteness area

In 2016–17, the majority of mental health care separations were for people living in *Major cities*, including 77% in public hospitals and 83% in private hospitals (Table 5.40).

The separation rate ratios (SRRs) (see Glossary) also indicate notable differences in the separation rates for mental health care across remoteness areas for both public and private hospitals.

For public hospitals, the rate of mental health care varied from 4.5 per 1,000 population for people living in *Remote* areas to 6.2 per 1,000 for people living in *Inner regional* areas. For private hospitals, the rate of mental health care ranged from 1.0 per 1,000 for people living in *Very remote* areas to 9.0 per 1,000 for people living in *Major cities*.

Table 5.37: Mental health care separations, by same-day/overnight status, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|---------------|---------------|---------------|---------------|---------------|--------------|--------------|-------------|----------------|
| Public hospitals | | | | | | | | | |
| Same-day separations | 7,393 | 1,088 | 10,747 | 1,314 | 3,451 | 1,018 | 143 | 27 | 25,181 |
| Overnight separations | 41,446 | 25,782 | 24,523 | 12,786 | 10,973 | 2,744 | 1,996 | 923 | 121,173 |
| <i>Separations</i> | <i>48,839</i> | <i>26,870</i> | <i>35,270</i> | <i>14,100</i> | <i>14,424</i> | <i>3,762</i> | <i>2,139</i> | <i>950</i> | <i>146,354</i> |
| Same-day separations per 1,000 population | 0.8 | 0.2 | 2.2 | 0.5 | 2.0 | 1.9 | 0.3 | 0.1 | 1.0 |
| Overnight separations per 1,000 population | 5.5 | 4.2 | 5.2 | 5.0 | 6.7 | 5.6 | 4.8 | 3.5 | 5.1 |
| <i>Separations per 1,000 population</i> | <i>6.3</i> | <i>4.4</i> | <i>7.5</i> | <i>5.5</i> | <i>8.7</i> | <i>7.5</i> | <i>5.2</i> | <i>3.6</i> | <i>6.1</i> |
| Private hospitals | | | | | | | | | |
| Same-day separations | 47,828 | 27,147 | 54,819 | 764 | 628 | n.p. | n.p. | n.p. | 138,427 |
| Overnight separations | 11,528 | 11,400 | 11,126 | 5,056 | 1,375 | n.p. | n.p. | n.p. | 41,580 |
| <i>Separations</i> | <i>59,356</i> | <i>38,547</i> | <i>65,945</i> | <i>5,820</i> | <i>2,003</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>180,007</i> |
| Same-day separations per 1,000 population | 6.1 | 4.3 | 11.1 | 0.3 | 0.3 | n.p. | n.p. | n.p. | 5.6 |
| Overnight separations per 1,000 population | 1.5 | 1.8 | 2.3 | 2.0 | 0.8 | n.p. | n.p. | n.p. | 1.7 |
| <i>Separations per 1,000 population</i> | <i>7.5</i> | <i>6.2</i> | <i>13.4</i> | <i>2.3</i> | <i>1.1</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>7.3</i> |

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

Table 5.38: Separations for mental health care, by age group and sex, all hospitals, 2016–17

| Age group | Male | Female | Total |
|--------------|----------------|----------------|----------------|
| 0–4 | 209 | 182 | 391 |
| 5–9 | 643 | 89 | 732 |
| 10–14 | 1,088 | 1,677 | 2,767 |
| 15–19 | 5,560 | 11,581 | 17,145 |
| 20–24 | 11,806 | 17,860 | 29,686 |
| 25–29 | 12,947 | 16,689 | 29,637 |
| 30–34 | 14,415 | 17,387 | 31,803 |
| 35–39 | 15,825 | 17,416 | 33,241 |
| 40–44 | 15,288 | 17,874 | 33,162 |
| 45–49 | 14,127 | 19,956 | 34,084 |
| 50–54 | 11,648 | 16,654 | 28,303 |
| 55–59 | 10,474 | 16,578 | 27,053 |
| 60–64 | 8,729 | 12,329 | 21,058 |
| 65–69 | 6,926 | 7,214 | 14,141 |
| 70–74 | 4,254 | 5,084 | 9,338 |
| 75–79 | 2,148 | 3,351 | 5,499 |
| 80–84 | 1,368 | 2,210 | 3,578 |
| 85+ | 1,446 | 3,297 | 4,743 |
| Total | 138,901 | 187,428 | 326,361 |

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

Table 5.39: Separations for mental health care, by Indigenous status, all hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas ^(a) | ACT ^(a) | NT ^(a) | Total ^(b) | Per 1,000 population |
|--|----------------|---------------|----------------|---------------|---------------|--------------------|--------------------|-------------------|----------------------|----------------------|
| Indigenous Australians | | | | | | | | | | |
| Separations | 4,329 | 910 | 3,812 | 1,203 | 865 | 232 | 139 | 468 | 12,140 | 18.2 |
| Proportion of all hospital separations (%) | 4.0 | 3.4 | 3.0 | 1.1 | 3.3 | 4.4 | 4.4 | 0.4 | 2.3 | .. |
| Other Australians^(c) | | | | | | | | | | |
| Separations | 103,866 | 64,507 | 97,403 | 18,717 | 15,562 | 3,530 | 2,000 | 482 | 314,221 | 13.3 |
| Proportion of all hospital separations (%) | 3.3 | 2.3 | 4.1 | 1.8 | 2.1 | 3.0 | 1.8 | 1.0 | 3.0 | .. |
| Total | 108,195 | 65,417 | 101,215 | 19,920 | 16,427 | 3,762 | 2,139 | 950 | 326,361 | 13.4 |

(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.

Table 5.40: Separation statistics for mental health care, by remoteness of area of usual residence, public and private hospitals, 2016–17

| | Remoteness of area of usual residence | | | | | Total ^(a) |
|--------------------------|---------------------------------------|----------------|----------------|--------|-------------|----------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Public hospitals | | | | | | |
| Separations | 104,041 | 24,739 | 11,052 | 1,288 | 773 | 146,354 |
| Separations per 1,000 | 6.0 | 6.2 | 5.8 | 4.6 | 4.5 | 6.1 |
| Separation rate ratio | 1.0 | 1.0 | 0.9 | 0.8 | 0.7 | .. |
| Private hospitals | | | | | | |
| Separations | 148,828 | 24,876 | 5,784 | 340 | 106 | 180,007 |
| Separations per 1,000 | 9.0 | 5.9 | 3.0 | 1.6 | 1.0 | 7.8 |
| Separation rate ratio | 1.2 | 0.8 | 0.4 | 0.2 | 0.1 | .. |

(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

Separation rates for mental health care varied from 16 per 1,000 population for patients living in areas classified as being the highest SES group (least disadvantaged) to 12 per 1,000 for the lowest and second lowest SES groups (Table 5.41).

For public hospitals, the rates ranged from less than 5 per 1,000 for patients living in areas classified as being the highest SES group to 8 per 1,000 for the lowest and second lowest SES groups.

For private hospitals, the SRRs indicate notable differences in the separation rates for mental health care across SES groups—from 5 per 1,000 population for people living in areas classified as the lowest SES group to 11 per 1,000 for people living in areas classified as the highest SES group.

Table 5.41: Separation statistics for mental health care, by socioeconomic status of area of usual residence, public and private hospitals, 2016–17

| | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|--------------------------|---|--------|--------|--------|-----------|----------------------|
| | 1–Lowest | 2 | 3 | 4 | 5–Highest | |
| Public hospitals | | | | | | |
| Separations | 34,925 | 31,071 | 27,113 | 26,780 | 21,889 | 146,354 |
| Separations per 1,000 | 7.5 | 6.6 | 5.7 | 5.5 | 4.6 | 6.1 |
| Separation rate ratio | 1.2 | 1.1 | 0.9 | 0.9 | 0.7 | .. |
| Private hospitals | | | | | | |
| Separations | 22,526 | 26,580 | 37,322 | 44,518 | 48,965 | 180,007 |
| Separations per 1,000 | 4.9 | 5.6 | 8.0 | 9.8 | 10.9 | 7.8 |
| Separation rate ratio | 0.6 | 0.7 | 1.0 | 1.3 | 1.4 | .. |

(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 mental health 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

The majority (86%) of mental health care separations were a *New admission to hospital*, which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 5.42).

In public hospitals *Admitted patient transferred from another hospital* was the second most common admission mode for mental health care separations, accounting for 17% of these separations in public hospitals and 1% in private hospitals.

Table 5.42: Separations for mental health care, by mode of admission, public and private hospitals, 2016–17

| Admission mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| New admission to hospital ^(a) | 108,395 | 173,665 | 282,060 |
| Admitted patient transferred from another hospital | 24,248 | 1,914 | 26,162 |
| Statistical admission: care type change | 12,556 | 126 | 12,682 |
| Not reported | 1,155 | 4,302 | 5,457 |
| Total | 146,354 | 180,007 | 326,361 |

(a) *New admission to hospital* is equivalent to *Other* in the admission mode 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 2016–17, over two-thirds (67%) of mental health care separations in public hospitals were *Emergency* admissions, while the majority (94%) of mental health care separations in private hospitals were *Elective* admissions (treatment could be delayed by at least 24 hours) (Table 5.43). Just over 8% of mental health care separations had a *Not assigned* urgency of admission.

Table 5.43: Separations for mental health care, by urgency of admission, public and private hospitals, 2016–17

| Urgency of admission | Public hospitals | Private hospitals | Total |
|----------------------------|------------------|-------------------|----------------|
| Emergency | 97,560 | 2,831 | 100,391 |
| Elective | 24,817 | 168,844 | 193,661 |
| Not assigned | 23,516 | 3,511 | 27,027 |
| Total^(a) | 146,354 | 180,007 | 326,361 |

(a) Total includes 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

In 2016–17, most (94%, 308,000) mental health care separations in public and private hospitals had a principal diagnosis in the ICD-10-AM chapter *Mental and behavioural disorders* (Table 5.44), with 40% of these for *Mood (affective) disorders*, which includes depression and bipolar disorders. Other common ICD-10-AM principal diagnosis chapters reported for mental health care were *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* and *Injury, poisoning and certain other consequences of external causes*.

The relative distribution of mental health care separations by ICD-10-AM chapter varied across public and private hospitals. For example, 70% of separations for *Mood (affective) disorders* were from private hospitals, and 82% of separations for *Schizophrenia, schizotypal and delusional disorders* were from public hospitals.

Table 5.44: Separations for mental health care, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---|---|------------------|-------------------|----------------|
| F00–F09 | Organic, including symptomatic, mental disorders | 1,806 | 714 | 2,520 |
| F10–F19 | Mental and behavioural disorders due to psychoactive substance use | 14,373 | 28,552 | 42,925 |
| F20–F29 | Schizophrenia, schizotypal and delusional disorders | 40,941 | 8,766 | 49,707 |
| F30–F39 | Mood (affective) disorders | 36,612 | 85,414 | 122,026 |
| F40–F48 | Neurotic, stress-related and somatoform disorders | 19,507 | 42,729 | 62,236 |
| F50–F59 | Behavioural syndromes associated with physiological disturbances and physical factors | 2,254 | 3,910 | 6,164 |
| F60–F69 | Disorders of adult personality and behaviour | 10,709 | 8,584 | 19,293 |
| F70–F79 | Mental retardation | 323 | 22 | 345 |
| F80–F89 | Disorders of psychological development | 674 | 277 | 951 |
| F90–F98 | Behavioural and emotional disorders with onset usually occurring in childhood and adolescence | 1,457 | 376 | 1,833 |
| F99 | Unspecified mental disorder | 109 | 11 | 120 |
| G00–G99 | Diseases of the nervous system | 635 | 123 | 758 |
| O00–O99 | Pregnancy, childbirth and the puerperium | 206 | 9 | 215 |
| R00–R99 | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 7,301 | 389 | 7,690 |
| S00–T99 | Injury, poisoning and certain other consequences of external causes | 6,288 | 23 | 6,311 |
| Z00–Z99 | Factors influencing health status and contact with health services | 2,711 | 32 | 2,743 |
| | Other ICD-10-AM chapters | 448 | 76 | 524 |
| Total mental health care separations | | 146,354 | 180,007 | 326,361 |

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

Procedures

In 2016–17, one-third (33%) of mental health care separations did not have any procedures recorded, including 43% in public hospitals and 24% in private hospitals (Table 5.45).

Generalised allied health interventions (including psychology, social work, pastoral care and other therapies) were the most frequently reported procedure for mental health care separations, accounting for 62% of procedures in public hospitals and 15% in private hospitals.

For private hospitals, the most common procedure was *Psychological/psychosocial therapies* (which includes cognitive behaviour therapy, music therapy, art therapy and psychological skills training) accounting for 42% of procedures in private hospitals.

Table 5.45: The 10 most common ACHI procedures for mental health care, public and private hospitals, 2016–17

| Procedure block and description | | Public hospitals | Private hospitals | Total |
|---------------------------------|---|------------------|-------------------|----------------|
| 1916 | Generalised allied health interventions | 127,788 | 41,463 | 169,251 |
| 1873 | Psychological/psychosocial therapies | 5,253 | 116,224 | 121,477 |
| 1910 | Cerebral anaesthesia | 33,379 | 30,232 | 63,611 |
| 1907 | Electroconvulsive therapy | 9,989 | 12,561 | 22,550 |
| 1880 | Therapies using agents, not elsewhere classified | 1,713 | 16,604 | 18,317 |
| 1823 | Mental, behavioural or psychosocial assessment | 6,478 | 7,216 | 13,694 |
| 1872 | Alcohol and drug rehabilitation and detoxification | 370 | 13,121 | 13,491 |
| 1867 | Counselling or education relating to personal care and other activities of daily/independent living | 1,094 | 11,338 | 12,432 |
| 1822 | Assessment of personal care and other activities of daily/independent living | 9,548 | 1,319 | 10,867 |
| 1869 | Other counselling or education | 116 | 10,304 | 10,420 |
| 1868 | Psychosocial counselling | 334 | 4,623 | 4,957 |
| 1920 | Administration of pharmacotherapy | 769 | 2,204 | 2,973 |
| 1876 | Skills training in movement | 192 | 2,548 | 2,740 |
| 1878 | Skills training for personal care and other activities of daily/independent living | 695 | 1,802 | 2,497 |
| 1915 | Other client support interventions | 1,017 | 808 | 1,825 |
| 1824 | Other assessment, consultation, interview, examination or evaluation | 166 | 873 | 1,039 |
| 1855 | Other electrocardiography [ECG] | 1,018 | 0 | 1,018 |
| 1879 | Other skills training | 361 | 424 | 785 |
| 1635 | Repair of wound of skin and subcutaneous tissue | 699 | 9 | 708 |
| | Other procedures | 4,627 | 1,317 | 5,944 |
| | No procedure reported | 63,003 | 43,696 | 106,699 |
| | Total procedures | 205,606 | 274,990 | 480,596 |

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

Length of stay

In 2016–17, the average length of stay for mental health care separations was 20.1 days in public hospitals, and 5.0 days in private hospitals. In part, this reflects a high proportion of same-day mental health care separations in private hospitals, as well as some very long stays for mental health care in public hospitals (Tables 5.46).

For overnight mental health care separations, the average length of stay was 24.4 days in public hospitals, and 18.6 days in private hospitals.

Table 5.46 also shows the numbers of days of specialised psychiatric care recorded for mental health care separations. Overall, 99% of patient days for separations with a *Mental health* care type involved specialised psychiatric care.

Table 5.46: Patient days and average length of stay for mental health care, public and private hospitals, 2016–17

| | 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 (patient days) | 25,181 | 1.0 | 138,427 | 1.0 | 163,608 | 1.0 |
| Same-day (specialised psychiatric care days) | 21,391 | 0.8 | 134,622 | 1.0 | 156,013 | 1.0 |
| Overnight (patient days) | 2,959,088 | 24.4 | 774,088 | 18.6 | 3,733,176 | 22.9 |
| Overnight (specialised psychiatric care days) | 2,925,812 | 24.1 | 764,233 | 18.4 | 3,690,045 | 22.7 |
| Total (patient days) | 2,984,269 | 20.4 | 912,515 | 5.1 | 3,896,784 | 11.9 |
| Total (specialised psychiatric care days) | 2,947,203 | 20.1 | 898,855 | 5.0 | 3,846,058 | 11.8 |

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

Who paid for the care?

Almost 90% of mental health care separations from public hospitals were for *Public patients*, and 87% of mental health care separations from private hospitals were for patients who used *Private health insurance* to fund all or part of their admission (Table 5.47). The *Department of Veterans' Affairs* funded 3% of mental health care separations in public hospitals and 6% in private hospitals. See 'Chapter 7 Costs and funding' for similar information for all separations.

Table 5.47: Separations for mental health care, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| Public patients ^(a) | 131,265 | 59 | 131,324 |
| Private health insurance | 8,525 | 157,018 | 165,543 |
| Self-funded | 617 | 3,991 | 4,608 |
| Workers compensation | 205 | 6,028 | 6,233 |
| Motor vehicle third party personal claim | 138 | 311 | 449 |
| Department of Veterans' Affairs | 4,194 | 11,593 | 15,787 |
| Other ^(b) | 1,410 | 1,007 | 2,417 |
| Total | 146,354 | 180,007 | 326,361 |

(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 care completed?

In 2016–17, the most common mode of separation for mental health care separations was *Discharged home* (91%) (Table 5.48).

Almost 9% of mental health care separations in public hospitals and 1% in private hospitals, ended with either a *Discharge/transfer to an (other) acute hospital* or *Discharge/transfer to an (other) psychiatric hospital*—indicating that the patient's care continued at another hospital. A further 4% of mental health 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 5.48: Separations for mental health care, by mode of separation, public and private hospitals, 2016–17

| Separation mode | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| Discharged home ^(a) | 120,486 | 177,485 | 297,971 |
| Discharge/transfer to an (other) acute hospital | 8,239 | 1,262 | 9,501 |
| Discharge/transfer to residential aged care service ^(b) | 1,206 | 25 | 1,231 |
| Discharge/transfer to an (other) psychiatric hospital | 4,483 | 37 | 4,520 |
| Discharge/transfer to other health care accommodation | 1,782 | 113 | 1,895 |
| Statistical discharge: type change | 6,128 | 149 | 6,277 |
| Left against medical advice/discharge at own risk | 2,005 | 897 | 2,902 |
| Statistical discharge from leave | 1,816 | 31 | 1,847 |
| Died | 84 | 8 | 92 |
| Total^(c) | 146,354 | 180,007 | 326,361 |

(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 separation mode 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 mental health care is in 'Chapter 4 Why did people receive care?'.

Additional information on palliative care is also available in the AIHW's *Mental health services in Australia* series at <www.aihw.gov.au/reports-statistics/health-welfare-services/mental-health-services/overview>.

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

5.7 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 public hospital 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 that involve HITH, because there is variation across jurisdictions in the types of patients that would be admitted to hospital in the first place.

This care is 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 2016–17, more than 605,000 days of HITH care were reported for almost than 107,000 separations for both public and private hospitals (Table 5.49).

Overall, for separations that reported HITH days, the average length of the episode of care was 8.4 days, of which 5.7 days on average were HITH days.

For public hospitals, for separations that reported HITH days, the average length of the episode of care was 9.5 days, of which 6.3 days on average were HITH days.

Table 5.49: Separations with hospital-in-the-home care, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|---------|---------|---------|--------|--------|------|--------|--------|---------|
| Public hospitals | | | | | | | | | |
| Same day separations | 3,670 | 7,273 | 217 | 3 | 140 | 0 | 4,502 | 0 | 15,805 |
| Overnight separations | 22,503 | 29,589 | 10,530 | 1,631 | 6,502 | 53 | 1,194 | 944 | 72,946 |
| Total patient days ^(a) | 223,801 | 361,872 | 102,647 | 31,958 | 79,582 | 955 | 19,324 | 19,937 | 840,076 |
| Hospital in the home days | 158,914 | 232,318 | 71,871 | 17,692 | 55,522 | 636 | 14,941 | 9,853 | 561,747 |
| Average length of stay | 8.6 | 9.8 | 9.6 | 19.6 | 12.0 | 18.0 | 3.4 | 21.1 | 9.5 |
| Average number of hospital-in-the-home days | 6.1 | 6.3 | 6.7 | 10.8 | 8.4 | 12.0 | 2.6 | 10.4 | 6.3 |
| Private hospitals | | | | | | | | | |
| Same day separations | 0 | 489 | 4,524 | 1 | 10,778 | n.p. | n.p. | n.p. | 15,792 |
| Overnight separations | 0 | 1,495 | 167 | 305 | 0 | n.p. | n.p. | n.p. | 1,967 |
| Total patient days ^(a) | 0 | 31,230 | 7,202 | 6,779 | 10,778 | n.p. | n.p. | n.p. | 55,989 |
| Hospital in the home days | 0 | 21,242 | 6,885 | 4,817 | 10,778 | n.p. | n.p. | n.p. | 43,722 |
| Average length of stay | .. | 15.7 | 1.5 | 22.2 | 1.0 | n.p. | n.p. | n.p. | 3.2 |
| Average number of hospital-in-the-home days | .. | 10.7 | 1.5 | 15.7 | 1.0 | n.p. | n.p. | n.p. | 2.5 |
| All hospitals | | | | | | | | | |
| Same day separations | 3,670 | 7,762 | 4,741 | 4 | 10,918 | n.p. | n.p. | n.p. | 31,597 |
| Overnight separations | 22,503 | 31,084 | 10,697 | 1,936 | 6,502 | n.p. | n.p. | n.p. | 74,913 |
| Total patient days ^(a) | 223,801 | 393,102 | 109,849 | 38,737 | 90,360 | n.p. | n.p. | n.p. | 896,065 |
| Hospital in the home days | 158,914 | 253,560 | 78,756 | 22,509 | 66,300 | n.p. | n.p. | n.p. | 605,469 |
| Average length of stay | 8.6 | 10.1 | 7.1 | 20.0 | 5.2 | n.p. | n.p. | n.p. | 8.4 |
| Average number of hospital-in-the-home days | 6.1 | 6.5 | 5.1 | 11.6 | 3.8 | n.p. | n.p. | n.p. | 5.7 |

(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.

5.8 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 2016–17.

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 2016–17, 92% of separations (10.2 million) had a mode of separation of *Discharged home*—indicating that these patients were discharged to their place of usual residence (Table 5.50). Private hospitals were more likely to have patients *Discharged home* (97% or 4.3 million), compared with public hospitals (89% or 5.9 million).

Just over 5.5% of public hospital separations and 1.5% of private hospital separations had a mode of separation of *Discharge/transfer to an (other) hospital*.

The number of separations with a mode of separation of *Discharge/transfer to an (other) hospital* (acute and psychiatric) (437,983) does not match the number of separations with a mode of admission of *Admitted patient transferred from another hospital* (437,167; 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

Almost 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 5.51). 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 (3.6% and 0.7%, respectively).

Overnight acute separations

Just over 87% of overnight acute separations were *Discharged home* (Table 5.52). 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 (7.6% and 4.0%, respectively).

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.

Table 5.50: Separations, by mode of separation, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|------------------|------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Public hospitals | | | | | | | | | |
| Discharged home ^(a) | 1,692,055 | 1,599,584 | 1,250,666 | 593,437 | 378,347 | 112,614 | 104,935 | 145,576 | 5,877,214 |
| Discharge/transfer to an (other) acute hospital | 121,222 | 91,190 | 80,557 | 27,434 | 32,058 | 4,820 | 3,920 | 3,400 | 364,601 |
| Discharge/transfer to residential aged care service ^(b) | 21,451 | 28,285 | 5,692 | 7,928 | 8,943 | 1,106 | 498 | 334 | 74,237 |
| Discharge/transfer to an (other) psychiatric hospital | 2,034 | 2,093 | 251 | 1,087 | 1,653 | 368 | 58 | 11 | 7,555 |
| Discharge/transfer to other health care accommodation ^(c) | 3,029 | 4,770 | 2,542 | 2,240 | 2,113 | 430 | 153 | 2,652 | 17,929 |
| Statistical discharge: type change | 43,306 | 18,677 | 29,487 | 9,670 | 5,427 | 2,965 | 4,107 | 1,694 | 115,333 |
| Left against medical advice/discharge at own risk | 21,878 | 12,055 | 12,987 | 5,178 | 3,645 | 574 | 633 | 4,607 | 61,557 |
| Statistical discharge from leave | 2,392 | 32 | 802 | 652 | 224 | 0 | 0 | 0 | 4,102 |
| Died ^(d) | 23,639 | 15,762 | 11,573 | 4,984 | 5,127 | 1,535 | 1,117 | 515 | 64,252 |
| Not reported | 546 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 568 |
| Total public hospitals | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 |
| Private hospitals | | | | | | | | | |
| Discharged home ^(a) | 1,255,943 | 1,007,603 | 1,075,471 | 496,744 | 311,857 | n.p. | n.p. | n.p. | 4,302,093 |
| Discharge/transfer to an (other) acute hospital | 23,344 | 23,530 | 8,719 | 3,884 | 4,309 | n.p. | n.p. | n.p. | 65,729 |
| Discharge/transfer to residential aged care service ^(b) | 1,547 | 3,528 | 1,385 | 966 | 618 | n.p. | n.p. | n.p. | 8,284 |
| Discharge/transfer to an (other) psychiatric hospital | 6 | 41 | 3 | 17 | 31 | n.p. | n.p. | n.p. | 98 |
| Discharge/transfer to other health care accommodation ^(c) | 691 | 49 | 682 | 97 | 892 | n.p. | n.p. | n.p. | 2,555 |
| Statistical discharge: type change | 7,306 | 5,612 | 11,169 | 2,960 | 559 | n.p. | n.p. | n.p. | 29,130 |
| Left against medical advice/discharge at own risk | 1,522 | 773 | 601 | 230 | 52 | n.p. | n.p. | n.p. | 3,257 |
| Statistical discharge from leave | 8 | 0 | 52 | 16 | 0 | n.p. | n.p. | n.p. | 76 |
| Died ^(d) | 2,349 | 3,514 | 4,591 | 2,224 | 1,010 | n.p. | n.p. | n.p. | 14,273 |
| Not reported | 0 | 0 | 0 | 0 | 0 | n.p. | n.p. | n.p. | 972 |
| Total private hospitals | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 |

(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 5.51: Same-day acute separations, by mode of separation, public and private hospitals, 2016–17

| | Public hospitals | Private free-standing day hospital facilities | Other private hospitals | Total |
|--|------------------|---|-------------------------|------------------|
| Discharged home ^(a) | 3,280,139 | 930,999 | 1,759,367 | 5,970,505 |
| Discharge/transfer to an (other) acute hospital | 124,465 | 6,655 | 6,279 | 137,399 |
| Discharge/transfer to residential aged care service ^(b) | 16,043 | 4 | 211 | 16,258 |
| Discharge/transfer to an (other) psychiatric hospital | 1,187 | 2 | 6 | 1,195 |
| Discharge/transfer to other health care accommodation ^(c) | 2,796 | 40 | 197 | 3,033 |
| Statistical discharge: type change | 4,008 | 0 | 447 | 4,455 |
| Left against medical advice/discharge at own risk | 22,715 | 21 | 1,003 | 23,739 |
| Statistical discharge from leave | 477 | 0 | 10 | 487 |
| Died ^(d) | 5,117 | 2 | 291 | 5,410 |
| Not reported | 138 | 0 | 972 | 1,110 |
| Total | 3,457,085 | 937,723 | 1,768,783 | 6,163,591 |

(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 5.52: Overnight acute separations, by mode of separation, public and private hospitals, 2016–17

| | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|------------------|
| Discharged home ^(a) | 2,367,609 | 1,066,942 | 3,434,551 |
| Discharge/transfer to an (other) acute hospital | 212,170 | 46,851 | 259,021 |
| Discharge/transfer to residential aged care service ^(b) | 38,246 | 6,189 | 44,435 |
| Discharge/transfer to an (other) psychiatric hospital | 1,847 | 49 | 1,896 |
| Discharge/transfer to other health care accommodation ^(c) | 8,088 | 1,790 | 9,878 |
| Statistical discharge: type change | 87,723 | 24,762 | 112,485 |
| Left against medical advice/discharge at own risk | 35,589 | 1,037 | 36,626 |
| Statistical discharge from leave | 1,402 | 16 | 1,418 |
| Died ^(d) | 34,001 | 10,174 | 44,175 |
| Not reported | 203 | 0 | 203 |
| Total | 2,786,878 | 1,157,810 | 3,944,688 |

(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.

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
- differential access to hospital 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.

Key findings

In 2016–17, 22.5 million procedures were reported, with 11.5 million procedures performed in public hospitals and 11.0 million in private hospitals.

Surgery

Overall, 1 in 4 hospitalisations involved surgery and 59% of these occurred in private hospitals.

In 2016–17, there were 340,000 emergency admissions involving surgery and 87% of these occurred in public hospitals. The most common emergency surgery performed was *Appendicectomy*.

Between 2012–13 and 2016–17, elective admissions involving surgery rose by an average of 2.0% per year—by 2.1% for public hospitals and by 1.9% for private hospitals.

Waiting times for surgery

In 2016–17, median waiting times for elective surgery varied by remoteness area of the patient's usual residence, ranging from 34 days in *Remote* areas to 42 days in *Inner regional* and *Outer regional* areas.

In general, *Public patients* had longer median waiting times compared with other patients. The greatest difference was for *Septoplasty* (to fix a deviated septum)—238 days for *Public patients*, 87 days for *Private health insurance-funded* patients and 27 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 2016–17, 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 2012–13 and 2016–17 for public hospitals and private hospitals.

For public hospitals, between 2012–13 and 2016–17, overall, the numbers of procedures reported increased by 5.2% on average each year (Table 6.1).

Between 2012–13 and 2016–17, the ACHI procedure block with the largest overall increase in public hospitals was *Generalised allied health interventions*, which increased from 2.6 million to 3.4 million procedures, an average annual increase of 6.2% each year.

For private hospitals, between 2012–13 and 2016–17, overall, the numbers of procedures reported increased by 6.0% on average each year (Table 6.2).

Between 2012–13 and 2016–17, the ACHI procedure block with the largest overall increase in private hospitals was also *Generalised allied health interventions*, which increased from 990,000 to 1.5 million procedures, an average annual increase of 10.7% 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 3.4% each year. There was also a large average annual increase for both public and private hospitals in the number of procedures reported for *Administration of pharmacotherapy* (mostly chemotherapy for cancer) (11.6% and 8.5% each year, respectively).

Table 6.1: The 20 procedure blocks with the largest change in the total number of procedures reported, public hospitals, 2012–13 to 2016–17

| | | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Average change (%) since 2012–13 |
|------|---|------------------|------------------|-------------------|-------------------|-------------------|----------------------------------|
| 1822 | Assessment of personal care and other activities of daily/independent living ^(a) | 38,410 | 112,529 | 159,792 | 194,020 | 214,716 | 53.8 ^(a) |
| 1867 | Counselling or education relating to personal care and other activities of daily/independent living | 8,780 | 15,564 | 9,945 | 14,599 | 20,693 | 23.9 |
| 370 | Examination procedures on nose | 12,883 | 14,200 | 15,920 | 17,944 | 23,015 | 15.6 |
| 570 | Non-invasive ventilatory support | 43,054 | 49,252 | 56,335 | 64,617 | 76,437 | 15.4 |
| 1628 | Other debridement of skin and subcutaneous tissue | 45,710 | 50,174 | 56,783 | 67,665 | 76,700 | 13.8 |
| 1920 | Administration of pharmacotherapy | 333,730 | 347,506 | 403,137 | 454,804 | 516,982 | 11.6 |
| 1341 | Fetal monitoring | 29,474 | 31,681 | 34,463 | 38,482 | 43,666 | 10.3 |
| 911 | Fibreoptic colonoscopy with excision | 83,265 | 88,310 | 101,021 | 109,562 | 122,832 | 10.2 |
| 1067 | Endoscopic insertion, replacement or removal of ureteric stent | 25,922 | 29,064 | 32,061 | 34,804 | 37,798 | 9.9 |
| 1620 | Excision of lesion(s) of skin and subcutaneous tissue | 72,146 | 90,671 | 96,649 | 93,740 | 96,765 | 7.6 |
| 1916 | Generalised allied health interventions | 2,645,465 | 2,805,301 | 3,004,043 | 3,187,748 | 3,371,198 | 6.2 |
| 1334 | Medical or surgical induction of labour | 60,214 | 63,138 | 66,340 | 72,369 | 76,691 | 6.2 |
| 1008 | Panendoscopy with excision | 88,724 | 92,939 | 100,009 | 103,579 | 111,713 | 5.9 |
| 1909 | Conduction anaesthesia | 192,319 | 201,984 | 210,816 | 223,674 | 235,610 | 5.2 |
| 905 | Fibreoptic colonoscopy | 81,701 | 82,427 | 89,776 | 91,969 | 97,567 | 4.5 |
| 1333 | Analgesia and anaesthesia during labour and delivery procedure | 54,385 | 56,306 | 57,155 | 60,821 | 63,537 | 4.0 |
| 197 | Extracapsular crystalline lens extraction by phacoemulsification | 65,300 | 67,585 | 70,017 | 72,726 | 76,138 | 3.9 |
| 1893 | Administration of blood and blood products | 270,272 | 271,104 | 285,163 | 298,709 | 313,254 | 3.8 |
| 1910 | Cerebral anaesthesia | 1,413,494 | 1,454,704 | 1,502,737 | 1,546,681 | 1,604,555 | 3.2 |
| 1060 | Haemodialysis | 1,056,470 | 1,096,159 | 1,127,965 | 1,162,829 | 1,191,331 | 3.0 |
| | Other procedures | 2,752,633 | 2,847,263 | 2,918,708 | 3,011,694 | 3,113,543 | 3.0 |
| | Total procedures^(b) | 9,374,351 | 9,867,861 | 10,398,835 | 10,923,036 | 11,484,741 | 5.2 |

(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 Queensland.

(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 one 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, 2012–13 to 2016–17

| | | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Average change (%) since 2012–13 |
|------|---|------------------|------------------|------------------|-------------------|-------------------|----------------------------------|
| 1876 | Skills training in movement | 41,544 | 72,386 | 110,651 | 159,516 | 170,891 | 42.4 |
| 1822 | Assessment of personal care and other activities of daily/independent living | 7,082 | 7,894 | 11,725 | 18,287 | 25,102 | 37.2 |
| 72 | Percutaneous neurotomy of other peripheral nerve | 41,999 | 54,141 | 63,579 | 73,128 | 89,219 | 20.7 |
| 1867 | Counselling or education relating to personal care and other activities of daily/independent living | 19,906 | 22,741 | 26,473 | 36,786 | 40,281 | 19.3 |
| 1880 | Therapies using agents, not elsewhere classified | 81,743 | 91,924 | 120,919 | 145,633 | 163,772 | 19.0 |
| 889 | Procedures for obesity | 16,779 | 20,209 | 21,554 | 26,934 | 31,830 | 17.4 |
| 1873 | Psychological/psychosocial therapies | 81,860 | 91,344 | 103,316 | 136,513 | 148,683 | 16.1 |
| 209 | Application, insertion or removal procedures on retina, choroid or posterior chamber | 54,116 | 59,498 | 89,415 | 82,028 | 85,328 | 12.1 |
| 1916 | Generalised allied health interventions | 990,370 | 1,060,062 | 1,223,721 | 1,386,509 | 1,491,327 | 10.8 |
| 1620 | Excision of lesion(s) of skin and subcutaneous tissue | 151,739 | 194,800 | 208,849 | 212,544 | 211,850 | 8.7 |
| 1920 | Administration of pharmacotherapy | 345,557 | 371,534 | 402,044 | 451,714 | 478,364 | 8.5 |
| 911 | Fibreoptic colonoscopy with excision | 268,854 | 287,956 | 331,813 | 352,917 | 368,116 | 8.2 |
| 197 | Extracapsular crystalline lens extraction by phacoemulsification | 146,673 | 154,300 | 189,771 | 180,222 | 186,269 | 6.2 |
| 1008 | Panendoscopy with excision | 249,804 | 260,838 | 284,149 | 305,046 | 313,699 | 5.9 |
| 1060 | Haemodialysis | 235,160 | 243,261 | 258,372 | 276,897 | 286,881 | 5.1 |
| 1089 | Examination procedures on bladder | 67,703 | 71,000 | 74,196 | 79,696 | 82,190 | 5.0 |
| 1909 | Conduction anaesthesia | 251,832 | 264,874 | 275,407 | 289,494 | 302,374 | 4.7 |
| 1893 | Administration of blood and blood products | 126,806 | 130,394 | 132,335 | 139,518 | 144,881 | 3.4 |
| 1910 | Cerebral anaesthesia | 2,134,268 | 2,221,060 | 2,292,439 | 2,358,341 | 2,395,851 | 2.9 |
| 905 | Fibreoptic colonoscopy | 230,934 | 235,449 | 255,881 | 254,538 | 250,395 | 2.0 |
| | Other procedures | 3,183,203 | 3,286,146 | 3,469,972 | 3,701,667 | 3,763,250 | 4.3 |
| | Total procedures^(a) | 8,727,932 | 9,201,811 | 9,946,581 | 10,667,928 | 11,030,553 | 6.0 |

(a) Numbers of procedures are counts ofACHI procedure codes. It is possible that a single procedure code may represent multiple procedures or that a specific procedure may require the reporting of more than one code. Therefore, the number of procedure codes reported does not 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 2016–17?

In 2016–17, 75% (4.9 million) of public hospital separations and 95% (4.2 million) of private hospital separations involved at least one procedure.

Overall, 22.5 million procedures were reported, with 11.5 million procedures performed in public hospitals, and 11 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), 76% of *Procedures on the respiratory system*, 75% of *Obstetric procedures* (which includes childbirth) and 66% of *Radiation oncology procedures*.

Private hospitals accounted for 74% 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 2016–17, 78% of same-day acute separations in public hospitals and 98% of same-day acute separations in private hospitals involved a procedure (tables 6.4 and 6.5), with almost 10 million procedures reported for same-day acute separations.

In 2016–17, *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, 841,000 procedures) and *Fibreoptic colonoscopy with excision* (452,000 procedures).

Procedures reported for overnight acute care

In 2016–17, 70% of overnight acute separations in public hospitals and 90% of overnight acute separations in private hospitals involved at least one procedure (tables 6.7 and 6.8), with almost 10.2 million procedures reported for overnight acute separations for public and private hospitals combined.

In 2016–17, *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, 2016–17

| Procedure | | Public hospitals | Private hospitals | Total |
|--|---|-------------------|-------------------|-------------------|
| 1–86 | Procedures on nervous system | 114,246 | 312,506 | 426,752 |
| 110–129 | Procedures on endocrine system | 10,595 | 11,528 | 22,123 |
| 160–256 | Procedures on eye and adnexa | 135,228 | 358,216 | 493,444 |
| 300–333 | Procedures on ear and mastoid process | 34,208 | 48,379 | 82,587 |
| 370–422 | Procedures on nose, mouth and pharynx | 109,950 | 206,678 | 316,628 |
| 450–490 | Dental services | 96,576 | 274,233 | 370,809 |
| 520–571 | Procedures on respiratory system | 190,724 | 58,638 | 249,362 |
| 600–777 | Procedures on cardiovascular system | 310,476 | 287,332 | 597,808 |
| 800–817 | Procedures on blood and blood-forming organs | 46,179 | 32,402 | 78,581 |
| 850–1011 | Procedures on digestive system | 763,079 | 1,349,990 | 2,113,069 |
| 1040–1129 | Procedures on urinary system | 1,414,001 | 529,022 | 1,943,023 |
| 1160–1203 | Procedures on male genital organs | 47,377 | 85,677 | 133,054 |
| 1240–1299 | Gynaecological procedures | 237,494 | 383,753 | 621,247 |
| 1330–1347 | Obstetric procedures | 478,470 | 159,766 | 638,236 |
| 1360–1580 | Procedures on musculoskeletal system | 409,395 | 596,731 | 1,006,126 |
| 1600–1718 | Dermatological and plastic procedures | 384,602 | 482,871 | 867,473 |
| 1740–1759 | Procedures on breast | 27,575 | 67,732 | 95,307 |
| 1786–1800 | Radiation oncology procedures | 14,280 | 7,281 | 21,561 |
| 1820–1922 | Non-invasive, cognitive and other interventions, n.e.c. | 6,592,586 | 5,727,230 | 12,319,816 |
| 1940–2016 | Imaging services | 67,691 | 50,582 | 118,273 |
| Total procedures reported^(a) | | 11,484,741 | 11,030,553 | 22,515,294 |
| | No procedure reported ^(b) | 1,678,550 | 213,991 | 1,892,541 |
| Total separations | | 6,587,348 | 4,426,467 | 11,013,815 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

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/reports-statistics/health-welfare-services/hospitals/overview.

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, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|----------------|----------------|----------------|---------------|---------------|----------------|------------------|
| 1–86 Procedures on nervous system | 9,291 | 10,990 | 6,956 | 6,822 | 3,060 | 767 | 314 | 205 | 38,405 |
| 110–129 Procedures on endocrine system | 57 | 981 | 29 | 19 | 5 | 7 | 4 | 2 | 1,104 |
| 160–256 Procedures on eye and adnexa | 29,536 | 35,721 | 16,148 | 15,030 | 9,007 | 3,588 | 1,596 | 1,219 | 111,845 |
| 300–333 Procedures on ear and mastoid process | 4,043 | 4,935 | 7,430 | 1,726 | 1,984 | 320 | 269 | 298 | 21,005 |
| 370–422 Procedures on nose, mouth and pharynx | 8,231 | 10,471 | 14,474 | 1,827 | 2,008 | 471 | 320 | 278 | 38,080 |
| 450–490 Dental services | 21,344 | 22,561 | 18,046 | 9,495 | 8,556 | 2,052 | 1,159 | 2,355 | 85,568 |
| 520–571 Procedures on respiratory system | 6,347 | 8,080 | 5,384 | 2,128 | 1,033 | 794 | 135 | 204 | 24,105 |
| 600–777 Procedures on cardiovascular system | 18,306 | 25,843 | 10,845 | 8,699 | 4,848 | 1,862 | 1,743 | 570 | 72,716 |
| 800–817 Procedures on blood and blood-forming organs | 2,771 | 8,177 | 3,678 | 1,754 | 1,530 | 286 | 43 | 81 | 18,320 |
| 850–1011 Procedures on digestive system | 119,727 | 127,310 | 47,571 | 59,808 | 8,732 | 8,998 | 3,852 | 4,361 | 380,359 |
| 1040–1129 Procedures on urinary system | 384,772 | 332,679 | 210,237 | 144,593 | 80,430 | 19,356 | 23,132 | 78,646 | 1,273,845 |
| 1160–1203 Procedures on male genital organs | 6,552 | 8,411 | 4,115 | 3,747 | 2,366 | 717 | 356 | 300 | 26,564 |
| 1240–1299 Gynaecological procedures | 42,087 | 55,609 | 27,775 | 13,633 | 15,118 | 3,445 | 2,272 | 1,871 | 161,810 |
| 1330–1347 Obstetric procedures | 3,372 | 1,925 | 2,525 | 2,074 | 1,196 | 325 | 451 | 169 | 12,037 |
| 1360–1580 Procedures on musculoskeletal system | 33,120 | 30,409 | 18,123 | 13,207 | 9,755 | 2,520 | 2,355 | 998 | 110,487 |
| 1600–1718 Dermatological and plastic procedures | 40,724 | 48,022 | 36,845 | 19,361 | 15,476 | 3,557 | 3,166 | 2,254 | 169,405 |
| 1740–1759 Procedures on breast | 2,830 | 2,932 | 1,475 | 872 | 468 | 196 | 90 | 55 | 8,918 |
| 1786–1800 Radiation oncology procedures | 734 | 1,731 | 797 | 430 | 238 | 16 | 1 | 8 | 3,955 |
| 1820–1922 Non-invasive, cognitive and other interventions, n.e.c. | 328,350 | 541,093 | 343,757 | 181,060 | 77,077 | 34,230 | 22,014 | 15,889 | 1,543,470 |
| 1940–2016 Imaging services | 8,024 | 7,841 | 4,085 | 3,581 | 2,017 | 888 | 385 | 163 | 26,984 |
| Total procedures reported^(a) | 1,070,219 | 1,285,721 | 780,295 | 489,866 | 244,904 | 84,395 | 63,657 | 109,926 | 4,128,983 |
| No procedure reported ^(b) | 202,536 | 200,191 | 232,966 | 34,967 | 50,775 | 9,455 | 15,569 | 17,288 | 763,747 |
| Total same-day acute separations^(c) | 864,970 | 1,033,778 | 761,481 | 358,214 | 204,506 | 62,722 | 59,485 | 111,929 | 3,457,085 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

(c) 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, states and territories, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|------------------|----------------|----------------|-------------|-------------|-------------|------------------|
| 1–86 Procedures on nervous system | 45,805 | 39,457 | 58,192 | 42,190 | 9,890 | n.p. | n.p. | n.p. | 201,388 |
| 110–129 Procedures on endocrine system | 131 | 61 | 22 | 24 | 12 | n.p. | n.p. | n.p. | 269 |
| 160–256 Procedures on eye and adnexa | 117,809 | 60,509 | 83,528 | 36,349 | 23,210 | n.p. | n.p. | n.p. | 342,716 |
| 300–333 Procedures on ear and mastoid process | 12,768 | 7,162 | 5,547 | 4,029 | 2,953 | n.p. | n.p. | n.p. | 33,982 |
| 370–422 Procedures on nose, mouth and pharynx | 28,718 | 14,101 | 15,714 | 8,586 | 6,258 | n.p. | n.p. | n.p. | 75,345 |
| 450–490 Dental services | 80,242 | 50,557 | 56,892 | 38,271 | 29,958 | n.p. | n.p. | n.p. | 266,741 |
| 520–571 Procedures on respiratory system | 3,360 | 2,689 | 3,242 | 884 | 1,058 | n.p. | n.p. | n.p. | 11,489 |
| 600–777 Procedures on cardiovascular system | 32,117 | 18,752 | 16,807 | 8,560 | 5,109 | n.p. | n.p. | n.p. | 86,921 |
| 800–817 Procedures on blood and blood-forming organs | 1,907 | 2,190 | 3,600 | 711 | 872 | n.p. | n.p. | n.p. | 9,628 |
| 850–1011 Procedures on digestive system | 361,857 | 274,659 | 228,000 | 88,769 | 57,819 | n.p. | n.p. | n.p. | 1,040,970 |
| 1040–1129 Procedures on urinary system | 107,772 | 72,343 | 95,031 | 112,029 | 26,074 | n.p. | n.p. | n.p. | 421,185 |
| 1160–1203 Procedures on male genital organs | 18,623 | 10,765 | 8,315 | 5,781 | 3,454 | n.p. | n.p. | n.p. | 49,105 |
| 1240–1299 Gynaecological procedures | 91,235 | 87,831 | 58,856 | 29,119 | 13,601 | n.p. | n.p. | n.p. | 291,123 |
| 1330–1347 Obstetric procedures | 685 | 395 | 714 | 125 | 52 | n.p. | n.p. | n.p. | 2,044 |
| 1360–1580 Procedures on musculoskeletal system | 66,524 | 49,042 | 37,119 | 26,185 | 23,346 | n.p. | n.p. | n.p. | 210,627 |
| 1600–1718 Dermatological and plastic procedures | 89,710 | 93,108 | 76,665 | 43,986 | 34,975 | n.p. | n.p. | n.p. | 349,769 |
| 1740–1759 Procedures on breast | 10,104 | 5,350 | 8,455 | 2,917 | 1,247 | n.p. | n.p. | n.p. | 28,532 |
| 1786–1800 Radiation oncology procedures | 3,039 | 372 | 315 | 256 | 219 | n.p. | n.p. | n.p. | 4,280 |
| 1820–1922 Non-invasive, cognitive and other interventions, n.e.c. | 719,807 | 591,929 | 618,053 | 228,482 | 177,759 | n.p. | n.p. | n.p. | 2,414,648 |
| 1940–2016 Imaging services | 8,566 | 4,084 | 4,487 | 2,033 | 1,297 | n.p. | n.p. | n.p. | 22,535 |
| Total procedures reported^(a) | 1,800,779 | 1,385,356 | 1,379,554 | 679,286 | 419,163 | n.p. | n.p. | n.p. | 5,863,300 |
| No procedure reported ^(b) | 10,828 | 7,343 | 8,517 | 2,578 | 10,675 | n.p. | n.p. | n.p. | 41,688 |
| Total same-day acute separations^(c) | 715,514 | 663,930 | 672,656 | 358,186 | 204,821 | n.p. | n.p. | n.p. | 2,706,506 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

(c) 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, 2016–17

| Procedure block | | Private free-standing day facilities | | | Total |
|--|--|--------------------------------------|--------------------------------------|-------------------------|------------------|
| | | Public hospitals | Private free-standing day facilities | Other private hospitals | |
| 1910 | Cerebral anaesthesia | 744,297 | 482,438 | 1,115,663 | 2,342,398 |
| 1060 | Haemodialysis | 1,156,963 | 153,897 | 130,562 | 1,441,422 |
| 1920 | Administration of pharmacotherapy | 399,071 | 101,033 | 341,082 | 841,186 |
| 911 | Fibreoptic colonoscopy with excision | 105,463 | 116,332 | 230,584 | 452,379 |
| 1008 | Panendoscopy with excision | 91,349 | 100,014 | 193,417 | 384,780 |
| 905 | Fibreoptic colonoscopy | 82,681 | 86,573 | 148,228 | 317,482 |
| 197 | Extracapsular crystalline lens extraction by phacoemulsification | 73,277 | 94,576 | 86,453 | 254,306 |
| 1620 | Excision of lesion(s) of skin and subcutaneous tissue | 75,236 | 62,287 | 113,796 | 251,319 |
| 1909 | Conduction anaesthesia | 81,524 | 69,235 | 71,622 | 222,381 |
| 1893 | Administration of blood and blood products | 118,324 | 24,866 | 52,249 | 195,439 |
| 1265 | Curettage and evacuation of uterus | 54,818 | 35,273 | 53,876 | 143,967 |
| 458 | Surgical removal of tooth | 14,116 | 32,576 | 95,245 | 141,937 |
| 1916 | Generalised allied health interventions | 93,141 | 458 | 31,330 | 124,929 |
| 1089 | Examination procedures on bladder | 44,740 | 6,847 | 54,563 | 106,150 |
| 209 | Application, insertion or removal procedures on retina, choroid or posterior chamber | 7,053 | 68,144 | 16,527 | 91,724 |
| 1005 | Panendoscopy | 21,860 | 33,272 | 33,040 | 88,172 |
| 72 | Percutaneous neurotomy of other peripheral nerve | 4,559 | 9,459 | 70,787 | 84,805 |
| 1259 | Examination procedures on uterus | 31,701 | 3,925 | 37,227 | 72,853 |
| 1297 | Procedures for reproductive medicine | 3,676 | 43,907 | 24,442 | 72,025 |
| 1922 | Other procedures related to pharmacotherapy | 12,363 | 8,779 | 37,620 | 58,762 |
| | Other | 912,771 | 312,417 | 1,078,679 | 2,303,867 |
| Total procedures reported^(a) | | 4,128,983 | 1,846,308 | 4,016,992 | 9,992,283 |
| | No procedure reported ^(b) | 763,747 | 1,261 | 40,427 | 805,435 |
| Total same-day acute separations | | 3,457,085 | 937,723 | 1,768,783 | 6,163,591 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

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, 2016–17

| Procedure chapter | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|------------------|------------------|----------------|----------------|----------------|----------------|---------------|------------------|
| 1–86 Procedures on nervous system | 25,562 | 19,403 | 14,180 | 6,867 | 4,806 | 2,259 | 1,369 | 668 | 75,114 |
| 110–129 Procedures on endocrine system | 3,048 | 2,657 | 1,713 | 1,000 | 668 | 177 | 137 | 51 | 9,451 |
| 160–256 Procedures on eye and adnexa | 10,546 | 4,826 | 3,857 | 2,417 | 1,011 | 158 | 330 | 148 | 23,293 |
| 300–333 Procedures on ear and mastoid process | 3,395 | 3,291 | 2,667 | 1,431 | 1,217 | 327 | 296 | 319 | 12,943 |
| 370–422 Procedures on nose, mouth and pharynx | 21,000 | 20,512 | 13,133 | 6,099 | 6,934 | 1,544 | 1,759 | 737 | 71,718 |
| 450–490 Dental services | 2,553 | 2,207 | 2,412 | 1,430 | 917 | 217 | 339 | 614 | 10,689 |
| 520–571 Procedures on respiratory system | 51,426 | 43,099 | 35,237 | 14,641 | 10,069 | 4,499 | 3,540 | 2,180 | 164,691 |
| 600–777 Procedures on cardiovascular system | 71,045 | 64,667 | 47,760 | 24,118 | 17,605 | 5,232 | 4,750 | 2,105 | 237,282 |
| 800–817 Procedures on blood and blood-forming organs | 8,390 | 7,483 | 5,730 | 2,757 | 2,074 | 494 | 568 | 246 | 27,742 |
| 850–1011 Procedures on digestive system | 126,567 | 100,899 | 70,681 | 37,838 | 25,146 | 8,213 | 7,151 | 3,953 | 380,448 |
| 1040–1129 Procedures on urinary system | 42,561 | 35,877 | 26,598 | 12,539 | 10,943 | 2,524 | 3,694 | 3,126 | 137,862 |
| 1160–1203 Procedures on male genital organs | 6,362 | 6,144 | 3,705 | 2,104 | 1,313 | 481 | 477 | 196 | 20,782 |
| 1240–1299 Gynaecological procedures | 21,771 | 21,046 | 15,166 | 7,934 | 5,607 | 1,816 | 1,440 | 802 | 75,582 |
| 1330–1347 Obstetric procedures | 138,150 | 123,153 | 85,798 | 63,638 | 31,734 | 7,942 | 9,993 | 5,984 | 466,392 |
| 1360–1580 Procedures on musculoskeletal system | 97,261 | 73,451 | 55,977 | 31,403 | 20,024 | 7,541 | 6,486 | 4,862 | 297,005 |
| 1600–1718 Dermatological and plastic procedures | 56,352 | 56,305 | 46,636 | 21,937 | 15,178 | 3,651 | 4,342 | 6,344 | 210,745 |
| 1740–1759 Procedures on breast | 5,009 | 4,934 | 3,870 | 2,395 | 1,542 | 308 | 333 | 207 | 18,598 |
| 1786–1800 Radiation oncology procedures | 3,305 | 2,377 | 2,128 | 723 | 558 | 124 | 212 | 66 | 9,493 |
| 1820–1922 Non-invasive, cognitive and other interventions, n.e.c. | 1,230,548 | 1,069,727 | 1,027,431 | 398,769 | 315,672 | 94,459 | 68,544 | 46,967 | 4,252,117 |
| 1940–2016 Imaging services | 15,203 | 7,997 | 8,005 | 3,652 | 2,253 | 939 | 1,066 | 325 | 39,440 |
| Total procedures reported^(a) | 1,940,055 | 1,670,055 | 1,472,684 | 643,692 | 475,271 | 142,905 | 116,827 | 79,900 | 6,541,389 |
| No procedure reported ^(b) | 327,870 | 170,982 | 154,434 | 74,046 | 60,003 | 13,274 | 13,209 | 17,483 | 831,301 |
| Total overnight acute separations^(c) | 945,364 | 665,766 | 553,668 | 265,900 | 207,200 | 54,871 | 49,163 | 44,946 | 2,786,878 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

(c) 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, 2016–17

| Procedure chapter | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|------------------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|------------------|
| 1–86 Procedures on nervous system | 31,620 | 25,836 | 24,790 | 16,824 | 6,709 | n.p. | n.p. | n.p. | 110,185 |
| 110–129 Procedures on endocrine system | 4,834 | 2,315 | 1,874 | 1,248 | 705 | n.p. | n.p. | n.p. | 11,242 |
| 160–256 Procedures on eye and adnexa | 4,971 | 2,005 | 2,460 | 3,348 | 832 | n.p. | n.p. | n.p. | 13,952 |
| 300–333 Procedures on ear and mastoid process | 5,153 | 2,287 | 2,624 | 2,289 | 1,213 | n.p. | n.p. | n.p. | 14,152 |
| 370–422 Procedures on nose, mouth and pharynx | 46,703 | 22,479 | 23,125 | 15,505 | 12,567 | n.p. | n.p. | n.p. | 127,901 |
| 450–490 Dental services | 1,650 | 1,246 | 1,153 | 527 | 854 | n.p. | n.p. | n.p. | 5,700 |
| 520–571 Procedures on respiratory system | 11,332 | 12,626 | 14,375 | 3,835 | 3,514 | n.p. | n.p. | n.p. | 46,915 |
| 600–777 Procedures on cardiovascular system | 57,371 | 59,192 | 47,171 | 19,806 | 11,919 | n.p. | n.p. | n.p. | 200,250 |
| 800–817 Procedures on blood and blood-forming organs | 6,830 | 5,274 | 5,293 | 2,366 | 1,966 | n.p. | n.p. | n.p. | 22,590 |
| 850–1011 Procedures on digestive system | 83,353 | 72,842 | 76,617 | 31,823 | 20,644 | n.p. | n.p. | n.p. | 296,987 |
| 1040–1129 Procedures on urinary system | 31,280 | 27,062 | 24,164 | 11,021 | 9,337 | n.p. | n.p. | n.p. | 107,342 |
| 1160–1203 Procedures on male genital organs | 12,651 | 9,115 | 7,262 | 3,468 | 2,339 | n.p. | n.p. | n.p. | 36,347 |
| 1240–1299 Gynaecological procedures | 29,721 | 20,051 | 20,306 | 9,790 | 8,135 | n.p. | n.p. | n.p. | 91,958 |
| 1330–1347 Obstetric procedures | 55,693 | 35,988 | 28,780 | 22,879 | 8,309 | n.p. | n.p. | n.p. | 157,705 |
| 1360–1580 Procedures on musculoskeletal system | 105,639 | 98,703 | 77,824 | 48,528 | 36,009 | n.p. | n.p. | n.p. | 381,690 |
| 1600–1718 Dermatological and plastic procedures | 33,659 | 37,558 | 31,325 | 14,598 | 7,778 | n.p. | n.p. | n.p. | 129,606 |
| 1740–1759 Procedures on breast | 11,478 | 8,321 | 7,344 | 5,957 | 2,781 | n.p. | n.p. | n.p. | 37,438 |
| 1786–1800 Radiation oncology procedures | 1,274 | 915 | 424 | 81 | 238 | n.p. | n.p. | n.p. | 2,959 |
| 1820–1922 Non-invasive, cognitive and other interventions, n.e.c. | 478,503 | 477,569 | 461,909 | 221,925 | 148,932 | n.p. | n.p. | n.p. | 1,857,854 |
| 1940–2016 Imaging services | 9,243 | 7,501 | 7,211 | 2,178 | 1,408 | n.p. | n.p. | n.p. | 27,951 |
| Total procedures reported^(a) | 1,022,958 | 928,885 | 866,031 | 437,996 | 286,189 | n.p. | n.p. | n.p. | 3,680,727 |
| No procedure reported ^(b) | 18,991 | 35,931 | 38,885 | 11,702 | 7,396 | n.p. | n.p. | n.p. | 119,836 |
| Total overnight acute separations^(c) | 279,375 | 307,474 | 298,633 | 136,482 | 86,565 | n.p. | n.p. | n.p. | 1,157,810 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

(c) 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, 2016–17

| Procedure block | | Public hospitals | Private hospitals | Total |
|--|--|------------------|-------------------|-------------------|
| 1916 | Generalised allied health interventions | 2,600,167 | 690,840 | 3,291,007 |
| 1910 | Cerebral anaesthesia | 824,806 | 749,129 | 1,573,935 |
| 1909 | Conduction anaesthesia | 153,919 | 159,650 | 313,569 |
| 1893 | Administration of blood and blood products | 190,885 | 66,193 | 257,078 |
| 1822 | Assessment of personal care and other activities of daily/independent living | 177,614 | 7,548 | 185,162 |
| 1920 | Administration of pharmacotherapy | 115,791 | 32,601 | 148,392 |
| 1340 | Caesarean section | 71,198 | 39,660 | 110,858 |
| 1334 | Medical or surgical induction of labour | 75,338 | 24,385 | 99,723 |
| 1344 | Postpartum suture | 77,150 | 22,221 | 99,371 |
| 668 | Coronary angiography | 51,034 | 42,268 | 93,302 |
| 570 | Non-invasive ventilatory support | 73,394 | 19,705 | 93,099 |
| 1333 | Analgesia and anaesthesia during labour and delivery procedure | 63,013 | 26,689 | 89,702 |
| 1628 | Other debridement of skin and subcutaneous tissue | 63,423 | 12,479 | 75,902 |
| 986 | Division of abdominal adhesions | 38,091 | 35,979 | 74,070 |
| 1828 | Sleep study | 15,798 | 56,726 | 72,524 |
| 1566 | Excision procedures on other musculoskeletal sites | 38,727 | 23,792 | 62,519 |
| 412 | Tonsillectomy or adenoidectomy | 21,254 | 36,628 | 57,882 |
| 1620 | Excision of lesion(s) of skin and subcutaneous tissue | 21,325 | 35,177 | 56,502 |
| 1518 | Arthroplasty of knee | 17,500 | 38,793 | 56,293 |
| 965 | Cholecystectomy | 32,084 | 23,256 | 55,340 |
| | <i>Other</i> | 1,818,878 | 1,537,008 | 3,355,886 |
| Total procedures reported^(a) | | 6,541,389 | 3,680,727 | 10,222,116 |
| | No procedure reported ^(b) | 831,301 | 119,836 | 951,137 |
| Total overnight acute separations | | 2,786,878 | 1,157,810 | 3,944,688 |

(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 one code. Therefore, the number of procedure codes reported does not precisely reflect the number of separate procedures performed.

(b) The number of separations that did not have any procedures reported. These numbers are not included in the number of procedures.

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 2016–17?

Surgical separations are identified as separations with a 'surgical AR-DRG' in AR-DRG version 8.0 (IHPA 2014). 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 2016–17, a surgical procedure was reported for 2.7 million separations—17% (1.1 million) of public hospital separations and 35% (1.6 million) of private hospital separations (Table 6.10).

For public hospitals, 66% 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 Victoria to 39% in the Northern Territory.

For private hospitals, 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 92% in South Australia to 97% in New South Wales m,.(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 6.2—'How does Australia compare?'
- Section 6.3—'Performance indicator: Differential access to 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/reports-statistics/health-welfare-services/hospitals/overview.

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

Table 6.10: Separations with a surgical AR-DRG (version 8.0), by urgency of admission, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|------------------|
| Public hospitals | | | | | | | | | |
| Emergency | 94,808 | 69,633 | 53,563 | 34,570 | 22,927 | 6,411 | 7,689 | 5,327 | 294,928 |
| Elective | 208,478 | 227,337 | 138,424 | 77,527 | 58,366 | 17,982 | 13,439 | 6,830 | 748,383 |
| Urgency not assigned | 32,861 | 21,776 | 12,923 | 7,858 | 5,284 | 1,309 | 796 | 1,456 | 84,263 |
| Total public hospitals | 336,147 | 318,746 | 204,910 | 119,955 | 86,577 | 25,702 | 21,924 | 13,613 | 1,127,574 |
| Private hospitals | | | | | | | | | |
| Emergency | 3,958 | 13,480 | 13,639 | 5,583 | 8,186 | n.p. | n.p. | n.p. | 45,506 |
| Elective | 443,906 | 357,601 | 328,227 | 179,231 | 112,568 | n.p. | n.p. | n.p. | 1,489,173 |
| Urgency not assigned | 8,265 | 8,547 | 7,280 | 4,751 | 1,138 | n.p. | n.p. | n.p. | 32,255 |
| Total private hospitals | 456,129 | 379,628 | 349,146 | 189,565 | 121,892 | n.p. | n.p. | n.p. | 1,566,934 |
| All hospitals | | | | | | | | | |
| Emergency | 98,766 | 83,113 | 67,202 | 40,153 | 31,113 | n.p. | n.p. | n.p. | 340,434 |
| Elective | 652,384 | 584,938 | 466,651 | 256,758 | 170,934 | n.p. | n.p. | n.p. | 2,237,556 |
| Urgency not assigned | 41,126 | 30,323 | 20,203 | 12,609 | 6,422 | n.p. | n.p. | n.p. | 116,518 |
| Total surgical | 792,276 | 698,374 | 554,056 | 309,520 | 208,469 | n.p. | n.p. | n.p. | 2,694,508 |

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 surgeries performed on a same-day basis for:
 - cataract surgeries
 - tonsillectomies.
- the proportion of surgeries performed laparoscopically for:
 - cholecystectomies
 - inguinal herniorrhaphies
 - appendicectomies.
- 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 2017* (OECD 2017). The data for OECD countries (other than Australia) relate to the calendar year 2015 (or earlier).

It should be noted that these statistics might 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

A high proportion of cataract surgeries performed on a same-day basis may point to the efficient use of resources.

Australia's proportion of cataract surgeries that were performed on a same-day basis was higher than the OECD average (97.1% and 70.4%, respectively) (Table 6.11).

In 2016–17, all states and territories had higher rates of cataract surgeries performed as same-day surgery than the OECD average. Tasmania had the highest rate (98.4%) and the Northern Territory the lowest (93.6%).

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 (12.8% and 31.8%, respectively) (Table 6.11). Australia's lower proportion may reflect a tendency to keep children in hospital overnight following surgery, for supervision.

In 2016–17, all states and territories had lower rates of tonsillectomies performed as same-day surgery than the OECD average. Queensland had the highest rate (18.0%) and Western Australia the lowest (2.2%).

Table 6.11: Proportion of cataract surgeries and tonsillectomies undertaken as same-day separations, all hospitals, states and territories (2016–17) and OECD statistics (2015)^(a)

| | Proportion of cataract surgeries undertaken as same-day separations | Proportion of tonsillectomies undertaken as same-day separations |
|---|---|--|
| New South Wales | 97.2 | 12.0 |
| Victoria | 97.7 | 16.3 |
| Queensland | 97.3 | 18.0 |
| Western Australia | 95.4 | 2.2 |
| South Australia | 96.5 | 4.5 |
| Tasmania ^(b) | 98.4 | 5.5 |
| Australian Capital Territory ^(b) | 97.4 | 16.3 |
| Northern Territory ^(b) | 93.6 | 3.9 |
| Australia^(c) | 97.1 | 12.8 |
| OECD average | 70.4 | 36.6 |
| OECD interquartile range ^(d) | 54.3–96.6 | 10.7–60.1 |
| Number of OECD countries | 29 | 26 |

(a) For some OECD countries, the data relate to a year other than 2015.

(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: NHMD for Australian data and OECD Health Statistics 2017 (OECD 2017).

OECD indicator: Number of caesarean sections per 100 live births

Australia's rate of caesarean sections was higher than the OECD average (34.6 and 26.2 per 100 births, respectively) and was above the interquartile range for the OECD (19.7–31.3 per 100) (Table 6.12).

Western Australia had the highest rate of caesarean sections (37.5 per 100 births).

OECD indicator: Number of coronary revascularisation procedures per 100,000 population

In 2016–17, the coronary revascularisation procedure rate for Australia was below the 2015 OECD average (201.3 and 225.4 per 100,000 population, respectively), and within the interquartile range (Table 6.12).

Coronary angioplasty accounted for 77.7% of all *Coronary revascularisation* procedures in Australia, compared to 80.8% across OECD countries (interquartile range 77.4%–86.7%).

The Northern Territory (data are for public hospitals only) had the highest proportion of *Coronary revascularisation* procedures that were *Coronary angioplasties* (100%). However, it should be noted that Northern Territory patients who require *Coronary artery bypass graft* surgery receive treatment in another jurisdiction.

South Australia had the lowest population rates for *Coronary revascularisation* procedures (176.2 per 100,000) with 73.5% of these procedures being *Coronary angioplasty*. The

Australian Capital Territory had the highest rates (340.7 per 100,000) with 84.3% of procedures being *Coronary angioplasty*.

OECD indicator: Number of hip and knee replacement surgeries per 100,000 population

Australia's rate of hip replacement surgery in 2016–17 was below the 2015 OECD average (163.4 and 170.4 per 100,000 population, respectively) (Table 6.12).

Australia's rate of knee replacement surgery was above the 2015 OECD average (204.5 and 125.9 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 (2016–17) and OECD statistics (2015)^(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 | 33.6 | 195.4 | 78.5 | 148.0 | 198.7 |
| Victoria | 34.7 | 206.0 | 75.7 | 177.3 | 186.0 |
| Queensland | 34.9 | 199.7 | 76.5 | 147.9 | 209.8 |
| Western Australia | 37.5 | 212.9 | 81.0 | 189.2 | 244.8 |
| South Australia | 35.7 | 176.2 | 73.5 | 166.7 | 218.2 |
| Tasmania ^(c) | 32.7 | 177.4 | 81.5 | 209.8 | 223.9 |
| Australian Capital Territory ^(c) | 33.6 | 340.7 | 84.3 | 256.3 | 256.9 |
| Northern Territory ^(c) | 31.3 | 269.4 | 100.0 | 82.6 | 96.7 |
| Australia^(d) | 34.6 | 201.3 | 77.7 | 163.4 | 204.5 |
| OECD average | 26.2 | 225.4 | 80.8 | 170.4 | 125.9 |
| OECD interquartile range ^(e) | 19.7–31.3 | 169.0–262.4 | 77.4–86.7 | 117.7–238.6 | 90.1–176.9 |
| Number of OECD countries | 26 | 29 | 28 | 30 | 29 |

(a) For some OECD countries, the data relate to a year other than 2015.

(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: NHMD for Australian data and OECD 2017.

OECD indicator: proportion of cholecystectomies, inguinal herniorrhaphies and appendicectomies that were laparoscopic procedures

Laparoscopic surgery are less invasive (and therefore considered to be safer) than 'open' approaches.

Australia's proportion of cholecystectomies performed laparoscopically in 2016–17, was greater than the 2015 OECD average (93.9% and 87.4%, respectively). Similarly, the

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 (95.6%, 93.7% and 49.3%, respectively).

The lowest proportion of laparoscopic cholecystectomies were performed in South Australia and the Northern Territory (91.8%, public hospitals only for the Northern Territory). Tasmania (public hospitals only) reported the lowest proportion of laparoscopic appendicectomies (82.2%).

Table 6.13: Proportion of selected procedures performed laparoscopically, all hospitals, states and territories (2016–17) and OECD statistics (2015)^(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 | 16,936 | 93.2 | 12,146 | 91.1 | 14,728 | 49.0 |
| Victoria | 14,376 | 94.3 | 9,514 | 90.1 | 11,156 | 35.8 |
| Queensland | 11,522 | 95.6 | 9,355 | 93.7 | 9,186 | 49.3 |
| Western Australia | 5,430 | 93.6 | 4,540 | 88.8 | 5,021 | 33.4 |
| South Australia | 3,808 | 91.8 | 2,619 | 87.4 | 2,999 | 32.8 |
| Tasmania ^(b) | 1,348 | 92.4 | 794 | 82.2 | 1,165 | 32.6 |
| Australian Capital Territory ^(b) | 1,060 | 93.7 | 850 | 93.4 | 848 | 31.4 |
| Northern Territory ^(b) | 464 | 91.8 | 465 | 88.6 | 334 | 40.1 |
| Australia^(c) | 54,944 | 93.9 | 40,283 | 90.8 | 45,437 | 42.2 |
| OECD average | | 87.4 | | 61.0 | | 16.5 |
| OECD interquartile range ^(d) | | 84.9–91.5 | | 43.8–81.0 | | 4.7–27.4 |
| Number of OECD countries | | 27 | | 24 | | 22 |

(a) For some OECD countries, the data relate to a year other than 2015.

(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: NHMD for Australian data and OECD 2017.

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-19991312.htm>.

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

6.3 Performance indicator: Differential access to hospital procedures

'Differential access to hospital procedures' is an AHPF indicator related to the 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 (2.9 and 6.4 per 1,000 population, respectively) but were similar by Indigenous status and by SES status. Persons living in *Very remote* areas had the highest separation rates for *Cataract extraction* (10.3 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 7.6 per 1,000 population in South Australia to 13.0 per 1,000 in Tasmania (Table 6.15).

Variation in separation rates can reflect the numbers of interstate patients receiving treatment. For example, for the Australian Capital Territory, 46% of *Coronary angioplasty* and 46% 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/reports-statistics/health-welfare-services/hospitals/overview>.

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: Differential access to hospital procedures^(a) (separations per 1,000 population), all hospitals, 2016–17

| | Cataract extraction | Cholecystectomy | Coronary angioplasty | Coronary artery bypass graft | Cystoscopy | Haemorrhoidectomy | Hip replacement | Hysterectomy ^(b) |
|--|---------------------|-----------------|----------------------|------------------------------|------------|-------------------|-----------------|-----------------------------|
| Hospital sector | | | | | | | | |
| Public | 2.9 | 1.3 | 0.9 | 0.3 | 2.4 | 0.8 | 0.7 | 1.4 |
| Private | 6.4 | 0.8 | 0.7 | 0.2 | 3.2 | 1.4 | 0.9 | 1.8 |
| Indigenous status^(c) | | | | | | | | |
| Indigenous | 8.5 | 2.9 | 2.8 | 1.0 | 4.0 | 1.3 | 0.9 | 3.2 |
| Other Australians | 8.9 | 2.1 | 1.5 | 0.4 | 5.5 | 2.1 | 1.6 | 3.0 |
| Remoteness of residence | | | | | | | | |
| Major cities | 9.0 | 2.1 | 1.6 | 0.4 | 5.7 | 2.0 | 1.6 | 3.0 |
| Inner regional | 9.7 | 2.5 | 1.5 | 0.5 | 5.5 | 2.6 | 1.9 | 4.1 |
| Outer regional | 9.9 | 2.3 | 1.6 | 0.5 | 5.1 | 2.1 | 1.7 | 3.7 |
| Remote | 9.0 | 2.1 | 1.6 | 0.5 | 4.9 | 1.7 | 1.6 | 3.4 |
| Very remote | 10.3 | 2.1 | 1.9 | 0.6 | 3.7 | 1.0 | 1.1 | 2.9 |
| Socioeconomic status of area of residence | | | | | | | | |
| 1—Lowest | 9.3 | 2.5 | 1.6 | 0.5 | 5.1 | 2.3 | 1.5 | 3.4 |
| 2 | 9.1 | 2.3 | 1.6 | 0.5 | 5.3 | 2.3 | 1.6 | 3.4 |
| 3 | 9.4 | 2.2 | 1.5 | 0.4 | 5.8 | 2.0 | 1.7 | 3.4 |
| 4 | 9.3 | 2.1 | 1.6 | 0.4 | 6.0 | 2.1 | 1.7 | 3.1 |
| 5—Highest | 9.1 | 1.8 | 1.5 | 0.4 | 5.8 | 2.0 | 1.7 | 2.8 |
| Total | 9.3 | 2.2 | 1.6 | 0.5 | 5.6 | 2.1 | 1.6 | 3.2 |

(continued)

Table 6.14 (continued): Differential access to hospital procedures^(a) (separations per 1,000 population), all hospitals, 2016–17

| | Inguinal herniorrhaphy ^(d) | Knee replacement | Myringotomy | Prostatectomy ^(e) | Septoplasty | Tonsillectomy | Varicose veins, stripping and ligation |
|--|--|---------------------|-------------|------------------------------|-------------|---------------|--|
| Hospital sector | | | | | | | |
| Public | 0.9 | 0.7 | 0.6 | 0.8 | 0.3 | 1.0 | 0.2 |
| Private | 1.1 | 1.4 | 1.1 | 1.7 | 0.8 | 1.6 | 0.2 |
| Indigenous status^(c) | | | | | | | |
| Indigenous | 1.4 | 1.6 | 1.7 | 1.4 | 0.5 | 2.1 | 0.2 |
| Other Australians | 2.0 | 2.0 | 1.7 | 2.5 | 1.2 | 2.6 | 0.4 |
| Remoteness of residence | | | | | | | |
| Major cities | 2.0 | 1.9 | 1.7 | 2.6 | 1.2 | 2.5 | 0.4 |
| Inner regional | 2.1 | 2.3 | 1.8 | 2.5 | 1.1 | 3.1 | 0.4 |
| Outer regional | 2.0 | 2.4 | 1.6 | 2.4 | 1.0 | 3.0 | 0.4 |
| Remote | 1.7 | 2.1 | 1.6 | 1.9 | 0.7 | 2.3 | 0.2 |
| Very remote | 1.4 | 1.5 | 1.6 | 1.8 | 0.4 | 1.2 | 0.1 |
| Socioeconomic status of area of residence | | | | | | | |
| 1—Lowest | 1.9 | 2.1 | 1.4 | 2.3 | 1.0 | 2.4 | 0.4 |
| 2 | 1.9 | 2.2 | 1.6 | 2.3 | 1.1 | 2.8 | 0.4 |
| 3 | 2.0 | 2.1 | 1.8 | 2.6 | 1.1 | 2.6 | 0.4 |
| 4 | 2.0 | 2.0 | 1.8 | 2.7 | 1.2 | 2.7 | 0.4 |
| 5—Highest | 2.1 | 1.9 | 1.9 | 2.8 | 1.3 | 2.6 | 0.4 |
| Total | 2.0 | 2.1 | 1.7 | 2.5 | 1.2 | 2.6 | 0.4 |

(a) The procedures are defined using ACHI codes as detailed in tables accompanying this report in Appendix B online.

(b) For *Hysterectomy*, the rate was calculated for the estimated resident female population aged 15–69.

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

(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: Differential access to hospital procedures^(a) (separations per 1,000 population) and other selected statistics, all hospitals, states and territories, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------|------------|------------|-----------|-----------|------------|------------|-----------|--------------|
| Cataract extraction | | | | | | | | | |
| Separations | 79,983 | 63,062 | 56,186 | 28,199 | 17,445 | n.p. | n.p. | n.p. | 258,954 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 2 | <1 | 2 | <1 | 20 | 2 | 2 |
| Proportion of separations public patients (%) | 28 | 34 | 22 | 39 | 33 | 24 | 49 | 63 | 30 |
| Separations per 1,000 population | 8.7 | 8.9 | 10.3 | 10.5 | 7.6 | 13.0 | 8.7 | 8.7 | 9.3 |
| Standardised separation rate ratio | 0.9 | 1.0 | 1.1 | 1.1 | 0.8 | 1.4 | 0.9 | 0.9 | .. |
| Cholecystectomy | | | | | | | | | |
| Separations | 16,937 | 14,376 | 11,522 | 5,430 | 3,915 | n.p. | n.p. | n.p. | 55,052 |
| Separations not within state of residence (%) ^(b) | 1 | 2 | 2 | 1 | 2 | 1 | 23 | 4 | 2 |
| Proportion of separations public patients (%) | 54 | 58 | 52 | 51 | 55 | 56 | 63 | 65 | 54 |
| Separations per 1,000 population | 2.1 | 2.2 | 2.3 | 2.1 | 2.1 | 2.4 | 2.6 | 2.0 | 2.2 |
| Standardised separation rate ratio | 1.0 | 1.0 | 1.1 | 0.9 | 1.0 | 1.1 | 1.2 | 0.9 | .. |
| Coronary angioplasty | | | | | | | | | |
| Separations | 13,887 | 10,851 | 8,328 | 4,692 | 2,901 | n.p. | n.p. | n.p. | 43,339 |
| Separations not within state of residence (%) ^(b) | 2 | 3 | 8 | 2 | 6 | 3 | 46 | 8 | 5 |
| Proportion of separations public patients (%) | 45 | 47 | 46 | 47 | 50 | 55 | 83 | 80 | 48 |
| Separations per 1,000 population | 1.5 | 1.6 | 1.5 | 1.7 | 1.4 | 1.4 | 2.9 | 2.7 | 1.6 |
| Standardised separation rate ratio | 1.0 | 1.0 | 1.0 | 1.1 | 0.9 | 0.9 | 1.8 | 1.7 | .. |
| Coronary artery bypass graft | | | | | | | | | |
| Separations | 3,866 | 3,540 | 2,604 | 1,115 | 1,086 | n.p. | n.p. | 0 | 12,658 |
| Separations not within state of residence (%) ^(b) | 3 | 5 | 7 | 1 | 12 | 1 | 46 | .. | 6 |
| Proportion of separations public patients (%) | 51 | 51 | 53 | 47 | 51 | 46 | 92 | .. | 52 |
| 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 | 1.0 | 0.9 | 1.1 | 0.7 | 1.2 | .. | .. |

(continued)

Table 6.15 (continued): Differential access to hospital procedures^(a) (separations per 1,000 population) and other selected statistics, all hospitals, states and territories, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|--------|--------|--------|--------|--------|------|------|------|---------|
| Cystoscopy | | | | | | | | | |
| Separations | 34,937 | 43,415 | 31,692 | 22,801 | 12,049 | n.p. | n.p. | n.p. | 151,448 |
| Separations not within state of residence (%) ^(b) | 1 | 2 | 3 | <1 | 1 | <1 | 25 | 3 | 2 |
| Proportion of separations public patients (%) | 37 | 46 | 38 | 36 | 36 | 31 | 76 | 50 | 40 |
| Separations per 1,000 population | 3.9 | 6.3 | 6.0 | 8.5 | 5.7 | 5.4 | 6.1 | 3.6 | 5.6 |
| Standardised separation rate ratio | 0.7 | 1.1 | 1.1 | 1.5 | 1.0 | 1.0 | 1.1 | 0.6 | .. |
| Haemorrhoidectomy | | | | | | | | | |
| Separations | 22,391 | 13,189 | 9,370 | 3,222 | 3,288 | n.p. | n.p. | n.p. | 53,663 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 2 | <1 | 1 | <1 | 15 | 1 | 2 |
| Proportion of separations public patients (%) | 30 | 43 | 25 | 38 | 22 | 22 | 28 | 50 | 32 |
| Separations per 1,000 population | 2.7 | 2.1 | 1.8 | 1.2 | 1.8 | 2.1 | 1.1 | 2.5 | 2.1 |
| Standardised separation rate ratio | 1.3 | 1.0 | 0.9 | 0.6 | 0.8 | 1.0 | 0.5 | 1.2 | .. |
| Hip replacement | | | | | | | | | |
| Separations | 13,796 | 12,653 | 8,128 | 5,179 | 4,150 | n.p. | n.p. | n.p. | 46,531 |
| Separations not within state of residence (%) ^(b) | 2 | 3 | 5 | 1 | 3 | 1 | 33 | 4 | 3 |
| Proportion of separations public patients (%) | 38 | 37 | 36 | 37 | 30 | 26 | 51 | 57 | 36 |
| Separations per 1,000 population | 1.5 | 1.8 | 1.5 | 1.9 | 1.8 | 2.1 | 2.6 | 0.8 | 1.6 |
| Standardised separation rate ratio | 0.9 | 1.1 | 0.9 | 1.1 | 1.1 | 1.3 | 1.6 | 0.5 | .. |
| Hysterectomy, females aged 15–69^(c) | | | | | | | | | |
| Separations | 7,790 | 6,752 | 6,259 | 3,464 | 2,024 | n.p. | n.p. | n.p. | 27,754 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 4 | <1 | 2 | <1 | 23 | 1 | 3 |
| Proportion of separations public patients (%) | 41 | 47 | 40 | 34 | 42 | 34 | 38 | 48 | 41 |
| Separations per 1,000 population | 2.8 | 3.1 | 3.7 | 3.9 | 3.3 | 4.7 | 3.2 | 1.9 | 3.2 |
| Standardised separation rate ratio | 0.9 | 0.9 | 1.1 | 1.2 | 1.0 | 1.5 | 1.0 | 0.6 | .. |

(continued)

Table 6.15 (continued): Differential access to hospital procedures^(a) (separations per 1,000 population) and other selected statistics, all hospitals, states and territories, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|--------|--------|--------|-------|-------|------|------|------|--------|
| Inguinal herniorrhaphy^(d) | | | | | | | | | |
| Separations | 16,577 | 12,810 | 10,331 | 5,750 | 3,511 | n.p. | n.p. | n.p. | 51,643 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 3 | <1 | 1 | <1 | 19 | 1 | 2 |
| Proportion of separations public patients (%) | 41 | 45 | 38 | 38 | 41 | 36 | 45 | 49 | 41 |
| Separations per 1,000 population | 2.0 | 1.9 | 2.0 | 2.2 | 1.8 | 2.1 | 2.5 | 1.8 | 2.0 |
| Standardised separation rate ratio | 1.0 | 1.0 | 1.0 | 1.1 | 0.9 | 1.1 | 1.3 | 0.9 | .. |
| Knee replacement | | | | | | | | | |
| Separations | 18,471 | 13,253 | 11,786 | 6,811 | 5,333 | n.p. | n.p. | n.p. | 58,491 |
| Separations not within state of residence (%) ^(b) | 1 | 3 | 5 | <1 | 4 | <1 | 35 | 1 | 3 |
| Proportion of separations public patients (%) | 35 | 32 | 29 | 29 | 23 | 19 | 56 | 34 | 31 |
| Separations per 1,000 population | 2.0 | 1.9 | 2.1 | 2.4 | 2.4 | 2.2 | 2.6 | 1.0 | 2.1 |
| Standardised separation rate ratio | 1.0 | 0.9 | 1.0 | 1.2 | 1.2 | 1.1 | 1.2 | 0.5 | .. |
| Myringotomy (with insertion of tube) | | | | | | | | | |
| Separations | 11,296 | 10,725 | 7,473 | 4,795 | 3,928 | n.p. | n.p. | n.p. | 40,398 |
| Separations not within state of residence (%) ^(b) | 1 | 2 | 4 | <1 | 2 | <1 | 24 | 0 | 2 |
| Proportion of separations public patients (%) | 28 | 34 | 35 | 24 | 28 | 32 | 24 | 50 | 31 |
| Separations per 1,000 population | 1.5 | 1.8 | 1.6 | 1.9 | 2.5 | 1.5 | 2.9 | 1.1 | 1.7 |
| Standardised separation rate ratio | 0.9 | 1.0 | 0.9 | 1.1 | 1.4 | 0.9 | 1.7 | 0.7 | .. |
| Prostatectomy^(e) | | | | | | | | | |
| Separations | 10,723 | 10,000 | 6,835 | 3,030 | 2,311 | n.p. | n.p. | n.p. | 34,391 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 5 | <1 | 2 | <1 | 30 | 3 | 3 |
| Proportion of separations public patients (%) | 31 | 32 | 28 | 26 | 25 | 24 | 69 | 45 | 30 |
| Separations per 1,000 population | 2.4 | 2.9 | 2.5 | 2.3 | 2.1 | 2.6 | 2.6 | 1.1 | 2.5 |
| Standardised separation rate ratio | 1.0 | 1.2 | 1.0 | 0.9 | 0.8 | 1.0 | 1.0 | 0.5 | .. |

(continued)

Table 6.15 (continued): Differential access to hospital procedures^(a) (separations per 1,000 population) and other selected statistics, all hospitals, states and territories, 2016–17

| Procedure | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|--------|--------|--------|-------|-------|------|------|------|--------|
| Septoplasty | | | | | | | | | |
| Separations | 8,623 | 7,938 | 5,292 | 2,489 | 2,535 | n.p. | n.p. | n.p. | 27,813 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 5 | <1 | 3 | 1 | 26 | 1 | 3 |
| Proportion of separations public patients (%) | 24 | 33 | 22 | 18 | 32 | 30 | 57 | 41 | 27 |
| Separations per 1,000 population | 1.1 | 1.3 | 1.1 | 1.0 | 1.5 | 0.6 | 1.1 | 0.7 | 1.2 |
| Standardised separation rate ratio | 1.0 | 1.1 | 0.9 | 0.8 | 1.3 | 0.5 | 0.9 | 0.6 | .. |
| Tonsillectomy | | | | | | | | | |
| Separations | 17,789 | 15,094 | 13,134 | 6,827 | 3,903 | n.p. | n.p. | n.p. | 59,781 |
| Separations not within state of residence (%) ^(b) | 1 | 3 | 3 | <1 | 2 | <1 | 27 | <1 | 3 |
| Proportion of separations public patients (%) | 35 | 46 | 41 | 26 | 32 | 33 | 31 | 54 | 38 |
| Separations per 1,000 population | 2.4 | 2.6 | 2.8 | 2.7 | 2.5 | 2.2 | 4.0 | 1.6 | 2.6 |
| Standardised separation rate ratio | 0.9 | 1.0 | 1.1 | 1.1 | 1.0 | 0.8 | 1.5 | 0.6 | .. |
| Varicose veins stripping and ligation | | | | | | | | | |
| Separations | 3,052 | 3,812 | 1,027 | 1,249 | 577 | n.p. | n.p. | n.p. | 10,205 |
| Separations not within state of residence (%) ^(b) | 2 | 2 | 2 | <1 | 1 | 0 | 36 | 0 | 2 |
| Proportion of separations public patients (%) | 40 | 45 | 24 | 19 | 33 | 28 | 78 | 54 | 39 |
| Separations per 1,000 population | 0.4 | 0.6 | 0.2 | 0.5 | 0.3 | 0.2 | 0.8 | 0.3 | 0.4 |
| Standardised separation rate ratio | 0.9 | 1.5 | 0.5 | 1.2 | 0.8 | 0.4 | 2.0 | 0.7 | .. |

(a) The procedures are defined usingACHI codes as detailed in tables accompanying this report in Appendix B online.

(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 were for patients who did not live in the Australian Capital Territory.

(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 2016–17. 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 8.0 (IHPA 2014), and for which the urgency of admission was reported as *Emergency*—indicating that the patient required admission within 24 hours.

Emergency admissions involving surgery excludes 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).

Before 2015–16, surgical separations for childbirth and subacute and non-acute separations were not included in counts of admissions involving surgery. From 2015–16, these were included, for all admissions involving surgery. Therefore, the data presented in this section for the 2015–16 and 2016–17 reports are not comparable with the data presented in reports for 2014–15 and earlier.

Changes over time

There can be differences in whether a separation is assigned to a *Surgical*, *Medical* or *Other DRG*, depending on the AR-DRG version used. For this reason, comparisons of the numbers of surgical separations over time should take into consideration the AR-DRG versions used for different periods.

Between 2012–13 and 2016–17, the number of emergency admissions involving surgery increased by:

- 2.6% on average per year for public hospitals, and increased in all states and territories (Table 6.16). The Northern Territory had the highest increase (4.6% per year)
- 3.6% on average per year for private hospitals, and increased in most states and territories. Victoria had the highest increase (6.2%).

For Tasmania, emergency admissions involving surgery in public hospitals decreased between 2015–16 and 2016–17.

How much activity was there in 2016–17?

In 2016–17, there were 340,000 emergency admissions involving surgery in Australian hospitals (Table 6.17). Public hospitals accounted for the majority (87%) of emergency admissions involving surgery.

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 (for jurisdictions whose private hospital data could be reported).

The Northern Territory had the highest rate of emergency admissions involving surgery in public hospitals (23 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, public and private hospitals, states and territories, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales | | | | | | | |
| Public hospitals | 87,179 | 88,698 | 90,254 | 92,808 | 94,808 | 2.1 | 2.2 |
| Private hospitals | 4,203 | 3,780 | 3,558 | 4,009 | 3,958 | -1.5 | -1.3 |
| <i>All hospitals</i> | <i>91,382</i> | <i>92,478</i> | <i>93,812</i> | <i>96,817</i> | <i>98,766</i> | <i>2.0</i> | <i>2.0</i> |
| Victoria | | | | | | | |
| Public hospitals | 61,843 | 63,202 | 66,879 | 68,262 | 69,633 | 3.0 | 2.0 |
| Private hospitals | 10,580 | 10,633 | 11,692 | 12,045 | 13,480 | 6.2 | 11.9 |
| <i>All hospitals</i> | <i>72,423</i> | <i>73,835</i> | <i>78,571</i> | <i>80,307</i> | <i>83,113</i> | <i>3.5</i> | <i>3.5</i> |
| Queensland | | | | | | | |
| Public hospitals | 47,275 | 49,063 | 50,653 | 52,205 | 53,563 | 3.2 | 2.6 |
| Private hospitals | 11,344 | 11,547 | 13,354 | 13,416 | 13,639 | 4.7 | 1.7 |
| <i>All hospitals</i> | <i>58,619</i> | <i>60,610</i> | <i>64,007</i> | <i>65,621</i> | <i>67,202</i> | <i>3.5</i> | <i>2.4</i> |
| Western Australia | | | | | | | |
| Public hospitals | 30,710 | 31,123 | 30,976 | 33,577 | 34,570 | 3.0 | 3.0 |
| Private hospitals | 5,571 | 5,351 | 4,907 | 5,217 | 5,583 | 0.1 | 7.0 |
| <i>All hospitals</i> | <i>36,281</i> | <i>36,474</i> | <i>35,883</i> | <i>38,794</i> | <i>40,153</i> | <i>2.6</i> | <i>3.5</i> |
| South Australia | | | | | | | |
| Public hospitals | 21,241 | 21,003 | 21,646 | 22,787 | 22,927 | 1.9 | 0.6 |
| Private hospitals | 7,241 | 7,318 | 7,553 | 7,634 | 8,186 | 3.1 | 7.2 |
| <i>All hospitals</i> | <i>28,482</i> | <i>28,321</i> | <i>29,199</i> | <i>30,421</i> | <i>31,113</i> | <i>2.2</i> | <i>2.3</i> |
| Tasmania | | | | | | | |
| Public hospitals | 5,875 | 6,301 | 6,556 | 6,491 | 6,411 | 2.2 | -1.2 |
| 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> |
| Australian Capital Territory | | | | | | | |
| Public hospitals | 7,379 | 6,710 | 6,809 | 7,279 | 7,689 | 1.0 | 5.6 |
| 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 | 4,444 | 4,854 | 4,830 | 4,980 | 5,327 | 4.6 | 7.0 |
| Private hospitals ^(b) | 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 | 265,946 | 270,954 | 278,603 | 288,389 | 294,928 | 2.6 | 2.3 |
| Private hospitals | 39,554 | 39,531 | 41,878 | 43,010 | 45,506 | 3.6 | 5.8 |
| All hospitals | 305,500 | 310,485 | 320,481 | 331,399 | 340,434 | 2.7 | 2.7 |

(a) 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 reports for 2014–15 and earlier, which excluded surgical separations for childbirth separations and subacute and non-acute separations.

(b) For 2012–13, urgency of admission was missing for all records from private hospitals in the Northern Territory, and all private hospital separations involving surgery were categorised as elective admissions. Therefore, the counts of emergency admissions involving surgery are likely to be underestimated for 2012–13.

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 per 1,000 population, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total ^(a) |
|---|---------------|---------------|---------------|---------------|---------------|-------------|-------------|-------------|----------------------|
| Public hospitals | | | | | | | | | |
| Separations | 94,808 | 69,633 | 53,563 | 34,570 | 22,927 | 6,411 | 7,689 | 5,327 | 294,928 |
| Separations per 1,000 population | 11.7 | 10.8 | 10.8 | 13.3 | 12.5 | 11.7 | 19.2 | 22.9 | 11.7 |
| Private hospitals | | | | | | | | | |
| Separations | 3,958 | 13,480 | 13,639 | 5,583 | 8,186 | n.p. | n.p. | n.p. | 45,506 |
| Separations per 1,000 population | 0.5 | 2.0 | 2.6 | 2.1 | 3.9 | n.p. | n.p. | n.p. | 1.7 |
| All hospitals | | | | | | | | | |
| Separations | 98,766 | 83,113 | 67,202 | 40,153 | 31,113 | n.p. | n.p. | n.p. | 340,434 |
| Separations per 1,000 population | 12.1 | 12.8 | 13.5 | 15.4 | 16.4 | n.p. | n.p. | n.p. | 13.4 |

(a) 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.

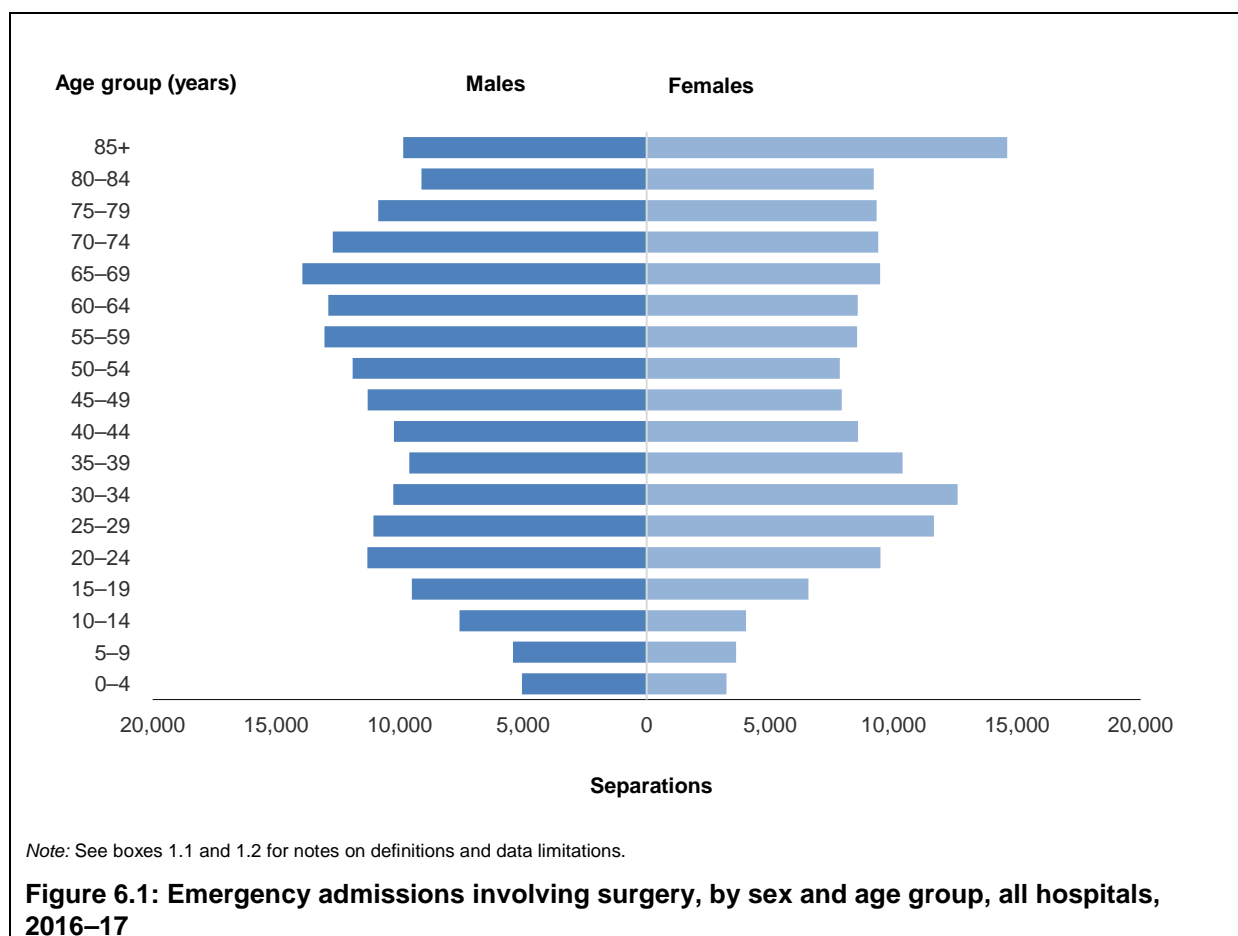
Who used these services?

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 25–39 and 80 and over. People aged 15–29 accounted for 17% of all emergency admissions involving surgery.

Boys aged 10–14 were almost twice as likely to be admitted as an emergency admission compared with girls in that age group.



Aboriginal and Torres Strait Islander people

The quality of the data provided for Indigenous status in 2016–17 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 2016–17, more than 16,000 emergency admissions involving surgery were for Indigenous Australians. The rate of emergency admissions involving surgery for *Indigenous Australians* was twice the rate for *Other Australians* (26 per 1,000 and 13 per 1,000 population, respectively) (Table 6.18).

Remoteness area

In 2016–17, the separation rate for emergency admissions involving surgery was highest for those living in *Very remote* areas (25 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 (most disadvantaged) 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, 2016–17

| | Separations per 1,000 population | | | Separations |
|--|----------------------------------|-------------------|-------------|----------------|
| | Public hospitals | Private hospitals | Total | |
| Indigenous status^(a) | | | | |
| Indigenous | 26.1 | 0.3 | 26.4 | 16,398 |
| Other Australians | 11.3 | 1.7 | 13.1 | 324,036 |
| Remoteness of area of usual residence | | | | |
| Major cities | 10.9 | 1.8 | 12.7 | 227,300 |
| Inner regional | 12.6 | 1.7 | 14.3 | 66,446 |
| Outer regional | 13.9 | 1.0 | 14.9 | 32,532 |
| Remote | 18.1 | 0.9 | 19.0 | 5,747 |
| Very remote | 24.6 | 0.6 | 25.2 | 4,600 |
| Socioeconomic status of area of usual residence | | | | |
| 1–Lowest | 14.1 | 0.9 | 15.0 | 76,292 |
| 2 | 12.7 | 1.3 | 14.1 | 72,261 |
| 3 | 11.6 | 1.8 | 13.4 | 67,662 |
| 4 | 10.5 | 2.2 | 12.7 | 63,120 |
| 5–Highest | 9.1 | 2.4 | 11.5 | 57,196 |
| Total | 11.7 | 1.7 | 13.4 | 340,434 |

(a) Separation rates by Indigenous status are directly age-standardised using a highest age group of 65 and over and are not directly comparable with the rates by remoteness area and socioeconomic status 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 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). Almost 12% of emergency admissions involving surgery were transferred from another hospital.

Table 6.19: Emergency admissions involving surgery, by mode of admission, public and private hospitals, 2016–17

| | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| New admission to hospital ^(a) | 262,547 | 38,353 | 300,900 |
| Admitted patient transferred from another hospital | 32,078 | 7,144 | 39,222 |
| Other/not reported | 303 | 9 | 312 |
| Total | 294,928 | 45,506 | 340,434 |

(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.

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 2016–17, principal diagnoses in the ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes* accounted for 38% of emergency admissions involving surgery (Table 6.20). *Diseases of the digestive system* accounted for 22%, and *Diseases of the circulatory system* for a further 12%.

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 was *Acute appendicitis*, with 88% of these occurring in public hospitals.

Table 6.20: Emergency admissions involving surgery, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|----------------|
| A00–B99 | Certain infectious and parasitic diseases | 3,164 | 357 | 3,521 |
| C00–D48 | Neoplasms | 9,936 | 2,886 | 12,822 |
| D50–D89 | Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 411 | 84 | 495 |
| E00–E89 | Endocrine, nutritional and metabolic diseases | 3,800 | 411 | 4,211 |
| F00–F99 | Mental and behavioural disorders | 136 | 19 | 155 |
| G00–G99 | Diseases of the nervous system | 1,686 | 396 | 2,082 |
| H00–H59 | Diseases of the eye and adnexa | 3,293 | 1,420 | 4,713 |
| H60–H95 | Diseases of the ear and mastoid process | 467 | 123 | 590 |
| I00–I99 | Diseases of the circulatory system | 33,825 | 6,444 | 40,269 |
| J00–J99 | Diseases of the respiratory system | 5,475 | 745 | 6,220 |
| K00–K93 | Diseases of the digestive system | 64,669 | 10,216 | 74,885 |
| L00–L99 | Diseases of the skin and subcutaneous tissue | 8,419 | 1,183 | 9,602 |
| M00–M99 | Diseases of the musculoskeletal system and connective tissue | 9,149 | 2,986 | 12,135 |
| N00–N99 | Diseases of the genitourinary system | 12,663 | 2,843 | 15,506 |
| O00–O99 | Pregnancy, childbirth and the puerperium | 15,994 | 755 | 16,749 |
| P00–P96 | Certain conditions originating in the perinatal period | 352 | 7 | 359 |
| Q00–Q99 | Congenital malformations, deformations and chromosomal abnormalities | 1,303 | 98 | 1,401 |
| R00–R99 | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 4,204 | 1,328 | 5,532 |
| S00–T98 | Injury, poisoning and certain other consequences of external causes | 115,046 | 13,014 | 128,060 |
| Z00–Z99 | Factors influencing health status and contact with health services | 936 | 191 | 1,127 |
| Total | | 294,928 | 45,506 | 340,434 |

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

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, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|---|------------------|-------------------|----------------|
| K35 | Acute appendicitis | 26,082 | 3,461 | 29,543 |
| S72 | Fracture of femur | 18,489 | 2,755 | 21,244 |
| I21 | Acute myocardial infarction | 14,763 | 2,097 | 16,860 |
| S82 | Fracture of lower leg, including ankle | 12,237 | 1,476 | 13,713 |
| K80 | Cholelithiasis | 10,144 | 2,112 | 12,256 |
| S52 | Fracture of forearm | 9,083 | 1,276 | 10,359 |
| S61 | Open wound of wrist and hand | 7,561 | 813 | 8,374 |
| S62 | Fracture at wrist and hand level | 7,018 | 651 | 7,669 |
| K61 | Abscess of anal and rectal regions | 5,970 | 659 | 6,629 |
| T81 | Complications of procedures, not elsewhere classified | 5,574 | 947 | 6,521 |
| S42 | Fracture of shoulder and upper arm | 5,271 | 614 | 5,885 |
| S66 | Injury of muscle and tendon at wrist and hand level | 4,377 | 343 | 4,720 |
| K56 | Paralytic ileus and intestinal obstruction without hernia | 3,888 | 720 | 4,608 |
| L02 | Cutaneous abscess, furuncle and carbuncle | 3,966 | 275 | 4,241 |
| O02 | Other abnormal products of conception | 3,990 | 141 | 4,131 |
| S01 | Open wound of head | 3,422 | 287 | 3,709 |
| S81 | Open wound of lower leg | 3,200 | 408 | 3,608 |
| E11 | Type 2 diabetes mellitus | 3,072 | 304 | 3,376 |
| O00 | Ectopic pregnancy | 3,119 | 146 | 3,265 |
| O82 | Single delivery by caesarean section | 2,893 | 128 | 3,021 |
| | Other | 140,809 | 25,893 | 166,702 |
| Total | | 294,928 | 45,506 | 340,434 |

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* (26%) (Table 6.22). However, the majority of admissions involving surgery (both emergency and elective) for this MDC were elective admissions (83%) (Table 6.35). In contrast, 61% of admissions involving surgery for *Injuries, poisoning and toxic effects of drugs* were emergency admissions (tables 6.22 and 6.35).

Table 6.22: Emergency admissions^(a) involving surgery, by Major Diagnostic Category^(b), AR-DRG version 8.0, public and private hospitals, 2016–17

| Major Diagnostic Category | | Public hospitals | Private hospitals | Total |
|---------------------------|---|------------------|-------------------|----------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 7,755 | 315 | 8,070 |
| 01 | Diseases and disorders of the nervous system | 10,651 | 1,124 | 11,775 |
| 02 | Diseases and disorders of the eye | 4,757 | 1,494 | 6,251 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 7,569 | 747 | 8,316 |
| 04 | Diseases and disorders of the respiratory system | 3,133 | 564 | 3,697 |
| 05 | Diseases and disorders of the circulatory system | 31,196 | 6,737 | 37,933 |
| 06 | Diseases and disorders of the digestive system | 53,650 | 8,073 | 61,723 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 14,610 | 2,856 | 17,466 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 76,213 | 11,528 | 87,741 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 9,858 | 2,494 | 12,352 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 2,869 | 313 | 3,182 |
| 11 | Diseases and disorders of the kidney and urinary tract | 5,326 | 2,283 | 7,609 |
| 12 | Diseases and disorders of the male reproductive system | 3,333 | 385 | 3,718 |
| 13 | Diseases and disorders of the female reproductive system | 6,560 | 930 | 7,490 |
| 14 | Pregnancy, childbirth and puerperium | 15,985 | 752 | 16,737 |
| 15 | Newborns and other neonates | 951 | 12 | 963 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 764 | 123 | 887 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 1,333 | 273 | 1,606 |
| 18 | Infectious and parasitic diseases | 4,807 | 769 | 5,576 |
| 21 | Injuries, poisoning and toxic effects of drugs | 28,280 | 2,978 | 31,258 |
| 22 | Burns | 2,339 | 22 | 2,361 |
| 23 | Factors influencing health status and other contacts with health services | 259 | 54 | 313 |
| ED | Error DRGs ^(c) | 2,475 | 667 | 3,142 |
| Total | | 294,673 | 45,493 | 340,166 |

AR-DRG—Australian Refined Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation.

- (a) Includes separations for which the care type was reported as *Acute*, *Newborn* (with at least one qualified day) or was not reported. Therefore, the total number of separations in this table differs from other tables in this section.
- (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.

In 2016–17, the 20 most common AR-DRGs were reported for almost half of all emergency admissions involving surgery (Table 6.23). Just over 7% of emergency admissions involving surgery had an AR-DRG of *Appendicectomy, minor complications*.

Implantation or replacement of pacemaker, total system, minor complexity was the AR-DRG with the highest proportion of private hospital emergency admissions involving surgery (37%).

Table 6.23: The 20 most common AR-DRGs version 8.0 reported for emergency admissions^(a) involving surgery, public and private hospitals, 2016–17

| AR-DRG | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|----------------|
| G07B Appendicectomy, minor complexity | 21,961 | 2,974 | 24,935 |
| F10B Interventional coronary procedures, admitted for AMI, minor complexity | 10,034 | 1,587 | 11,621 |
| I13B Humerus, tibia, fibula and ankle procedures, minor complexity | 10,015 | 1,292 | 11,307 |
| I30Z Hand procedures | 9,597 | 814 | 10,411 |
| H08B Laparoscopic cholecystectomy, minor complexity | 7,565 | 1,883 | 9,448 |
| I08B Other hip and femur procedures, minor complexity | 7,930 | 1,263 | 9,193 |
| X06C Other procedures for other injuries, minor complexity | 8,368 | 708 | 9,076 |
| I19B Other elbow and forearm procedures, minor complexity | 7,254 | 1,130 | 8,384 |
| O05Z Abortion with OR procedures | 7,806 | 325 | 8,131 |
| I27B Soft tissue procedures, minor complexity | 5,758 | 937 | 6,695 |
| I03B Hip replacement, minor complexity | 4,519 | 1,013 | 5,532 |
| I08A Other hip and femur procedures, major complexity | 4,879 | 477 | 5,356 |
| G11B Anal and stomal procedures, minor complexity | 4,646 | 699 | 5,345 |
| I13A Humerus, tibia, fibula and ankle procedures, major complexity | 4,854 | 423 | 5,277 |
| H08A Laparoscopic cholecystectomy, major complexity | 4,270 | 617 | 4,887 |
| G07A Appendicectomy, major complexity | 4,227 | 302 | 4,529 |
| X05B Other procedures for injuries to hand, minor complexity | 4,020 | 498 | 4,518 |
| G04C Peritoneal adhesiolysis, minor complexity | 2,814 | 580 | 3,394 |
| F12B Implantation and replacement of pacemaker, total system, minor complexity | 1,999 | 1,156 | 3,155 |
| F15B Interventional coronary procedures, not admitted for AMI, with stent implantation, minor complexity | 2,004 | 1,129 | 3,133 |
| Other | 160,153 | 25,686 | 185,839 |
| Total | 294,673 | 45,493 | 340,166 |

AR-DRG—Australian Refined Diagnosis Related Group; AMI—acute myocardial infarction; OR—operating room.

(a) Includes separations for which the care type was reported as *Acute, Newborn* (with at least one qualified day) or was not reported. Therefore, the total number of separations in this table differs from other tables in this section.

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 (excluding general anaesthesia and allied health interventions) at the ACHI chapter-level. For the 20 most common procedures, information is also presented at the more detailed procedure block level.

In 2016–17, over 632,000 surgical procedures were reported for emergency admissions involving surgery (Table 6.24). For 2016–17, all surgical procedures were counted, whereas in previous years, only the first surgical procedure was reported. Therefore, the information presented in Table 6.24 is not comparable with information presented in similar tables in earlier reports.

The ACHI chapter *Procedures on musculoskeletal system* accounted for 27% of all surgical procedures reported for emergency admissions involving surgery, with 86% of these occurring in public hospitals.

Table 6.24: Number of procedures^(a) reported for emergency admissions involving surgery by ACHI chapter, public and private hospitals, 2016–17

| Procedure | | Public hospitals | Private hospitals | Total |
|----------------------------------|---|------------------|-------------------|----------------|
| 1–86 | Procedures on nervous system | 21,497 | 4,305 | 25,802 |
| 110–129 | Procedures on endocrine system | 360 | 53 | 413 |
| 160–256 | Procedures on eye and adnexa | 9,220 | 1,614 | 10,834 |
| 300–333 | Procedures on ear and mastoid process | 751 | 152 | 903 |
| 370–422 | Procedures on nose, mouth and pharynx | 5,909 | 1,046 | 6,955 |
| 450–490 | Dental services | 2,109 | 155 | 2,264 |
| 520–571 | Procedures on respiratory system | 28,744 | 2,468 | 31,212 |
| 600–777 | Procedures on cardiovascular system | 92,539 | 20,303 | 112,842 |
| 800–817 | Procedures on blood and blood-forming organs | 2,905 | 468 | 3,373 |
| 850–1011 | Procedures on digestive system | 115,305 | 20,773 | 136,078 |
| 1040–1129 | Procedures on urinary system | 14,620 | 5,869 | 20,489 |
| 1160–1203 | Procedures on male genital organs | 4,883 | 905 | 5,788 |
| 1240–1299 | Gynaecological procedures | 20,683 | 2,261 | 22,944 |
| 1330–1347 | Obstetric procedures | 4,678 | 280 | 4,958 |
| 1360–1580 | Procedures on musculoskeletal system | 147,753 | 24,753 | 172,506 |
| 1600–1718 | Dermatological and plastic procedures | 60,728 | 8,956 | 69,684 |
| 1740–1759 | Procedures on breast | 397 | 253 | 650 |
| 1786–1800 | Radiation oncology procedures | 38 | 15 | 53 |
| 1820–1922 | Non-invasive, cognitive and other interventions, n.e.c. | 4,098 | 390 | 4,488 |
| 1940–2016 | Imaging services | 58 | 12 | 70 |
| Total surgical procedures | | 537,396 | 95,034 | 632,430 |

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as *Surgical*. 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 one 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.

In 2016–17, the 20 most common procedures accounted for almost half of all procedures reported for emergency admissions involving surgery (excluding general anaesthesia and allied health interventions).

Other debridement of skin and subcutaneous tissue was the most common surgical procedure (at the procedure block level) for emergency admissions involving surgery (Table 6.25), and 93% of these were performed in public hospitals.

Almost 88% of emergency admissions involving *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 (29%).

Table 6.25: Number of procedures^(a) reported for the 20 most common ACHI procedure blocks for emergency admissions involving surgery, public and private hospitals, 2016–17

| Procedure block | | Public hospitals | Private hospitals | Total |
|----------------------------------|---|------------------|-------------------|----------------|
| 1628 | Other debridement of skin and subcutaneous tissue | 36,528 | 2,727 | 39,255 |
| 1566 | Excision procedures on other musculoskeletal sites | 33,345 | 5,793 | 39,138 |
| 926 | Appendicectomy | 31,385 | 4,303 | 35,688 |
| 668 | Coronary angiography | 20,163 | 4,167 | 24,330 |
| 671 | Transluminal coronary angioplasty with stenting | 16,447 | 3,395 | 19,842 |
| 986 | Division of abdominal adhesions | 14,582 | 3,383 | 17,965 |
| 965 | Cholecystectomy | 13,318 | 2,839 | 16,157 |
| 569 | Ventilatory support | 11,626 | 574 | 12,200 |
| 1479 | Fixation of fracture of pelvis or femur | 10,615 | 1,519 | 12,134 |
| 607 | Examination procedures on ventricle | 9,192 | 2,793 | 11,985 |
| 1466 | Repair of tendon of hand | 9,055 | 822 | 9,877 |
| 1265 | Curettage and evacuation of uterus | 9,172 | 661 | 9,833 |
| 1539 | Open reduction of fracture of ankle or toe | 7,556 | 1,056 | 8,612 |
| 1489 | Arthroplasty of hip | 6,714 | 1,365 | 8,079 |
| 648 | Insertion of permanent transvenous electrode for cardiac pacemaker or defibrillator | 5,786 | 2,281 | 8,067 |
| 1429 | Open reduction of fracture of radius | 6,382 | 1,007 | 7,389 |
| 930 | Incision procedures on rectum or anus | 6,498 | 774 | 7,272 |
| 1636 | Repair of nail | 5,977 | 682 | 6,659 |
| 570 | Non-invasive ventilatory support | 6,255 | 356 | 6,611 |
| 650 | Insertion of cardiac pacemaker generator | 4,610 | 1,911 | 6,521 |
| Other | | 272,190 | 52,626 | 324,816 |
| Total surgical procedures | | 537,396 | 95,034 | 632,430 |

(a) A procedure was counted if it was an operating room procedure included in the definition of the AR-DRG as Surgical. 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 one 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.

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 7 days (Table 6.26).

Table 6.26: Patient days and average length of stay for emergency admissions involving surgery, public and private hospitals, 2016–17

| | 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 | 27,576 | 1.0 | 5,451 | 1.0 | 33,027 | 1.0 |
| Overnight | 1,943,481 | 7.3 | 303,178 | 7.7 | 2,246,659 | 7.3 |
| Total | 1,971,057 | 6.7 | 308,629 | 6.9 | 2,279,686 | 6.7 |

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

Who paid for the care?

Three-quarters (75%) of emergency admissions involving surgery in public hospitals were for *Public patients*, and 18% were for patients who used *Private health insurance* to fund all or part of their admission (Table 6.27).

For private hospitals, 85% of emergency admissions involving surgery were *Private health insurance* patients and the *Department of Veterans' Affairs* funded 5%.

Table 6.27: Emergency admissions involving surgery, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals ^(a) | Total ^(a) |
|--|------------------|----------------------------------|----------------------|
| Public patients ^(b) | 221,342 | 2,173 | 223,515 |
| Private health insurance | 53,678 | 38,465 | 92,143 |
| Self-funded | 2,625 | 725 | 3,350 |
| Workers compensation | 6,336 | 1,376 | 7,712 |
| Motor vehicle third party personal claim | 4,953 | 65 | 5,018 |
| Department of Veterans' Affairs | 3,106 | 2,473 | 5,579 |
| Other ^(c) | 2,888 | 226 | 3,114 |
| Total^(d) | 294,928 | 45,506 | 340,434 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and all hospitals.

(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.

(d) The total includes separations from private hospitals in the Australian Capital Territory.

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

How was 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.

Almost 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, 2016–17

| Mode of separation | Public hospitals | Private hospitals | Total |
|--|-------------------------|--------------------------|----------------|
| Discharged home ^(a) | 245,714 | 39,411 | 285,125 |
| Discharge/transfer to an (other) acute hospital | 26,141 | 3,480 | 29,621 |
| Discharge/transfer to residential aged care service ^(b) | 2,846 | 373 | 3,219 |
| Discharge/transfer to an (other) psychiatric hospital | 74 | 1 | 75 |
| Discharge/transfer to other health care accommodation ^(c) | 1,127 | 153 | 1,280 |
| Statistical discharge: type change | 10,925 | 1,452 | 12,377 |
| Left against medical advice/discharge at own risk | 3,273 | 38 | 3,311 |
| Statistical discharge from leave | 80 | 0 | 80 |
| Died | 4,728 | 595 | 5,323 |
| Not reported | 20 | 3 | 23 |
| Total | 294,928 | 45,506 | 340,434 |

(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 2016–17. 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 8.0 (IHPA 2014), 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.

Before 2015–16, surgical separations for childbirth and subacute and non-acute separations were not included in counts of admissions involving surgery. From 2015–16 these were included, for all admissions involving surgery. Therefore, the data presented in this section for the 2015–16 and 2016–17 reports are not comparable with the data presented in reports for 2014–15 and earlier.

The elective admissions involving surgery defined for 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, most 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 and Z40Z—Other contacts with health services with endoscopy, same day
- the data in the NESWTDC can include separations for which the urgency of admission was reported as 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 2016–17: Australian hospital statistics* (AIHW 2017b).

Changes over time

There can be differences in whether a separation is assigned to a *Surgical*, *Medical* or *Other DRG*, depending on the AR-DRG version used. For this reason, comparisons of the numbers of surgical separations over time should take into consideration the AR-DRG versions used for different periods.

Between 2012–13 and 2016–17, the number of elective admissions involving surgery rose by an average of 2.0% per year (Table 6.29)—by 2.1% per year in public hospitals and 1.8% per year in private hospitals.

States and territories

Between 2012–13 and 2016–17, the number of elective admissions involving surgery for public hospitals increased in most states and territories, except South Australia (Table 6.29).

In private hospitals, Western Australia had the highest average annual rise in elective admissions involving surgery (3.2%) (for jurisdictions whose private hospital data could be reported). Over this period, private hospitals accounted for the majority (67%) of elective admissions involving surgery.

Between 2015–16 and 2016–17, the Australian Capital Territory had the largest increase in elective admissions involving surgery for public hospitals (5.9%).

How much activity was there in 2016–17?

In 2016–17, there were more than 2.2 million elective admissions involving surgery in Australia's public and private hospitals (Table 6.30).

Nationally, there were 87 elective admissions involving surgery per 1,000 population. Public hospitals provided 29 elective admissions involving surgery per 1,000 population and private hospitals provided 58 per 1,000 population.

Separation rates varied among states and territories. For private hospitals, they ranged from 53 per 1,000 in New South Wales to 68 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.

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 (53%) 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 2.7 times as likely as their male counterparts to have had an elective admission involving surgery.

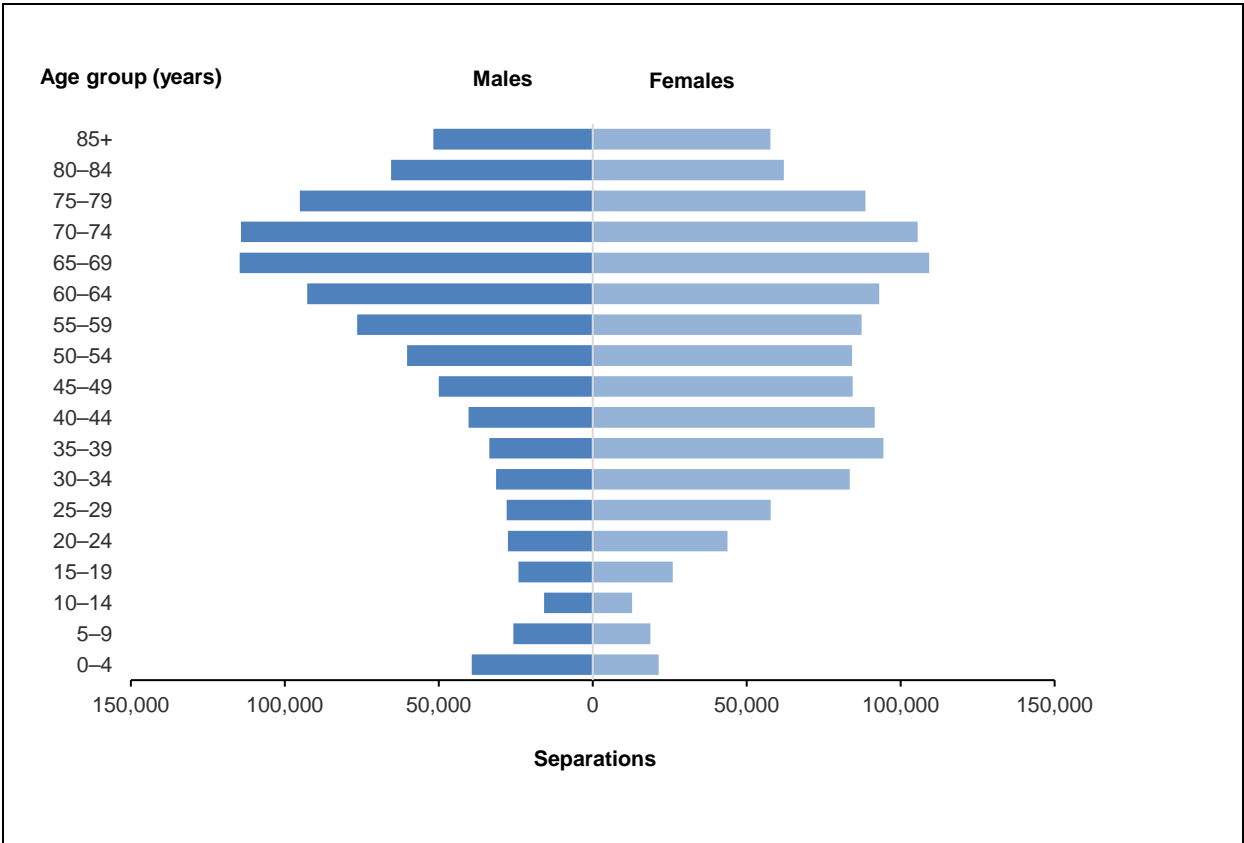
Table 6.29: Elective admissions involving surgery, public and private hospitals, states and territories, 2012–13 to 2016–17^(a)

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|------------------|------------------|------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| New South Wales | | | | | | | |
| Public hospitals | 199,190 | 198,207 | 203,573 | 205,515 | 208,478 | 1.1 | 1.4 |
| Private hospitals | 417,008 | 407,777 | 428,624 | 440,626 | 443,906 | 1.6 | 0.7 |
| <i>All hospitals</i> | <i>616,198</i> | <i>605,984</i> | <i>632,197</i> | <i>646,141</i> | <i>652,384</i> | <i>1.4</i> | <i>1.0</i> |
| Victoria | | | | | | | |
| Public hospitals | 200,271 | 213,891 | 216,213 | 217,203 | 227,337 | 3.2 | 4.7 |
| Private hospitals | 337,769 | 344,271 | 353,725 | 356,269 | 357,601 | 1.4 | 0.4 |
| <i>All hospitals</i> | <i>538,040</i> | <i>558,162</i> | <i>569,938</i> | <i>573,472</i> | <i>584,938</i> | <i>2.1</i> | <i>2.0</i> |
| Queensland | | | | | | | |
| Public hospitals | 119,320 | 121,213 | 127,330 | 134,021 | 138,424 | 3.8 | 3.3 |
| Private hospitals | 301,573 | 312,160 | 324,854 | 328,509 | 328,227 | 2.1 | -0.1 |
| <i>All hospitals</i> | <i>420,893</i> | <i>433,373</i> | <i>452,184</i> | <i>462,530</i> | <i>466,651</i> | <i>2.6</i> | <i>0.9</i> |
| Western Australia | | | | | | | |
| Public hospitals | 73,896 | 75,895 | 73,338 | 78,593 | 77,527 | 1.2 | -1.4 |
| Private hospitals | 158,156 | 168,234 | 173,364 | 178,921 | 179,231 | 3.2 | 0.2 |
| <i>All hospitals</i> | <i>232,052</i> | <i>244,129</i> | <i>246,702</i> | <i>257,514</i> | <i>256,758</i> | <i>2.6</i> | <i>-0.3</i> |
| South Australia | | | | | | | |
| Public hospitals | 65,613 | 64,450 | 64,018 | 60,700 | 58,366 | -2.9 | -3.8 |
| Private hospitals | 106,917 | 109,663 | 110,186 | 113,026 | 112,568 | 1.3 | -0.4 |
| <i>All hospitals</i> | <i>172,530</i> | <i>174,113</i> | <i>174,204</i> | <i>173,726</i> | <i>170,934</i> | <i>-0.2</i> | <i>-1.6</i> |
| Tasmania | | | | | | | |
| Public hospitals | 14,214 | 14,245 | 14,826 | 18,022 | 17,982 | 6.1 | -0.2 |
| 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> |
| Australian Capital Territory | | | | | | | |
| Public hospitals | 10,572 | 11,537 | 11,744 | 12,692 | 13,439 | 6.2 | 5.9 |
| 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 | | | | | | | |
| Public hospitals | 6,715 | 6,464 | 6,469 | 6,588 | 6,830 | 0.4 | 3.7 |
| Private hospitals ^(b) | 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 | 689,791 | 705,902 | 717,511 | 733,334 | 748,383 | 2.1 | 2.1 |
| Private hospitals^(b) | 1,379,727 | 1,401,605 | 1,453,556 | 1,482,819 | 1,489,173 | 1.9 | 0.4 |
| All hospitals | 2,069,518 | 2,107,507 | 2,171,067 | 2,216,153 | 2,237,556 | 2.0 | 1.0 |

(a) Surgical separations for childbirth episodes 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.

(b) For 2012–13, urgency of admission was missing for all records for private hospitals in the Northern Territory and all private hospital separations involving surgery were categorised as elective admissions. Therefore, the counts of elective admissions involving surgery are likely to be overestimated for 2012–13.

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



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

Figure 6.2: Elective admissions involving surgery, by sex and age group, all hospitals, 2016-17

Table 6.30: Elective admissions involving surgery per 1,000 population, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total ^(a) |
|---|----------------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|----------------------|
| Public hospitals | | | | | | | | | |
| Separations | 208,478 | 227,337 | 138,424 | 77,527 | 58,366 | 17,982 | 13,439 | 6,830 | 748,383 |
| Separations per 1,000 population | 25.2 | 35.1 | 27.5 | 29.5 | 31.2 | 31.5 | 33.9 | 32.2 | 29.3 |
| Private hospitals | | | | | | | | | |
| Separations | 443,906 | 357,601 | 328,227 | 179,231 | 112,568 | n.p. | n.p. | n.p. | 1,489,173 |
| Separations per 1,000 population | 53.1 | 54.4 | 64.2 | 67.8 | 57.5 | n.p. | n.p. | n.p. | 57.5 |
| All hospitals | | | | | | | | | |
| Separations | 652,384 | 584,938 | 466,651 | 256,758 | 170,934 | n.p. | n.p. | n.p. | 2,237,556 |
| Separations per 1,000 population | 78.3 | 89.5 | 91.7 | 97.4 | 88.7 | n.p. | n.p. | n.p. | 86.9 |

(a) 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

The quality of the data provided for Indigenous status in 2016–17 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* (87 per 1,000) was 36% higher than the rate for *Indigenous Australians* (64 per 1,000) (Table 6.31).

Remoteness area

In 2016–17, the rate of elective admissions involving surgery was lowest for those living in *Very remote* areas (61 per 1,000) and highest for those living in *Inner regional* areas (90 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 *Remote* areas (39 per 1,000). In contrast, for private hospitals the rate was highest for those living in *Major cities* (60 per 1,000) and fell with increasing remoteness to 26 per 1,000 for *Very remote* areas.

This may reflect the relatively lower availability of private hospital services in the more remote areas of Australia.

Socioeconomic status

In 2016–17, separation rates ranged from 79 per 1,000 population for those living in areas classified as being in the lowest (most disadvantaged) SES group to 92 per 1,000 for those living in areas classified as being in the highest (least disadvantaged) 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 (75 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 per 1,000 population, by Indigenous status, remoteness and socioeconomic status of area of usual residence, public and private hospitals, 2016–17

| | Separations per 1,000 population | | | Separations |
|--|----------------------------------|-------------------|-------------|------------------|
| | Public hospitals | Private hospitals | Total | |
| Indigenous status^(a) | | | | |
| Indigenous | 47.2 | 16.7 | 63.9 | 34,690 |
| Other Australians | 28.7 | 58.1 | 86.8 | 2,202,866 |
| Remoteness of area of usual residence | | | | |
| Major cities | 26.3 | 60.2 | 86.5 | 1,545,496 |
| Inner regional | 35.5 | 54.5 | 90.0 | 453,596 |
| Outer regional | 38.3 | 45.9 | 84.2 | 197,907 |
| Remote | 39.0 | 38.6 | 77.6 | 24,275 |
| Very remote | 35.9 | 25.5 | 61.4 | 10,242 |
| Socioeconomic status of area of usual residence | | | | |
| 1–Lowest | 38.7 | 40.6 | 79.2 | 420,604 |
| 2 | 34.8 | 49.3 | 84.1 | 446,350 |
| 3 | 30.0 | 57.6 | 87.5 | 451,036 |
| 4 | 25.3 | 65.7 | 91.1 | 451,844 |
| 5–Highest | 17.1 | 75.1 | 92.2 | 461,052 |
| Total | 29.3 | 57.5 | 86.9 | 2,237,556 |

(a) Separation rates by Indigenous status are directly age-standardised using a highest age group of 65 and over and are not directly comparable with the rates by remoteness area and socioeconomic status 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 definitions and data limitations.

Table 6.32: Elective admissions involving surgery by mode of admission, public and private hospitals, 2016–17

| | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|------------------|
| New admission to hospital ^(a) | 732,791 | 1,469,459 | 2,202,250 |
| Admitted patient transferred from another hospital | 12,768 | 10,907 | 23,675 |
| Other/not reported | 2,824 | 8,807 | 11,631 |
| Total | 748,383 | 1,489,173 | 2,237,556 |

(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.

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 2016–17, principal diagnoses in the *Diseases of the eye and adnexa* ICD-10-AM chapter were reported for 17% of elective admissions involving surgery. Almost 15% had a principal diagnosis in the chapter *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, 99% of separations involving surgery for *Diseases of the eye and adnexa* and *Diseases of the ear and mastoid process* were elective admissions, and 70% of separations for *Diseases of the digestive system* were elective admissions.

Table 6.33: Elective admissions involving surgery, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2016–17

| Principal diagnosis | Public hospitals | Private hospitals | All hospitals |
|---|------------------|-------------------|------------------|
| A00–B99 Certain infectious and parasitic diseases | 1,393 | 1,516 | 2,909 |
| C00–D48 Neoplasms | 130,416 | 204,270 | 334,686 |
| D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 483 | 406 | 889 |
| E00–E89 Endocrine, nutritional and metabolic diseases | 10,192 | 34,249 | 44,441 |
| F00–F99 Mental and behavioural disorders | 58 | 13 | 71 |
| G00–G99 Diseases of the nervous system | 24,622 | 36,860 | 61,482 |
| H00–H59 Diseases of the eye and adnexa | 99,608 | 288,894 | 388,502 |
| H60–H95 Diseases of the ear and mastoid process | 14,950 | 28,527 | 43,477 |
| I00–I99 Diseases of the circulatory system | 34,466 | 54,316 | 88,782 |
| J00–J99 Diseases of the respiratory system | 29,566 | 59,924 | 89,490 |
| K00–K93 Diseases of the digestive system | 71,267 | 105,673 | 176,940 |
| L00–L99 Diseases of the skin and subcutaneous tissue | 16,579 | 27,891 | 44,470 |
| M00–M99 Diseases of the musculoskeletal system and connective tissue | 86,321 | 246,328 | 332,649 |
| N00–N99 Diseases of the genitourinary system | 93,627 | 141,453 | 235,080 |
| O00–O99 Pregnancy, childbirth and the puerperium | 24,165 | 52,047 | 76,212 |
| P00–P96 Certain conditions originating in the perinatal period | 221 | 17 | 238 |
| Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities | 13,495 | 8,416 | 21,911 |
| R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 11,334 | 16,472 | 27,806 |
| S00–T98 Injury, poisoning and certain other consequences of external causes | 48,619 | 69,055 | 117,674 |
| Z00–Z99 Factors influencing health status and contact with health services | 37,001 | 112,846 | 149,847 |
| Total | 748,383 | 1,489,173 | 2,237,556 |

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 45% of the principal diagnoses reported (Table 6.34).

The most common principal diagnosis for elective admissions involving surgery was *Other cataract* (220,000 or 10%), with 69% of these occurring in private hospitals.

Almost 95% of elective admissions involving surgery with a principal diagnosis of *Procreative management* and 93% with a principal diagnosis of *Other retinal disorders* were from private hospitals.

More than half (52%) of elective admissions involving surgery that had a principal diagnosis of *Cholelithiasis* (gallstones) were from public hospitals.

Table 6.34: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for elective admissions involving surgery, public and private hospitals, 2016–17

| Principal diagnosis | | Public hospitals | Private hospitals | Total |
|---------------------|--|------------------|-------------------|------------------|
| H26 | Other cataract | 67,251 | 153,105 | 220,356 |
| C44 | Other malignant neoplasms of skin | 31,492 | 79,574 | 111,066 |
| H35 | Other retinal disorders | 4,758 | 64,891 | 69,649 |
| Z31 | Procreative management | 3,657 | 63,001 | 66,658 |
| M17 | Gonarthrosis (arthrosis of knee) | 19,234 | 43,324 | 62,558 |
| M23 | Internal derangement of knee | 11,988 | 42,742 | 54,730 |
| K40 | Inguinal hernia | 17,899 | 24,902 | 42,801 |
| J35 | Chronic diseases of tonsils and adenoids | 14,823 | 26,454 | 41,277 |
| O04 | Medical abortion | 6,651 | 29,442 | 36,093 |
| G56 | Mononeuropathies of upper limb | 13,725 | 21,429 | 35,154 |
| N92 | Excessive, frequent and irregular menstruation | 16,314 | 16,486 | 32,800 |
| M16 | Coxarthrosis (arthrosis of hip) | 10,411 | 21,983 | 32,394 |
| K80 | Cholelithiasis | 16,590 | 15,076 | 31,666 |
| M75 | Shoulder lesions | 5,284 | 23,934 | 29,218 |
| J34 | Other disorders of nose and nasal sinuses | 7,885 | 20,120 | 28,005 |
| H25 | Senile cataract | 9,486 | 17,936 | 27,422 |
| E66 | Obesity | 1,850 | 23,411 | 25,261 |
| Z47 | Other orthopaedic follow-up care | 11,362 | 11,473 | 22,835 |
| N20 | Calculus of kidney and ureter | 9,396 | 12,015 | 21,411 |
| C50 | Malignant neoplasm of breast | 9,499 | 11,527 | 21,026 |
| | Other | 458,828 | 766,348 | 1,225,176 |
| Total | | 748,383 | 1,489,173 | 2,237,556 |

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

Over 19% of elective admissions involving surgery were for the MDC *Diseases and disorders of the musculoskeletal system and connective tissue*, and 18% were for *Diseases and disorders of the eye* (Table 6.35).

The 20 most common AR-DRGs for elective admissions involving surgery, accounted for just over half (51%) of the AR-DRGs reported (Table 6.36). The most common AR-DRG was *Lens procedures* (11%), of which 69% were in private hospitals. For *Retinal procedures*, 93% were in private hospitals.

Table 6.35: Elective admissions^(a) involving surgery, by Major Diagnostic Category^(b), AR-DRG version 8.0, public and private hospitals, 2016–17

| Major Diagnostic Category | | Public hospitals | Private hospitals | Total |
|---------------------------|---|------------------|-------------------|------------------|
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 4,302 | 4,466 | 8,768 |
| 01 | Diseases and disorders of the nervous system | 23,677 | 34,834 | 58,511 |
| 02 | Diseases and disorders of the eye | 102,657 | 292,623 | 395,280 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 55,856 | 114,782 | 170,638 |
| 04 | Diseases and disorders of the respiratory system | 12,519 | 14,274 | 26,793 |
| 05 | Diseases and disorders of the circulatory system | 41,292 | 60,091 | 101,383 |
| 06 | Diseases and disorders of the digestive system | 59,669 | 78,396 | 138,065 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 23,747 | 20,607 | 44,354 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 131,241 | 299,505 | 430,746 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 86,125 | 190,732 | 276,857 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 11,343 | 34,431 | 45,774 |
| 11 | Diseases and disorders of the kidney and urinary tract | 35,593 | 43,131 | 78,724 |
| 12 | Diseases and disorders of the male reproductive system | 20,822 | 35,263 | 56,085 |
| 13 | Diseases and disorders of the female reproductive system | 89,686 | 173,082 | 262,768 |
| 14 | Pregnancy, childbirth and puerperium | 24,166 | 52,033 | 76,199 |
| 15 | Newborns and other neonates | 322 | 14 | 336 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 1,814 | 1,307 | 3,121 |
| 17 | Neoplastic disorders(haematological and solid neoplasms) | 5,117 | 4,227 | 9,344 |
| 18 | Infectious and parasitic diseases | 1,054 | 1,890 | 2,944 |
| 21 | Injuries, poisoning and toxic effects of drugs | 7,427 | 12,631 | 20,058 |
| 22 | Burns | 1,607 | 147 | 1,754 |
| 23 | Factors influencing health status and other contacts with health services | 4,653 | 7,551 | 12,204 |
| ED | Error DRGs ^(c) | 2,923 | 3,666 | 6,589 |
| Total | | 747,612 | 1,479,683 | 2,227,295 |

AR-DRG—Australian Refined Diagnosis Related Group; ECMO—extracorporeal membrane oxygenation.

(a) Includes separations for which the care type was reported as *Acute*, *Newborn* (with at least one qualified day) or was not reported. Therefore, the total number of separations in this table differs from other tables in this section.

(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 8.0 reported for elective admissions involving surgery, public and private hospitals, 2016–17

| AR-DRG | Public hospitals | Private hospitals | Total |
|---|------------------|-------------------|------------------|
| C16Z Lens procedures | 74,526 | 168,750 | 243,276 |
| J11B Other skin, subcutaneous tissue and breast procedures, minor complexity | 29,211 | 57,300 | 86,511 |
| C03B Retinal procedures, minor complexity | 5,514 | 68,860 | 74,374 |
| N07B Other uterus and adnexa procedures for non-malignancy, minor complexity | 11,450 | 48,530 | 59,980 |
| G10B Hernia procedures, minor complexity | 25,482 | 33,852 | 59,334 |
| I18B Other knee procedures, minor complexity | 11,237 | 44,382 | 55,619 |
| J08C Other skin grafts and debridement procedures, minor complexity | 11,151 | 42,018 | 53,169 |
| O05Z Abortion with OR procedures | 14,020 | 37,681 | 51,701 |
| D11Z Tonsillectomy and adenoidectomy | 17,853 | 30,592 | 48,445 |
| I30Z Hand procedures | 18,268 | 28,177 | 46,445 |
| N10Z Diagnostic curettage and diagnostic hysteroscopy | 19,627 | 23,529 | 43,156 |
| I04B Knee replacement, minor complexity | 14,371 | 27,866 | 42,237 |
| I16Z Other shoulder procedures | 7,478 | 33,643 | 41,121 |
| J06B Major procedures for breast disorders, minor complexity | 9,587 | 30,241 | 39,828 |
| J10B Plastic OR procedures for skin, subcutaneous tissue and breast disorders, minor complexity | 9,233 | 25,582 | 34,815 |
| H08B Laparoscopic cholecystectomy, minor complexity | 15,923 | 15,816 | 31,739 |
| B05Z Carpal tunnel release | 12,482 | 18,188 | 30,670 |
| L07B Other transurethral procedures, minor complexity | 11,299 | 17,820 | 29,119 |
| N07A Other uterus and adnexa procedures for non-malignancy, major complexity | 11,062 | 17,535 | 28,597 |
| I03B Hip replacement, minor complexity | 9,702 | 18,492 | 28,194 |
| Other | 408,136 | 690,829 | 1,098,965 |
| Total | 747,612 | 1,479,683 | 2,227,295 |

AR-DRG—Australian Refined-Diagnosis Related Group; 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 (excluding general anaesthesia and allied health interventions) at the ACHI chapter level. For the 20 most common procedures, information is presented at the more detailed procedure block level.

In 2016–17, 3.9 million surgical procedures were reported for elective admissions involving surgery (Table 6.37). For 2016–17, all surgical procedures were counted, whereas in previous years, only the first surgical procedure was reported. Therefore, the information presented in Table 6.37 is not comparable with information presented in similar tables in past reports.

Over 19% of procedures were in the ACHI chapter *Procedures on musculoskeletal system*, with 74% of these occurring in private hospitals.

Table 6.37: Procedures^(a) reported for elective admissions involving surgery by ACHI chapter, public and private hospitals, 2016–17

| Procedure | Public hospitals | Private hospitals | Total |
|---|------------------|-------------------|------------------|
| 1–86 Procedures on nervous system | 40,125 | 112,688 | 152,813 |
| 110–129 Procedures on endocrine system | 8,817 | 11,302 | 20,119 |
| 160–256 Procedures on eye and adnexa | 118,190 | 350,177 | 468,367 |
| 300–333 Procedures on ear and mastoid process | 21,539 | 43,000 | 64,539 |
| 370–422 Procedures on nose, mouth and pharynx | 65,242 | 163,870 | 229,112 |
| 450–490 Dental services | 3,613 | 21,471 | 25,084 |
| 520–571 Procedures on respiratory system | 22,722 | 18,498 | 41,220 |
| 600–777 Procedures on cardiovascular system | 91,207 | 143,287 | 234,494 |
| 800–817 Procedures on blood and blood-forming organs | 23,813 | 23,804 | 47,617 |
| 850–1011 Procedures on digestive system | 152,379 | 236,408 | 388,787 |
| 1040–1129 Procedures on urinary system | 81,723 | 123,573 | 205,296 |
| 1160–1203 Procedures on male genital organs | 26,583 | 48,425 | 75,008 |
| 1240–1299 Gynaecological procedures | 178,641 | 341,129 | 519,770 |
| 1330–1347 Obstetric procedures | 9,454 | 17,066 | 26,520 |
| 1360–1580 Procedures on musculoskeletal system | 192,884 | 546,770 | 739,654 |
| 1600–1718 Dermatological and plastic procedures | 167,825 | 420,144 | 587,969 |
| 1740–1759 Procedures on breast | 23,307 | 64,753 | 88,060 |
| 1786–1800 Radiation oncology procedures | 1,280 | 790 | 2,070 |
| 1820–1922 Non-invasive, cognitive and other interventions, n.e.c. | 4,795 | 3,752 | 8,547 |
| 1940–2016 Imaging services | 199 | 125 | 324 |
| Total surgical procedures | 1,234,463 | 2,691,229 | 3,925,692 |

(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.

In 2016–17, *Excision of lesion(s) of skin and subcutaneous tissue* was the most common surgical procedure block, accounting for 8% of elective admissions, followed by *Extracapsular crystalline lens extraction by phacoemulsification* (a cataract extraction procedure), accounting for 7% of elective admissions (Table 6.38). Almost 95% of elective admissions for *Procedures for reproductive medicine* were reported for private hospitals.

Length of stay

The length of stay for elective admissions involving surgery varied between public and private hospitals. For overnight separations, the ALOS was 3.6 days for public hospitals and 3.1 days for private hospitals (Table 6.39).

Table 6.38: Procedures^(a) reported for the 20 most common ACHI procedure blocks for elective admissions involving surgery, public and private hospitals, 2016–17

| Procedure block | | Public hospitals | Private hospitals | Total |
|----------------------------------|--|------------------|-------------------|------------------|
| 1620 | Excision of lesion(s) of skin and subcutaneous tissue | 90,384 | 205,527 | 295,911 |
| 197 | Extracapsular crystalline lens extraction by phacoemulsification | 75,183 | 183,333 | 258,516 |
| 1265 | Curettage and evacuation of uterus | 54,092 | 95,910 | 150,002 |
| 209 | Application, insertion or removal procedures on retina, choroid or posterior chamber | 7,189 | 84,278 | 91,467 |
| 1259 | Examination procedures on uterus | 35,248 | 48,326 | 83,574 |
| 412 | Tonsillectomy or adenoidectomy | 27,978 | 53,009 | 80,987 |
| 1297 | Procedures for reproductive medicine | 3,628 | 68,600 | 72,228 |
| 986 | Division of abdominal adhesions | 23,594 | 36,559 | 60,153 |
| 1651 | Local skin flap, single stage | 11,425 | 47,272 | 58,697 |
| 1518 | Arthroplasty of knee | 17,227 | 38,797 | 56,024 |
| 1566 | Excision procedures on other musculoskeletal sites | 13,896 | 38,008 | 51,904 |
| 990 | Repair of inguinal hernia | 18,710 | 28,493 | 47,203 |
| 309 | Myringotomy | 13,029 | 29,773 | 42,802 |
| 1554 | Other application, insertion or removal procedures on other musculoskeletal sites | 17,897 | 24,718 | 42,615 |
| 965 | Cholecystectomy | 19,986 | 20,898 | 40,884 |
| 76 | Release of carpal and tarsal tunnel | 14,316 | 25,189 | 39,505 |
| 1517 | Arthroscopic meniscectomy of knee with repair | 5,610 | 32,998 | 38,608 |
| 1489 | Arthroplasty of hip | 11,548 | 26,202 | 37,750 |
| 1649 | Other full thickness skin graft | 12,504 | 22,930 | 35,434 |
| 889 | Procedures for morbid obesity | 2,779 | 31,644 | 34,423 |
| | Other | 758,240 | 1,548,765 | 2,307,005 |
| Total surgical procedures | | 1,234,463 | 2,691,229 | 3,925,692 |

(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.

Table 6.39: Patient days and average length of stay for elective admissions involving surgery, public and private hospitals, 2016–17

| | 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 | 390,520 | 1.0 | 871,778 | 1.0 | 1,262,298 | 1.0 |
| Overnight | 1,284,064 | 3.6 | 1,894,389 | 3.1 | 3,178,453 | 3.3 |
| Total | 1,674,584 | 2.2 | 2,766,167 | 1.9 | 4,440,751 | 2.0 |

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, 89% of separations in public hospitals were for *Public patients*, and 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, 81% of elective admissions involving surgery were for *Private health insurance patients* and 10% were *Self-funded*.

Table 6.40: Elective admissions involving surgery, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals^(a) | Total^(a) |
|--|-------------------------|--|----------------------------|
| Public patients ^(b) | 662,709 | 25,114 | 687,823 |
| Private health insurance | 58,857 | 1,195,008 | 1,253,865 |
| Self-funded | 16,431 | 155,251 | 171,682 |
| Workers compensation | 2,842 | 35,328 | 38,170 |
| Motor vehicle third party personal claim | 1,655 | 3,165 | 4,820 |
| Department of Veterans' Affairs | 2,240 | 39,699 | 41,939 |
| Other ^(c) | 3,649 | 14,549 | 18,198 |
| Total^(d) | 748,383 | 1,489,173 | 2,237,556 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and all hospitals.

(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.

(d) The total includes separations from private hospitals in the Australian Capital Territory.

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

How was 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.

Just over 97% of elective admissions involving surgery were *Discharged home*, suggesting that most patients go home after their episode of care, and almost 2% were transferred to another hospital for further care (Table 6.41).

Table 6.41: Elective admissions involving surgery, by mode of separation, public and private hospitals, 2016–17

| Mode of separation | Public hospitals | Private hospitals | Total |
|--|-------------------------|--------------------------|------------------|
| Discharged home ^(a) | 725,499 | 1,445,878 | 2,171,377 |
| Discharge/transfer to an (other) acute hospital | 12,560 | 26,653 | 39,213 |
| Discharge/transfer to residential aged care service ^(b) | 1,303 | 686 | 1,989 |
| Discharge/transfer to an (other) psychiatric hospital | 19 | 5 | 24 |
| Discharge/transfer to other health care accommodation ^(c) | 996 | 678 | 1,674 |
| Statistical discharge: type change | 4,974 | 13,958 | 18,932 |
| Left against medical advice/discharge at own risk | 2,140 | 425 | 2,565 |
| Statistical discharge from leave | 137 | 4 | 141 |
| Died | 732 | 647 | 1,379 |
| Not reported | 23 | 239 | 262 |
| Total | 748,383 | 1,489,173 | 2,237,556 |

(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 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 2016–17: Australian hospital statistics (AIHW 2017b)*.

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

6.6 Elective surgery in public hospitals

This section presents information for patients admitted from public hospital elective surgery waiting lists in 2016–17. The data presented are for patients who completed their wait and were admitted for surgery as either an elective or emergency admission.

Access to elective surgery can be measured by considering how much elective surgery is supplied, or by considering the demand for elective surgery. The information in the section includes supply-related measures such as population rates of elective surgery provision and waiting times statistics for the intended surgical procedure by Indigenous status, remoteness and SES of area of usual residence of the patient. The 150 intended procedures accounted for 71% of all awaited procedures in 2016–17. Procedures that were not in the list of intended procedures (METeOR identifier: 637500) were included in the category *Not applicable/not stated*.

This section also presents supply-related measures such as waiting times information by:

- the funding source for the episode
- the principal diagnosis of the patient, with a focus on waiting times for patients with a neoplasm- (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 2016–17: Australian hospital statistics* (AIHW 2017b).

In 2016–17, there were 715,831 admissions from public hospital elective surgery waiting lists for which the 'cluster' data were available.

Limitations in coverage of the 'cluster' data should be considered when interpreting the information because information was only available for 96% of admissions from public hospital elective surgery waiting lists in 2016–17. There was some variation in the linked data coverage between states and territories; from 87% 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. In these cases, only the first recorded intended procedure (as determined by the jurisdiction) was included in these analyses.

Therefore, the waiting times presented in this section may differ from those previously reported in *Elective surgery waiting times 2016–17: Australian hospital statistics* (AIHW 2017b).

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 'cluster data' 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.

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 39 days (Table 6.42) and the 90th percentile waiting time (the number of days within which 90% of patients were admitted) was 261 days (Table 6.47). About 1.7% of patients waited more than 365 days for their surgery.

How did the use of public hospital elective surgery differ for Indigenous and other Australians?

In 2016–17, there were 25,000 admissions from public hospital waiting lists for elective surgery for patients identified as Aboriginal and/or Torres Strait Islander.

Population rates

The standardised SRRs presented in Figure 6.3 compare the separation rates for Indigenous Australians for the 25 most common intended procedures with the rates for other Australians in 2016–17.

An SRR greater than 1.0 indicates that the separation rate for intended procedure for Indigenous Australians was higher than for other Australians admitted for the same intended procedure. The SRR is not shown for intended procedures for which there were fewer than 100 separations for Indigenous Australians.

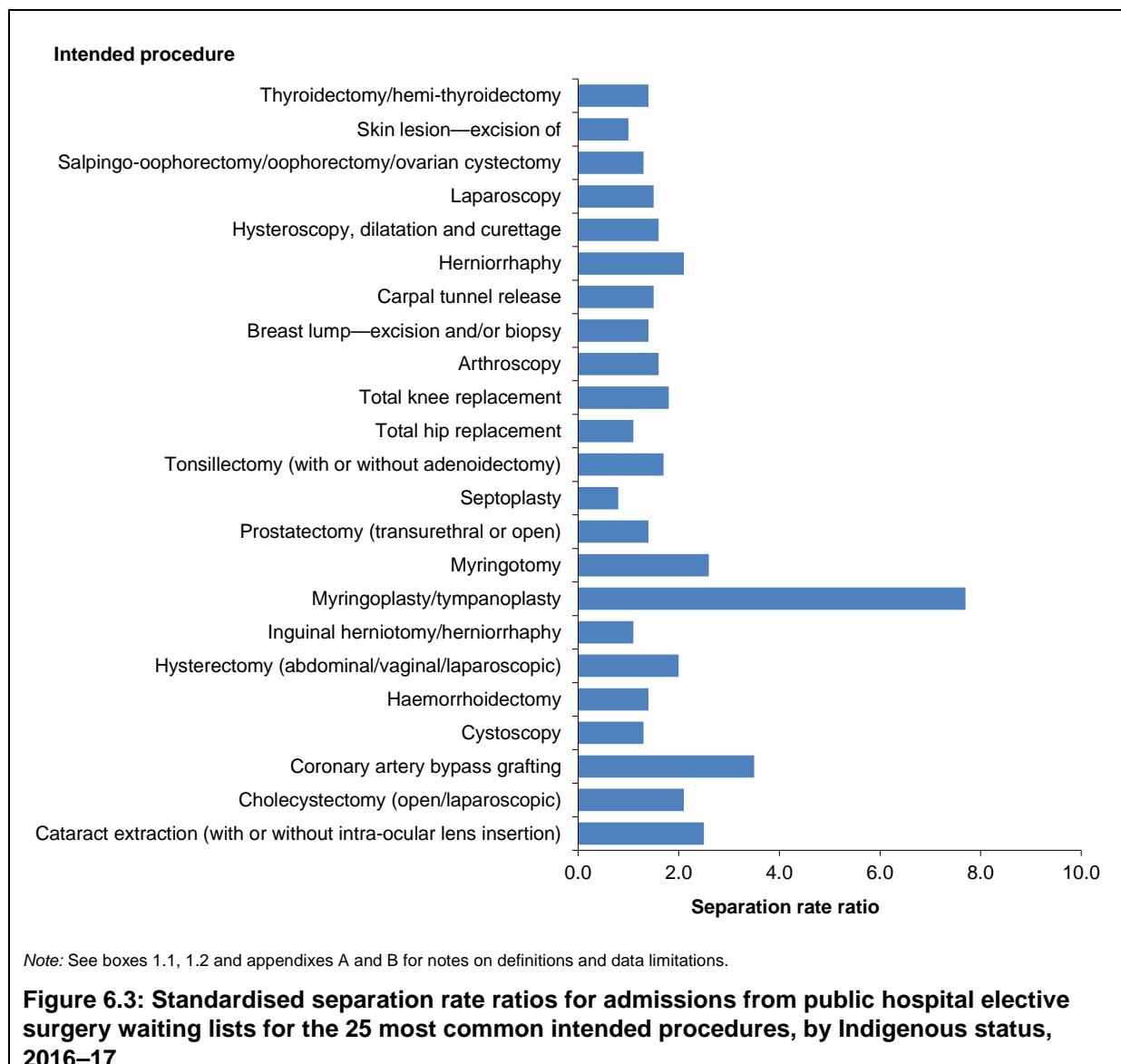
For 19 of the 25 intended procedures (for which there were greater than 100 separations for Indigenous Australians), the SRRs indicate that the separation rates for Indigenous Australians were at least 30% higher than the rates for other Australians, including *Myringoplasty/tympanoplasty* (7.7, or 770% as high) and *Coronary artery bypass graft* (3.5). The rates for Indigenous Australians were not notably different to the rates for other Australians for *Septoplasty* (0.8), *Inguinal herniotomy/herniorrhaphy* (1.1), *Skin lesion—excision of* (1.0) and *Total hip replacement* (1.1).

Waiting times

Overall, the median waiting time for Indigenous Australians was greater than the median waiting time for other Australians (47 days and 38 days, respectively; Table 6.42).

Indigenous Australians had shorter (or similar) median waiting times than other Australians for 6 of the 25 most common intended procedures. The greatest difference in median waiting times was for *Myringoplasty/tympanoplasty* (126 days for Indigenous Australians, and 201 days for other Australians). *Haemorrhoidectomy*, *Thyroidectomy/hemi-thyroidectomy*, *Varicose veins treatment*, *Myringotomy*, and *Coronary artery bypass graft* also had lower median waiting times for Indigenous Australians.

Indigenous Australians had longer median waiting times for 19 of the 25 most common intended procedures (for which there were at least 100 separations for Indigenous Australians). The greatest difference in median waiting times was for *Septoplasty* (277 days for Indigenous Australians, and 219 days for other Australians).



How did the use of public hospital elective surgery differ by remoteness area?

Overall, 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).

Population rates

For people living in *Very remote* areas, the rate for *Myringoplasty/tympanoplasty* was 11 times the national rate, and the rate for *Coronary artery bypass graft* was 3 times the national rate.

Table 6.42: Median waiting time (days)^(a) for admissions from public hospital elective surgery waiting lists, for the 25 most common intended procedures, by Indigenous status, 2016–17

| Intended procedure | Indigenous Australians | Other Australians ^(b) | All Australians |
|---|---------------------------|-------------------------------------|--------------------|
| Arthroscopy | 98 | 68 | 69 |
| Breast lump—excision and/or biopsy | 18 | 15 | 15 |
| Carpal tunnel release | 77 | 57 | 57 |
| Cataract extraction (with or without intra-ocular lens insertion) | 141 | 89 | 90 |
| Cholecystectomy (open/laparoscopic) | 49 | 42 | 42 |
| Colectomy/anterior resection/large bowel resection | 21 | 17 | 17 |
| Coronary artery bypass grafting | 12 | 13 | 13 |
| Cystoscopy | 27 | 24 | 24 |
| Haemorrhoidectomy | 39 | 50 | 50 |
| Herniorrhaphy | 68 | 64 | 64 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 63 | 55 | 56 |
| Hysteroscopy, dilatation and curettage | 26 | 24 | 24 |
| Inguinal herniotomy/herniorrhaphy | 60 | 53 | 53 |
| Laparoscopy | 60 | 48 | 49 |
| Myringoplasty/tympanoplasty | 126 | 201 | 185 |
| Myringotomy ^(c) | 56 | 57 | 57 |
| Prostatectomy (transurethral or open) | 48 | 42 | 42 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 48 | 41 | 41 |
| Septoplasty | 277 | 219 | 220 |
| Skin lesion—excision of | 32 | 25 | 26 |
| Thyroidectomy/hemi-thyroidectomy | 44 | 53 | 53 |
| Tonsillectomy (with or without adenoidectomy) | 121 | 102 | 103 |
| Total hip replacement | 172 | 118 | 118 |
| Total knee replacement | 251 | 201 | 202 |
| Varicose veins treatment | 91 | 99 | 99 |
| Other procedures | 30 | 29 | 29 |
| Total—all procedures | 47 | 38 | 39 |
| Admissions | 25,012 | 690,819 | 715,831 |

(a) The median waiting times for some indicator procedures are not shown due to small numbers of admissions for Indigenous Australians.

(b) *Other Australians* includes admissions for which the Indigenous status was not reported.

(c) *Myringotomy* includes the Intended procedures 016 *Myringotomy (without insertion of grommets)* and 017 *Pressure equalising tubes (grommets)—insertion of*.

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

Table 6.43: Admissions from public hospital elective surgery waiting lists per 1,000 population, for the 25 most common intended procedures, by remoteness of area of usual residence, 2016–17

| Intended procedure | Remoteness of area of usual residence | | | | | Total |
|---|---------------------------------------|----------------|----------------|---------------|--------------|----------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Arthroscopy | 0.4 | 0.8 | 0.9 | 0.9 | 0.6 | 0.5 |
| Breast lump—excision and/or biopsy | 0.3 | 0.4 | 0.3 | 0.2 | 0.1 | 0.3 |
| Carpal tunnel release | 0.4 | 0.5 | 0.5 | 0.7 | 0.5 | 0.4 |
| Cataract extraction (with or without intra-ocular lens insertion) | 2.3 | 2.5 | 3.4 | 4.5 | 6.1 | 2.5 |
| Cholecystectomy (open/laparoscopic) | 0.6 | 0.9 | 0.9 | 1.0 | 0.9 | 0.7 |
| Colectomy/anterior resection/large bowel resection | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 |
| Coronary artery bypass grafting | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 |
| Cystoscopy | 2.1 | 2.1 | 1.7 | 1.9 | 1.2 | 2.0 |
| Haemorrhoidectomy | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| Herniorrhaphy | 0.4 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 0.4 | 0.7 | 0.6 | 0.7 | 0.5 | 0.5 |
| Hysteroscopy, dilatation and curettage | 1.3 | 1.5 | 1.3 | 1.4 | 0.9 | 1.3 |
| Inguinal herniotomy/herniorrhaphy | 0.6 | 0.7 | 0.7 | 0.9 | 0.6 | 0.6 |
| Laparoscopy | 0.4 | 0.6 | 0.5 | 0.4 | 0.3 | 0.4 |
| Myringoplasty/tympanoplasty | 0.1 | 0.1 | 0.1 | 0.3 | 1.1 | 0.1 |
| Myringotomy ^(a) | 0.2 | 0.4 | 0.3 | 0.5 | 0.6 | 0.3 |
| Prostatectomy (transurethral or open) | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 |
| Septoplasty | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Skin lesion—excision of | 1.5 | 2.2 | 2.1 | 3.1 | 2.3 | 1.7 |
| Thyroidectomy/hemi-thyroidectomy | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Tonsillectomy (with or without adenoidectomy) | 0.7 | 1.2 | 1.0 | 1.0 | 0.5 | 0.8 |
| Total hip replacement | 0.4 | 0.5 | 0.5 | 0.5 | 0.2 | 0.4 |
| Total knee replacement | 0.5 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 |
| Varicose veins treatment | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Other procedures | 11.9 | 14.6 | 15.5 | 18.2 | 14.9 | 12.8 |
| Total^(b) | 25.9 | 32.5 | 33.2 | 39.0 | 33.9 | 28.0 |
| Number of separations | 458,786 | 159,945 | 77,624 | 12,141 | 5,655 | 715,831 |

(a) Myringotomy includes the Intended procedures 016 Myringotomy (without insertion of grommets) and 017 Pressure equalising tubes (grommets)—insertion of.

(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.

Waiting times

The median waiting time varied somewhat by remoteness, ranging from 34 days for people living in *Remote* areas to 42 days for people living in *Inner regional* and *Outer regional* areas (Table 6.44).

The median waiting time by intended procedure varied among remoteness areas. For intended procedures with at least 100 admissions in each remoteness area, *Cataract extraction* had the greatest variation in waiting times. People from *Inner regional* areas had

the longest median waiting time of 168 days, and people from *Major cities* had the shortest (70 days). *Hysteroscopy, dilatation and curettage* and *Skin lesion—excision of* had the least variation by remoteness area, with median waiting times differing by a maximum of 3 days across remoteness areas.

Table 6.44: Median waiting time (days) for admissions from public hospital elective surgery waiting lists, for the 25 most common intended procedures, by remoteness of area of usual residence, 2016–17^(a)

| Intended procedure | Remoteness of area of usual residence | | | | | Total ^(b) |
|---|---------------------------------------|----------------|----------------|-----------|-------------|----------------------|
| | Major cities | Inner regional | Outer regional | Remote | Very remote | |
| Arthroscopy | 69 | 72 | 68 | 43 | 30 | 69 |
| Breast lump—excision and/or biopsy | 14 | 16 | 14 | n.p. | n.p. | 15 |
| Carpal tunnel release | 58 | 61 | 55 | 36 | n.p. | 57 |
| Cataract extraction (with or without intra-ocular lens insertion) | 70 | 168 | 155 | 104 | 123 | 90 |
| Cholecystectomy (open/laparoscopic) | 41 | 44 | 45 | 43 | 50 | 42 |
| Colectomy/anterior resection/large bowel resection | 16 | 19 | 19 | n.p. | n.p. | 17 |
| Coronary artery bypass grafting | 15 | 10 | 14 | n.p. | n.p. | 13 |
| Cystoscopy | 24 | 22 | 26 | 24 | 29 | 24 |
| Haemorrhoidectomy | 56 | 46 | 31 | n.p. | n.p. | 50 |
| Herniorrhaphy | 61 | 75 | 69 | 57 | n.p. | 64 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 55 | 60 | 56 | 49 | n.p. | 56 |
| Hysteroscopy, dilatation and curettage | 24 | 23 | 23 | 21 | 22 | 24 |
| Inguinal herniotomy/herniorrhaphy | 51 | 62 | 54 | 34 | 49 | 53 |
| Laparoscopy | 49 | 48 | 53 | 36 | n.p. | 49 |
| Myringoplasty/tyimpanoplasty | 228 | 168 | 101 | n.p. | 158 | 185 |
| Myringotomy ^(c) | 61 | 54 | 50 | 20 | 68 | 57 |
| Prostatectomy (transurethral or open) | 43 | 39 | 45 | n.p. | n.p. | 42 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 41 | 41 | 44 | n.p. | n.p. | 41 |
| Septoplasty | 219 | 223 | 230 | n.p. | n.p. | 220 |
| Skin lesion—excision of | 26 | 25 | 25 | 23 | 25 | 26 |
| Thyroidectomy/hemi-thyroidectomy | 52 | 57 | 49 | n.p. | n.p. | 53 |
| Tonsillectomy (with or without adenoidectomy) | 95 | 145 | 85 | 83 | 90 | 103 |
| Total hip replacement | 106 | 137 | 155 | 151 | n.p. | 118 |
| Total knee replacement | 175 | 243 | 252 | 197 | n.p. | 202 |
| Varicose veins treatment | 103 | 109 | 79.0 | n.p. | n.p. | 99 |
| Other procedures | 29 | 31 | 29.0 | 26 | 26 | 29 |
| Total | 37 | 42 | 42.0 | 34 | 40 | 39 |

(a) Median waiting times are not published where there are fewer than 100 separations in a remoteness area for the indicator procedure.

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

(c) *Myringotomy* includes the Intended procedures 016 *Myringotomy (without insertion of grommets)* and 017 *Pressure equalising tubes (grommets)—insertion of*.

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

How did the use of public hospital elective surgery differ by socioeconomic status?

Overall, 27% of admissions from waiting lists were for people living in areas classified as being in the lowest (most disadvantaged) SES group, and 12% were for people living in areas classified as being in the highest (least disadvantaged) SES group (Table 6.45).

Population rates

Across all intended 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 (17 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/tympanoplasty*, with people living in areas classified as being in the lowest SES group having twice the overall rate. The rates for *Varicose veins treatment*, *Breast lump—excision and/or biopsy* and *Colectomy/anterior resection/large bowel resection* were more evenly distributed among SES groups, with people living in areas classified as being in the highest SES group having separation rates 50% lower than the overall rate.

Waiting times

Median waiting times varied by SES group, ranging from 34 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).

The intended procedure with the greatest variation in waiting times by socioeconomic status was *Septoplasty*, ranging from 189 days for people living in areas classified as being in SES group 3 to 254 days for people in the highest SES group. *Coronary artery bypass graft*, *Breast lump—excision and/or biopsy* and *Skin lesion—excision of* had the least variation by socioeconomic status group.

Table 6.45: Admissions from public hospital elective surgery waiting lists per 1,000 population, for the 25 most common intended procedures, by socioeconomic status of area of usual residence^(a), 2016–17

| Intended procedure | Socioeconomic status of area of usual residence | | | | | Total ^(b) |
|---|---|----------------|----------------|----------------|---------------|----------------------|
| | 1–Lowest | 2 | 3 | 4 | 5–Highest | |
| Arthroscopy | 0.8 | 0.7 | 0.5 | 0.4 | 0.3 | 0.5 |
| Breast lump—excision and/or biopsy | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.4 |
| Carpal tunnel release | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.4 |
| Cataract extraction (with or without intra-ocular lens insertion) | 3.4 | 2.8 | 2.5 | 2.1 | 1.3 | 2.5 |
| Cholecystectomy (open/laparoscopic) | 1.1 | 0.9 | 0.7 | 0.6 | 0.4 | 0.7 |
| Colectomy/anterior resection/large bowel resection | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Coronary artery bypass grafting | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Cystoscopy | 2.6 | 2.2 | 2.1 | 1.9 | 1.3 | 2.0 |
| Haemorrhoidectomy | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| Herniorrhaphy | 0.6 | 0.5 | 0.5 | 0.4 | 0.3 | 0.5 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 0.7 | 0.6 | 0.5 | 0.4 | 0.2 | 0.5 |
| Hysteroscopy, dilatation and curettage | 1.8 | 1.4 | 1.3 | 1.2 | 0.8 | 1.3 |
| Inguinal herniotomy/herniorrhaphy | 0.8 | 0.7 | 0.6 | 0.6 | 0.4 | 0.6 |
| Laparoscopy | 0.5 | 0.5 | 0.4 | 0.4 | 0.2 | 0.4 |
| Myringoplasty/tympanoplasty | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 |
| Myringotomy ^(c) | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.3 |
| Prostatectomy (transurethral or open) | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| Septoplasty | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| Skin lesion—excision of | 2.2 | 1.9 | 1.8 | 1.5 | 1.0 | 1.7 |
| Thyroidectomy/hemi-thyroidectomy | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.2 |
| Tonsillectomy (with or without adenoidectomy) | 1.1 | 1.1 | 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 | 0.9 | 0.7 | 0.6 | 0.5 | 0.3 | 0.6 |
| Varicose veins treatment | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 |
| Other procedures | 16.7 | 14.6 | 13.0 | 11.2 | 8.1 | 12.8 |
| Total^(c) | 37.4 | 32.2 | 28.7 | 24.4 | 16.8 | 28.0 |
| Number of separations | 195,702 | 168,828 | 146,315 | 119,981 | 83,177 | 715,831 |

(a) Disaggregation by socioeconomic group is based on the usual residence of the patient, not the location of the hospital.

(b) The total includes records for which SES of area of usual residence could not be categorised.

(c) *Myringotomy* includes the Intended procedures 016 *Myringotomy (without insertion of grommets)* and 017 *Pressure equalising tubes (grommets)—insertion of*.

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

Table 6.46: Median waiting times (days) for admissions from public hospital elective surgery waiting lists for the 25 most common intended procedures, by socioeconomic status of area of usual residence, 2016–17

| Intended procedure | Socioeconomic status of area of usual residence | | | | | Total ^(a) |
|---|---|-----------|-----------|-----------|-----------|----------------------|
| | 1–Lowest | 2 | 3 | 4 | 5–Highest | |
| Arthroscopy | 74 | 72 | 66 | 56 | 69 | 69 |
| Breast lump—excision and/or biopsy | 15 | 15 | 15 | 14 | 14 | 15 |
| Carpal tunnel release | 60 | 62 | 55 | 55 | 54 | 57 |
| Cataract extraction (with or without intra-ocular lens insertion) | 127 | 105 | 77 | 68 | 69 | 90 |
| Cholecystectomy (open/laparoscopic) | 45 | 43 | 40 | 42 | 41 | 42 |
| Colectomy/anterior resection/large bowel resection | 18 | 17 | 17 | 16 | 15 | 17 |
| Coronary artery bypass grafting | 13 | 15 | 13 | 13 | 13 | 13 |
| Cystoscopy | 24 | 25 | 23 | 23 | 24 | 24 |
| Haemorrhoidectomy | 48 | 50 | 48 | 50 | 56 | 50 |
| Herniorrhaphy | 70 | 68 | 62 | 60 | 59 | 64 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 58 | 60 | 52 | 54 | 48 | 56 |
| Hysteroscopy, dilatation and curettage | 24 | 26 | 22 | 23 | 24 | 24 |
| Inguinal herniotomy/herniorrhaphy | 55 | 58 | 50 | 49 | 50 | 53 |
| Laparoscopy | 51 | 51 | 48 | 47 | 42 | 49 |
| Myringoplasty/tympanoplasty | 194 | 172 | 182 | 171 | 214 | 185 |
| Myringotomy ^(b) | 62 | 56 | 58 | 53 | 56 | 57 |
| Prostatectomy (transurethral or open) | 48 | 42 | 40 | 39 | 40 | 42 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 41 | 45 | 42 | 40 | 38 | 41 |
| Septoplasty | 251 | 232 | 195 | 193 | 202 | 220 |
| Skin lesion—excision of | 25 | 26 | 26 | 25 | 25 | 26 |
| Thyroidectomy/hemi-thyroidectomy | 55 | 56 | 55 | 45 | 44 | 53 |
| Tonsillectomy (with or without adenoidectomy) | 132 | 111 | 96 | 88 | 87 | 103 |
| Total hip replacement | 148 | 124 | 110 | 96 | 101 | 118 |
| Total knee replacement | 225 | 225 | 177 | 167 | 173 | 202 |
| Varicose veins treatment | 108 | 91 | 85 | 110 | 119 | 99 |
| Other procedures | 32 | 30 | 28 | 28 | 27 | 29 |
| Total | 43 | 41 | 36 | 35 | 34 | 39 |

(a) The total includes records for which SES of area of usual residence could not be categorised.

(b) *Myringotomy* includes the Intended procedures 016 *Myringotomy (without insertion of grommets)* and 017 *Pressure equalising tubes (grommets)—insertion of*.

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

Table 6.47: Waiting time statistics for patients admitted from public hospital elective surgery waiting lists, by funding source, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|---------|---------|---------|--------|--------|--------|--------|-------|---------|
| Public patients^(a) | | | | | | | | | |
| Admissions | 195,951 | 165,768 | 115,837 | 78,349 | 52,455 | 16,061 | 12,367 | 6,573 | 643,361 |
| Median waiting time (days) | 60 | 33 | 39 | 35 | 42 | 40 | 47 | 32 | 42 |
| 90th percentile waiting time (days) | 332 | 171 | 235 | 189 | 254 | 277 | 279 | 225 | 273 |
| Percentage waited greater than 365 days (%) | 1.7 | 2.2 | 0.4 | 1.5 | 2.0 | 4.2 | 3.8 | 4.9 | 1.8 |
| Private health insurance | | | | | | | | | |
| Admissions | 16,633 | 14,994 | 7,214 | 5,660 | 4,179 | 908 | 45 | 398 | 50,031 |
| Median waiting time (days) | 21 | 19 | 22 | 24 | 24 | 18 | 10 | 25 | 21 |
| 90th percentile waiting time (days) | 138 | 100 | 97 | 133 | 98 | 88 | 140 | 131 | 113 |
| Percentage waited greater than 365 days (%) | 0.6 | 1.1 | 0.2 | 0.9 | 0.6 | 0.6 | 0.0 | 2.0 | 0.7 |
| Other patients^(b) | | | | | | | | | |
| Admissions | 4,610 | 6,256 | 6,802 | 1,120 | 1,392 | 1,953 | 107 | 199 | 22,439 |
| Median waiting time (days) | 21 | 14 | 13 | 28 | 27 | 196 | 21 | 26 | 19 |
| 90th percentile waiting time (days) | 117 | 73 | 48 | 153 | 90 | 545 | 103 | 160 | 138 |
| Percentage waited greater than 365 days (%) | 0.2 | 0.3 | <0.1 | 1.3 | 0.2 | 30.5 | 0.9 | 1.5 | 2.9 |
| Total | | | | | | | | | |
| Admissions | 217,194 | 187,018 | 129,853 | 85,129 | 58,026 | 18,922 | 12,519 | 7,170 | 715,831 |
| Median waiting time (days) | 54 | 30 | 34 | 35 | 39 | 45 | 46 | 31 | 39 |
| 90th percentile waiting time (days) | 328 | 162 | 220 | 186 | 238 | 314 | 276 | 219 | 261 |
| Percentage waited greater than 365 days (%) | 1.6 | 2.1 | 0.4 | 1.5 | 1.8 | 6.8 | 3.7 | 4.6 | 1.7 |

(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 patients* includes separations with a funding source of *Self-funded, Workers compensation, Motor vehicle third party personal claim, Other compensation, Department of Veterans' Affairs, 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 did the use of public hospital elective surgery differ by funding source?

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 90% of admissions from public hospital waiting lists for elective surgery and *Private health insurance-funded* separations accounted for 7% (Table 6.47).

Waiting times

Overall, *Public patients* had a median waiting time of 42 days, compared with 21 days for *Private health insurance-funded* separations and 19 days for other patients.

Intended procedures

Public patients had higher median waiting times for all of the 25 most common intended procedures compared with *Private health insurance-funded* patients. *Public patients* also had higher median waiting times compared with other patients for 24 of the 25 most common intended procedures (Table 6.48).

The greatest difference in median waiting times was for *Septoplasty* (238 days for *Public patients*, 87 days for *Private health insurance-funded* patients and 27 days for other patients), followed by *Total knee replacement* (211 days for *Public patients*, 76 days for *Private health insurance-funded* patients and 57 days for other patients).

Of the 25 most common intended procedures, the differences in median waiting times were less than 1 week for *Public patients* compared with *Private health insurance-funded* patients or other patients for *Coronary artery bypass grafting*, *Cystoscopy*, *Breast lump—excision and/or biopsy*, *Colectomy/anterior resection/large bowel resection*, *Hysteroscopy*, *dilatation and curettage* and *Skin lesion—excision of*.

Surgical specialty

For 2016–17 for the NESWTDC, 11 categories of surgical specialty are specified and these are presented in this report. There is also an ‘other’ category which contains data for surgeons whose specialty was not one of the 11 specific categories.

The surgical specialty data element was revised to include *Paediatric surgery* from 1 July 2016 (METeOR identifier: 605195).

Due to variation among jurisdictions in the use of the *Paediatric surgery* category, admissions by surgical specialty are presented separately for jurisdictions that did report *Paediatric surgery* (Western Australia, South Australia, Tasmania and the Australian Capital Territory) and for jurisdictions that did not report *Paediatric surgery* (New South Wales, Victoria, Queensland and the Northern Territory).

The data by surgical specialty for jurisdictions that did report *Paediatric surgery* are not comparable with the data provided by jurisdictions that did not report *Paediatric surgery*.

For Western Australia, South Australia, Tasmania and the Australian Capital Territory:

- *Public patients* had higher median waiting times compared with *Private health insurance-funded patients* for all surgical specialties except *Cardiothoracic surgery* (Table 6.49)
- the greatest difference in median waiting times was for *Orthopaedic surgery* (70 days for *Public patients*, 34 days for *Private health insurance-funded patients* and 99 days for other patients), followed by *Otolaryngology, head and neck surgery* (73 days, 28 days and 49 days, respectively) and *Ophthalmology surgery* (66 days, 42 days and 85 days, respectively).

For New South Wales, Victoria, Queensland and the Northern Territory:

- *Public patients* had higher median waiting times compared with *Private health insurance-funded patients* and other patients for all of the 11 surgical specialties (Table 6.49)
- the greatest difference in median waiting times was for *Ophthalmology surgery* (97 days for *Public patients*, 20 days for *Private health insurance-funded patients* and 13 days for other patients), followed by *Otolaryngology, head and neck surgery* (79 days, 27 days and 17 days, respectively) and *Orthopaedic surgery* (78 days, 27 days and 14 days, respectively).

Table 6.48: Admissions and median waiting time (days) for patients admitted from public hospital elective surgery waiting lists, for the 25 most common intended procedures, by funding source, 2016–17

| Intended procedure | Public patients ^(a) | | Private health insurance | | Other patients ^(b) | | Admissions | Median waiting time |
|---|--------------------------------|---------------------|--------------------------|---------------------|-------------------------------|---------------------|----------------|---------------------|
| | Admissions | Median waiting time | Admissions | Median waiting time | Admissions | Median waiting time | | |
| Arthroscopy | 12,469 | 71 | 453 | 41 | 406 | 25 | 13,328 | 69 |
| Breast lump—excision and/or biopsy | 8,191 | 15 | 756 | 12 | 88 | 11 | 9,035 | 15 |
| Carpal tunnel release | 10,023 | 59 | 452 | 35 | 180 | 33 | 10,655 | 57 |
| Cataract extraction (with or without intra-ocular lens insertion) | 61,068 | 109 | 2,720 | 30 | 4,502 | 14 | 68,290 | 90 |
| Cholecystectomy (open/laparoscopic) | 16,379 | 43 | 1,085 | 27 | 202 | 24 | 17,666 | 42 |
| Colectomy/anterior resection/large bowel resection | 3,881 | 18 | 450 | 15 | 53 | 17 | 4,384 | 17 |
| Coronary artery bypass grafting | 2,974 | 14 | 215 | 10 | 28 | 12 | 3,217 | 13 |
| Cystoscopy | 51,345 | 24 | 2,955 | 21 | 677 | 23 | 54,977 | 24 |
| Haemorrhoidectomy | 4,408 | 50 | 229 | 43 | 54 | 42 | 4,691 | 50 |
| Herniorrhaphy | 10,808 | 67 | 719 | 44 | 167 | 29 | 11,694 | 64 |
| Hysterectomy (abdominal/vaginal/laparoscopic) | 10,469 | 57 | 642 | 28 | 225 | 49 | 11,336 | 56 |
| Hysteroscopy, dilatation and curettage | 28,747 | 24 | 2,034 | 18 | 497 | 25 | 31,278 | 24 |
| Inguinal herniotomy/herniorrhaphy | 14,872 | 56 | 1,158 | 26 | 338 | 28 | 16,368 | 53 |
| Laparoscopy | 8,771 | 50 | 574 | 23 | 231 | 26 | 9,576 | 49 |
| Myringoplasty/tympanoplasty | 1,827 | 192 | 61 | 74 | 38 | 43 | 1,926 | 185 |
| Myringotomy ^(c) | 5,884 | 62 | 320 | 27 | 394 | 18 | 6,598 | 57 |
| Prostatectomy (transurethral or open) | 7,546 | 44 | 375 | 30 | 186 | 21 | 8,107 | 42 |
| Salpingo-oophorectomy/oophorectomy/ovarian cystectomy | 4,272 | 42 | 276 | 25 | 72 | 23 | 4,620 | 41 |
| Septoplasty | 4,782 | 238 | 243 | 87 | 220 | 27 | 5,245 | 220 |
| Skin lesion—excision of | 41,550 | 26 | 3,438 | 21 | 652 | 18 | 45,640 | 26 |
| Thyroidectomy/hemi-thyroidectomy | 5,009 | 55 | 383 | 37 | 103 | 25 | 5,495 | 53 |
| Tonsillectomy (with or without adenoidectomy) | 17,244 | 121 | 831 | 54 | 1,078 | 22 | 19,153 | 103 |
| Total hip replacement | 10,358 | 126 | 519 | 60 | 308 | 44 | 11,185 | 118 |
| Total knee replacement | 16,021 | 211 | 655 | 76 | 382 | 57 | 17,058 | 202 |
| Varicose veins treatment | 3,540 | 111 | 185 | 51 | 119 | 10 | 3,844 | 99 |
| Other procedures | 280,923 | 32 | 28,303 | 18 | 11,239 | 17 | 320,465 | 29 |
| Total | 643,361 | 42 | 50,031 | 21 | 22,439 | 19 | 715,831 | 39 |

(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 *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.

(c) *Myringotomy* includes the Intended procedures *016 Myringotomy (without insertion of grommets)* and *017 Pressure equalising tubes (grommets—insertion of*

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

Table 6.49: Median waiting time (days) for admissions from public hospital elective surgery waiting lists, by surgical speciality^(a) and funding source, 2016–17

| Surgical speciality | Public patients ^(b) | | Private health insurance | | Other patients ^(c) | | Median waiting time | |
|--|--------------------------------|----------------------------|--------------------------|----------------------------|-------------------------------|----------------------------|---------------------|----------------------------|
| | Admissions | Median waiting time (days) | Admissions | Median waiting time (days) | Admissions | Median waiting time (days) | Admissions | Median waiting time (days) |
| Paediatric surgery specialty not recorded (New South Wales, Victoria, Queensland and the Northern Territory) | | | | | | | | |
| Cardiothoracic surgery | 8,392 | 18 | 897 | 15 | 103 | 19 | 9,392 | 18 |
| General surgery | 110,715 | 33 | 10,595 | 21 | 2,185 | 19 | 123,495 | 31 |
| Gynaecology | 61,153 | 35 | 4,243 | 22 | 1,007 | 19 | 66,403 | 33 |
| Neurosurgery | 8,289 | 44 | 1,218 | 16 | 197 | 19 | 9,704 | 37 |
| Ophthalmology surgery | 56,196 | 97 | 3,491 | 19 | 5,332 | 13 | 65,019 | 78 |
| Orthopaedic surgery | 75,265 | 78 | 5,556 | 27 | 3,251 | 14 | 84,072 | 70 |
| Otolaryngology, head and neck surgery | 43,042 | 79 | 2,962 | 27 | 2,123 | 17 | 48,127 | 71 |
| Plastic surgery | 34,159 | 27 | 3,708 | 17 | 1,567 | 8 | 39,434 | 26 |
| Urological surgery | 68,964 | 25 | 4,520 | 21 | 1,071 | 15 | 74,555 | 25 |
| Vascular surgery | 11,255 | 23 | 1,230 | 12 | 339 | 10 | 12,824 | 22 |
| Other | 6,699 | 28 | 819 | 14 | 692 | 26 | 8,210 | 26 |
| Total | 484,129 | 43 | 39,239 | 21 | 17,867 | 15 | 541,235 | 39 |
| Paediatric surgery specialty recorded (Western Australia, South Australia, Tasmania and the Australian Capital Territory) | | | | | | | | |
| Cardiothoracic surgery | 1,977 | 14 | 221 | 23 | 32 | 47 | 2,230 | 15 |
| General surgery | 28,964 | 29 | 2,275 | 20 | 558 | 59 | 31,797 | 28 |
| Gynaecology | 17,630 | 33 | 915 | 21 | 613 | 92 | 19,158 | 33 |
| Neurosurgery | 1,906 | 40 | 281 | 21 | 142 | 131 | 2,329 | 39 |
| Ophthalmology surgery | 24,527 | 66 | 1,110 | 42 | 534 | 85 | 26,171 | 65 |
| Orthopaedic surgery | 22,403 | 70 | 1,177 | 33 | 854 | 101 | 24,434 | 68 |
| Otolaryngology, head and neck surgery | 11,859 | 73 | 762 | 28 | 581 | 49 | 13,202 | 69 |
| Paediatric surgery | 3,145 | 43 | 394 | 29 | 66 | 102 | 3,605 | 42 |
| Plastic surgery | 13,819 | 30 | 951 | 24 | 559 | 108 | 15,329 | 31 |
| Urological surgery | 21,172 | 28 | 1,141 | 26 | 412 | 56 | 22,725 | 28 |
| Vascular surgery | 3,258 | 21 | 269 | 18 | 47 | 33 | 3,574 | 21 |
| Other | 8,572 | 21 | 1,296 | 13 | 174 | 21 | 10,042 | 20 |
| Total | 159,232 | 39 | 10,792 | 23 | 4,572 | 69 | 174,596 | 38 |

(a) For jurisdictions that do not report the *Paediatric surgery* specialty, paediatric admissions are included within other surgical specialities.

Median waiting times may not be comparable for jurisdictions which did report against *Paediatric surgery*, compared with those that did not report against *Paediatric surgery*. Therefore, results are presented separately.

(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 *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 neoplasms (cancer) can be compared with waiting times for patients awaiting surgery for other conditions.

This section presents information for patients with any neoplasm-related principal diagnosis (ICD-10-AM diagnosis codes C00–C99, D00–D09, D45, D46, D47.1 and D47.3) by surgical specialty, and for patients with a principal diagnosis of selected types of cancer.

Surgical specialty

In 2016–17, overall waiting times for admissions with a neoplasm-related principal diagnosis (median of 18 days) were shorter than those for other admissions (42 days), and were shorter for most surgical specialties (Table 6.50). Separations for *Public patients* generally had longer median waiting times than *Private health insurance-funded* patients, regardless of the type of principal diagnosis or surgical specialty.

The largest variation in median waiting times by surgical specialty was for *General surgery* for which patients with a neoplasm-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 neoplasm-related principal diagnosis compared with other diagnoses were *Urology* (23 days for neoplasms, compared with 26 days for other diagnoses) and *Cardiothoracic surgery* (13 days for neoplasms, compared with 19 days).

Table 6.50: Median waiting time (days) for patients admitted from waiting lists for elective surgery with a neoplasm-related principal diagnosis (or other principal diagnosis), by surgical specialty and funding source, public hospitals, 2016–17^(a)

| | Neoplasm-related | Other diagnosis | Overall |
|--|------------------|-----------------|-----------|
| Cardiothoracic surgery | | | |
| Public patients | 12 | 20 | 17 |
| Private health insurance | 9 | 20 | 17 |
| Other patients | n.p. | 28 | 20 |
| Total | 12 | 20 | 17 |
| Otolaryngology, head and neck surgery | | | |
| Public patients | 17 | 85 | 77 |
| Private health insurance | 13 | 37 | 27 |
| Other patients | 14 | 21 | 21 |
| Total | 17 | 79 | 71 |
| General surgery | | | |
| Public patients | 18 | 48 | 32 |
| Private health insurance | 14 | 27 | 21 |
| Other patients | 15 | 26 | 22 |
| Total | 18 | 44 | 30 |
| Gynaecology | | | |
| Public patients | 27 | 37 | 34 |
| Private health insurance | 19 | 22 | 22 |
| Other patients | 23 | 27 | 26 |
| Total | 26 | 35 | 33 |

(continued)

Table 6.50 (continued): Median waiting time (days) for patients admitted from waiting lists for elective surgery with a neoplasm-related principal diagnosis (or other principal diagnosis), by surgical specialty and funding source, public hospitals, 2016–17^(a)

| | Neoplasm-related | Other diagnosis | Overall |
|------------------------------|------------------|-----------------|-----------|
| Neurosurgery | | | |
| Public patients | 14 | 52 | 42 |
| Private health insurance | 9.5 | 22 | 17 |
| Other patients | n.p. | 55 | 48 |
| Total | 13 | 48 | 38 |
| Ophthalmology surgery | | | |
| Public patients | 35 | 87 | 85 |
| Private health insurance | 15 | 25 | 24 |
| Other patients | n.p. | 14 | 14 |
| Total | 30 | 77 | 75 |
| Orthopaedic surgery | | | |
| Public patients | 35 | 77 | 77 |
| Private health insurance | 20 | 28 | 28 |
| Other patients | n.p. | 20 | 20 |
| Total | 32 | 71 | 70 |
| Plastic surgery | | | |
| Public patients | 25 | 40 | 28 |
| Private health insurance | 19 | 18 | 19 |
| Other patients | 20 | 11 | 13 |
| Total | 24 | 35 | 27 |
| Urological surgery | | | |
| Public patients | 23 | 27 | 26 |
| Private health insurance | 22 | 22 | 22 |
| Other patients | 21 | 22 | 22 |
| Total | 23 | 27 | 26 |
| Vascular surgery | | | |
| Public patients | 16 | 23 | 23 |
| Private health insurance | n.p. | 13 | 13 |
| Other patients | n.p. | 10 | 10 |
| Total | 15 | 21 | 21 |
| Other | | | |
| Public patients | 21 | 28 | 26 |
| Private health insurance | 11 | 15 | 15 |
| Other patients | n.p. | 27 | 26 |
| Total | 21 | 27 | 25 |
| All surgeries | | | |
| Public patients | 21 | 51 | 42 |
| Private health insurance | 15 | 24 | 21 |
| Other patients | 18 | 19 | 19 |
| Total | 21 | 48 | 39 |

(a) 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 neoplasms (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 2016–17, for patients with one of the selected types of cancer, patients with a principal diagnosis of *Lung cancer* had the shortest median waiting time of 12 days, with 90% of patients admitted for surgery within 32 days (Table 6.51).

Patients with a principal diagnosis of *Breast cancer* had a median waiting time of 13 days, with 90% of patients admitted for surgery within 28 days.

Patients with a principal diagnosis of *Prostate cancer* had a median waiting time of 28 days, with 90% of patients admitted for surgery within 87 days.

Table 6.51: Waiting time statistics for admissions from waiting lists for elective surgery, for selected principal diagnoses for cancer, public hospitals, 2016–17

| Cancer type | Admissions | Days waited at 50th percentile | Days waited at 90th percentile |
|-------------------------------|----------------|--------------------------------|--------------------------------|
| Bladder cancer | 8,324 | 21 | 66 |
| Bowel cancer | 5,501 | 15 | 32 |
| Breast cancer | 11,191 | 13 | 28 |
| Gynaecological cancer | 7,557 | 22 | 70 |
| Kidney cancer | 1,585 | 25 | 79 |
| Lung cancer | 1,558 | 12 | 32 |
| Melanoma | 4,720 | 14 | 31 |
| Prostate cancer | 7,998 | 28 | 87 |
| All other principal diagnoses | 667,397 | 42 | 273 |
| Total | 715,831 | 39 | 261 |

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 surgical 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/reports-statistics/health-welfare-services/hospitals/overview>.

More information about urgency of admission is available in ‘Chapter 4 Why did people receive care?’

More information about the funding source 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 mental health care, 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 2016–17: Australian hospital statistics* (AIHW 2017b).

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 2016–17, separations for *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 3 times more costly on average than medical separations.

Funding source

Between 2012–13 and 2016–17, the number of separations for patients who used *Private health insurance* to fund all or part of their admission increased by an average of 4.3% each year—by 7.4% each year for public hospitals and 3.8% each year for private hospitals. Over the same period, separations with a funding source of *Department of Veterans' Affairs* decreased by an average of 4.0% each year.

In 2016–17, more than half (51%) of separations in all hospitals were for *Public patients* and 41% were for *Private health insurance* patients.

For public hospitals, 83% of separations were for *Public patients*.

For private hospitals, 82% of separations were for patients who used *Private health insurance* to fund all or part of their admission.

Almost 68% of separations funded by the *Department of Veterans' Affairs* occurred in private hospitals.

Contracted care

In 2016–17, there were 95,000 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 2016–17. 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, 2017). 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, private hospitals do not generally report imaging, pathology and medical costs as many of these services are charged directly to the patients by providers, whereas these are included for public hospitals.

The most recent public hospital cost weights prepared by IHPA (based on AR-DRG version 8.0) relate to the 2014–15 reporting period. For 2014–15, the national average cost for a public hospital separation (that is, for a cost weight of 1.00) was estimated as \$5,183.

AR-DRG version 8.0 is used in tables that present information for 2016–17 only. For the purpose of presenting the cost weights time series in Table 7.1, AR-DRG version 6.0x was used for all years.

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*, *Newborn* (with qualified days), or was not reported. Therefore, separations for *Mental health* care and subacute and non-acute care (and their related costs) are not included.

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.

Changes over time

For reporting periods before 2015–16, acute care separations used in the 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 2015–16 and 2016–17, acute care separations do not include separations for which the care type was reported as *Mental health care*. Therefore, the data presented for 2015–16 and 2016–17 are not comparable with the data for previous reporting periods. In addition, average cost weights are not shown for *Public psychiatric hospitals* for 2015–16 and 2016–17 as very few acute care separations were reported for these hospitals.

In Table 7.1, the 2012–13 cost weights based on AR-DRG version 6.0x were used for all years.

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 over time.

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 2012–13 and 2014–15 (Table 7.1). However, for 2015–16 and 2016–17, average cost weights were higher for *Other private hospitals* compared with those for *Public acute hospitals*. Average cost weights were lowest for *Private free-standing day hospital facilities*.

Average cost weights in 2016–17

The average cost weight for public acute hospitals varied across states and territories, ranging from 1.07 in Tasmania to 0.60 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 0.10 in 2014–15).

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 0.93 in New South Wales.

In public hospitals, separations for *Public patients* generally had lower average cost weights (0.94) than other patients, and separations funded by *Motor vehicle third party personal claim* had higher average cost weights (2.02) (Table 7.3).

In private hospitals, the low average cost weight for *Public patients* (0.44) in private hospitals reflects the relatively large numbers of contracted care for dialysis in Western Australia and South Australia. *Self-funded* separations had lower average costs (0.75) than other separations.

Table 7.1: Average cost weight of acute separations^(a), public acute^(b) and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|---|-------------|-------------|-------------|-------------|-------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Average public cost weight of acute separations^(c) | | | | | | | |
| Public hospitals | | | | | | | |
| Public acute hospitals | 0.98 | 0.98 | 0.98 | 0.95 | 0.93 | -1.1 | -1.7 |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 0.45 | 0.44 | 0.45 | 0.46 | 0.45 | 0.1 | -0.9 |
| Other private hospitals | 0.98 | 0.98 | 0.98 | 1.00 | 0.99 | 0.2 | -1.1 |
| <i>Total private hospitals</i> | <i>0.85</i> | <i>0.86</i> | <i>0.85</i> | <i>0.86</i> | <i>0.86</i> | <i>0.2</i> | <i>-0.5</i> |
| All hospitals^(d) | 0.93 | 0.93 | 0.93 | 0.92 | 0.90 | -0.6 | -1.2 |
| Average private cost weight of acute separations^(e) | | | | | | | |
| Private hospitals | | | | | | | |
| Private free-standing day hospital facilities | 0.34 | 0.33 | 0.33 | 0.34 | 0.33 | -0.3 | -2.4 |
| Other private hospitals | 0.96 | 0.96 | 0.97 | 0.99 | 0.98 | 0.6 | -0.8 |
| <i>Total private hospitals</i> | <i>0.81</i> | <i>0.82</i> | <i>0.81</i> | <i>0.83</i> | <i>0.83</i> | <i>0.4</i> | <i>-0.3</i> |

(a) Separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. For 2015–16 and 2016–17, acute care separations do not include *Mental health care* and therefore, the cost weights for 2015–16 and 2016–17 may not be comparable with earlier periods.

(b) *Public acute hospitals* does not include *Public psychiatric hospitals*.

(c) AR-DRG version 6.0x public cost weights 2012–13 were used for both public and private hospitals for all years.

(d) Excludes *Public psychiatric hospitals*.

(e) 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.

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 2014–15 reference period. Therefore, the estimated costs presented in Table 7.4 are not accurate reflections of the actual costs in 2016–17, but are useful in comparing the relative costs of care provided in each Major Diagnostic Category (MDC).

The 2014–15 AR-DRG version 8.0 national public sector estimated costs were applied to the AR-DRG version 8.0 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 (\$110,978) was *Pre-MDC (tracheostomies, transplants and extracorporeal membranous oxygenation)* and the lowest (\$1,284) was reported for *Diseases and disorders of the kidney and urinary tract* (which includes L61Z *Haemodialysis*).

Separations involving surgery (*Surgical DRGs*) were 3.3 times more costly than separations with *Medical DRGs* (Table 7.4) and 2.6 times more costly than separations with *Other DRGs* (which include non-operating room procedures, such as endoscopies).

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 2016–17 will be available in:

- *Hospital resources 2016–17: Australian hospital statistics* (AIHW, forthcoming)
- *Health expenditure Australia, 2016–17* (AIHW, forthcoming).

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

Table 7.2: Average cost weights for acute separations^(a), public acute^(b) and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Average public cost weight of separations^(c) | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Public acute hospitals | 1.02 | 0.95 | 0.95 | 0.93 | 1.03 | 1.07 | 1.00 | 0.60 | 0.97 |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 0.50 | 0.41 | 0.50 | 0.31 | 0.39 | n.p. | n.p. | n.p. | 0.44 |
| Other private hospitals | 1.08 | 1.00 | 0.94 | 0.98 | 1.06 | n.p. | n.p. | n.p. | 1.01 |
| <i>Total private hospitals</i> | <i>0.93</i> | <i>0.87</i> | <i>0.84</i> | <i>0.77</i> | <i>0.89</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>0.87</i> |
| <i>Public acute and private hospitals</i> | <i>0.99</i> | <i>0.92</i> | <i>0.90</i> | <i>0.86</i> | <i>0.97</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>0.93</i> |
| All hospitals | 0.99 | 0.92 | 0.90 | 0.86 | 0.97 | n.p. | n.p. | n.p. | 0.93 |
| Average private cost weight of separations^(d) | | | | | | | | | |
| Private hospitals | | | | | | | | | |
| Private free-standing day hospital facilities | 0.39 | 0.29 | 0.38 | 0.25 | 0.31 | n.p. | n.p. | n.p. | 0.33 |
| Other private hospitals | 1.04 | 0.99 | 0.92 | 0.94 | 1.03 | n.p. | n.p. | n.p. | 0.98 |
| <i>Total private hospitals</i> | <i>0.88</i> | <i>0.84</i> | <i>0.80</i> | <i>0.73</i> | <i>0.85</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 8.0 public cost weights 2014–15 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 acute separations^(b), by funding source, public acute hospitals^(c) and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Public acute hospitals | | | | | | | | | |
| Public patients ^(d) | 0.99 | 0.92 | 0.93 | 0.88 | 0.98 | 1.07 | 1.01 | 0.58 | 0.94 |
| Private health insurance | 1.07 | 1.02 | 1.02 | 1.33 | 1.30 | 0.98 | 0.87 | 1.05 | 1.07 |
| Self-funded | 1.26 | 0.83 | 1.14 | 0.82 | 0.78 | 1.21 | 1.16 | 1.11 | 1.12 |
| Workers compensation | 1.16 | 1.31 | 1.24 | 1.57 | 1.26 | 1.11 | 1.05 | 1.04 | 1.24 |
| Motor vehicle third party personal claim | 1.60 | 2.12 | 1.94 | 2.95 | 1.93 | 2.26 | 2.35 | 2.41 | 2.02 |
| Department of Veterans' Affairs | 1.26 | 1.17 | 1.03 | 1.33 | 1.10 | 1.16 | 0.95 | 0.73 | 1.17 |
| Other ^(e) | 0.77 | 1.28 | 1.10 | 1.17 | 1.19 | 1.38 | 1.06 | 0.80 | 1.21 |
| Total public hospitals | 1.02 | 0.95 | 0.95 | 0.94 | 1.03 | 1.07 | 1.00 | 0.60 | 0.97 |
| Private hospitals^(f) | | | | | | | | | |
| Public patients ^(d) | 0.92 | 0.44 | 0.66 | 0.12 | 0.13 | n.p. | n.p. | n.p. | 0.38 |
| Private health insurance | 0.93 | 0.88 | 0.85 | 0.94 | 0.89 | n.p. | n.p. | n.p. | 0.89 |
| Self-funded | 0.84 | 0.65 | 0.72 | 0.74 | 0.74 | n.p. | n.p. | n.p. | 0.75 |
| Workers compensation | 1.50 | 1.37 | 1.22 | 1.20 | 1.35 | n.p. | n.p. | n.p. | 1.33 |
| Motor vehicle third party personal claim | 1.20 | 1.46 | 1.02 | 1.23 | 1.67 | n.p. | n.p. | n.p. | 1.33 |
| Department of Veterans' Affairs | 1.03 | 1.12 | 0.91 | 1.09 | 1.01 | n.p. | n.p. | n.p. | 1.00 |
| Other ^(e) | 1.54 | 0.60 | 0.79 | 0.68 | 0.89 | n.p. | n.p. | n.p. | 0.83 |
| Total private hospitals | 0.93 | 0.87 | 0.84 | 0.77 | 0.89 | n.p. | n.p. | n.p. | 0.87 |

(a) AR-DRG version 8.0 public cost weights 2014–15 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.

(f) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospital totals.

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, AR-DRG version 8.0 and Medical/ Surgical/Other partition, public hospitals, 2016–17

| Major Diagnostic Category | | Public hospitals | |
|---------------------------|---|---|----------------------|
| | | Cost by volume (\$'000) ^(b) | Average cost (\$) |
| PR | Pre-MDC (tracheostomies, transplants, ECMO) | 1,459,473 | 110,978 |
| 01 | Diseases and disorders of the nervous system | 2,289,773 | 6,700 |
| 02 | Diseases and disorders of the eye | 401,511 | 3,189 |
| 03 | Diseases and disorders of the ear, nose, mouth and throat | 879,489 | 3,739 |
| 04 | Diseases and disorders of the respiratory system | 2,622,534 | 6,879 |
| 05 | Diseases and disorders of the circulatory system | 3,404,518 | 6,838 |
| 06 | Diseases and disorders of the digestive system | 3,167,905 | 4,766 |
| 07 | Diseases and disorders of the hepatobiliary system and pancreas | 958,871 | 8,508 |
| 08 | Diseases and disorders of the musculoskeletal system and connective tissue | 3,825,672 | 8,493 |
| 09 | Diseases and disorders of the skin, subcutaneous tissue and breast | 1,185,307 | 4,940 |
| 10 | Endocrine, nutritional and metabolic diseases and disorders | 655,478 | 6,701 |
| 11 | Diseases and disorders of the kidney and urinary tract | 1,825,512 | 1,284 |
| 12 | Diseases and disorders of the male reproductive system | 235,147 | 4,634 |
| 13 | Diseases and disorders of the female reproductive system | 586,761 | 4,622 |
| 14 | Pregnancy, childbirth and puerperium | 2,115,968 | 5,395 |
| 15 | Newborns and other neonates | 1,173,551 | 12,683 |
| 16 | Diseases and disorders of the blood and blood-forming organs, and immunological disorders | 377,355 | 2,843 |
| 17 | Neoplastic disorders (haematological and solid neoplasms) | 836,029 | 2,831 |
| 18 | Infectious and parasitic diseases | 956,456 | 9,697 |
| 19 | Mental diseases and disorders | 407,737 | 8,106 |
| 20 | Alcohol/drug use and alcohol/drug induced organic mental disorders | 173,480 | 4,626 |
| 21 | Injuries, poisoning and toxic effects of drugs | 1,109,922 | 5,628 |
| 22 | Burns | 106,979 | 12,335 |
| 23 | Factors influencing health status and other contacts with health services | 442,949 | 2,555 |
| ED | Error DRGs ^(c) | 118,703 | 20,680 |
| | <i>Surgical DRG</i> | 13,091,281 | 11,631 |
| | <i>Medical DRG</i> | 16,232,282 | 3,476 |
| | <i>Other DRG</i> | 1,993,517 | 4,447 |
| Total | | 31,317,080 | 5,016 |

AR-DRG—Australian Refined Diagnosis Related Group; 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 2014–15 Round 19 AR-DRG version 8.0 public hospital cost weights, with the average public cost for an AR-DRG with a cost weight of 1.00 of \$5,183.

(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 source of funding for the admitted patient episode, for all separations and for acute care separations in 2016–17, 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 had any funding from private health insurance, regardless of whether it was the majority source of funds.

For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, private hospital data for the Australian Capital Territory are not included in analyses by funding source, but are included in overall totals.

Changes over time

Between 2012–13 and 2016–17, the number of separations for *Public patients* increased by an average of 4.6% each year, and separations for patients who used *Private health insurance* to fund all or part of their admission increased by an average of 4.3% each year (Table 7.5). Over the same period, *Self-funded* separations decreased by an average of 0.2% each year and those funded by the *Department of Veterans' Affairs* decreased by an average of 4.1% each year.

For public hospitals, the number of separations for *Private health insurance* patients increased by an average of 7.4% each year between 2012–13 and 2016–17, and the number of separations for *Self-funded* patients decreased by an average of 2.1% each year.

For private hospitals, the number of separations for *Public patients* increased by an average of 11.3% each year between 2012–13 and 2016–17.

Since 2015–16, overall separations for *Public patients* increased by 5.6%.

Who paid in 2016–17?

In 2016–17 for all hospitals combined, more than half (51%) of all separations were for *Public patients*, and 41% were for *Private health insurance* patients (Table 7.6). Almost 83% of separations in public hospitals were for *Public patients*, compared with 4% in private hospitals. For private hospitals, 82% 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 20% in New South Wales. For jurisdictions whose private hospital data could be reported, the proportion of *Self-funded* separations ranged from 3% in Western Australia to 9% in New South Wales.

Table 7.5: Separations by funding source, public and private hospitals, 2012–13 to 2016–17

| | 2012–13 | 2013–14 | 2014–15 | 2015–16 | 2016–17 | Change (%) | |
|--|------------------|------------------|-------------------|-------------------|-------------------|-----------------------|---------------|
| | | | | | | Average since 2012–13 | Since 2015–16 |
| Public hospitals | | | | | | | |
| Public patients ^(a) | 4,607,839 | 4,701,799 | 4,949,069 | 5,186,320 | 5,465,027 | 4.4 | 5.4 |
| Private health insurance | 686,076 | 755,901 | 814,702 | 871,902 | 911,707 | 7.4 | 4.6 |
| Self-funded | 53,318 | 52,781 | 49,331 | 46,921 | 48,900 | -2.1 | 4.2 |
| Workers compensation | 21,660 | 21,034 | 21,887 | 22,422 | 22,770 | 1.3 | 1.6 |
| Motor vehicle third party personal claim | 27,818 | 28,846 | 27,779 | 28,094 | 29,492 | 1.5 | 5.0 |
| Department of Veterans' Affairs | 104,154 | 95,901 | 90,788 | 85,008 | 78,835 | -6.7 | -7.3 |
| Other ^(b) | 29,331 | 58,608 | 26,782 | 31,814 | 30,617 | 1.1 | -3.8 |
| <i>Total public hospitals</i> | <i>5,530,196</i> | <i>5,714,870</i> | <i>5,980,338</i> | <i>6,272,481</i> | <i>6,587,348</i> | <i>4.5</i> | <i>5.0</i> |
| Private hospitals^(c) | | | | | | | |
| Public patients ^(a) | 119,236 | 131,135 | 155,252 | 162,522 | 182,972 | 11.3 | 12.6 |
| Private health insurance | 3,148,087 | 3,288,535 | 3,456,176 | 3,601,976 | 3,631,071 | 3.6 | 0.8 |
| Self-funded | 290,716 | 287,194 | 286,403 | 286,570 | 292,225 | 0.1 | 2.0 |
| Workers compensation | 61,738 | 60,122 | 56,530 | 58,262 | 57,998 | -1.6 | -0.5 |
| Motor vehicle third party personal claim | 6,349 | 6,458 | 6,686 | 6,980 | 7,398 | 3.9 | 6.0 |
| Department of Veterans' Affairs | 184,698 | 180,013 | 178,265 | 174,290 | 165,633 | -2.7 | -5.0 |
| Other ^(b) | 28,237 | 28,448 | 30,717 | 36,687 | 39,389 | 8.7 | 7.4 |
| <i>Total private hospitals</i> | <i>3,839,061</i> | <i>3,981,905</i> | <i>4,170,029</i> | <i>4,327,287</i> | <i>4,426,467</i> | <i>3.6</i> | <i>2.3</i> |
| All hospitals^(c) | | | | | | | |
| Public patients ^(a) | 4,727,075 | 4,832,934 | 5,104,321 | 5,348,842 | 5,647,999 | 4.6 | 5.6 |
| Private health insurance | 3,834,163 | 4,044,436 | 4,270,878 | 4,473,878 | 4,542,778 | 4.3 | 1.5 |
| Self-funded | 344,034 | 339,975 | 335,734 | 333,491 | 341,125 | -0.2 | 2.3 |
| Workers compensation | 83,398 | 81,156 | 78,417 | 80,684 | 80,768 | -0.8 | 0.1 |
| Motor vehicle third party personal claim | 34,167 | 35,304 | 34,465 | 35,074 | 36,890 | 1.9 | 5.2 |
| Department of Veterans' Affairs | 288,852 | 275,914 | 269,053 | 259,298 | 244,468 | -4.1 | -5.7 |
| Other ^(b) | 57,568 | 87,056 | 57,499 | 68,501 | 70,006 | 5.0 | 2.2 |
| Total | 9,369,257 | 9,696,775 | 10,150,367 | 10,599,768 | 11,013,815 | 4.1 | 3.9 |

(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.

(c) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and all hospitals.

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

Table 7.6: Separations by funding source, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT ^(a) | NT | Total |
|--|------------------|------------------|------------------|----------------|----------------|----------------|--------------------|----------------|------------------|
| Public hospitals | | | | | | | | | |
| Public patients ^(b) | 1,470,445 | 1,497,553 | 1,195,127 | 578,644 | 377,500 | 95,398 | 99,222 | 151,138 | 5,465,027 |
| Private health insurance | 384,115 | 221,526 | 163,626 | 59,119 | 46,134 | 21,198 | 11,420 | 4,569 | 911,707 |
| Self-funded | 26,339 | 10,686 | 9,879 | 511 | 1,078 | 20 | 14 | 373 | 48,900 |
| Workers compensation | 8,075 | 5,641 | 4,916 | 1,444 | 1,070 | 507 | 589 | 528 | 22,770 |
| Motor vehicle third party personal claim | 7,656 | 10,127 | 5,004 | 2,521 | 2,720 | 808 | 233 | 423 | 29,492 |
| Department of Veterans' Affairs | 33,145 | 14,977 | 14,603 | 4,795 | 5,866 | 2,148 | 2,628 | 673 | 78,835 |
| Other ^(c) | 1,777 | 11,938 | 1,402 | 5,576 | 3,169 | 4,333 | 1,315 | 1,107 | 30,617 |
| Total public hospitals | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 |
| Private hospitals^(a) | | | | | | | | | |
| Public patients ^(b) | 15,550 | 7,747 | 56,765 | 99,596 | 826 | n.p. | n.p. | n.p. | 182,972 |
| Private health insurance | 1,091,599 | 909,652 | 893,192 | 367,716 | 286,243 | n.p. | n.p. | n.p. | 3,631,071 |
| Self-funded | 116,860 | 81,685 | 60,219 | 16,114 | 13,390 | n.p. | n.p. | n.p. | 292,225 |
| Workers compensation | 21,080 | 10,051 | 12,817 | 7,298 | 5,278 | n.p. | n.p. | n.p. | 57,998 |
| Motor vehicle third party personal claim | 1,779 | 3,488 | 750 | 758 | 327 | n.p. | n.p. | n.p. | 7,398 |
| Department of Veterans' Affairs | 44,369 | 25,158 | 68,260 | 13,307 | 11,074 | n.p. | n.p. | n.p. | 165,633 |
| Other ^(c) | 1,479 | 6,869 | 10,670 | 2,349 | 2,190 | n.p. | n.p. | n.p. | 39,389 |
| Total private hospitals | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals.

(b) *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*).

(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.

Hospital type

In 2016–17:

- public hospitals accounted for 97% of *Public patient* separations and 20% of *Private health insurance*-funded separations (Table 7.7)
- private hospitals accounted for 3% of *Public patient* separations and 80% of *Private health insurance*-funded separations.

For public hospitals, 18% of separations in *Women's and children's hospitals* were *Private health insurance*-funded and 15% of separations in *Principal referral hospitals* were *Private health insurance*-funded.

Same-day acute separations

Acute care separations exclude separations for mental health care and subacute and non-acute care.

In public hospitals, 85% of same-day acute separations were for *Public patients*, and in private hospitals, 80% of same-day acute separations were for *Private health insurance* patients (Table 7.8).

Almost 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%).

Private hospitals provided 90% of same-day acute *Self-funded* separations and 72% of same-day acute *Department of Veterans' Affairs* separations.

Overnight acute separations

In public hospitals, 80% of overnight acute separations were for *Public patients*, while in private hospitals, 85% of overnight acute separations were for *Private health insurance* patients (Table 7.9).

The *Department of Veterans' Affairs* funded 1% of overnight acute separations in public hospitals and 5% in private hospitals.

Table 7.7: Separations by hospital peer group/type of hospital and funding source, public and private hospitals, 2016–17

| Hospital type | Public patients ^(a) | Private health insurance | Other patients ^(b) | Total |
|---|--------------------------------|--------------------------|-------------------------------|-------------------|
| Public hospitals | | | | |
| Principal referral | 1,936,603 | 371,683 | 91,254 | 2,399,540 |
| Women's and children's | 227,449 | 49,991 | 7,358 | 284,798 |
| Public acute group A | 1,868,444 | 283,337 | 60,940 | 2,212,721 |
| Public acute group B | 715,948 | 77,647 | 20,354 | 813,949 |
| Public acute group C | 460,270 | 71,322 | 17,520 | 549,112 |
| Other | 256,313 | 57,727 | 13,188 | 327,228 |
| <i>Total public hospitals</i> | <i>5,465,027</i> | <i>911,707</i> | <i>210,614</i> | <i>6,587,348</i> |
| Private hospitals^(c) | | | | |
| Private free standing day hospital facilities | 96,683 | 665,596 | 177,671 | 939,950 |
| Other private hospitals | 86,289 | 2,965,475 | 384,972 | 3,486,517 |
| <i>Total private hospitals</i> | <i>182,972</i> | <i>3,631,071</i> | <i>562,643</i> | <i>4,426,467</i> |
| Total | 5,664,399 | 4,570,606 | 778,810 | 11,013,815 |

(a) *Public patient* 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 patients* includes separations with a funding source of *Self-funded*, *Workers compensation*, *Motor vehicle third party personal claim*, *Department of Veterans' Affairs*, *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.

(c) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals.

Table 7.8: Same-day acute separations, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private free-standing day facilities | Other private hospitals ^(a) | Total |
|--|------------------|--------------------------------------|--|------------------|
| Public patients ^(b) | 2,950,181 | 96,683 | 63,067 | 3,109,931 |
| Private health insurance | 420,846 | 663,806 | 1,494,631 | 2,579,283 |
| Self-funded | 25,554 | 144,913 | 97,319 | 267,786 |
| Workers compensation | 10,013 | 1,468 | 19,125 | 30,606 |
| Motor vehicle third party personal claim | 9,805 | 311 | 2,124 | 12,240 |
| Department of Veterans' Affairs | 27,775 | 22,272 | 48,170 | 98,217 |
| Other ^(c) | 12,911 | 8,270 | 18,497 | 39,678 |
| Total | 3,457,085 | 937,723 | 1,768,783 | 6,163,591 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals.

(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 data limitations and methods.

Table 7.9: Overnight acute separations, by funding source, public and private hospitals, 2016–17

| Funding source | Public hospitals | Private hospitals^(a) | Total |
|--|-------------------------|--|------------------|
| Public patients ^(b) | 2,240,458 | 19,860 | 2,260,318 |
| Private health insurance | 437,761 | 986,054 | 1,423,815 |
| Self-funded | 22,268 | 40,392 | 62,660 |
| Workers compensation | 11,913 | 24,037 | 35,950 |
| Motor vehicle third party personal claim | 18,196 | 2,577 | 20,773 |
| Department of Veterans' Affairs | 40,451 | 57,997 | 98,448 |
| Other ^(c) | 15,831 | 10,437 | 26,268 |
| Total | 2,786,878 | 1,157,810 | 3,944,688 |

(a) For 2016–17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, data for the Australian Capital Territory are excluded from the funding source categories for private hospitals.

(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 data limitations and methods.

Where to go for more information:

More information about funding source is available in:

- 'Chapter 4 Why did people receive care?'—by urgency of admission
- 'Chapter 5 What services were provided?'—for mental health care, 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 2016–17: 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 2016–17, 95,400 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 7.10). Over 95,000 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. Over 92,400 separations were reported as public hospital separations contracted to the private sector and 84,300 separations were reported as private hospital separations contracted from the public sector.

Table 7.10: Separations by inter-hospital contracted patient status, public and private hospitals, 2016–17

| | Public hospitals | Private hospitals | Total |
|--|------------------|-------------------|---------------|
| Inter-hospital contracted patient from public sector hospital | 8,653 | 83,979 | 92,632 |
| Inter-hospital contracted patient from private sector hospital | 2,440 | 352 | 2,792 |
| Total contracted separations reported by the contracted hospital | 11,093 | 84,331 | 95,424 |
| Inter-hospital contracted patient to public sector hospital | 2,484 | 38 | 2,522 |
| Inter-hospital contracted patient to private sector hospital | 92,449 | 83 | 92,532 |
| Total contracted separations reported by the contracting hospital | 94,933 | 121 | 95,054 |

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/reports-statistics/health-welfare-services/hospitals/overview>.

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, such as instances of actual or potential harm. 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 of care or responsiveness of hospital services.

This section presents information relevant to the safety and quality of the care for admitted patients in 2016–17 including national indicators on:

- adverse events treated in hospital—an AHPF 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 AHPF 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 hospitals 2016–17: Australian hospital statistics* (AIHW 2017f).

Other measures that are not recognised as performance indicators 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 version 1.4); most involved a condition reported as arising during the episode, while some were identified by the presence of selected procedures
- hospital-acquired complications—presenting counts of separations using the Australian Commission on Safety and Quality in Healthcare’s (ACSQHC) list of 16 hospital-acquired complications (HACs); most of these 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. In addition, the data do not include adverse events or complications that arise after the patient was discharged. 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, hospital-acquired diagnoses and hospital-acquired complications is not mutually exclusive. For example, 'Unplanned readmissions' and 'Falls resulting in patient harm in hospitals' are subsets of 'Adverse events'. This means that some individual events are counted in more than one indicator, so the overall total is less than the sum of the various indicators.

In 2016–17, for example:

- 29% of separations with a 'condition that arose during the hospital stay' were also classified as having an 'adverse event'; 93% as a 'hospital-acquired diagnosis' and 19% as a 'hospital-acquired complication'
- 26% of separations with a 'hospital-acquired diagnosis' were also classified as having an 'adverse event', 82% as 'conditions that arose during the hospital stay' and 16% as a 'hospital-acquired complication'
- almost all separations with a 'hospital-acquired complication' were also classified as having a 'hospital-acquired diagnosis' or a 'condition that arose during the hospital stay' (98% and 99%, respectively), and 46% were also classified as having an 'adverse event'.

It should be noted that the data for public hospitals are not comparable with the data for private hospitals due to differences in casemixes, such as the proportion of overnight and same-day care or the types of patients treated and treatments performed, and recording practices may also differ (for example, in the classification of some same-day care as either admitted or non-admitted patient care).

Key findings

Adverse events

In 2016–17, more than 601,000 separations (5.5%) included diagnoses or external causes that indicated adverse events had resulted in, or affected, hospital admission. Rates of adverse events were highest for separations that involved an emergency admission, or surgery or an overnight stay.

Unplanned readmissions

In 2016–17, 40 out of every 1,000 *Tonsillectomy and adenoidectomy* surgeries in public hospitals were followed by an unplanned readmission within 28 days. For *Cataract extraction*, 3 in 1,000 surgeries had an unplanned readmission within 28 days.

Falls

In 2016–17, more than 38,000 falls resulting in patient harm in hospitals were recorded; a rate of 3.5 falls per 1,000 separations—4.9 per 1,000 in public hospitals and 1.4 per 1,000 in private hospitals.

Hospital-acquired diagnoses

In 2016–17, 1.1 million separations (10.3%) recorded a hospital-acquired diagnosis, including 12.2% of public hospital separations and 7.0% of private hospital separations.

The most commonly reported hospital-acquired diagnoses were for *Labour and delivery complications* (194,000 separations). Other commonly reported hospital-acquired diagnoses included *Hypotension* (110,000 separations), *Nausea and vomiting* (66,000) and *Constipation* (62,000).

Hospital-acquired complications

In 2016–17, one or more of the national list of 16 hospital-acquired complications (developed by the Australian Commission on Safety and Quality in Health Care) was reported for more than 186,000 separations, from a total of 8.6 million separations that were in-scope for this measure (about 2.2%, or 1 in 50 separations).

There were 103,600 separations (1.2% of in-scope separations) with *Healthcare-associated infections* acquired in hospital. Other hospital-acquired complications included *Cardiac complications* (0.6% of in-scope separations), *Delirium* (0.4%) and *Medication complications* (0.2%).

8.1 Performance indicator: Adverse events

'Adverse events treated in hospitals' is a performance indicator under the domain '*Health system—Safety*' dimension of the AHPF. 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 a single 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 one 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.

Separations with adverse events in 2016–17

In 2016–17, more than 601,000 separations (5.5%) reported one or more ICD-10-AM codes indicating one or more adverse events (Table 8.1). The proportion of separations with an adverse event was 6.6% for public hospitals and 3.7% for private hospitals. The data for public hospitals are not comparable with the data for private hospitals due to differences in casemixes, such as the proportion of overnight and same-day care or the types of patients treated and treatments performed, and recording practices may also differ (for example, in the classification of some same-day care as either admitted or non-admitted patient care).

In addition, for 2016–17, external causes were not reported for about 80% of separations with a principal diagnosis of an injury or poisoning in private hospitals in New South Wales and, therefore, adverse events identified by external causes may be underestimated for private hospitals.

The most common adverse event groups reported for public hospital separations were *Procedures causing abnormal reactions/complications* (49%) 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* (51%).

Table 8.1: Separations with an adverse event^(a) per 100 separations, public and private hospitals, 2016–17

| Adverse event | Public hospitals | | Private hospitals | | Total | |
|---|------------------|------------|-------------------|------------|----------------|------------|
| | Separations | Per 100 | Separations | Per 100 | Separations | Per 100 |
| External cause of injury or poisoning | | | | | | |
| Adverse effects of drugs, medicaments and biological substances | 167,294 | 2.5 | 30,655 | 0.7 | 197,949 | 1.8 |
| Misadventures to patients during surgical and medical care | 23,775 | 0.4 | 9,840 | 0.2 | 33,615 | 0.3 |
| Procedures causing abnormal reactions/complications | 215,426 | 3.3 | 84,235 | 1.9 | 299,661 | 2.7 |
| Other external causes of adverse events | 17,892 | 0.3 | 1,321 | 0.0 | 19,213 | 0.2 |
| Place of occurrence | | | | | | |
| Health service area | 420,504 | 6.4 | 147,156 | 3.3 | 567,660 | 5.2 |
| Diagnoses | | | | | | |
| Selected post-procedural disorders | 54,852 | 0.8 | 28,355 | 0.6 | 83,207 | 0.8 |
| Haemorrhage and haematoma complicating a procedure | 28,019 | 0.4 | 12,410 | 0.3 | 40,429 | 0.4 |
| Infection following a procedure | 24,128 | 0.4 | 11,146 | 0.3 | 35,274 | 0.3 |
| Complications of internal prosthetic devices | 83,090 | 1.3 | 47,933 | 1.1 | 131,023 | 1.2 |
| Other diagnoses of complications of medical and surgical care | 64,600 | 1.0 | 28,518 | 0.6 | 93,118 | 0.8 |
| Total (any of the above) | 437,468 | 6.6 | 163,828 | 3.7 | 601,296 | 5.5 |

(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.

Higher rates of adverse events were reported for:

- overnight separations compared with same-day separations (11.1% and 1.8%, respectively) (Table 8.2). It should be noted that the data do not include adverse events or complications that arise after the patient was discharged and therefore, in particular, the rate of adverse events for same-day separations may be understated
- surgical care separations compared with separations for other types of care (7.7% and 4.7%, respectively)
- subacute and non-acute care separations compared with acute care separations (7.6% and 5.3%, respectively)
- emergency admissions compared with non-emergency admissions (9.7% and 3.9%, respectively).

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, 2016–17

| Adverse event | Public hospitals | | Private hospitals | | Total | |
|-------------------------------------|------------------|---------|-------------------|---------|-------------|---------|
| | Separations | Per 100 | Separations | Per 100 | Separations | Per 100 |
| Length of stay | | | | | | |
| Same-day separations | 74,557 | 2.1 | 43,428 | 1.4 | 117,985 | 1.8 |
| Overnight separations | 362,911 | 11.8 | 120,400 | 9.3 | 483,311 | 11.1 |
| Type of care | | | | | | |
| Acute care separations | 394,934 | 6.3 | 137,413 | 3.6 | 532,347 | 5.3 |
| Sub- and non-acute care separations | 42,534 | 12.4 | 26,415 | 4.7 | 68,949 | 7.6 |
| Urgency of admission | | | | | | |
| Emergency admissions | 266,614 | 9.5 | 26,755 | 11.2 | 293,369 | 9.7 |
| Non-emergency admissions | 170,854 | 4.5 | 137,073 | 3.3 | 307,927 | 3.9 |
| Surgical/Non-surgical | | | | | | |
| Surgical admissions | 128,271 | 11.4 | 77,934 | 5.0 | 206,205 | 7.7 |
| Non-surgical admissions | 309,197 | 5.7 | 85,894 | 3.0 | 395,091 | 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 four 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’
- Section 8.7—‘Hospital-acquired complications’
- *Staphylococcus aureus bacteraemia in Australian hospitals 2016–17: Australian hospital statistics* (AIHW 2017f).

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 2016 and 30 June 2017, where the initial admission for the procedure occurred between 1 July 2016 and 19 May 2017. Where a patient is readmitted more than once within 28 days of the procedure, only the first readmission is included.

In previous reports, the denominator (hospitalisations for the selected surgeries) included separations for which the separation mode was reported as *Died*. However, these episodes should have been excluded. The data presented here for 2016–17, exclude separations for which the separation mode was reported as *Died* from the denominator. Therefore, these data are not comparable with data for the same performance indicator presented in earlier reports.

Unplanned readmissions in 2016–17

For the selected surgeries, rates of unplanned readmissions in public hospitals were highest for *Tonsillectomy and adenoidectomy* (40 per 1,000 separations) and *Hysterectomy* (33 per 1,000 separations) (Table 8.3). Of the selected surgical procedures, rates of unplanned readmissions were lowest for *Cataract extraction* (3 per 1,000 separations).

Comparisons among states and territories should be treated with caution given the small numbers of procedures for some surgeries, as an increase or decrease of one case can have a substantial impact on the rate of readmissions.

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/658485.

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, 2016–17

| | NSW | Vic | Qld | WA ^(b) | SA | Tas | ACT | NT | Total ^(c) |
|--|--------|--------|-------|-------------------|-------|-------|-------|-------|----------------------|
| Appendicectomy | | | | | | | | | |
| Separations | 9,798 | 6,900 | 6,037 | 3,185 | 1,914 | 569 | 729 | 337 | 26,284 |
| Number of readmissions | 239 | 135 | 142 | 93 | 46 | 17 | 17 | 17 | 613 |
| Per 1,000 separations | 24.4 | 19.6 | 23.5 | 29.2 | 24.0 | 29.9 | 23.3 | 50.4 | 23.3 |
| Cataract extraction | | | | | | | | | |
| Separations | 20,152 | 21,929 | 7,203 | 9,738 | 5,671 | 1,853 | 1,048 | 789 | 58,645 |
| Number of readmissions | 54 | 52 | 41 | 17 | 21 | 8 | 3 | 4 | 183 |
| Per 1,000 separations | 2.7 | 2.4 | 5.7 | 1.7 | 3.7 | 4.3 | 2.9 | 5.1 | 3.1 |
| Hip replacement | | | | | | | | | |
| Separations | 3,734 | 3,086 | 1,793 | 1,307 | 733 | 301 | 251 | 30 | 9,928 |
| Number of readmissions | 60 | 52 | 49 | 24 | 10 | 12 | 1 | 1 | 185 |
| Per 1,000 separations | 16.1 | 16.9 | 27.3 | 18.4 | 13.6 | 39.9 | 4.0 | 33.3 | 18.6 |
| Hysterectomy | | | | | | | | | |
| Separations | 2,871 | 2,994 | 2,190 | 1,040 | 764 | 261 | 118 | 70 | 9,268 |
| Number of readmissions | 80 | 87 | 100 | 39 | 21 | 12 | 3 | 4 | 307 |
| Per 1,000 separations | 27.9 | 29.1 | 45.7 | 37.5 | 27.5 | 46.0 | 25.4 | 57.1 | 33.1 |
| Knee replacement | | | | | | | | | |
| Separations | 5,422 | 3,405 | 2,671 | 1,534 | 946 | 312 | 281 | 44 | 13,081 |
| Number of readmissions | 111 | 66 | 87 | 32 | 23 | 14 | 1 | 2 | 304 |
| Per 1,000 separations | 20.5 | 19.4 | 32.6 | 20.9 | 24.3 | 44.9 | 3.6 | 45.5 | 23.2 |
| Prostatectomy | | | | | | | | | |
| Separations | 2,422 | 2,409 | 1,138 | 586 | 428 | 179 | 100 | 32 | 6,708 |
| Number of readmissions | 60 | 41 | 36 | 14 | 6 | 2 | 3 | 3 | 151 |
| Per 1,000 separations | 24.8 | 17.0 | 31.6 | 23.9 | 14.0 | 11.2 | 30.0 | 93.8 | 22.5 |
| Tonsillectomy and adenoidectomy | | | | | | | | | |
| Separations | 6,870 | 7,905 | 4,924 | 2,046 | 1,734 | 459 | 441 | 277 | 22,610 |
| Number of readmissions | 246 | 222 | 290 | 127 | 74 | 26 | 14 | 29 | 901 |
| Per 1,000 separations | 35.8 | 28.1 | 58.9 | 62.1 | 42.7 | 56.6 | 31.7 | 104.7 | 39.8 |

(a) Separations are counted in the denominator if the admission for the selected procedure occurred between 1 July 2016 and 19 May 2017.

(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 AHPF domain of 'Health system—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, including separations receiving rehabilitation care. The rates may also be underestimated as place of occurrence was not specified for 18% of separations with an external cause of injury of *Falls*.

In addition, for 2016–17, external causes were under-reported for private hospitals in New South Wales, and therefore the counts of falls in private hospitals may be underestimated.

Falls in hospitals in 2015–16

In 2016–17, more than 38,000 separations reported a fall that occurred in a health service area, at a rate of 3.5 per 1,000 separations (Table 8.4). More falls per 1,000 separations were reported for public hospitals (4.9 per 1,000 separations) than for private hospitals (1.4 per 1,000).

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/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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total | |
|--|------------|------------|------------|------------|------------|-------------|-------------|-------------|------------|---------------|
| | | | | | | | | | Rate | Number |
| Hospital sector | | | | | | | | | | |
| Public | 6.2 | 3.8 | 4.2 | 5.4 | 5.9 | 7.6 | 4.5 | 1.7 | 4.9 | 32,308 |
| Private | 0.4 | 1.6 | 2.0 | 1.9 | 1.4 | n.p. | n.p. | n.p. | 1.4 | 6,076 |
| Indigenous status | | | | | | | | | | |
| Indigenous | 2.4 | 2.3 | 1.7 | 1.0 | 1.5 | 2.7 | 2.7 | 1.1 | 1.6 | 831 |
| Other Australians | 3.9 | 3.0 | 3.4 | 4.2 | 4.1 | 4.8 | 3.6 | 2.5 | 3.6 | 37,553 |
| Remoteness of area of usual residence^(a) | | | | | | | | | | |
| Major cities | 4.0 | 2.8 | 3.4 | 4.1 | 4.1 | 4.0 | 3.7 | 0.6 | 3.6 | 26,961 |
| Inner regional | 3.3 | 3.3 | 3.5 | 3.3 | 3.6 | 4.7 | 2.9 | 0.0 | 3.5 | 7,262 |
| Outer regional | 3.4 | 3.9 | 2.7 | 4.8 | 3.8 | 4.5 | 3.5 | 2.1 | 3.4 | 3,378 |
| Remote and Very remote | 3.0 | 4.5 | 2.1 | 1.7 | 3.4 | 9.2 | 0.0 | 1.3 | 2.0 | 610 |
| Socioeconomic status of area of usual residence^(b) | | | | | | | | | | |
| 1—Lowest | 4.0 | 3.0 | 3.9 | 4.0 | 4.5 | 5.4 | 4.1 | 1.2 | 3.7 | 9,004 |
| 2 | 3.8 | 3.2 | 3.4 | 4.3 | 4.4 | 4.7 | 4.7 | 1.6 | 3.7 | 8,292 |
| 3 | 3.9 | 3.1 | 3.4 | 3.8 | 3.6 | 4.4 | 3.7 | 2.1 | 3.5 | 7,637 |
| 4 | 4.2 | 2.8 | 2.8 | 3.8 | 3.7 | 3.7 | 3.7 | 2.5 | 3.3 | 6,882 |
| 5—Highest | 3.5 | 2.8 | 2.7 | 3.7 | 2.7 | 2.6 | 3.5 | 1.5 | 3.1 | 6,388 |
| Total^(c) | 3.9 | 3.0 | 3.3 | 3.9 | 4.0 | n.p. | n.p. | n.p. | 3.5 | 38,384 |

(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 of the patient.

(b) Disaggregation by socioeconomic group is based on the area of 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) 2016–17 Patient Experience Survey (ABS 2017). 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.

There were 19,000 people aged 15 and over surveyed in 2016–17. Of these, 2,400 people (12.6%) had attended either a public or a private 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 88% of patients responded 'always' or 'often' to each of these questions for both doctors and nurses (Table 8.5). More than 93% 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, 2016–17

| | Always | Often | Sometimes/ rarely/never |
|---|--------|-------|----------------------------|
| Hospital doctors and specialists | | | |
| Listened carefully | 77.7 | 13.5 | 8.7 |
| Showed respect | 79.7 | 13.2 | 7.0 |
| Spent enough time with person | 74.9 | 13.7 | 11.3 |
| Hospital nurses | | | |
| Listened carefully | 81.1 | 12.2 | 6.5 |
| Showed respect | 81.9 | 12.1 | 5.9 |
| Spent enough time with person | 78.3 | 12.9 | 8.7 |

Source: ABS 2017.

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/658467.

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 COF is required to be reported for each diagnosis of injury or poisoning, and the related external cause information 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 2016–17, the COF data were provided for almost 100% of public hospital separations and 98% 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 2016–17

In 2016–17, 973,000 separations (8.8% 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 2016–17 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 10.5% of public hospital separations (Table 8.6) and 6.4% 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 (for conditions that affect the mother).

Emergency admissions involving surgery had relatively high rates of conditions that arose during the episode:

- for public hospitals, 1.9% of same-day and 31.8% of overnight emergency admissions involving surgery included a condition that arose during the episode (Table 8.6)

- for private hospitals, 1.2% of same-day and 27.8% of overnight emergency admissions involving surgery included a condition that arose during the episode (Table 8.7).

There was some 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 under-reporting by some states and territories compared with others.

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.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total rate | Separations |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
| Same-day separations | | | | | | | | | | |
| Childbirth | 33.4 | 37.7 | 35.0 | 38.5 | 36.0 | 35.0 | 41.2 | 52.3 | 35.9 | 3,325 |
| Emergency | | | | | | | | | | |
| Surgical | 1.5 | 2.5 | 2.2 | 1.5 | 1.9 | 1.9 | 1.2 | 2.3 | 1.9 | 524 |
| Medical | 1.2 | 1.2 | 1.0 | 1.0 | 2.4 | 1.1 | 0.8 | 0.8 | 1.2 | 9,245 |
| Other | 3.1 | 3.9 | 1.3 | 3.1 | 3.6 | 2.1 | 2.9 | 3.7 | 2.8 | 213 |
| <i>Total emergency</i> | <i>1.2</i> | <i>1.2</i> | <i>1.0</i> | <i>1.1</i> | <i>2.4</i> | <i>1.1</i> | <i>0.9</i> | <i>0.9</i> | <i>1.2</i> | <i>9,982</i> |
| Non-emergency | | | | | | | | | | |
| Surgical | 1.2 | 2.1 | 1.3 | 1.4 | 1.2 | 2.1 | 1.0 | 0.9 | 1.6 | 6,161 |
| Medical | 0.6 | 0.7 | 1.1 | 0.5 | 1.7 | 1.0 | 1.4 | 0.4 | 0.8 | 15,275 |
| Other | 1.0 | 1.3 | 0.8 | 0.8 | 0.7 | 2.0 | 0.8 | 0.5 | 1.1 | 3,643 |
| <i>Total non-emergency</i> | <i>0.7</i> | <i>1.0</i> | <i>1.1</i> | <i>0.7</i> | <i>1.5</i> | <i>1.4</i> | <i>1.3</i> | <i>0.4</i> | <i>0.9</i> | <i>25,079</i> |
| <i>Total same-day</i> | <i>0.9</i> | <i>1.1</i> | <i>1.2</i> | <i>0.8</i> | <i>1.9</i> | <i>1.5</i> | <i>1.4</i> | <i>0.6</i> | <i>1.1</i> | <i>38,386</i> |
| Overnight separations | | | | | | | | | | |
| Childbirth | 53.7 | 66.5 | 63.8 | 60.8 | 64.8 | 50.6 | 61.9 | 69.3 | 60.8 | 135,550 |
| Emergency | | | | | | | | | | |
| Surgical | 27.1 | 38.9 | 35.0 | 27.3 | 31.1 | 34.0 | 26.8 | 21.4 | 31.8 | 83,607 |
| Medical | 10.3 | 16.9 | 11.3 | 10.6 | 11.7 | 15.9 | 10.4 | 7.5 | 12.1 | 198,003 |
| Other | 23.3 | 35.2 | 31.7 | 25.4 | 25.6 | 35.1 | 22.1 | 18.8 | 28.3 | 20,691 |
| <i>Total emergency</i> | <i>12.9</i> | <i>20.8</i> | <i>14.9</i> | <i>13.6</i> | <i>14.6</i> | <i>19.7</i> | <i>13.9</i> | <i>9.9</i> | <i>15.3</i> | <i>302,301</i> |
| Non-emergency | | | | | | | | | | |
| Surgical | 23.1 | 32.2 | 26.6 | 25.0 | 24.0 | 32.4 | 22.0 | 18.8 | 26.8 | 97,371 |
| Medical | 18.5 | 26.6 | 28.3 | 27.5 | 22.8 | 21.4 | 24.6 | 17.0 | 23.5 | 115,117 |
| Other | 18.3 | 24.1 | 20.0 | 21.0 | 14.7 | 25.6 | 20.0 | 14.1 | 20.5 | 5,639 |
| <i>Total non-emergency</i> | <i>20.2</i> | <i>28.9</i> | <i>27.2</i> | <i>26.1</i> | <i>23.1</i> | <i>26.2</i> | <i>23.3</i> | <i>17.6</i> | <i>24.8</i> | <i>218,127</i> |
| <i>Total overnight</i> | <i>17.8</i> | <i>27.2</i> | <i>21.6</i> | <i>20.4</i> | <i>19.9</i> | <i>23.8</i> | <i>20.7</i> | <i>15.3</i> | <i>21.3</i> | <i>655,978</i> |
| Total | 10.0 | 12.0 | 10.1 | 9.6 | 11.3 | 12.3 | 10.6 | 4.9 | 10.5 | 694,364 |

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.

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, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total rate | Separations |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
| Same-day separations | | | | | | | | | | |
| Childbirth | 36.0 | 11.1 | 50.0 | 43.8 | 75.0 | n.p. | n.p. | n.p. | 35.0 | 50 |
| Emergency | | | | | | | | | | |
| Surgical | 3.6 | 1.6 | 1.5 | 1.2 | 0.8 | n.p. | n.p. | n.p. | 1.2 | 63 |
| Medical | 1.9 | 0.8 | 0.7 | 1.1 | 4.5 | n.p. | n.p. | n.p. | 1.4 | 181 |
| Other | 1.0 | 1.4 | 1.4 | 2.5 | 0.6 | n.p. | n.p. | n.p. | 0.8 | 35 |
| <i>Total emergency</i> | <i>2.1</i> | <i>1.0</i> | <i>0.8</i> | <i>1.2</i> | <i>1.5</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1.2</i> | <i>279</i> |
| Non-emergency | | | | | | | | | | |
| Surgical | 0.9 | 0.6 | 0.6 | 0.6 | 0.5 | n.p. | n.p. | n.p. | 0.7 | 5,715 |
| Medical | 1.2 | 1.1 | 0.4 | 0.2 | 1.4 | n.p. | n.p. | n.p. | 0.8 | 10,879 |
| Other | 1.4 | 3.3 | 0.4 | 0.4 | 0.4 | n.p. | n.p. | n.p. | 1.5 | 12,683 |
| <i>Total non-emergency</i> | <i>1.2</i> | <i>1.7</i> | <i>0.4</i> | <i>0.4</i> | <i>0.9</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1.0</i> | <i>29,277</i> |
| <i>Total same-day</i> | <i>1.2</i> | <i>1.7</i> | <i>0.4</i> | <i>0.4</i> | <i>1.0</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>1.0</i> | <i>29,606</i> |
| Overnight separations | | | | | | | | | | |
| Childbirth | 56.7 | 50.2 | 50.7 | 54.3 | 71.8 | n.p. | n.p. | n.p. | 53.6 | 38,700 |
| Emergency | | | | | | | | | | |
| Surgical | 33.7 | 33.8 | 23.9 | 21.9 | 27.1 | n.p. | n.p. | n.p. | 27.8 | 11,063 |
| Medical | 17.0 | 16.5 | 15.3 | 14.5 | 15.1 | n.p. | n.p. | n.p. | 15.5 | 25,154 |
| Other | 22.8 | 20.9 | 17.5 | 18.4 | 21.4 | n.p. | n.p. | n.p. | 19.4 | 2,607 |
| <i>Total emergency</i> | <i>20.2</i> | <i>20.1</i> | <i>16.8</i> | <i>16.2</i> | <i>18.3</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>18.0</i> | <i>38,824</i> |
| Non-emergency | | | | | | | | | | |
| Surgical | 18.7 | 18.9 | 14.4 | 12.7 | 18.7 | n.p. | n.p. | n.p. | 16.7 | 100,830 |
| Medical | 18.7 | 20.8 | 17.9 | 17.1 | 21.2 | n.p. | n.p. | n.p. | 18.6 | 64,972 |
| Other | 12.0 | 11.1 | 10.9 | 14.5 | 14.8 | n.p. | n.p. | n.p. | 11.6 | 5,307 |
| <i>Total non-emergency</i> | <i>18.5</i> | <i>19.2</i> | <i>15.5</i> | <i>14.0</i> | <i>19.2</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>17.1</i> | <i>171,109</i> |
| <i>Total overnight</i> | <i>21.2</i> | <i>21.0</i> | <i>17.5</i> | <i>16.9</i> | <i>21.3</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>19.3</i> | <i>248,633</i> |
| Total | 6.5 | 8.1 | 5.5 | 5.2 | 6.9 | n.p. | n.p. | n.p. | 6.4 | 278,239 |

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.

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 complications of procedures; adverse drug events; accidental injuries; hospital-acquired infections and metabolic disorders. See Box 8.1 for more information.

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 (Section 8.5).

The original purpose of the CHADx, supported by the ACSQHC, 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).

In 2017, the CHADx methodology was revised by the Victorian Department of Health and Human Services (McNair et al, forthcoming) to develop CHADx version 1.4.

This report uses CHADx version 1.4, compared to CHADx version 1.0 used in previous reports. CHADx version 1.4 includes hospital-acquired conditions identified by the presence of particular procedures, as well as refinements to the methodology for identifying hospital-acquired conditions. In CHADx version 1.4, all hospital-acquired infections are classified together in the Major CHADx (MCHADx) 4 *Hospital-acquired infections*. Due to the revised methodology, and because the coverage of the COF data for 2016–17 was more complete compared with earlier years (particularly for private hospitals); the CHADx data presented in this report are not comparable to CHADx data presented in previous reports.

Separations including a hospital-acquired diagnosis in 2016–17

In 2016–17, 1.1 million separations (10.3%) recorded a hospital-acquired diagnosis (Table 8.8) including:

- 821,000 public hospital separations (12.2% of all public hospital separations)
- 308,000 private hospital separations (7.0% of all private hospital separations).

For public hospitals, the most common MCHADx classes were *Labour and delivery complications*, which accounted for 18.3% of separations that included a hospital-acquired diagnosis (or 2.2% of all separations), followed by *Cardiovascular complications* (16.6% of separations that included a hospital-acquired diagnosis, or 2.0% of all separations).

For private hospitals, the most common MCHADx classes were *Gastrointestinal complications* (17.4% of separations that included a hospital-acquired diagnosis) and *Cardiovascular complications* (16.9% of separations that included a hospital-acquired diagnosis), both accounted for 1.2% of all separations.

Labour and delivery complications was the most common MCHADx class reported for public and private hospitals combined, and accounted for 18.3% of hospital-acquired diagnoses in public hospitals and 14.3% in private hospitals.

The most common MCHADx class identified by a procedure was *Procedural complications relating to childbirth*, followed by *Ventilatory support*.

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 version 1.4 includes over 3,500 diagnoses and external causes, and 77 procedure codes arranged into 23 major classes and 175 minor classes.

Method

CHADx conditions are mainly identified using the COF, although some conditions that arise during the episode are not allocated to a CHADx class.

For obstetric and perinatal separations, it can be difficult to distinguish whether a condition was present on admission, or arose after admission. Therefore, these conditions are assigned to CHADx classes (in MCHADx classes 12 and 13), regardless of the value of the COF.

Classification of hospital-acquired procedures (CHAPx) categories are assigned based on the procedures that indicate that a complication occurred during the episode.

A separation is counted only once for each CHADx class, CHAPx class or MCHADx class where at least one condition or procedure (that is assigned to the class) was reported for the separation.

The denominator is limited to separations for which the COF was reported. Excluded from the analysis are records for hospital boarders and posthumous organ procurement. That is, unlike most other tables in this report, this analysis also includes newborns without qualified days.

Limitations

The data for public hospitals are not comparable with the data for private hospitals due to differences in casemixes, such as the proportion of overnight and same-day care or the types of patients treated and treatments performed, and recording practices may also differ.

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 both had a COF 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'.

In addition, for 2016–17, external causes were under-reported for private hospitals in New South Wales, and therefore the counts of hospital-acquired diagnoses for private hospitals may be underestimated.

Conditions that arise due to a hospital stay, but are not evident during the hospital stay, are not included. For example:

- conditions that arose after discharge, such as constipation, dizziness, nausea and vomiting would not be captured for same-day separations
- the development of post-traumatic stress disorder due to an acute health condition would not be captured in CHADx data.

The 20 most common CHADx classes

The 20 most frequently reported CHADx classes accounted for 48% 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 one hospital-acquired diagnosis in a Major CHADx class.

Hypotension was the most common hospital-acquired diagnosis in both public and private hospitals, accounting for 4.7% of hospital-acquired diagnoses overall.

Nausea and vomiting was the second-most common hospital-acquired diagnosis in private hospitals, accounting for 5.4% of hospital-acquired diagnoses.

Average length of stay for separations with at least one hospital acquired diagnosis

The average length of stay for overnight separations with at least one hospital-acquired diagnosis was 10.3 days in public hospitals and 9.1 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 5.2 days for private hospitals.

It should be noted that patients with longer stays in hospital might 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^(a) with a hospital-acquired diagnosis^(b) by Major CHADx version 1.4 class, public and private hospitals, 2016–17

| Major CHADx class | Public hospitals | | Private hospitals | |
|---|------------------|-------------|-------------------|------------|
| | Separations | Per 100 | Separations | Per 100 |
| Condition identified by diagnosis/external cause (CHADx) | | | | |
| Procedural complications | 79,105 | 1.2 | 36,149 | 0.8 |
| Adverse drug events | 51,211 | 0.8 | 14,918 | 0.3 |
| Accidental injuries | 33,867 | 0.5 | 8,051 | 0.2 |
| Hospital-acquired infections | 90,410 | 1.3 | 28,467 | 0.6 |
| Cardiovascular complications | 136,148 | 2.0 | 53,573 | 1.2 |
| Respiratory complications | 45,736 | 0.7 | 18,633 | 0.4 |
| Gastrointestinal complications | 98,169 | 1.5 | 52,046 | 1.2 |
| Skin conditions | 49,404 | 0.7 | 19,092 | 0.4 |
| Genitourinary complications | 55,211 | 0.8 | 20,538 | 0.5 |
| Hospital-acquired psychiatric states | 39,799 | 0.6 | 13,206 | 0.3 |
| Early pregnancy complications | 1,099 | <0.1 | 327 | <0.1 |
| Labour and delivery complications | 149,904 | 2.2 | 44,180 | 1.0 |
| Perinatal complications | 77,725 | 1.1 | 14,774 | 0.3 |
| Haematological disorders | 31,771 | 0.5 | 10,693 | 0.2 |
| Metabolic disorders | 90,745 | 1.3 | 22,514 | 0.5 |
| Nervous system complications | 11,353 | 0.2 | 4,854 | 0.1 |
| Other complications | 113,416 | 1.7 | 55,685 | 1.3 |
| <i>Any CHADx^(a)</i> | <i>731,833</i> | <i>10.8</i> | <i>275,206</i> | <i>6.3</i> |
| Condition identified by procedure (CHAPx) | | | | |
| Ventilatory support | 99,840 | 1.5 | 21,676 | 0.5 |
| Haemorrhage/haematoma management | 67,323 | 1.0 | 24,614 | 0.6 |
| Return to theatre or procedure room | 11,503 | 0.2 | 3,467 | 0.1 |
| Procedural complications relating to childbirth | 98,582 | 1.5 | 27,353 | 0.6 |
| Nutrition support | 31,753 | 0.5 | 7,338 | 0.2 |
| Fluid management | 8,430 | 0.1 | 2,980 | 0.1 |
| <i>Any CHAPx^(a)</i> | <i>276,366</i> | <i>4.1</i> | <i>81,941</i> | <i>1.9</i> |
| Any CHADx+^(a) | 821,470 | 12.2 | 308,421 | 7.0 |

(a) A separation is counted only once for each CHADx, CHAPx or MCHADx class where at least one condition or procedure (that is assigned to the class) was reported for the separation.

(b) 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 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: Separations^(a) with a hospital-acquired diagnosis^(b) for the 20 most common CHADx version 1.4 classes, public and private hospitals, 2016–17

| CHADx class | | Public hospitals | Private hospitals | Total |
|--------------|--|------------------|-------------------|------------------|
| 05.07 | Hypotension | 78,984 | 31,363 | 110,347 |
| P1.02 | Non-invasive ventilatory support | 64,662 | 18,573 | 96,562 |
| P4.03 | Suture perineal tear | 63,190 | 14,644 | 95,017 |
| P2.02 | Transfusion | 45,205 | 20,426 | 89,390 |
| 15.02 | Electrolyte disorders /fluid management | 59,623 | 15,591 | 75,214 |
| 07.04 | Nausea and vomiting | 35,217 | 31,129 | 66,346 |
| 05.04 | Conduction disturbances/abnormal heart beat | 45,380 | 17,286 | 62,666 |
| 07.03 | Constipation | 47,584 | 14,457 | 62,041 |
| 12.07 | Second degree perineal laceration | 49,038 | 11,422 | 60,460 |
| 08.04 | Dermatitis, rash and other skin effects | 35,528 | 15,531 | 51,059 |
| 12.12 | Other complications intrapartum & postpartum | 33,913 | 8,112 | 42,025 |
| 12.09 | Maternal haemorrhage | 37,313 | 4,664 | 41,977 |
| P4.02 | Unplanned birth intervention | 28,919 | 11,250 | 40,862 |
| 13.10 | Other neonatal complications | 33,700 | 5,697 | 39,397 |
| P5.00 | Nutrition support | 18,217 | 6,212 | 39,091 |
| 12.01 | Foetal heart rate abnormalities | 31,232 | 7,554 | 38,786 |
| P1.01 | Invasive ventilatory support | 35,178 | 3,103 | 38,281 |
| 17.11 | Other symptoms | 20,724 | 9,555 | 30,279 |
| 12.11 | Other obstetric trauma | 19,650 | 10,476 | 30,126 |
| 02.16 | Complications due to other drugs | 23,560 | 5,526 | 29,149 |
| | Other | 905,608 | 310,491 | 1,229,265 |
| Total | | 1,712,425 | 573,062 | 2,368,340 |

(a) A separation is counted only once for each CHADx, CHAPx or MCHADx class where at least one condition or procedure (that is assigned to the class) was reported for the separation.

(b) Data exclude records for which the COF was not reported.

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 (CHADx version 1.4), by Surgical/Medical/Other AR-DRG partition, public and private hospitals, 2016–17

| | 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 |
| Surgical | 9.7 | 3.0 | 5.3 | 7.6 | 2.5 | 3.5 |
| Medical | 10.7 | 4.3 | 5.6 | 10.6 | 6.3 | 7.3 |
| Other | 8.4 | 3.6 | 5.5 | 7.6 | 2.5 | 3.2 |
| Total | 10.3 | 4.1 | 5.5 | 9.1 | 4.1 | 5.2 |

(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.

8.7 Hospital-acquired complications

This section presents information on hospital-acquired complications using the Australian Commission on Safety and Quality in Health Care's (ACSQHC) list of 16 hospital-acquired complications—for which clinical risk mitigation strategies may reduce the risk of occurrence.

These hospital-acquired complications include pressure injuries, healthcare-associated infections, delirium, malnutrition and neonatal birth trauma. See Box 8.2 for more information.

Box 8.2: Methods and limitations— Hospital-acquired complications

The national list of 16 hospital-acquired complications was developed by the ACSQHC through a comprehensive process that included reviews of the literature, clinical engagement and testing of the concept with public and private hospitals. The list identifies complications that may be preventable and that can have a severe impact on both the patient and the health provider. It includes over 670 diagnosis codes arranged into 16 'complication' categories and 38 'diagnosis' categories (ACSQHC 2016).

Method

Hospital-acquired complications are mainly identified using the COF, diagnosis and external cause codes. The analysis (both numerator and denominator) is limited to separations for which the COF was reported. Separations for which every condition onset flag was *Not reported* were excluded.

Excluded from the analysis are records for newborns without qualified days, hospital boarders and posthumous organ procurement. Also excluded are records for same-day dialysis and chemotherapy (identified by the AR-DRGs L61Z *Haemodialysis* and R63Z *Chemotherapy*), and mental health episodes (identified by an AR-DRG in the MDCs *Mental diseases and disorders* and *Alcohol/drug use and alcohol/drug induced organic mental disorders*). About 8.6 million separations were included in the analysis—5.0 million in public hospitals and 3.6 million in private hospitals.

Counts presented are for separations for which one or more complication was reported. Hence, if two or more complications were reported for a separation, the separation is counted in each row for each complication type reported, and is counted once in the 'total' row. For example, if two infections and a medication complication were reported for a separation, the separation is counted once in the total row, once in the infection row and once in the medication row. The totals are therefore not necessarily the sum of the rows.

Limitations

The complication category *Unplanned intensive care unit admission* could not be derived using the data available in the NHMD, as this information is not currently reported.

In addition, one sub-category of the complication *Surgical complications requiring unplanned return to theatre* could not be derived, as the NMDS for Admitted patient care 2016–17 does not include an unplanned return to theatre indicator. The remainder of sub-categories for this complication included diagnoses that always require a return to theatre.

The counts of hospital-acquired complications presented in this section are likely to be underestimated to the extent that the COF was not reported, or was not accurately reported.

In addition, for 2016–17, external causes were under-reported for private hospitals in New South Wales, which would have resulted in the counts of hospital-acquired complications being underestimated.

Conditions that arise due to a hospital stay, but are not evident during the hospital stay, are not included. For example, for same-day separations, conditions that arose after discharge (such as some healthcare-associated infections) would not be captured. For the most part,

the occurrence of a hospital-acquired complication is identified using the COF along with diagnosis and external cause information. Therefore, there is overlap with the numbers of separations that reported a condition that arose during the hospital stay (Section 8.5) and with the number of separations that reported a hospital-acquired diagnosis (Section 8.6).

Separations including a hospital-acquired complication in 2016–17

In 2016–17, one or more of the ACSQHC list of hospital-acquired complications was reported for almost 186,000 separations (Table 8.11), from a total of 8.6 million separations that were in-scope for analysis. They accounted for 2.2% (or about 1 in 50) of in-scope hospital separations.

The most common hospital-acquired complication reported was *Healthcare-associated infections*, affecting 103,600 separations, or 1.2% of in-scope separations.

The second most common complication category was *Cardiac complications*, which was reported for 48,000 separations (0.6% of in-scope separations). Other hospital-acquired complications included *Delirium* (33,000 separations, or 0.4% of in-scope separations) and *Medication complications* (18,000, separations, or 0.2% of in-scope separations).

Table 8.11: Separations^(a) with one or more hospital-acquired complications, by complication category, all hospitals, 2016–17

| HPC class | Separations | Per 100 ^(b) |
|---|----------------|------------------------|
| Pressure injury | 5,332 | 0.1 |
| Falls resulting in fracture or other intracranial injury | 2,651 | <0.1 |
| Healthcare associated infection | 103,642 | 1.2 |
| Surgical complications requiring unplanned return to theatre ^(c) | 13,276 | 0.2 |
| Unplanned intensive care unit admission ^(d) | n.a. | n.a. |
| Respiratory complications | 14,272 | 0.2 |
| Venous thromboembolism | 3,436 | <0.1 |
| Renal failure | 1,204 | <0.1 |
| Gastrointestinal bleeding | 8,468 | 0.1 |
| Medication complications | 17,840 | 0.2 |
| Delirium | 32,642 | 0.4 |
| Persistent incontinence | 5,007 | 0.1 |
| Malnutrition | 3,138 | <0.1 |
| Cardiac complications | 48,261 | 0.6 |
| Third and fourth degree perineal laceration during delivery | 6,392 | 0.1 |
| Neonatal birth trauma | 583 | <0.1 |
| Total | 186,397 | 2.2 |

(a) A separation is counted only once for each hospital-acquired complication category where at least one condition was reported for the separation.

(b) About 8.6 million separations were included in the analysis—5.0 million in public hospitals and 3.6 million in private hospitals. The denominator is defined in Box 8.2.

(c) *Surgical complications requiring unplanned return to theatre* does not include counts for the sub-category *Other surgical complications requiring unplanned return to theatre*, as the NMDS for Admitted patient care 2016–17 does not include an unplanned return to theatre indicator.

(d) Counts for the complication category *Unplanned intensive care unit admission* could not be derived using the information provided for the NMDS for Admitted patient care 2016–17.

Note: See boxes 1.1, 1.2 and 8.2 and appendixes A and B for notes on data limitations and methods.

The 20 most common complication diagnoses

There are 38 complication diagnoses, with the 20 most frequently reported accounting for 90% of hospital-acquired complications from the ACSQHC list (Table 8.12). The total counts in Table 8.12 differ from Table 8.11, as a separation may have more than one complication diagnosis reported in a complication category.

Delirium was the most common ACSQHC complication diagnosis reported, accounting for 12% of ACSQHC hospital-acquired complications.

It was closely followed by *Arrhythmias and Urinary tract infections*, both accounting for about 11% of all hospital-acquired complications reported from the ACSQHC list.

Table 8.12: Separations^(a) with one or more hospital-acquired complications in a class, for the 20 most common complication diagnoses, all hospitals, 2016–17

| Complication class | | Total |
|--------------------|---|----------------|
| 11.01 | Delirium | 32,642 |
| 14.02 | Arrhythmias | 30,271 |
| 03.01 | Urinary tract infection | 28,053 |
| 03.03 | Pneumonia | 23,744 |
| 03.04 | Blood stream infection | 20,046 |
| 10.03 | Hypoglycaemia | 10,401 |
| 03.07 | Infection associated with prosthetic/implantable devices | 9,171 |
| 09.01 | Gastrointestinal bleeding | 8,468 |
| 06.02 | Aspiration pneumonia | 8,245 |
| 14.01 | Heart failure and pulmonary oedema | 8,185 |
| 03.02 | Surgical site infection | 7,696 |
| 04.01 | Post-operative haemorrhage/haematoma requiring transfusion and/or return to theatre | 6,720 |
| 15.01 | Third and fourth degree perineal laceration during delivery | 6,392 |
| 10.02 | Haemorrhagic disorder due to circulating anticoagulants | 6,339 |
| 14.04 | Acute coronary syndrome including unstable angina, STEMI and NSTEMI | 6,257 |
| 06.01 | Respiratory failure including acute respiratory distress syndrome requiring ventilation | 6,027 |
| 03.06 | Multi-resistant organism | 5,602 |
| 03.05 | Central line and peripheral line associated bloodstream infection | 5,590 |
| 04.02 | Surgical wound dehiscence | 5,575 |
| 12.01 | Urinary incontinence | 5,007 |
| | Other | 25,713 |
| Total | | 266,144 |

NSTEMI—Non ST elevation myocardial infarction; STEMI—ST elevation myocardial infarction; ST—the ST segment, which is part of the electrocardiogram heart tracing used to diagnose a heart attack.

(a) A separation is counted only once for each hospital-acquired complication category where at least one condition was reported for the separation.

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

Average length of stay for separations with at least one hospital acquired complication

The ALOS for overnight separations with at least one ACSQHC hospital-acquired complication was 17.0 days (Table 8.13). This was longer than the ALOS for all overnight separations included in the analysis (4.4 days).

It should be noted that patients with longer lengths of stay in hospital might have a higher risk of acquiring a complication during the episode. In addition, the occurrence of a hospital-acquired complication may extend the hospital stay.

Table 8.13: Average length of stay (days) for overnight separations with and without a hospital-acquired complication, by Surgical/Medical/Other partition, all hospitals, 2016–17

| | Separations with a hospital-acquired complication | Separations without a hospital-acquired complication | Total |
|--------------|---|--|------------|
| Surgical | 16.6 | 3.6 | 4.4 |
| Medical | 17.7 | 4.8 | 5.2 |
| Other | 13.1 | 4.1 | 4.7 |
| Total | 17.0 | 4.4 | 4.9 |

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 hospital-acquired complications is available at www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications/.

More information on the condition onset flag is available in:

- 'Section 8.5 Conditions that arose during the hospital stay'
- 'Section 8.6 Hospital acquired diagnoses'
- 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.

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 2016–17: Australian hospital statistics* (AIHW 2017b) and at <meteor.aihw.gov.au/content/index.phtml/itemId/623795>.

Information relevant to interpretation of the ABS' *Patient experiences in Australia: summary of findings, 2016–17* (ABS 2017) 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 2016–17. The data set includes records for admitted patient separations between 1 July 2016 and 30 June 2017.

Data for 2016–17 based on the Admitted subacute and non-acute hospital care National Best Endeavours Data Set (ASNHC NBEDS) were provided by the states and territories for inclusion in the AIHW's NHMD. A summary of the data provided for the ASNHC NBEDS 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 2016–17, 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 exceptions being the private free-standing day hospital facilities and one overnight private hospital 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. The implementation of the mental health care type was incomplete in 2015–16, that is, 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. Following the mental health care type implementation on 1 July 2015, the statistical discharge and readmission of mental health-related patients in *Public hospitals*, resulted in a large increase in patient days overall for Queensland (2015–16) and for New South Wales (2016–17). Therefore, information presented by care type for 2015–16 and 2016–17 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.
- For 2016–17, New South Wales advised that, for one private hospital, *Maintenance care* was over-reported and therefore *Acute care* is likely to be underestimated.
- The reporting of separations for *Newborns* (without qualified days) varied among states and territories. 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 2016–17 is available in previous Australian hospital statistics reports.
- 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 2016–17, 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. For more information, see the AIHW report *Variation in hospital admission policies and practices: Australian hospital statistics* (AIHW 2017g).
- For 2016-17, there were data quality issues related to the recording of funding source for separations from private hospitals in the Australian Capital Territory. For this reason, private hospital data for the Australian Capital Territory are not included in analyses by funding source.

- For 2016–17, external causes were not reported for about 80% of separations (45,000) with a principal diagnosis of an injury or poisoning in private hospitals in New South Wales. These 45,000 separations accounted for about 27% of all private hospital separations with a principal diagnosis of an injury or poisoning, and 6% of separations with a principal diagnosis of an injury or poisoning in public and private hospitals combined.
- Between 2012–13 and 2016–17, changes in coverage or data supply for New South Wales, Queensland, Western Australia and South 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 Queensland, between 2014–15 and 2016–17, a relatively large increase in same-day separations in public hospitals partly reflects a change in admission practices for chemotherapy at a small number of large establishments.
 - For Western Australia, between 2012–13 and 2013–14, the relatively large decrease in public hospital separations in part reflects a change in the state’s emergency department admission policy, which resulted in fewer admissions.
 - For South Australia, between 2015–16 and 2016–17, the numbers of separations decreased due to changes in admission practices for some rehabilitation care at the Repatriation General Hospital.
- 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. Overall, the provision of COF data for 2016–17 had improved compared with that provided for 2012–13 to 2015–16, particularly for private hospitals. The coverage of COF data was 100.0% for public hospitals and 98.0% for private hospitals. See ‘Condition onset flag data’ for more information.
- 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 identifier: 584408). 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 2016–17 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*

(AIHW 2018) varied among jurisdictions. Therefore, the implementation of the *Mental health* care type may not have been consistent across jurisdictions or sectors. For example:

- 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; the majority of separations with specialised psychiatric care days that did not have a *Mental health* care type had 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.

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 included 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. The national correction factor of 1.09 suggested that the ‘true’ number of separations should be about 9% higher than reported for Indigenous Australians.

Quality of Indigenous status data, 2016–17

The following information was supplied 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 compliant status for Indigenous identification in 2011–12. The low level of completeness for some hospitals in *Major cities* 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 has identified that individual Local Health Districts have initiated, and are delivering, their own comprehensive mandatory training programs for 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 2016–17 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.

Table A1: Mental health-related separations, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|----------------|
| Public hospitals | | | | | | | | | |
| Separations with a <i>Mental health</i> care type | 48,839 | 26,870 | 35,270 | 14,100 | 14,424 | 3,762 | 2,139 | 950 | 146,354 |
| Separations with specialised psychiatric care days | 47,829 | 26,870 | 36,104 | 14,559 | 12,259 | 3,085 | 2,075 | 910 | 143,691 |
| Separations with a mental health-related principal diagnosis ^(a) | 81,023 | 58,293 | 54,279 | 25,653 | 22,840 | 4,911 | 3,840 | 3,648 | 254,487 |
| <i>Separations with any of the above</i> | <i>88,012</i> | <i>59,916</i> | <i>59,534</i> | <i>26,307</i> | <i>24,670</i> | <i>5,715</i> | <i>4,104</i> | <i>3,750</i> | <i>272,008</i> |
| Private hospitals | | | | | | | | | |
| Separations with a Mental health care type | 59,356 | 38,547 | 65,945 | 5,820 | 2,003 | n.p. | n.p. | n.p. | 180,007 |
| Separations with Specialised psychiatric care days | 59,356 | 46,868 | 61,695 | 5,868 | 2,003 | n.p. | n.p. | n.p. | 184,126 |
| Separations with a mental health-related principal diagnosis ^(a) | 76,004 | 50,945 | 68,596 | 6,732 | 2,351 | n.p. | n.p. | n.p. | 215,810 |
| <i>Separations with any of the above</i> | <i>76,031</i> | <i>51,259</i> | <i>68,864</i> | <i>6,756</i> | <i>2,352</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>216,508</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 was 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).

Queensland

The Queensland Department of Health noted that for 2016–17, Indigenous status was reported as 'not stated' for 3.8% of admitted patient separations (0.4% of public hospital separations and 8.0% 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 Indigenous status reported for all cases in 2016–17. 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 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 (see 'Apparent variation in reporting of additional diagnoses').

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, 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 New South Wales 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.

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:

- coding quality improvement activities
- 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
- routine state-wide validation of some episode data
- a state-wide coding auditor/educator who is responsible for managing coded data validations
- 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 Department of Health is committed to the continual improvement of clinical coding across Northern Territory hospitals, and continues to conduct coding quality improvement activities. Clinical coding audits at each hospital are performed by the Northern Territory 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 Northern Territory Coders Forum is also an inclusive committee that provides peer support and is an Northern Territory wide forum for discussion of coding issues and referral of queries to national clinical advisory bodies 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 AR-DRG version 8.0, many adjacent AR-DRGs are split by 'complexity' which is determined by 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 2 categories of adjacent AR-DRGs (category 2 is a subset of category 1):

1. all applicable adjacent AR-DRGs (that is, excluding adjacent AR-DRGs with other factors affecting partitioning)
2. 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 2016–17

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, 65% of separations were allocated to the lowest resource split for adjacent AR-DRGs, ranging from 60% for the Northern Territory to 68% for the Australian Capital Territory.

For private hospitals, 79% of separations were allocated to the lowest resource split for adjacent AR-DRGs, ranging from 75% in Queensland to 81% in Victoria, Western Australia and South Australia.

For *Vaginal and caesarean deliveries*, the proportion allocated to the lowest resource split was 41% for public hospitals, and 48% for private hospitals. There was some variation among jurisdictions, with public hospital proportions ranging from 38% in Victoria to 45% in New South Wales and Tasmania.

Changes to ICD-10-AM/ACHI classifications

Information presented over time may be affected by changes to ICD-10-AM/ACHI codes 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
- ‘supplementary codes’ for chronic conditions
- ‘past history’ of hepatitis
- K64 *Haemorrhoids and perianal venous thrombosis* as a replacement for the category I84 *Haemorrhoids* and the creation of the category

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. Over the same period, there were corresponding increases in principal diagnoses reported for 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*.

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 markedly each year between 2012–13 and 2015–16 (AIHW 2017a).

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?’).

Table A2: Standardised proportion of separations^(a) in lowest resource level AR-DRG for selected adjacent AR-DRGs version 8.0, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|-----------|-----------|---------|---------|---------|--------|--------|--------|-----------|
| All adjacent AR-DRGs split by complexity only | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Separations | 1,267,894 | 1,075,515 | 919,813 | 379,506 | 288,977 | 83,055 | 72,245 | 65,511 | 4,152,516 |
| Standardised proportion in lowest resource level | 0.65 | 0.66 | 0.66 | 0.64 | 0.64 | 0.65 | 0.68 | 0.60 | 0.65 |
| Private hospitals | | | | | | | | | |
| Separations | 669,888 | 652,239 | 656,336 | 251,792 | 183,836 | n.p. | n.p. | n.p. | 2,514,449 |
| Standardised proportion in lowest resource level | 0.79 | 0.81 | 0.75 | 0.81 | 0.81 | n.p. | n.p. | n.p. | 0.79 |
| Adjacent AR-DRGs for vaginal and caesarean deliveries | | | | | | | | | |
| Public hospitals | | | | | | | | | |
| Separations | 74,531 | 59,794 | 44,682 | 24,809 | 15,406 | 4,377 | 5,214 | 3,375 | 232,188 |
| Standardised proportion in lowest resource level | 0.45 | 0.38 | 0.43 | 0.39 | 0.42 | 0.45 | 0.40 | 0.34 | 0.41 |
| Private hospitals | | | | | | | | | |
| Separations | 21,865 | 18,410 | 15,046 | 9,433 | 3,975 | n.p. | n.p. | n.p. | 72,291 |
| Standardised proportion in lowest resource level | 0.48 | 0.49 | 0.50 | 0.45 | 0.45 | n.p. | n.p. | n.p. | 0.48 |

(a) Separations for which the care type was reported as *Acute* or *Newborn* (with qualified days), or was not reported.

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 for 2012–13 and earlier years for the ICD-10-AM chapters *Diseases of the circulatory system* and *Diseases of the digestive system*.

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 2016–17, 5.5 million supplementary codes were reported, with at least 1 reported for 31.3% of separations in public hospitals and 28.4% in private hospitals (Table A3). In comparison, for 2015–16, 4.8 million supplementary codes were reported, with at least 1 reported for 28.5% of separations in public hospitals and 26.6% in private hospitals

Tables A4 and A5 present the numbers of separations with a supplementary code in 2016–17 for public and private hospitals, respectively.

Table A3: Separations with supplementary codes reported, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|-----------|-----------|-----------|-----------|---------|---------|---------|---------|------------|
| Public hospitals | | | | | | | | | |
| Separations | 1,931,552 | 1,772,448 | 1,394,557 | 652,610 | 437,537 | 124,412 | 115,421 | 158,811 | 6,587,348 |
| Separations with supplementary codes | 617,245 | 543,156 | 436,996 | 196,517 | 162,458 | 41,458 | 40,580 | 22,295 | 2,060,705 |
| Proportion with supplementary codes | 32.0 | 30.6 | 31.3 | 30.1 | 37.1 | 33.3 | 35.2 | 14.0 | 31.3 |
| Supplementary codes | 1,078,337 | 933,437 | 793,552 | 330,453 | 301,827 | 70,682 | 71,357 | 36,346 | 3,615,991 |
| Average number of codes ^(a) | 1.7 | 1.7 | 1.8 | 1.7 | 1.9 | 1.7 | 1.8 | 1.6 | 1.8 |
| Private hospitals | | | | | | | | | |
| Separations | 1,292,716 | 1,044,650 | 1,102,673 | 507,138 | 319,328 | n.p. | n.p. | n.p. | 4,426,467 |
| Separations with supplementary codes | 400,630 | 244,477 | 316,073 | 121,439 | 110,609 | n.p. | n.p. | n.p. | 1,256,057 |
| Proportion with supplementary codes | 31.0 | 23.4 | 28.7 | 23.9 | 34.6 | n.p. | n.p. | n.p. | 28.4 |
| Supplementary codes | 592,444 | 358,686 | 492,381 | 177,764 | 164,564 | n.p. | n.p. | n.p. | 1,880,981 |
| Average number of codes ^(a) | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | n.p. | n.p. | n.p. | 1.5 |
| All hospitals | | | | | | | | | |
| Separations | 3,224,268 | 2,817,098 | 2,497,230 | 1,159,748 | 756,865 | n.p. | n.p. | n.p. | 11,013,815 |
| Separations with supplementary codes | 1,017,875 | 787,633 | 753,069 | 317,956 | 273,067 | n.p. | n.p. | n.p. | 3,316,762 |
| Proportion with supplementary codes | 31.6 | 28.0 | 30.2 | 27.4 | 36.1 | n.p. | n.p. | n.p. | 30.1 |
| Supplementary codes | 1,670,781 | 1,292,123 | 1,285,933 | 508,217 | 466,391 | n.p. | n.p. | n.p. | 5,496,972 |
| Average number of codes ^(a) | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 | n.p. | n.p. | n.p. | 1.7 |

(a) The average number of supplementary codes per separation is calculated for separations with a supplementary code.

Table A4: Separations by supplementary codes reported, public hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|------------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|------------------|
| Obesity | 52,744 | 43,644 | 69,675 | 14,968 | 13,397 | 3,797 | 2,759 | 3,805 | 204,789 |
| Cystic fibrosis | 119 | 250 | 187 | 117 | 52 | 10 | 14 | 3 | 752 |
| Dementia (including in Alzheimers disease) | 22,257 | 16,589 | 13,901 | 5,145 | 6,937 | 621 | 1,660 | 355 | 67,465 |
| Schizophrenia | 10,798 | 8,242 | 7,294 | 2,446 | 2,712 | 441 | 498 | 318 | 32,749 |
| Depression | 99,188 | 100,296 | 92,414 | 34,067 | 33,623 | 8,009 | 8,174 | 2,458 | 378,229 |
| Disorder of intellectual development | 8,207 | 7,528 | 7,024 | 2,883 | 3,795 | 593 | 450 | 297 | 30,777 |
| Parkinson's disease | 9,138 | 6,727 | 5,445 | 2,039 | 1,998 | 434 | 640 | 111 | 26,532 |
| Multiple sclerosis | 1,455 | 1,813 | 935 | 604 | 525 | 136 | 152 | 9 | 5,629 |
| Epilepsy | 14,961 | 13,584 | 14,079 | 5,415 | 4,789 | 1,083 | 1,232 | 470 | 55,613 |
| Cerebral palsy | 2,285 | 2,170 | 2,150 | 984 | 662 | 133 | 168 | 93 | 8,645 |
| Tetraplegia, paraplegia, diplegia, monoplegia and hemiplegia, due to any cause | 3,174 | 2,021 | 2,615 | 1,445 | 1,130 | 157 | 331 | 163 | 11,036 |
| Ischaemic heart disease | 113,841 | 85,995 | 77,666 | 35,448 | 28,251 | 5,917 | 5,869 | 4,330 | 357,317 |
| Chronic heart failure | 30,421 | 28,178 | 18,679 | 9,081 | 9,417 | 2,107 | 1,804 | 531 | 100,218 |
| Hypertension | 357,055 | 310,312 | 222,523 | 104,497 | 88,595 | 20,769 | 22,697 | 12,271 | 1,138,719 |
| Emphysema, without mention of chronic obstructive pulmonary disease | 3,136 | 1,905 | 2,246 | 1,511 | 719 | 245 | 212 | 40 | 10,014 |
| Chronic obstructive pulmonary disease | 55,050 | 47,513 | 45,236 | 17,013 | 15,216 | 5,055 | 3,263 | 2,395 | 190,741 |
| Asthma, without mention of chronic obstructive pulmonary disease | 78,344 | 78,319 | 58,836 | 28,897 | 26,797 | 6,401 | 6,371 | 3,084 | 287,049 |
| Bronchiectasis, without mention of cystic fibrosis | 2,572 | 1,762 | 1,986 | 1,379 | 350 | 133 | 424 | 417 | 9,023 |
| Chronic respiratory failure | 70 | 23 | 46 | 21 | 37 | 3 | 9 | 0 | 209 |
| Crohn's disease | 2,711 | 2,822 | 1,805 | 1,175 | 956 | 200 | 293 | 37 | 9,999 |
| Ulcerative colitis | 1,785 | 2,019 | 1,604 | 744 | 480 | 116 | 159 | 16 | 6,923 |
| Chronic liver failure | 266 | 169 | 219 | 91 | 69 | 6 | 11 | 76 | 907 |
| Rheumatoid arthritis | 13,002 | 13,283 | 10,622 | 5,286 | 4,238 | 1,456 | 1,390 | 202 | 49,479 |
| Arthritis and osteoarthritis | 102,392 | 87,381 | 69,634 | 31,202 | 34,236 | 7,913 | 6,963 | 1,870 | 341,591 |
| Systemic lupus erythematosus | 1,765 | 1,100 | 1,579 | 636 | 291 | 105 | 254 | 103 | 5,833 |
| Osteoporosis | 52,052 | 35,961 | 32,663 | 11,994 | 14,188 | 2,233 | 3,526 | 550 | 153,167 |
| Chronic kidney disease, stage 3–5 | 38,274 | 32,418 | 30,898 | 10,817 | 7,810 | 2,491 | 1,923 | 2,304 | 126,935 |
| Spina bifida | 467 | 516 | 765 | 214 | 247 | 62 | 47 | 20 | 2,338 |
| Down's syndrome | 808 | 897 | 826 | 334 | 310 | 56 | 64 | 18 | 3,313 |
| Total | 1,078,337 | 933,437 | 793,552 | 330,453 | 301,827 | 70,682 | 71,357 | 36,346 | 3,615,991 |

Table A5: Separations by supplementary codes reported, private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|----------------|----------------|----------------|----------------|----------------|------|------|------|------------------|
| Obesity | 30,905 | 15,617 | 25,948 | 6,586 | 6,010 | n.p. | n.p. | n.p. | 87,946 |
| Cystic fibrosis | 46 | 17 | 31 | 18 | 10 | n.p. | n.p. | n.p. | 128 |
| Dementia (including in Alzheimers disease) | 3,653 | 3,784 | 4,445 | 1,306 | 1,212 | n.p. | n.p. | n.p. | 15,070 |
| Schizophrenia | 593 | 325 | 457 | 131 | 101 | n.p. | n.p. | n.p. | 1,671 |
| Depression | 39,761 | 25,278 | 40,241 | 14,093 | 13,443 | n.p. | n.p. | n.p. | 140,166 |
| Disorder of intellectual development | 619 | 439 | 641 | 207 | 201 | n.p. | n.p. | n.p. | 2,249 |
| Parkinson's disease | 4,290 | 3,185 | 3,894 | 1,181 | 1,011 | n.p. | n.p. | n.p. | 14,244 |
| Multiple sclerosis | 837 | 825 | 685 | 355 | 550 | n.p. | n.p. | n.p. | 3,456 |
| Epilepsy | 4,819 | 3,123 | 4,947 | 1,775 | 1,440 | n.p. | n.p. | n.p. | 16,827 |
| Cerebral palsy | 280 | 240 | 350 | 135 | 81 | n.p. | n.p. | n.p. | 1,134 |
| Tetraplegia, paraplegia, diplegia, monoplegia and hemiplegia, due to any cause | 731 | 398 | 563 | 318 | 324 | n.p. | n.p. | n.p. | 2,471 |
| Ischaemic heart disease | 50,811 | 31,913 | 48,151 | 16,749 | 14,414 | n.p. | n.p. | n.p. | 168,197 |
| Chronic heart failure | 6,721 | 7,618 | 6,875 | 2,629 | 2,374 | n.p. | n.p. | n.p. | 27,137 |
| Hypertension | 267,173 | 156,811 | 189,751 | 76,075 | 69,720 | n.p. | n.p. | n.p. | 799,689 |
| Emphysema, without mention of chronic obstructive pulmonary disease | 1,846 | 816 | 2,557 | 851 | 664 | n.p. | n.p. | n.p. | 7,329 |
| Chronic obstructive pulmonary disease | 15,292 | 12,260 | 18,770 | 4,665 | 5,435 | n.p. | n.p. | n.p. | 59,086 |
| Asthma, without mention of chronic obstructive pulmonary disease | 63,621 | 38,406 | 48,827 | 21,678 | 20,065 | n.p. | n.p. | n.p. | 205,079 |
| Bronchiectasis, without mention of cystic fibrosis | 2,387 | 1,139 | 2,729 | 1,222 | 268 | n.p. | n.p. | n.p. | 7,934 |
| Chronic respiratory failure | 26 | 96 | 12 | 4 | 5 | n.p. | n.p. | n.p. | 146 |
| Crohn's disease | 1,262 | 984 | 1,183 | 670 | 735 | n.p. | n.p. | n.p. | 5,071 |
| Ulcerative colitis | 1,026 | 715 | 1,324 | 456 | 422 | n.p. | n.p. | n.p. | 4,108 |
| Chronic liver failure | 16 | 25 | 25 | 10 | 3 | n.p. | n.p. | n.p. | 84 |
| Rheumatoid arthritis | 7,484 | 5,795 | 6,729 | 3,579 | 2,445 | n.p. | n.p. | n.p. | 27,408 |
| Arthritis and osteoarthritis | 60,672 | 32,873 | 54,013 | 14,230 | 16,210 | n.p. | n.p. | n.p. | 191,769 |
| Systemic lupus erythematosus | 979 | 346 | 576 | 246 | 144 | n.p. | n.p. | n.p. | 2,416 |
| Osteoporosis | 17,882 | 7,729 | 16,957 | 4,949 | 5,393 | n.p. | n.p. | n.p. | 55,180 |
| Chronic kidney disease, stage 3–5 | 8,419 | 7,757 | 11,406 | 3,533 | 1,822 | n.p. | n.p. | n.p. | 34,002 |
| Spina bifida | 107 | 83 | 145 | 48 | 35 | n.p. | n.p. | n.p. | 434 |
| Down's syndrome | 167 | 89 | 149 | 65 | 27 | n.p. | n.p. | n.p. | 530 |
| Total | 592,444 | 358,686 | 492,381 | 177,764 | 164,564 | n.p. | n.p. | n.p. | 1,880,981 |

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'
- Section 8.7—'Hospital acquired complications'.

Quality of the condition onset flag data for 2016–17

Overall, the provision of COF data for 2016–17 had improved compared with that provided for 2012–13 to 2015–16, particularly for private hospitals.

In 2016–17, the coverage of COF data was 100.0% for public hospitals and 98.0% for private hospitals (Table A7). For New South Wales, COF data were missing for 7% of separations in private 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 15.3% for the Northern Territory to 27.2% 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 16.9% for Western Australia to 21.3% for South Australia (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 A6: Proportion of separations with condition onset flag reported^(a) (%), public and private hospitals, states and territories, 2016–17

| | Public hospitals | Private hospitals |
|------------------------------|------------------|-------------------|
| New South Wales | 100.0 | 93.2 |
| 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 | 100.0 | 98.0 |

(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.

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 and 7.1)
- AR-DRG version 8.0 was used for all other presentations by MDCs or AR-DRGs, and for 2016–17 relative stay indexes (tables 2.20, 2.21, 5.6 to 5.12, 6.20, 6.21, 6.33, 6.34, 7.2, 7.3 and A2).

There are major differences in the way records are assigned to AR-DRGs between AR DRG version 6.0x and version 8.0 that may affect the comparability of data across separate analyses and across reporting periods. In particular, there can be differences in whether a separation is assigned to a *Surgical, Medical* or *Other DRG*, depending on the AR-DRG version used. For this reason, comparisons of the numbers of *Surgical, Medical* or *Other DRG* separations over time should take into consideration the AR-DRG versions used.

For a full list of changes, refer to the AR-DRG version 8.0 definitions manual (IHPA 2014).

Differences in AR-DRG versions affecting reporting

Haemorrhoid procedures

In AR-DRG version 6.0x, 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 8.0 (2016–17), most of these records were allocated to AR-DRGs classified as *Other DRGs* in MDC 06.

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*. For 2016–17, using AR-DRG version 6.0x, 17% of records for ‘normal’ deliveries would have been assigned to the lowest resource use AR-DRG O60C.

Using AR-DRG version 8.0, 51% of records with a principal diagnosis of O80 were allocated to the AR-DRG version 8.0 O60C *Vaginal delivery, minor complexity*. For this reason, the proportion of vaginal and caesarean deliveries in the lowest resource AR-DRG (using AR-DRG version 8.0) 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 National Best Endeavours Data Set

From the 2014–15 collection period, additional information based on the Admitted subacute and non-acute hospital care (ASNHC) data set specification (DSS) (2014–15 and 2015–16) and the ASNHC NBEDS (in 2016–17) has been provided to the AIHW as part of the annual submission of admitted patient care data for the NHMD.

The ASNHC NBEDS 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 NBEDS (METeOR identifier: 611617) is:

- 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 the subset of separations in the NHMD that are considered in-scope for reporting to the ASNHC NBEDS, the AIHW has defined the subset as all subacute and non-acute care episodes in activity based-funded public hospitals (that is, not listed as block-funded hospitals for 2016–17), 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 2016–17, 186,000 episodes (accounting for 32% of all subacute and non-acute separations in public and private hospitals) were in scope for the ASNHC NBEDS (Table A7). Table A7 also presents the numbers of subacute and non-acute activity-based funded episodes by care type.

Clinical assessment only indicator

Table A8 presents the numbers of subacute and non-acute activity-based funded episodes by *Clinical assessment only indicator*, which is used to define the scope of records that are required to report the data elements *Type of maintenance care provided* and *Standardised mini-mental state examination item score*.

In 2016–17, the *Clinical assessment only indicator* was not reported/unknown or not stated for 37% of records in scope for the NBEDS. The *Clinical assessment only indicator* was not reported/unknown or not stated for relatively large proportions of records in scope for the NBEDS for New South Wales, Western Australia, Tasmania and the Northern Territory (94%, 45%, 35% and 65%, 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 contingent ASNHC NBEDS data elements.

Table A9 presents a summary of the provision of data for the ASNHC NBEDS for 2016–17, by states and territories.

Primary impairment type

Primary impairment type should be reported for all *Rehabilitation care* separations in scope for the ASNHC NBEDS.

For 2016–17, there were 91,000 *Rehabilitation care* separations in scope for the ASNHC NBEDS and *Primary impairment type* was provided for 83% of these (Table A9).

The 3 most common primary impairments reported were Re-conditioning/restorative (16,500 separations), *Orthopaedic conditions—fractures (includes dislocation)* (13,700) and *Stroke—ischæmic* (9,400). *Primary impairment type* was not stated/inadequately described for 15,300 *Rehabilitation care* separations (Table A10).

Type of maintenance care

Type of maintenance care should be reported for all *Maintenance care* separations in scope for the ASNHC NBEDS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other) and the patient was aged 18 or over.

For 2016–17, there were 10,400 *Maintenance care* separations in scope for reporting *Type of maintenance care*. It was provided for 98% of these separations (Table A9).

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 NBEDS for patients aged 18 years and older.

For 2016–17, there were 124,000 *Rehabilitation care* and *Geriatric evaluation and management* separations in scope for reporting *Functional independence measure scores*. They were provided for 81% of these separations (Table A9).

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 patients aged 18 years and older.

For 2016–17, there were 59,500 *Maintenance care* and *Palliative care* separations in scope for reporting *Resource Utilisation Groups—activities of daily living scores*. They were provided for 67% of these separations (Table A9).

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 NBEDS.

For 2016–17, there were 1,300 *Psychogeriatric care* separations in scope for the ASNHC NBEDS and HoNOS65+ scores were provided for 89% of these separations (Table A9).

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 NBEDS for which the *Clinical assessment only indicator* was reported as Code 2 'No' (Other).

For 2016–17, there were 28,600 *Geriatric evaluation and management* separations in scope for reporting SMMSEs scores. They were provided for 96% of these separations (Table A9).

Palliative care phase

Up to 11 instances of *Palliative care phase* data could be reported for *Palliative care* separations in scope for the ASNHC NBEDS. More than 70,000 records were provided for palliative care phase data.

Nationally, for 22% of palliative care phases, the patient's palliative care phase type was reported as *Stable*. This proportion varied among jurisdictions—from 14% in Tasmania to 26% in South Australia (excluding Western Australia, for which 59% of palliative care phases had a *Not reported* phase type) (Table A11).

Table A7: Subacute and non-acute separations, public hospitals, private hospitals and activity-based funded episodes^(a), states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|----------------|---------------|----------------|---------------|---------------|--------------|--------------|-------------|----------------|
| Public hospitals | 72,379 | 46,034 | 44,138 | 14,396 | 11,407 | 3,050 | 4,634 | 985 | 197,023 |
| Private hospitals | 238,471 | 34,699 | 65,439 | 6,650 | 25,939 | n.p. | n.p. | n.p. | 382,144 |
| Subacute and non-acute separations | 310,850 | 80,733 | 109,577 | 21,046 | 37,346 | n.p. | n.p. | n.p. | 579,167 |
| Subacute and non-acute hospital care in-scope separations | | | | | | | | | |
| Rehabilitation care | 34,783 | 17,942 | 23,230 | 6,721 | 4,511 | 1,096 | 2,324 | 296 | 90,903 |
| Palliative care | 13,163 | 7,566 | 8,233 | 3,086 | 1,773 | 635 | 827 | 404 | 35,687 |
| Geriatric evaluation and management | 4,723 | 19,620 | 4,471 | 2,475 | 1,862 | 3 | 444 | 94 | 33,692 |
| Psychogeriatric care | 517 | 1 | 159 | 548 | 8 | 1 | 17 | 0 | 1,251 |
| Maintenance care | 10,274 | 626 | 6,260 | 1,903 | 2,891 | 948 | 1,022 | 145 | 24,069 |
| Total | 63,460 | 45,755 | 42,353 | 14,733 | 11,045 | 2,683 | 4,634 | 939 | 185,602 |

(a) Subacute and non-acute care episodes 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 A8: Subacute and non-acute separations by clinical assessment only indicator, activity-based funded episodes^(a), states and territories, 2016–17

| Clinical assessment only indicator | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|---------------|---------------|---------------|---------------|---------------|--------------|--------------|------------|----------------|
| In-scope episodes with valid values (Yes/No) | 3,765 | 45,126 | 42,353 | 8,038 | 11,045 | 1,731 | 4,634 | 326 | 117,018 |
| In-scope episodes with invalid/not reported (%) | 59,695 | 629 | 0 | 6,695 | 0 | 952 | 0 | 613 | 68,584 |
| Number of in-scope episodes | 63,460 | 45,755 | 42,353 | 14,733 | 11,045 | 2,683 | 4,634 | 939 | 185,602 |

(a) Subacute and non-acute care episodes 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 A9: Subacute and non-acute activity based funded episodes^(a)—provision of data elements, states and territories, 2016–17

| Data element | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| Clinical assessment only indicator | | | | | | | | | |
| Number of in-scope episodes | 63,460 | 45,755 | 42,353 | 14,733 | 11,045 | 2,683 | 4,634 | 939 | 185,602 |
| In-scope episodes with valid values ^(b) | 3,765 | 45,126 | 42,353 | 8,038 | 11,045 | 1,731 | 4,634 | 326 | 117,018 |
| Invalid/not reported/unknown values (%) | 94.1 | 1.4 | 0.0 | 45.4 | 0.0 | 35.5 | 0.0 | 65.3 | 37.0 |
| Primary impairment type | | | | | | | | | |
| Number of in-scope episodes ^(c) | 34,783 | 17,942 | 23,230 | 6,721 | 4,511 | 1,096 | 2,324 | 296 | 90,903 |
| In-scope episodes with valid values | 22,404 | 17,940 | 23,230 | 5,470 | 4,309 | 729 | 1,547 | 253 | 75,882 |
| Invalid/not reported/unknown values (%) | 35.6 | 0.0 | 0.0 | 18.6 | 4.5 | 33.5 | 33.4 | 14.5 | 16.5 |
| Type of maintenance care | | | | | | | | | |
| Number of in-scope episodes ^(d) | 644 | 0 | 5,887 | 0 | 2,891 | 0 | 1,017 | 0 | 10,439 |
| In-scope episodes with valid values | 630 | 0 | 5,887 | 0 | 2,891 | 0 | 796 | 0 | 10,204 |
| Invalid/not reported/unknown values (%) | 2.2 | .. | 0.0 | .. | 0.0 | .. | 21.7 | .. | 2.3 |
| Functional independence measure scores | | | | | | | | | |
| Number of in-scope episodes ^(e) | 39,506 | 37,322 | 27,013 | 9,185 | 6,353 | 1,099 | 2,716 | 387 | 123,581 |
| In-scope episodes with valid values | 27,082 | 37,315 | 19,444 | 7,530 | 5,916 | 728 | 1,797 | 321 | 100,133 |
| Invalid/not reported/unknown values (%) | 31.4 | 0.0 | 28.0 | 18.0 | 6.9 | 33.8 | 33.8 | 17.1 | 19.0 |
| Resource Utilisation Groups - activities of daily living scores | | | | | | | | | |
| Number of in-scope episodes ^(f) | 23,437 | 8,184 | 14,325 | 4,971 | 4,652 | 1,581 | 1,841 | 544 | 59,535 |
| In-scope episodes with valid values | 10,269 | 8,170 | 14,325 | 1,541 | 3,478 | 322 | 1,588 | 0 | 39,693 |
| Invalid/not reported/unknown values (%) | 56.2 | 0.2 | 0.0 | 69.0 | 25.2 | 79.6 | 13.7 | 100.0 | 33.3 |
| Health of the Nation Outcome Scale 65+ scores | | | | | | | | | |
| Number of in-scope episodes ^(g) | 517 | 1 | 159 | 548 | 8 | 1 | 17 | 0 | 1,251 |
| In-scope episodes with valid values | 512 | 0 | 156 | 429 | 0 | 0 | 16 | 0 | 1,113 |
| Invalid/not reported/unknown values (%) | 1.0 | 100.0 | 1.9 | 21.7 | 100.0 | 100.0 | 5.9 | .. | 11.0 |

(continued)

Table A9 (continued): Subacute and non-acute activity-based funded episodes^(a)—provision of data elements, states and territories, 2016–17

| Data element | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|-----|--------|-------|-------|-------|-----|------|-----|--------|
| Standardised Mini-Mental State Examination | | | | | | | | | |
| Number of in-scope episodes ^(h) | 382 | 19,620 | 4,344 | 1,961 | 1,862 | 0 | 444 | 68 | 28,681 |
| In-scope episodes with valid values | 382 | 19,620 | 4,343 | 1,873 | 780 | 0 | 362 | 68 | 27,428 |
| Invalid/not reported/unknown values (%) | 0.0 | 0.0 | 0.0 | 4.5 | 58.1 | .. | 18.5 | 0.0 | 4.4 |

(a) Subacute and non-acute care episodes 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.

(d) Maintenance care episodes for patients aged 18 or over and for which the *Clinical assessment only indicator* was reported as No.

(e) Rehabilitation care and Geriatric evaluation and management episodes for patients aged 18 or over.

(f) Palliative care and Maintenance care episodes for patients aged 18 or over.

(g) Psychogeriatric care episodes.

(h) Geriatric evaluation and management episodes for which the *Clinical assessment only indicator* was reported as No.

Table A10: Rehabilitation care separations by type of impairment, activity-based funded episodes^(a), states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---|---------------|---------------|---------------|--------------|--------------|--------------|--------------|------------|---------------|
| Stroke—haemorrhagic | 1,133 | 955 | 1,579 | 186 | 207 | 38 | 88 | 29 | 4,215 |
| Stroke—ischæmic | 1,858 | 1,789 | 4,238 | 480 | 764 | 69 | 214 | 36 | 9,448 |
| Brain dysfunction—non-traumatic | 348 | 625 | 1,129 | 177 | 207 | 1 | 36 | 7 | 2,530 |
| Brain dysfunction—traumatic | 264 | 373 | 959 | 164 | 102 | 23 | 23 | 21 | 1,929 |
| Neurological conditions | 869 | 1,399 | 1,756 | 309 | 192 | 8 | 34 | 10 | 4,577 |
| Non traumatic spinal cord dysfunction | 219 | 294 | 199 | 96 | 101 | 2 | 12 | 5 | 928 |
| Traumatic spinal cord dysfunction | 179 | 113 | 151 | 35 | 70 | 2 | 4 | 3 | 557 |
| Amputation of limb—not resulting from trauma | 375 | 479 | 352 | 128 | 192 | 3 | 106 | 18 | 1,653 |
| Amputation of limb—resulting from trauma | 51 | 30 | 24 | 15 | 8 | 1 | 4 | 4 | 137 |
| Arthritis | 94 | 104 | 88 | 25 | 6 | 3 | 5 | 2 | 327 |
| Pain syndromes | 713 | 635 | 343 | 136 | 29 | 12 | 48 | 4 | 1,920 |
| Orthopaedic conditions—fractures (includes dislocation) | 4,738 | 3,812 | 2,788 | 1,235 | 671 | 91 | 287 | 44 | 13,666 |
| Post-orthopaedic surgery | 2,756 | 3,223 | 1,452 | 355 | 380 | 65 | 121 | 16 | 8,368 |
| Soft tissue injury | 181 | 149 | 432 | 134 | 17 | 3 | 21 | 3 | 940 |
| Cardiac | 614 | 437 | 250 | 111 | 85 | 0 | 10 | 3 | 1,510 |
| Pulmonary | 645 | 456 | 201 | 131 | 45 | 19 | 27 | 1 | 1,525 |
| Burns | 17 | 31 | 84 | 5 | 11 | 0 | 2 | 0 | 150 |
| Congenital deformities | 0 | 23 | 21 | 2 | 3 | 0 | 0 | 0 | 49 |
| Other disabling impairments | 119 | 192 | 3,424 | 98 | 39 | 10 | 30 | 5 | 3,917 |
| Major multiple trauma | 174 | 111 | 205 | 117 | 102 | 4 | 17 | 3 | 733 |
| Developmental disabilities | 4 | 6 | 4 | 1 | 0 | 0 | 0 | 0 | 15 |
| Re-conditioning/restorative | 7,053 | 2,704 | 3,551 | 1,530 | 1,078 | 76 | 458 | 39 | 16,489 |
| Not stated/inadequately described | 12,379 | 2 | 0 | 1,251 | 202 | 666 | 777 | 43 | 15,320 |
| Total | 34,783 | 17,942 | 23,230 | 6,721 | 4,511 | 1,096 | 2,324 | 296 | 90,903 |

(a) Rehabilitation care episodes 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 A11: Palliative care phase type, activity-based funded episodes^(a), states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|---------------|---------------|---------------|---------------|--------------|--------------|------------|--------------|------------|---------------|
| Stable | 7,553 | 3,307 | 2,646 | 408 | 711 | 71 | 190 | 232 | 15,118 |
| Unstable | 7,731 | 4,525 | 2,252 | 427 | 550 | 92 | 67 | 207 | 15,851 |
| Deteriorating | 8,363 | 5,104 | 4,062 | 549 | 960 | 141 | 471 | 226 | 19,876 |
| Terminal | 6,500 | 3,729 | 4,115 | 487 | 509 | 187 | 244 | 191 | 15,962 |
| Not reported | 264 | 3 | 0 | 2,695 | 0 | 0 | 252 | 1 | 3,215 |
| Total | 30,411 | 16,668 | 13,075 | 4,566 | 2,730 | 491 | 1,224 | 857 | 70,022 |

(a) Palliative care phase data were also provided for records not in scope for the ASNHC NBEDS.

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 2016–17 at <http://meteor.aihw.gov.au/content/index.phtml/itemId/612171>
- Admitted subacute and non-acute hospital care NBEDS 2016–17 at <http://meteor.aihw.gov.au/content/index.phtml/itemId/611617>
- Elective surgery waiting times (removals data) NMDS 2016–17 at <http://meteor.aihw.gov.au/content/index.phtml/itemId/623795>.

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. For 2016–17, the area of usual residence was voluntarily provided by 4 jurisdictions in the form of a Statistical Area level 1 (SA1) for about 55% of all separations.

Where SA1 data were available, remoteness areas were allocated by the AIHW based on the SA1 information. If SA1 data were not available, the SA2 data were used to allocate remoteness areas, except as noted below.

In 2016–17, 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 and for the hospital included in the Victorian collection, the AIHW mapped SLA to SA2 using ABS correspondence information. 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, 99.5% of records included data on the area of usual residence in the form of an SA2 (whether provided by the jurisdiction, or mapped by the AIHW). For the remaining 0.5% of records, 3% were for overseas residents, 22% were of no fixed abode, and the remaining 75% 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 one 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 and 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/reports-statistics/health-welfare-services/hospitals/overview>.

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/reports-statistics/health-welfare-services/hospitals/overview>
- 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 807 individual AR DRGs (version 8.0).

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 2016–17, each separation in the NHMD was classified to AR-DRG versions 6.0x (DoHA 2010) and AR-DRG version 8.0 (IHPA 2014) 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.

Table B1: ICD-10-AM and AR-DRG versions, 2012–13 to 2016–17

| Year | ICD-10-AM edition | Relevant AR-DRG version | AR-DRG version reported in <i>Australian hospital statistics</i> |
|------------------------|-------------------|-------------------------|--|
| 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 ^(c) | 9th edition | Version 8.0 | Version 7.0 |
| 2016–17 ^(d) | 9th edition | Version 8.0 | Version 8.0 |

(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.

(c) For *Admitted patient care 2015–16: Australian hospital statistics* and in analyses where cost weights were required, AR-DRG version 7.0 Round 18 cost weights (2013–14) were applied to AR-DRG version 7.0 for 2015–16 cost weight analyses and AR-DRG version 6.0x Round 17 cost weights (2012–13) were applied to AR-DRG version 6.0x for time series cost weight analyses.

(d) For *Admitted patient care 2016–17: Australian hospital statistics*, AR-DRG version 8.0 Round 19 cost weights (2014–15) were applied to AR-DRG version 8.0 for 2016–17 cost weights analyses and AR-DRG version 6.0x Round 17 cost weights (2012–13) were applied to AR-DRG version 6.0x for time series cost weight analyses.

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 in the 'Suppression of data' section, 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 in the AIHW Act and the Privacy Act.

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 may also be suppressed to avoid attribute disclosure. Some measures were 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. In these tables, the suppressed information is included in the totals.

The data for private hospitals in Tasmania, the Australian Capital Territory and the Northern Territory were not published for confidentiality reasons. It should be noted that there are no confidentiality concerns about the Tasmanian private hospital data, and that Tasmania would support the release of their private hospital information.

In addition, private hospital data may be 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 2016–17 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2016 to 30 June 2017. Data on patients who were admitted on any date before 1 July 2016 are included, provided that they also separated between 1 July 2016 and 30 June 2017. A record is included for each separation, not for each patient, so patients who separated more than once in the year will 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 2016 to

30 June 2017) including patients admitted before 1 July 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 2016–17, but who were admitted before 1 July 2016, will be counterbalanced overall by the patient days for patients in hospital on 30 June 2017 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 subacute or non-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. A newborn patient day is ‘qualified’ if the infant meets at least one of the following criteria:

- is the second or subsequent live born infant of a multiple birth, whose mother is currently an admitted patient
- is admitted to an intensive care facility in a hospital, being a facility approved by the Commonwealth Minister for the purpose of the provision of special care
- is admitted to, or remains in hospital without its mother.
(METeOR identifier: 327254).

In this report, *Newborn* episodes with at least 1 qualified day have been included in all tables reporting separations. Records for *Newborn* episodes without at least one qualified day do not meet admission criteria for all purposes, so they have been excluded from this report, except as specified in Chapter 4 and in the analysis of hospital-acquired diagnoses (CHADx) in Chapter 8.

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 2016–17, there were:

- 184 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)
- 6 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 2016–17, the estimated resident population as at 30 June 2016 was used), from the 2011 ABS 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 ABS 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 2016. The estimated resident populations had 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 2016. The population for other Australians was based on the estimated resident populations as at 30 June 2016. As the projected Indigenous population estimates had a highest age group of 65 and over, standardised rates calculated for analyses by Indigenous status are not directly comparable with other standardised rates presented in this report which used 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)
- 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 one diagnosis/procedure/external cause reported within the group. As more than one diagnosis, procedure or external cause can be reported for each separation, the totals in the tables may not equal the sum of counts in the rows (or columns).

Counts of procedures

Tables with numbers of procedures are counts of ACHI procedure codes. It is possible for a single procedure code to represent multiple procedures (for example, for electroconvulsive therapy the final 2 digits of the procedure code represent the number of procedures performed) or for a specific procedure to require the reporting of more than 1 code (for example, for some laparoscopic procedures). Therefore, the count 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*, *Surgical*, *Medical*, *Other acute*, *Mental health*, and *Subacute and non-acute care* based on the care type reported and/or the AR-DRG version 8.0 recorded for the separation:

- *Childbirth*: separations for which the AR-DRG was associated with childbirth:
 - O01A *Caesarean delivery, major complexity*
 - O01B *Caesarean delivery, intermediate complexity*
 - O01C *Caesarean delivery, minor complexity*
 - O02A *Vaginal delivery with operating room procedure, major complexity*
 - O02B *Vaginal delivery with operating room procedure, minor complexity*
 - O60A *Vaginal delivery, major complexity*
 - O60B *Vaginal delivery, intermediate complexity*
 - O60C *Vaginal delivery, minor complexity.*Does not include newborn care.
- *Surgical*: separations for which the care type was reported as *Acute care*, for which the AR-DRG belonged to the *Surgical* partition (involving an operating room procedure), excluding separations for *Childbirth*.

- *Medical*: separations for which the care type was reported as *Acute* care, for which the AR-DRG belonged to the *Medical* partition (not involving an operating room procedure), excluding separations for *Childbirth*.
- *Other acute*: separations for which the care type was reported as *Acute* care, 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*.
- *Mental health*: separations for which the care type was reported as *Mental health* care. Excludes separations for *Childbirth*.
- *Subacute and non-acute care*: separations for which the care type was reported as *Rehabilitation*, *Palliative care*, *Psychogeriatric care*, *Geriatric evaluation and management* or *Maintenance care*. Excludes separations for *Childbirth*.

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.

See *Elective surgery waiting times 2016–17: Australian hospital statistics* (AIHW 2017b) 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 for which the care type was reported as *Acute care*, *Newborn* care with at least one qualified day or the care type was not reported. It excludes separations for patients who died or were transferred within 2 days of admission, or had a length of stay greater than 120 days. Also excluded from the analysis were:

- AR-DRGs for rehabilitation (such as Z60A *Rehabilitation, major complexity* and Z60B *Rehabilitation, minor complexity*)
- 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 two 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 only 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 639 and 804 AR-DRGs represented, meaning that ALOS data was estimated for up to 168 AR-DRGs (Table B.2). 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.

Table B.2: AR-DRG counts^(a) by Medical/Surgical/Other partition, public and private hospitals, states and territories, 2016–17

| | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Total |
|--------------------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|------------|
| Public hospitals | | | | | | | | | |
| Medical | 386 | 386 | 386 | 384 | 385 | 373 | 371 | 364 | 386 |
| Surgical | 366 | 369 | 369 | 361 | 359 | 315 | 305 | 235 | 370 |
| Other | 48 | 46 | 46 | 46 | 45 | 42 | 40 | 40 | 48 |
| <i>Total AR-DRGs</i> | <i>800</i> | <i>801</i> | <i>801</i> | <i>791</i> | <i>789</i> | <i>730</i> | <i>716</i> | <i>639</i> | <i>804</i> |
| Private hospitals | | | | | | | | | |
| Medical | 367 | 367 | 373 | 349 | 338 | n.p. | n.p. | n.p. | 383 |
| Surgical | 339 | 339 | 341 | 324 | 307 | n.p. | n.p. | n.p. | 353 |
| Other | 37 | 38 | 41 | 30 | 30 | n.p. | n.p. | n.p. | 45 |
| <i>Total AR-DRGs</i> | <i>743</i> | <i>744</i> | <i>755</i> | <i>703</i> | <i>675</i> | <i>n.p.</i> | <i>n.p.</i> | <i>n.p.</i> | <i>781</i> |
| All hospitals | | | | | | | | | |
| Medical | 386 | 386 | 386 | 385 | 385 | n.p. | n.p. | n.p. | 386 |
| Surgical | 370 | 370 | 370 | 367 | 362 | n.p. | n.p. | n.p. | 370 |
| Other | 48 | 47 | 46 | 46 | 45 | n.p. | n.p. | n.p. | 49 |
| Total AR-DRGs | 804 | 803 | 802 | 798 | 792 | n.p. | n.p. | n.p. | 805 |

(a) For which at least 5 separations were reported. Excludes *Error DRGs*.

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 reporting of performance indicators

In Australia, national public reporting of hospital performance is undertaken by a number of organisations under nationally agreed arrangements, including the:

- Australian Health Performance Framework (AHPF)—a conceptual framework that can be flexibly used to assess the Australian health care system for a variety of audiences, for different populations and at different levels of the health system. It encompasses performance indicators previously included in the National Health Performance Framework (NHPF) for national reporting and the Performance and Accountability Framework (PAF) for reporting at the hospital/Local Hospital Network- level or by Primary Health Network
- National Healthcare Agreement (NHA)—agreed performance indicators and benchmarks are reported annually. The performance indicators presented here are based on data for 2016–17 and on specifications used for reporting the 2018 NHA performance indicators
- The Australian Commission on Safety and Quality in Health Care (ACSQHC) also has performance reporting-related roles under the National Health Reform Agreement, 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 and on the *MyHospitals* and *MyHealthyCommunities* websites 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 Australian Health Performance Framework (AHPF).

The Australian Health Performance Framework

The AHPF was recently agreed by Australian and state/territory health ministers. It provides a single, enduring framework that can be used in different ways to assess the Australian health care system and its inputs, processes and outcomes (NHIPPC 2017). It replaces the NHPF and the PAF, which had separate but interrelated purposes.

The AHPF comprises a Health System Conceptual Framework, and a Health System Performance Logic Model:

- The conceptual framework depicts the 3 indicator domains relevant to assessing the health system as a whole: 'Health status', 'Determinants of health', and 'the Health system'. The conceptual framework also identifies information that is relevant in the planning, delivery and evaluation of health services as 'health system context'. The components of the health system that would ideally be assessed in a comprehensive performance framework are outlined in Table C1.

The principle of 'Equity' applies across all domains, and should be reflected in appropriate reporting.

- The performance logic model presents similar domains to the conceptual model, and could be used to evaluate the outcome of specific health programs, initiatives and interventions—that is, in a performance measurement context.

Table C1: The Australian Health Performance Framework—Health System domain

| | |
|---|--|
| <p>Effectiveness Care, intervention or action achieves desired outcome from both the clinical and patient perspective, including as patient reported outcomes. Care provided is based on evidence-based standards.</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. Includes aspects of the safety of care delivered to health care providers and patients. Including patient reported incidents.</p> |
| <p>Appropriateness Service is person centred and culturally appropriate. Consumers are treated with dignity, confidentiality and encouraged to participate in choices related to their care. Consumers report positive outcomes and experiences.</p> | <p>Continuity of care Ability to provide uninterrupted, care or service across programs, practitioners and levels over time. Coordination mechanisms work for health care providers and the patient.</p> |
| <p>Accessibility People can obtain health care at the right place and right time, taking account of different population needs and the affordability of care.</p> | <p>Efficiency and sustainability The right care is delivered at minimum cost. <i>and</i> Human and physical capital and technology are maintained and renewed. <i>while</i> Innovation occurs to improve efficiency 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 2016–17 that have been included in other AIHW hospitals reports (see Table C2). These include NHPF indicators, mapped to the relevant AHPF domains, NHA indicators and OECD indicators.

Indicators related to hospital performance are listed in Table C.2 against the 6 AHPF components. Some indicators can be related to more than 1 component of the AHPF, even though they are presented here against only 1 component. Table C.2 also shows which set of nationally agreed performance indicators the indicator relates to.

Information is also included for another 3 indicators that are calculated using hospitals data but do not relate to hospital performance; they are listed in Table C.3.

Table C2: National hospital performance indicators, by Australian Health Performance Framework component

| Where in <i>Australian hospital statistics</i> (AHS) reports? | Component/Indicator | Related national indicator set | |
|---|---|--------------------------------|------|
| | | NHA | AHPF |
| Effectiveness | | | |
| No indicators available for hospital performance | | | |
| 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 | Health-care associated infections | ✓ | |
| Table 8.4 | Falls resulting in patient harm in hospitals | | ✓ |
| Appropriateness | | | |
| Table 8.5 | Patient satisfaction/experience | ✓ | |
| Continuity of care | | | |
| No indicators available for hospital performance | | | |
| 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 | Differential access to hospital procedures | | ✓ |
| AHS: ED | Waiting time for emergency hospital care: proportion seen on time | ✓ | ✓ |
| AHS: ED | Waiting time for emergency hospital care: proportion of emergency department presentations completed in 4 hours or less | ✓ | |
| AHS: ESWT | Waiting times for elective surgery: waiting times in days | ✓ | ✓ |
| AHS: ESWT | Waiting times for elective surgery: proportion seen on time ^(a) | ✓ | |
| Efficiency & sustainability | | | |
| Method for this indicator is currently under review | Cost per casemix-adjusted separation for acute and non-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—*Emergency department care 2016–17: Australian hospital statistics.*

AHS: ESWT—*Elective surgery waiting times 2016–17: Australian hospital statistics.*

AHS: SAB—*Staphylococcus aureus bacteraemia in Australian hospitals 2016–17: Australian hospitals statistics.*

AR-DRG—Australian Refined Diagnosis Related Group.

NHA—National Healthcare Agreement.

AHPF—Australian 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

| Where | Indicator | Related national indicator set | |
|-----------------------------------|--|--------------------------------|------|
| | | NHA | AHPF |
| Tables 4.21, 4.22, 4.23 and 4.24. | Selected potentially preventable hospitalisations (a measure of the Effectiveness domain of primary care) | ✓ | ✓ |
| Tables 4.17 and 4.18. | Hospitalisations for injury and poisoning (a measure in the 'Health status' domain) | | ✓ |
| Table 4.25. | Hospital patient days used by those eligible and waiting for residential aged care | ✓ Proxy | |

NHA—National Healthcare Agreement.

AHPF—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.

Australian Classification of Health Interventions (ACHI): ACHI was developed by the Australian Consortium for Classification Development. The 9th edition was used for the 2016–17 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—where the principal clinical intent does not meet the criteria for any of the above.

Care other than admitted care includes:

- 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. 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: 651997.

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 surgery is planned surgery that can be booked in advance as a result of a specialist clinical assessment resulting in placement on an elective surgery waiting list. 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 one care type (see **care type** and **separation**). METeOR identifier: 268956.

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: 619594.

external cause: The environmental event, circumstance or condition as the cause of injury, poisoning and other adverse effect. METeOR identifier: 641415.

funding source for hospital patient: The source of funds for an admitted patient episode or non-admitted patient service event. METeOR identifier: 649391.

geriatric evaluation and management: See **care 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: 327308.

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.

intended procedure: The procedure for which a patient has been placed on an elective surgery waiting list. METeOR identifier: 637500.

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: 602543.

inpatient: See **admitted patient**.

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: 647105.

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**.

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 a 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: 641422.

posthumous organ procurement: See **care type**.

potentially preventable hospitalisation (PPH) (selected): Admission to hospital for a 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. METeOR identifier 658499.

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: 640978.

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 only available in an acute care setting. METeOR identifier: 641379.

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: 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 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 elective surgery. METeOR identifier: 605195.

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 removed from the waiting list (including when admitted to hospital for the awaited procedure). METeOR identifier: 598074.

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Related publications


This report, *Admitted patient care 2016–17: 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 <<https://www.aihw.gov.au/reports-statistics/health-welfare-services/hospitals/overview>>.

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- AIHW 2017. Private health insurance use in Australian hospitals, 2006–07 to 2015–16: Australian hospital statistics: Health services series no. 81. Cat. no. HSE 96. Canberra: AIHW.
- AIHW 2017. *Staphylococcus aureus* bacteraemia in Australian hospitals 2016–17: Australian hospital statistics. Health services series no. 83. Cat. no. HSE 198. Canberra: AIHW.

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In 2016–17, there were more than 11 million admissions to hospital—6.6 million in public hospitals and 4.4 million in private hospitals.

In public hospitals, a large proportion of admissions (43%) were considered emergencies, while in private hospitals admissions were more likely to be elective or other planned care.

Between 2012–13 and 2016–17, the number of hospitalisations rose by an average of 4.3% each year for public hospitals and 3.6% each year for private hospitals.

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