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AIHW

Admitted patient care

2017–18

Australian
hospital statistics





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Summary

How much admitted patient care was provided?

In 2017–18, there were 11.3 million separations (episodes of admitted patient care) in Australia's public and private hospitals—60% of these occurred in public hospitals.

Between 2013–14 and 2017–18, the number of separations rose by 3.8% on average each year—by 4.2% for public hospitals and by 3.3% for private hospitals. This was greater than the average growth in population over the same period (1.6% per year).

There were 30.2 million days of patient care reported for admitted patients—20.3 million in public hospitals and 10.0 million in private hospitals. Between 2013–14 and 2017–18, the number of patient days rose by 2.1% on average each year.

Who used these services?

In 2017–18, people aged 65 and over (who make up about 15% of the population) accounted for 42% of separations and 49% of patient days.

Between 2013–14 and 2017–18, 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 (about 4.1% each year).

Aboriginal and Torres Strait Islander people made up 4.9% of separations (551,000) and they were hospitalised at 2.6 times the rate for other Australians.

Why did they receive care?

In public hospitals, 42% of separations were emergency admissions, while in private hospitals separations were more likely to be elective or other planned care (94%).

In 2017–18, public hospitals accounted for the majority of emergency admissions (92%) and childbirth separations (77%) and medical separations (77%). Private hospitals accounted for 80% of rehabilitation care, 59% of surgical separations and 58% of mental health care separations.

Of the 2.3 million separations involving elective surgery, 34% were in public hospitals and 66% in private hospitals.

In 2017–18, the most common group of conditions treated (apart from dialysis) was diseases of the digestive system—which accounted for 9% of separations (over 1.0 million).

In 2017–18, there were just under 308,000 newborn separations. The majority of these (82%) occurred in public hospitals. The most common principal diagnosis for newborns who had at least one day of specialised care was *Disorders related to short gestation and low birth weight, not elsewhere classified*. For newborns who did not have any days of specialised care, about 88% did not report any interventions.

How were patient admissions funded?

In 2017–18, in public hospitals 83% of separations (5.6 million) were for public patients. The remaining 17% of separations were funded by other sources—the majority (906,000, 13%) were for patients who used private health insurance to fund all or part of their admission.

In contrast, 83% of separations in private hospitals were funded by private health insurance, 7% were self-funded and 4% were for public patients.

Between 2013–14 and 2017–18, the number of public patient separations rose by an average of 4.7% each year. Over the same period, the number of private health insurance-funded separations increased by 3.6% each year overall—by 4.6% in public hospitals and by 3.4% in private hospitals.

What was quality and experience of the care?

The median waiting time for public hospital elective surgery was 41 days overall—44 days for public patients and 22 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.

In 2017–18, about 2.0% of separations (185,000) experienced a potentially preventable complication.

Of these, 96,000 admissions had *Healthcare-associated infections* acquired in hospital. Other hospital-acquired complications included *Cardiac complications*, *Delirium* and *Medication complications*.

Between 2016–17 and 2017–18, *Vaccine-preventable* hospitalisations rose by 46.5%, reflecting large increases in admissions for *Pneumonia and vaccine-preventable influenza* in most states and territories. This agrees with the *Australian Influenza Surveillance Report – 2017 Season Summary* (DoH 2017), that found more than twice the typical number of people were admitted to hospital for influenza, due mostly to the low level of effectiveness of the 2017 seasonal influenza vaccine against the most common strain of the virus.

1 Introduction

Admitted patient care 2017–18: 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 2017 to 30 June 2018. 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 qualified and unqualified newborns (Chapter 5).

Reports on some other aspects of Australia's hospitals for 2017–18 have already been published in:

- *Elective surgery waiting times 2017–18: Australian hospital statistics* (AIHW 2018c)
- *Emergency department care 2017–18: Australian hospital statistics* (AIHW 2018d)
- *Bloodstream infections associated with hospital care 2017–18: Australian hospital statistics* (AIHW 2019b).

Reports on care provided for non-admitted patients and on hospital resources for 2017–18 will be published later in 2019. A shorter companion report, aimed at a general readership—*Australia's hospitals 2017–18: at a glance*—will also be released, providing a summary of all hospitals-related information for 2017–18.

The AIHW also reports information on hospital funding and expenditure in its *Health expenditure Australia* series (AIHW 2018e 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.

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. A number of data tables previously presented in this report are now only available in excel format on the AIHW website (refer to section 1.4 of this report for further information).

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. This chapter also includes a new section on newborns
- ‘Chapter 6 — What interventions 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 — Information related to the safety and quality of the health system’ — presents admitted patient experiences that may be relevant to the safety and quality of the health system.

The appendixes include additional information about:

- the National Hospital Morbidity Database (NHMD) and issues affecting the quality and comparability of the data (Appendix A)
- definitions and classifications, the presentation of data, the population estimates used to calculate population rates and analysis methods (Appendix B)
- performance indicators included in this report (Appendix C)
- definitions for many of the common terms used in this report (Glossary).

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 2018b).

This report presents a number of nationally agreed performance indicators, as well as selected internationally agreed indicators.

National hospital performance indicators

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
- Differential access to hospital procedures — see Chapter 6
- Falls resulting in patient harm in hospitals — see Chapter 8
- Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital) — see Chapter 8.

Further information on national hospital performance indicators is available in Appendix C.

Other performance indicators

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

- Chapter 4 — Hospitalisations for injury or poisoning and Hospital patient days used by those eligible and waiting for residential aged care
- Chapter 8 — Selected potentially preventable hospitalisations.

International hospital performance indicators

This report presents selected international indicators that are reported by the Organisation for Economic Co-operation and Development (OECD) (OECD 2018) including:

- Chapter 2 — length of hospital stay and hospital discharge rates
- Chapter 6:
 - proportion of cataract surgeries and tonsillectomies that were performed on a same-day basis
 - proportion of cholecystectomies, inguinal herniorrhaphies and 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 (Figure 1.1).

Figure 1.1: Summary of NHMD data contained in this report

Administrative data	Demographics of the patient	Clinical data
<ul style="list-style-type: none">• How patients were admitted• How patients care ended• Length of stay in hospital• How the episode was funded	<ul style="list-style-type: none">• Sex• Indigenous Status• Remoteness area of usual residence• Socioeconomic status (SES) of usual residence	<ul style="list-style-type: none">• Why patients required care—including <i>principal and additional diagnoses</i>• Type of care provided—including <i>procedures or interventions performed</i>

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, with additional information in Appendix B and the Glossary. More information about the NHMD is in Appendix A and in the Data Quality Statement accompanying this report online at www.aihw.gov.au.

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). 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. 'Separation' also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care.

Patient day (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 2017–18, 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 2017–18, diagnoses, chronic conditions and external causes of injury were recorded using the 10th edition of the International statistical classification of diseases and related health problems, 10th revision, Australian modification (ICD-10-AM) (ACCD 2016).

A **procedure or intervention** 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 2017–18, procedures were recorded using the 10th edition of the Australian Classification of Health Interventions (ACHI) (ACCD 2016).

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.

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 Appendix A.

1.3 What methods are used?

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

Types of hospitals

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

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

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

Changes over time

Time series data in this report show average annual changes from 2013–14 to 2017–18, and annual change between 2016–17 and 2017–18.

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 beginning of the reference period. 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 2017–18, 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 2017–18. For time series, AR-DRG version 7.0 was used. See Appendix B for more information.

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 were not provided for all jurisdictions.

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 and data tables are available as downloadable excel spreadsheets available at www.aihw.gov.au/reports-statistics/health-welfare-services/hospitals/overview.

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 in the supplementary tables (tables referred to in this report with the prefix 'S').

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.

The *MyHospitals* website is currently undergoing redevelopment to establish a 'National front door' reporting platform for hospital performance information. This platform aims to streamline reporting of hospitals data and will form part of the Australian Health Performance Framework. The framework will provide a basis upon which performance information can be arranged and navigated. Hospital reporting will be available across multiple tiers, including:

- National
- State and territory
- Local Health Network and/or LGA and/or Electorate
- Hospital.

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 2017–18 (using ICD-10-AM to classify diagnoses)
- AR-DRGs from 1997–98 to 2017–18, presented using the relevant version of AR-DRGs for each reporting period
- procedures from 1997–98 to 2017–18, 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 2017–18; 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 2017–18
- 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:
- international comparisons (OECD indicators) of hospital separation rates and ALOS.

Relative stay indexes (RSIs) have been identified as indicators of efficiency and are usually presented in this chapter, however the RSI methodology is currently under review and 2017–18 data is unable to be provided in this report.

Key findings

Separations

In 2017–18, there were 11.3 million separations in Australia's public and private hospitals. Almost 60% of these (6.7 million) occurred in public hospitals.

Between 2013–14 and 2017–18, the number of separations rose by 3.8% on average each year—by 4.2% for public hospitals and by 3.3% for private hospitals.

In 2017–18, there were 423 separations per 1,000 population, compared with 395 per 1,000 in 2013–14.

Coverage changes in public hospitals between 2013–14 and 2017–18 may influence changes over time. See Appendix A for more information.

Patient days

Just over 30.2 million days of patient care were reported for admitted patients—20.3 million in public hospitals and 10.0 million in private hospitals. Between 2013–14 and 2017–18, the number of days of patient care increased by 2.1% on average each year.

In 2017–18, the average length of stay for an overnight separation was 5.3 days, overall. It was 5.4 days in public hospitals and 5.2 days in private hospitals

2.1 Separations

Counts of separations are presented separately for same-day and overnight separations, by type of hospital and by type of care, over time and in 2017–18. Due to variations in admission practices, 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.

Changes over time

Between 2013–14 and 2017–18, the total number of hospital separations rose by an average of 3.8% per year from 9.7 million to 11.3 million (Table 2.1). This was greater than the average growth in population over this period (1.1%) (ABS 2018a). The average annual rate of growth in separations was higher for public hospitals (4.2%) than for private hospitals (3.3%) (Table 2.1).

The proportion of private hospitals separations ranged between 40% and 41% of all separations between 2013–14 and 2017–18.

From 2016–17 to 2017–18, separations rose by 2.2%, and the increase in separations was higher in private hospitals (2.3%) than in public hospitals (2.1%). Over the same period, separations in *Public psychiatric hospitals* increased by 4.4%.

Some changes in separations over time in some jurisdictions may be related to changes in admission practices and improvements in the coverage of reporting. For New South Wales, the significant decrease (3.7%) in public hospital admissions since 2016–17 (Table 2.2) reflects a change in admission policy, particularly with regard to patients admitted in emergency departments. See Appendix A for more information.

How much activity was there in 2017–18?

In 2017–18, 60% of separations (6.7 million) occurred in public hospitals (Table 2.1). For the 4.5 million separations from private hospitals, 22% of separations (976,000) occurred in *Private free-standing day hospital facilities* and the remainder were in private hospitals that can also provide overnight care.

Same-day and overnight separations

In 2017–18, overnight separations made up 46% of separations in public hospitals and 29% in private hospitals (Table 2.3). Public hospitals accounted for 71% of overnight separations and 53% of same day separations.

Between 2013–14 and 2017–18, the number of same-day separations increased at a greater rate than overnight separations (an average of 4.7% and 2.4% per year, respectively) (Table 2.3). The rate of increase for same-day separations was higher in public hospitals (5.4%) compared to private hospitals (4.0%).

In 2017–18, same-day separations accounted for 61% of all separations, an increase from 59% in 2013–14.

For overnight separations, the average annual rate of increase was higher for public hospitals (2.8%) than for private hospitals (1.4%).

Table 2.1: Separations, public and private hospitals, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals^(b)							
Public acute hospitals	5,702,106	5,967,265	6,256,986	6,570,727	6,709,418	4.2	2.1
Public psychiatric hospitals	12,764	13,073	15,495	16,621	17,357	8.0	4.4
<i>Total public hospitals</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>6,587,348</i>	<i>6,726,775</i>	<i>4.2</i>	<i>2.1</i>
Private hospitals							
Private free-standing day hospital facilities	875,529	940,703	959,743	939,950	975,943	2.8	3.8
Other private hospitals	3,106,376	3,229,326	3,367,544	3,486,517	3,550,557	3.4	1.8
<i>Total private hospitals</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>4,426,467</i>	<i>4,526,500</i>	<i>3.3</i>	<i>2.3</i>
All hospitals	9,696,775	10,150,367	10,599,768	11,013,815	11,253,275	3.8	2.2

(a) There were changes in coverage, policies or practices between 2013–14 and 2017–18 for New South Wales, Queensland, South Australia and the Australian Capital Territory that may affect the interpretation of these data.

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 2.2: Separations for public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales^(a)							
Public hospitals	1,771,521	1,813,998	1,861,163	1,931,552	1,860,985	1.2	–3.7
Private hospitals	1,099,811	1,184,539	1,261,170	1,292,716	1,342,911	5.1	3.9
<i>All hospitals</i>	<i>2,871,332</i>	<i>2,998,537</i>	<i>3,122,333</i>	<i>3,224,268</i>	<i>3,203,896</i>	<i>2.8</i>	<i>–0.6</i>
Victoria							
Public hospitals	1,509,766	1,587,951	1,669,562	1,772,448	1,846,342	5.2	4.2
Private hospitals	978,912	1,009,337	1,021,913	1,044,650	1,061,888	2.1	1.7
<i>All hospitals</i>	<i>2,488,678</i>	<i>2,597,288</i>	<i>2,691,475</i>	<i>2,817,098</i>	<i>2,908,230</i>	<i>4.0</i>	<i>3.2</i>
Queensland^(a)							
Public hospitals	1,087,073	1,202,798	1,293,125	1,394,557	1,486,922	8.1	6.6
Private hospitals	984,057	1,032,957	1,072,557	1,102,673	1,134,921	3.6	2.9
<i>All hospitals</i>	<i>2,071,130</i>	<i>2,235,755</i>	<i>2,365,682</i>	<i>2,497,230</i>	<i>2,621,843</i>	<i>6.1</i>	<i>5.0</i>
Western Australia							
Public hospitals	595,884	600,723	630,739	652,610	679,851	3.4	4.2
Private hospitals	468,986	480,740	497,498	507,138	513,839	2.3	1.3
<i>All hospitals</i>	<i>1,064,870</i>	<i>1,081,463</i>	<i>1,128,237</i>	<i>1,159,748</i>	<i>1,193,690</i>	<i>2.9</i>	<i>2.9</i>
South Australia							
Public hospitals	415,778	422,295	438,831	437,537	440,060	1.4	0.6
Private hospitals	309,836	315,856	321,748	319,328	338,493	2.2	6.0
<i>All hospitals</i>	<i>725,614</i>	<i>738,151</i>	<i>760,579</i>	<i>756,865</i>	<i>778,553</i>	<i>1.8</i>	<i>2.9</i>
Tasmania							
Public hospitals	114,033	119,506	122,604	124,412	128,746	3.1	3.5
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^(a)							
Public hospitals	96,968	100,784	108,041	115,421	116,053	4.6	0.5
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>
Northern Territory							
Public hospitals	123,847	132,283	148,416	158,811	167,816	7.9	5.7
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>
Total							
Public hospitals	5,714,870	5,980,338	6,272,481	6,587,348	6,726,775	4.2	2.1
Private hospitals	3,981,905	4,170,029	4,327,287	4,426,467	4,526,500	3.3	2.3
All hospitals	9,696,775	10,150,367	10,599,768	11,013,815	11,253,275	3.8	2.2

(a) There were changes in coverage, policies or practices between 2013–14 and 2017–18 for New South Wales, Queensland, South Australia and the Australian Capital Territory that may affect the interpretation of these data.

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

Table 2.3: Same-day and overnight separations, public and private hospitals, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Same-day separations							
Public acute hospitals ^(b)	2,933,355	3,121,406	3,295,226	3,509,225	3,615,288	5.4	3.0
Public psychiatric hospitals ^(b)	730	1,001	1,656	2,089	2,146	30.9	2.7
<i>Total public hospitals</i>	<i>2,934,085</i>	<i>3,122,407</i>	<i>3,296,882</i>	<i>3,511,314</i>	<i>3,617,434</i>	<i>5.4</i>	<i>3.0</i>
Private free-standing day hospital facilities	873,915	938,817	953,917	938,443	974,608	2.8	3.9
Other private hospitals	1,884,102	1,988,489	2,097,603	2,197,572	2,256,217	4.6	2.7
<i>Total private hospitals</i>	<i>2,758,017</i>	<i>2,927,306</i>	<i>3,051,520</i>	<i>3,136,015</i>	<i>3,230,825</i>	<i>4.0</i>	<i>3.0</i>
All hospitals	5,692,102	6,049,713	6,348,402	6,647,329	6,848,259	4.7	3.0
Overnight separations							
Public acute hospitals	2,768,751	2,845,859	2,961,760	3,061,502	3,094,130	2.8	1.1
Public psychiatric hospitals	12,034	12,072	13,839	14,532	15,211	6.0	4.7
<i>Total public hospitals</i>	<i>2,780,785</i>	<i>2,857,931</i>	<i>2,975,599</i>	<i>3,076,034</i>	<i>3,109,341</i>	<i>2.8</i>	<i>1.1</i>
Private free-standing day hospital facilities	1,614	1,886	5,826	1,507	1,335	-4.6	-11.4
Other private hospitals	1,222,274	1,240,837	1,269,941	1,288,945	1,294,340	1.4	0.4
<i>Total private hospitals</i>	<i>1,223,888</i>	<i>1,242,723</i>	<i>1,275,767</i>	<i>1,290,452</i>	<i>1,295,675</i>	<i>1.4</i>	<i>0.4</i>
All hospitals	4,004,673	4,100,654	4,251,366	4,366,486	4,405,016	2.4	0.9

(a) There were changes in coverage, policies or practices between 2013–14 and 2017–18 for New South Wales, Queensland, South Australia and the Australian Capital Territory that may affect the interpretation of these data. 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.

(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 Box 1.1, and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information about same-day and overnight separations is available in tables S2.1 and S2.2, which accompany this report online.

2.2 Separation rates

The separation rates presented in this report are age-standardised to eliminate the effect of differences in population age structures over periods of time or across geographic areas.

Changes over time

The number of separations per 1,000 population increased from 395 in 2013–14 to 422 in 2017–18, an average increase of 1.7% per year (Table 2.4). Over this period, rates increased for all types of hospitals. However, rates for private hospitals separations decreased by 1.4% since 2016–17.

Table 2.4: Separations per 1,000 population, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Public acute hospitals	234.0	240.0	247.1	254.4	253.9	2.1	–0.2
Public psychiatric hospitals ^(a)	0.6	0.6	0.7	0.7	0.7	6.5	3.2
<i>Total public hospitals</i>	<i>234.6</i>	<i>240.5</i>	<i>247.7</i>	<i>255.1</i>	<i>254.6</i>	<i>2.1</i>	<i>–0.2</i>
Same-day separations	120.2	125.3	129.9	135.7	136.6	3.2	0.7
Overnight separations	114.4	115.2	117.9	119.4	118.0	0.8	–1.1
Private hospitals							
Private free-standing day hospital facilities	35.3	37.1	37.1	35.6	36.1	0.6	1.4
Other private hospitals	125.4	127.6	130.6	132.3	131.6	1.2	–0.5
<i>Total private hospitals</i>	<i>160.7</i>	<i>164.7</i>	<i>167.6</i>	<i>167.9</i>	<i>167.7</i>	<i>1.1</i>	<i>–0.1</i>
Same-day separations	111.4	115.7	118.3	119.1	119.8	1.8	0.6
Overnight separations	49.3	49.0	49.4	48.8	47.9	–0.7	–1.9
All hospitals	395.3	405.3	415.4	423.0	422.3	1.7	–0.2
Same-day separations	231.6	241.0	248.2	254.7	256.4	2.6	0.6
Overnight separations	163.7	164.2	167.2	168.2	165.9	0.3	–1.4

(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*.

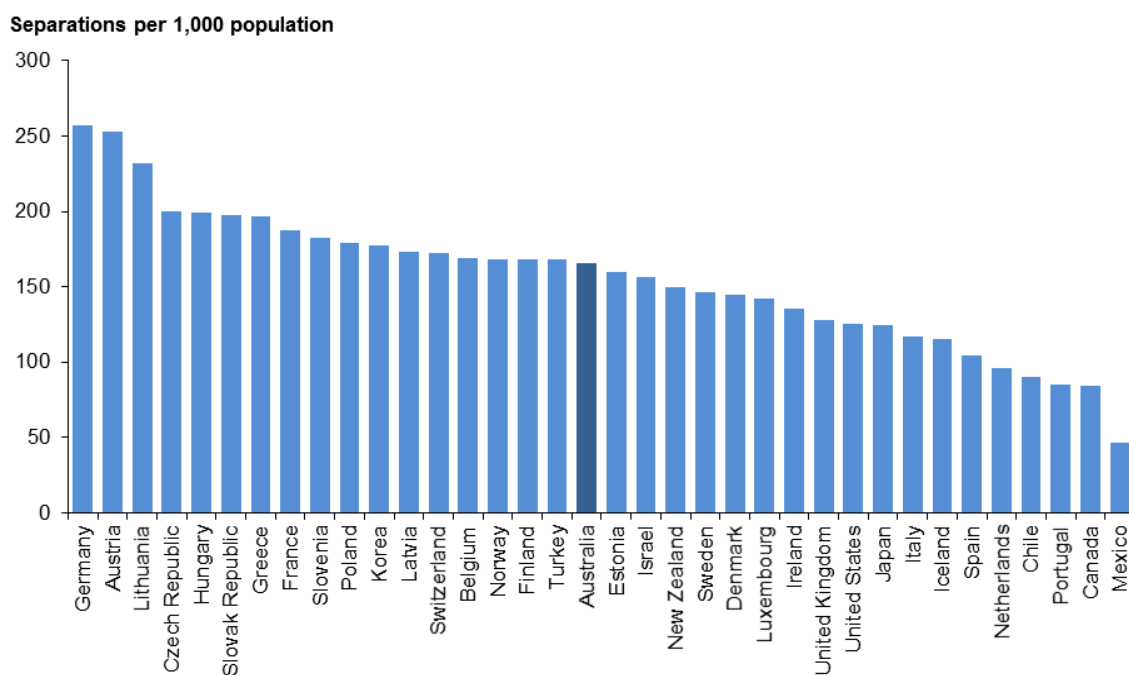
Note: See Box 1.1, and appendixes A and B for notes on data limitations and methods.

How does Australia compare?

OECD indicator: Hospital discharge rates

The number of overnight separations per 1,000 population in Australia for 2017–18 (165.9) was in the middle of the range reported for other OECD countries in recent years (Figure 2.1) (OECD 2018). The comparability of international separation rates is likely to be affected by differences in definitions of hospitals, collection periods and admission practices.

Figure 2.1: Overnight separations per 1,000 population, Australia (2017–18) and selected OECD countries



Note: Data collection periods vary for OECD countries (2016, 2015 and 2012). Data for Australia are for 2017–18 and are not standardised to the OECD standard population.

Where to go for more information:

More information on separation rates is available in tables S2.3 to S2.5 that accompany this report online, and in:

- ‘Chapter 3 — Who used these services?’ — by Indigenous status, remoteness and socioeconomic status of area of usual residence
- ‘Chapter 5 — What services were provided?’ — for mental health care, rehabilitation care, palliative care and selected procedures
- ‘Chapter 6 — What interventions were performed?’ — for emergency and elective admissions involving surgery
- ‘Chapter 8 — Information related to safety and quality’ — for potentially preventable hospitalisations.

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

2.3 Patient days

Patient days refers to the number of days of patient care provided to admitted patients. See Box 1.1 for more information.

Changes over time

Between 2013–14 and 2017–18, the number of patient days:

- increased by an average of 2.1% each year, from 27.9 million to 30.2 million (Table 2.5)
- in private hospitals increased by 2.5%
- in private hospitals accounted for about one-third of all patient days over this period.

The number of patient days reported for *Public psychiatric* hospitals was affected by the implementation of the *Mental health* care type from 1 July 2015. See Appendix A for more information.

Patient days in 2017–18

In 2017–18, public hospitals accounted for 67% of patient days (20.3 million) (Table 2.6).

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 (Table 2.6).

Coverage changes in public hospitals between 2013–14 and 2017–18 may influence changes over time. See Appendix A for more information.

Table 2.5: Patient days, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Public acute hospitals	18,200,554	18,720,308	19,207,927	19,812,887	19,769,583	2.1	–0.2
Public psychiatric hospitals ^(a)	623,518	643,390	976,416	1,305,174	488,374	–5.9	–62.6
<i>Total public hospitals</i>	<i>18,824,072</i>	<i>19,363,698</i>	<i>20,184,343</i>	<i>21,118,061</i>	<i>20,257,957</i>	<i>1.9</i>	<i>–4.1</i>
Private hospitals							
Private free-standing day hospital facilities	875,545	940,870	960,603	940,096	976,374	2.8	3.9
Other private hospitals	8,180,639	8,448,971	8,701,444	8,932,867	9,003,998	2.4	0.8
<i>Total private hospitals</i>	<i>9,056,184</i>	<i>9,389,841</i>	<i>9,662,047</i>	<i>9,872,963</i>	<i>9,980,372</i>	<i>2.5</i>	<i>1.1</i>
All hospitals	27,880,256	28,753,539	29,846,390	30,991,024	30,238,329	2.1	–2.4

(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 during those years.

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 2.6: Patient days for public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales^{(a)(b)}							
Public hospitals	6,465,446	6,616,974	6,708,339	7,591,818	6,595,413	0.5	-13.1
Private hospitals	2,487,934	2,651,820	2,778,833	2,829,223	2,903,702	3.9	2.6
<i>All hospitals</i>	<i>8,953,380</i>	<i>9,268,794</i>	<i>9,487,172</i>	<i>10,421,041</i>	<i>9,499,115</i>	<i>1.5</i>	<i>-8.8</i>
Victoria							
Public hospitals	4,690,977	4,840,236	4,967,532	5,163,907	5,282,867	3.0	2.3
Private hospitals	2,376,811	2,432,231	2,476,379	2,541,823	2,586,995	2.1	1.8
<i>All hospitals</i>	<i>7,067,788</i>	<i>7,272,467</i>	<i>7,443,911</i>	<i>7,705,730</i>	<i>7,869,862</i>	<i>2.7</i>	<i>2.1</i>
Queensland^{(a)(b)}							
Public hospitals	3,308,998	3,524,825	4,052,756	3,875,714	3,843,495	3.8	-0.8
Private hospitals	2,282,019	2,378,372	2,431,184	2,500,535	2,542,610	2.7	1.7
<i>All hospitals</i>	<i>5,591,017</i>	<i>5,903,197</i>	<i>6,483,940</i>	<i>6,376,249</i>	<i>6,386,105</i>	<i>3.4</i>	<i>0.2</i>
Western Australia							
Public hospitals	1,828,364	1,807,878	1,836,151	1,864,685	1,868,143	0.5	0.2
Private hospitals	938,189	947,984	988,625	1,013,210	1,012,497	1.9	-0.1
<i>All hospitals</i>	<i>2,766,553</i>	<i>2,755,862</i>	<i>2,824,776</i>	<i>2,877,895</i>	<i>2,880,640</i>	<i>1.0</i>	<i>0.1</i>
South Australia							
Public hospitals	1,508,854	1,513,227	1,530,868	1,506,184	1,521,766	0.2	1.0
Private hospitals	642,097	644,376	643,975	637,699	643,838	0.1	1.0
<i>All hospitals</i>	<i>2,150,951</i>	<i>2,157,603</i>	<i>2,174,843</i>	<i>2,143,883</i>	<i>2,165,604</i>	<i>0.2</i>	<i>1.0</i>
Tasmania							
Public hospitals	380,908	392,138	401,157	409,506	421,866	2.6	3.0
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory^(a)							
Public hospitals	332,798	344,014	358,674	359,564	365,436	2.4	1.6
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	307,727	324,406	328,866	346,683	358,971	3.9	3.5
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>
Total							
Public hospitals	18,824,072	19,363,698	20,184,343	21,118,061	20,257,957	1.9	-4.1
Private hospitals	9,056,184	9,389,841	9,662,047	9,872,963	9,980,372	2.5	1.1
All hospitals	27,880,256	28,753,539	29,846,390	30,991,024	30,238,329	2.1	-2.4

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, South Australia and the Australian Capital Territory that affect the interpretation of these data.

(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 in those years.

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

2.4 Patient day rates

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 2013–14 and 2017–18, 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 decrease over time (Table 2.7).

Table 2.7: Patient days per 1,000 population, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Public acute hospitals	732.3	737.3	742.8	750.9	731.7	–0.0	–2.6
Public psychiatric hospitals ^(a)	26.5	27.4	41.8	54.5	20.1	–6.7	–63.1
<i>Total public hospitals</i>	<i>758.8</i>	<i>764.8</i>	<i>784.5</i>	<i>805.4</i>	<i>751.8</i>	<i>–0.2</i>	<i>–6.7</i>
Private hospitals							
Private free-standing day hospital facilities	35.3	37.1	37.1	35.6	36.1	0.6	1.4
Other private hospitals	323.5	326.8	329.6	331.0	325.9	0.2	–1.5
<i>Total private hospitals</i>	<i>358.7</i>	<i>363.9</i>	<i>366.7</i>	<i>366.6</i>	<i>362.0</i>	<i>0.2</i>	<i>–1.3</i>
All hospitals	1,117.5	1,128.7	1,151.3	1,172.0	1,113.8	–0.1	–5.0

(a) Due to the low and variable numbers of separations in *Public psychiatric hospitals*, caution should be used in interpreting the average rates of change. In addition, following the implementation of the Mental health care type on 1 July 2015, 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 Box 1.1, and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on patient days is available in Table S2.6 that accompanies this report online, and 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 interventions were performed?’ — for emergency and elective admissions involving surgery.

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

More information on patient days per 1000 population is available in Table S2.7 that accompanies this report online.

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

2.5 Length of stay

The average length of stay (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 two measures for ALOS—the ALOS for all separations and the ALOS excluding same-day separations.

Changes over time

Between 2013–14 and 2017–18, the overall ALOS for public and private hospitals combined decreased by an average of 1.7% per year (Table 2.8) from 2.9 days to 2.7 days.

For overnight separations, the ALOS in all hospitals combined was relatively stable between 2013–14 and 2017–18, increasing by an average of 0.3% each year over this period. For *Public acute hospitals*, the ALOS (excluding same day separations) decreased from 5.5 to 5.2 days over the same period.

Significant changes in ALOS over time may be related to changes in admission practices and improvements in the coverage of reporting. See Appendix A for more information.

Table 2.8: Average length of stay, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Average length of stay (days)							
Public hospitals							
Public acute hospitals	3.2	3.1	3.1	3.0	2.9	–2.0	–2.3
Public psychiatric hospitals ^(a)	48.8	49.2	63.0	78.5	28.1	–12.9	–64.2
<i>Total public hospitals</i>	3.3	3.2	3.2	3.2	3.0	–2.2	–6.1
Private hospitals							
Private free-standing day hospital facilities ^(b)	1.0	1.0	1.0	1.0	1.0	0.0	0.0
Other private hospitals	2.6	2.6	2.6	2.6	2.5	–0.9	–1.0
<i>Total private hospitals</i>	2.3	2.3	2.2	2.2	2.2	–0.8	–1.1
All hospitals	2.9	2.8	2.8	2.8	2.7	–1.7	–4.5
Average length of stay, excluding same-day separations (days)							
Public hospitals							
Public acute hospitals	5.5	5.5	5.4	5.3	5.2	–1.4	–2.0
Public psychiatric hospitals ^(a)	51.8	53.2	70.4	89.7	32.0	–11.3	–64.4
<i>Total public hospitals</i>	5.7	5.7	5.7	5.7	5.4	–1.6	–6.5
Private hospitals							
Private free-standing day hospital facilities ^(b)	1.0	1.1	1.1	1.1	1.3	7.0	20.6
Other private hospitals	5.2	5.2	5.2	5.2	5.2	0.3	–0.2
<i>Total private hospitals</i>	5.1	5.2	5.2	5.2	5.2	0.3	–0.2
All hospitals	5.5	5.5	5.5	5.6	5.3	–1.1	–4.8

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

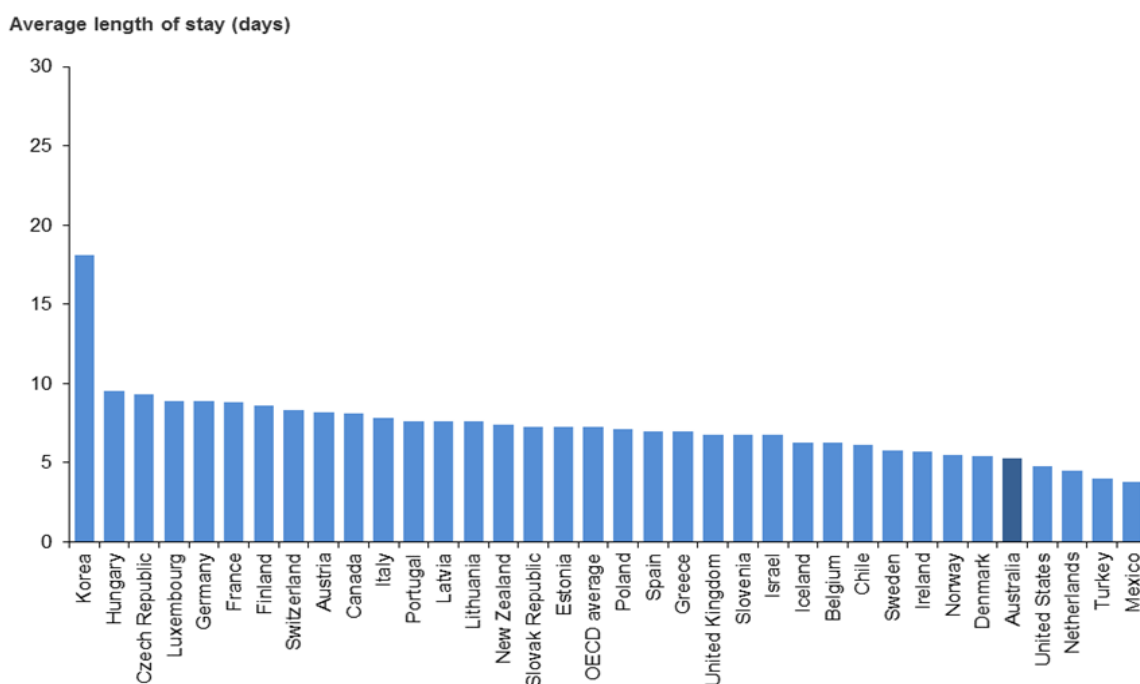
How does Australia compare?

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 2017–18 was 5.3 days, which was lower than the OECD average length of stay of 7.3 days (Figure 2.2) (OECD 2017).

Figure 2.2: Overnight length of stay, Australia, 2017–18 and selected OECD countries



Note: Data collection periods vary for OECD countries (2016; 2015; 2012) (OECD 2018).

Where to go for more information:

More information on average length of stay is available in Table S2.8 that accompanies this report online, and in:

- Section 2.6 — ‘Performance indicator: Average length of stay for selected AR-DRGs’
- Section 2.7 — ‘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 interventions were performed?’ — for emergency and elective admissions involving surgery.

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

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

'Average length of stay for selected AR-DRGs' can be considered as an indicator of efficiency and sustainability (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).

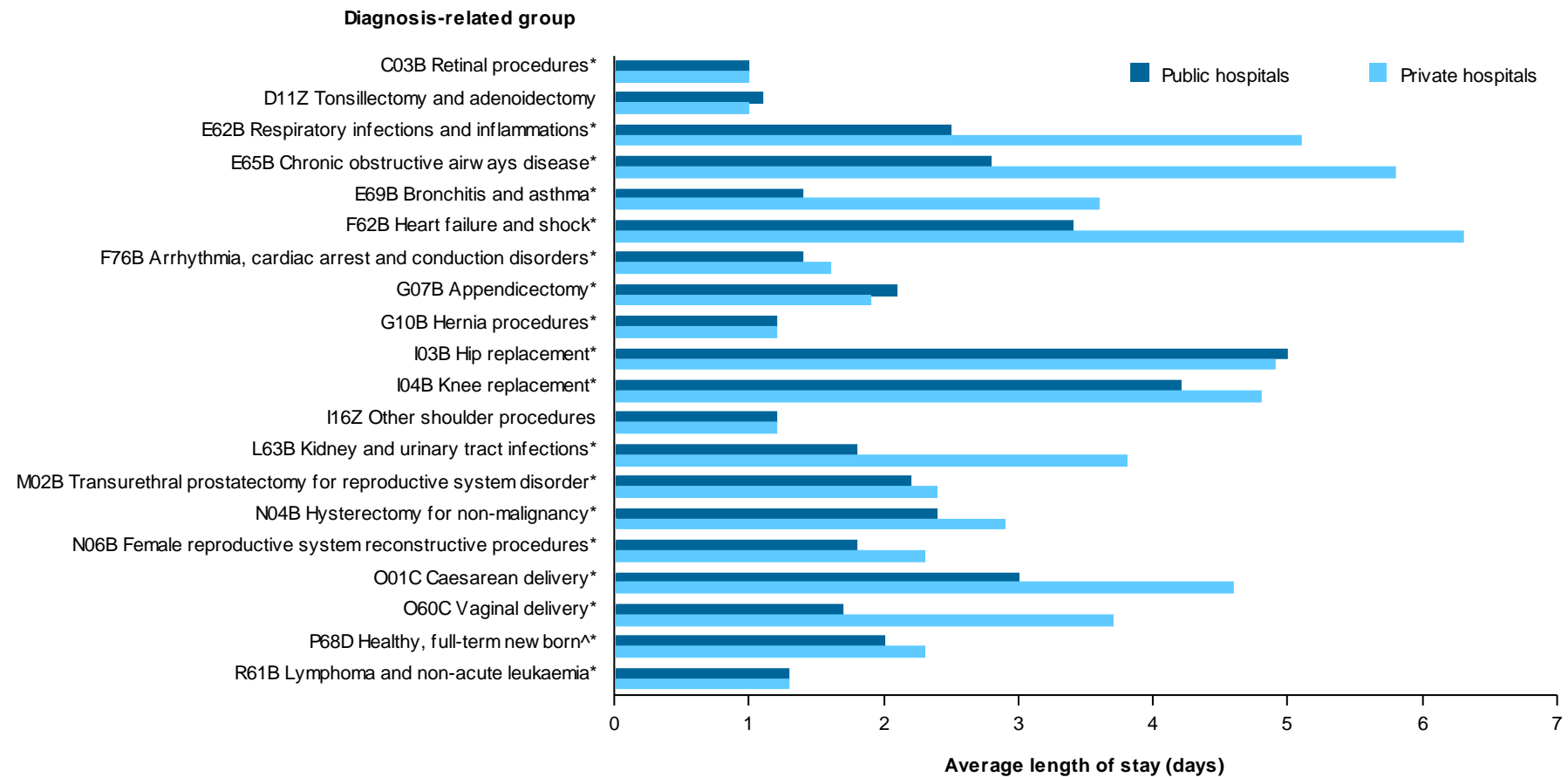
There were notable differences (more than 1 day) in the ALOS between public and private hospitals for 7 of the 20 selected AR-DRGs (Figure 2.3). For example, the ALOS for E65B *Chronic obstructive airways disease, minor complexity* was 2.8 days for public hospitals and 5.8 days for private hospitals.

Where to go for more information:

More information about ALOS for selected AR-DRGs is in Table S2.9 that accompanies this report online.

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

Figure 2.3: Average length of stay (days)^(a) for selected AR-DRGs^(b) version 8.0, public and private hospitals, 2017–18



[^] P68D Neonate, admission weight ≥ 2500 g without significant OR procedure ≥ 37 completed weeks gestation.

* Minor complexity.

(a) Includes separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. Excludes separations where the length of stay was greater than 120 days.

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

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

2.7 What types of public hospitals provide admitted patient care?

Peer groups classify public hospitals into groups of similar hospitals by the types of services provided. In 2017–18, admitted patient care data was provided by 674 public hospitals (Table 2.9).

The 31 *Principal referral hospitals* accounted for the highest proportion of public hospital separations (2.5 million separations, or 37%) and public hospital patient days (7.6 million patient days, or 38%), with an ALOS of 3.0 days.

Public acute group A hospitals accounted for a further 33% of separations and 31% of patient days.

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

Subacute and non-acute hospitals accounted for 1% of separations and 4% of patient days, with an average length of stay of 13.4 days.

Table 2.9: Count of hospitals, separations and patient days by hospital peer group, public hospitals, 2017–18

Hospital peer group	Number of hospitals	Separations	Patient days	Average length of stay
Principal referral hospitals	31	2,521,067	7,616,460	3.0
Women's and children's hospitals	13	280,168	812,031	2.9
Public acute group A hospitals	63	2,243,035	6,267,111	2.8
Public acute group B hospitals	44	807,676	2,047,116	2.5
Public acute group C hospitals	141	552,702	1,407,632	2.5
Public acute group D hospitals	189	99,278	432,723	4.4
Very small hospitals	110	9,181	87,934	9.6
Psychiatric hospitals	21	15,257	469,440	30.8
Subacute and non-acute hospitals	37	62,257	835,758	13.4
Other	25	136,154	281,752	2.1
All hospitals	674	6,726,775	20,257,957	3.0

Note: See Box 1.1 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).

2.8 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.

Changes over time

Same-day acute care

From 2016–17 to 2017–18, same-day acute separations rose by 2.7% to 6.3 million (Table 2.10). This was lower than the overall average annual increase per year between 2013–14 and 2017–18 (3.8% per year).

Between 2013–14 and 2017–18, same-day acute separations increased by an average of 5.3% per year in public hospitals and by 1.9% per year in private hospitals.

Some changes in separations over time in some jurisdictions may be related to changes in admission practices and improvements in the coverage of reporting. For New South Wales, the significant decrease (4.4%) in public hospital same-day acute separations since 2016–17 (Table 2.11) reflects a change in admission policy, particularly with regard to patients admitted in emergency departments. See Appendix A for more information.

Table 2.10: Same-day acute separations, public and private hospitals, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
<i>Total public hospitals^(b)</i>	2,899,625	3,086,074	3,238,658	3,457,085	3,567,536	5.3	3.2
Private hospitals							
Private free-standing day hospital facilities	872,579	937,405	953,183	937,723	974,019	2.8	3.9
Other private hospitals	1,688,742	1,744,750	1,700,819	1,768,783	1,790,490	1.5	1.2
<i>Total private hospitals</i>	2,561,321	2,682,155	2,654,002	2,706,506	2,764,509	1.9	2.1
All hospitals	5,460,946	5,768,229	5,892,660	6,163,591	6,332,045	3.8	2.7

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, South Australia and the Australian Capital Territory 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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 2.11: Same-day acute separations, public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales^(a)							
Public hospitals	791,349	816,110	830,765	864,970	826,904	1.1	–4.4
Private hospitals	661,856	705,566	705,454	715,514	730,965	2.5	2.2
<i>All hospitals</i>	<i>1,453,205</i>	<i>1,521,676</i>	<i>1,536,219</i>	<i>1,580,484</i>	<i>1,557,869</i>	<i>1.8</i>	<i>–1.4</i>
Victoria							
Public hospitals	867,584	915,407	962,484	1,033,778	1,084,994	5.7	5.0
Private hospitals	648,742	671,479	653,382	663,930	673,080	0.9	1.4
<i>All hospitals</i>	<i>1,516,326</i>	<i>1,586,886</i>	<i>1,615,866</i>	<i>1,697,708</i>	<i>1,758,074</i>	<i>3.8</i>	<i>3.6</i>
Queensland^(a)							
Public hospitals	539,253	631,178	683,937	761,481	826,257	11.3	8.5
Private hospitals	643,747	677,780	655,210	672,656	693,966	1.9	3.2
<i>All hospitals</i>	<i>1,183,000</i>	<i>1,308,958</i>	<i>1,339,147</i>	<i>1,434,137</i>	<i>1,520,223</i>	<i>6.5</i>	<i>6.0</i>
Western Australia							
Public hospitals	317,427	323,921	339,213	358,214	377,401	4.4	5.4
Private hospitals	326,328	337,777	349,528	358,186	365,157	2.9	1.9
<i>All hospitals</i>	<i>643,755</i>	<i>661,698</i>	<i>688,741</i>	<i>716,400</i>	<i>742,558</i>	<i>3.6</i>	<i>3.7</i>
South Australia^(a)							
Public hospitals	188,818	192,223	199,863	204,506	208,875	2.6	2.1
Private hospitals	200,123	204,857	207,396	204,821	225,562	3.0	10.1
<i>All hospitals</i>	<i>388,941</i>	<i>397,080</i>	<i>407,259</i>	<i>409,327</i>	<i>434,437</i>	<i>2.8</i>	<i>6.1</i>
Tasmania							
Public hospitals	60,011	63,507	62,679	62,722	65,670	2.3	4.7
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>
Australian Capital Territory^(a)							
Public hospitals	51,540	52,774	55,465	59,485	58,883	3.4	–1.0
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	83,643	90,954	104,252	111,929	118,552	9.1	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>
Total							
Public hospitals	2,899,625	3,086,074	3,238,658	3,457,085	3,567,536	5.3	3.2
Private hospitals	2,561,321	2,682,155	2,654,002	2,706,506	2,764,509	1.9	2.1
All hospitals	5,460,946	5,768,229	5,892,660	6,163,591	6,332,045	3.8	2.7

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, South Australia and the Australian Capital Territory 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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Overnight acute care

Between 2013–14 and 2017–18, the number of overnight acute separations in public hospitals increased by 1.8% on average each year and was relatively stable for private hospitals (0.2% per year) (Table 2.12).

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. See Appendix A for more information.

Between 2013–14 and 2017–18, the Northern Territory had the greatest annual average rise in the number of public hospital overnight acute separations (4.6% on average each year) (Table 2.13).

Over the same period, above average increases in the rate of private hospital separations for overnight acute were recorded in Victoria and Queensland (1.0% and 0.6%, respectively) (among jurisdictions whose private hospital data could be reported). See Appendix A for more information.

Table 2.12: Overnight acute separations, public and private hospitals, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
<i>Total public hospitals^(b)</i>	2,623,633	2,696,965	2,701,061	2,786,878	2,815,795	1.8	1.0
Private hospitals							
Private free-standing day hospital facilities ^{(c)(d)}	1,614	1,885	5,826	1,507	1,335	-4.6	-11.4
Other private hospitals	1,148,016	1,160,780	1,146,819	1,156,308	1,156,675	0.2	0.0
<i>Total private hospitals</i>	<i>1,149,630</i>	<i>1,162,665</i>	<i>1,152,645</i>	<i>1,157,815</i>	<i>1,158,010</i>	<i>0.2</i>	<i>0.0</i>
All hospitals	3,773,263	3,859,627	3,853,705	3,944,688	3,973,805	1.3	0.7

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, South Australia and the Australian Capital Territory 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) Overnight acute separations in *Private free-standing day hospital facilities* are mostly for sleep apnoea.

(d) 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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on acute care is available in tables S2.10 and S2.11 that accompany this report online, and in:

- 'Chapter 4 — Why did people receive care?' for separations by care type
- 'Chapter 5 — What services were provided?' for separations by broad category of service.

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

Table 2.13: Overnight acute separations, public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales^(a)							
Public hospitals	910,355	926,904	915,493	945,364	915,763	0.1	–3.1
Private hospitals	285,186	283,711	283,956	279,375	282,834	–0.2	1.2
<i>All hospitals</i>	<i>1,195,541</i>	<i>1,210,615</i>	<i>1,199,449</i>	<i>1,224,739</i>	<i>1,198,597</i>	<i>0.1</i>	<i>–2.1</i>
Victoria							
Public hospitals	600,472	629,019	637,464	665,766	686,780	3.4	3.2
Private hospitals	301,561	306,830	300,060	307,474	314,351	1.0	2.2
<i>All hospitals</i>	<i>902,033</i>	<i>935,849</i>	<i>937,524</i>	<i>973,240</i>	<i>1,001,131</i>	<i>2.6</i>	<i>2.9</i>
Queensland^(a)							
Public hospitals	504,747	527,038	534,444	553,668	581,654	3.6	5.1
Private hospitals	293,255	301,348	297,256	298,633	299,859	0.6	0.4
<i>All hospitals</i>	<i>798,002</i>	<i>828,386</i>	<i>831,700</i>	<i>852,301</i>	<i>881,513</i>	<i>2.5</i>	<i>3.4</i>
Western Australia							
Public hospitals	264,118	263,446	264,528	265,900	273,705	0.9	2.9
Private hospitals	134,568	134,978	136,060	136,482	135,670	0.2	–0.6
<i>All hospitals</i>	<i>398,686</i>	<i>398,424</i>	<i>400,588</i>	<i>402,382</i>	<i>409,375</i>	<i>0.7</i>	<i>1.7</i>
South Australia							
Public hospitals	210,988	212,999	207,075	207,200	204,694	–0.8	–1.2
Private hospitals	87,068	86,853	86,347	86,565	85,339	–0.5	–1.4
<i>All hospitals</i>	<i>298,056</i>	<i>299,852</i>	<i>293,422</i>	<i>293,765</i>	<i>290,033</i>	<i>–0.7</i>	<i>–1.3</i>
Tasmania							
Public hospitals	51,277	52,807	53,528	54,871	55,802	2.1	1.7
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>
Australian Capital Territory^(a)							
Public hospitals	42,389	44,372	46,393	49,163	50,258	4.3	2.2
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	39,287	40,380	42,136	44,946	47,139	4.7	4.9
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>
Total							
Public hospitals	2,623,633	2,696,965	2,701,061	2,786,878	2,815,795	1.8	1.0
Private hospitals	1,149,630	1,162,662	1,152,644	1,157,810	1,158,010	0.2	0.0
All hospitals	3,773,263	3,859,627	3,853,705	3,944,688	3,973,805	1.3	0.7

(a) There were changes in coverage, policies or practices over this period for New South Wales, Queensland, South Australia and the Australian Capital Territory 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 Box 1.1, and appendixes A and B for notes on data limitations and methods.

3 Who used these services?

This chapter presents information that can be used to assess the accessibility of admitted patient services—and to answer the question ‘Is access the same for everyone?’ it 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.

More information on separations for these population groups is available in:

- ‘Chapter 4 — Why did people receive care?’
- ‘Chapter 5 — What services were provided?’
- ‘Chapter 6 — What interventions were performed?’

Key findings

Sex of patient

In 2017–18, 53% of separations were for women and girls.

Age of patient

In 2017–18, people aged 65 and over accounted for 42% of separations and 49% of patient days.

Between 2013–14 and 2017–18, 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 (about 4.1% each year).

Aboriginal and Torres Strait Islander people

In 2017–18, there were about 551,000 separations reported for Aboriginal and Torres Strait Islander people (about 4.9% of separations). About 89% of separations for Indigenous Australians were from public hospitals, compared with 58% for other Australians.

Indigenous Australians were hospitalised at about 2.6 times the rate for other Australians (1,071 and 407 separations per 1,000 population, respectively).

Remoteness area

For public hospitals, separation rates ranged from 232 per 1,000 for people living in *Major cities* to 691 per 1,000 for people living in *Very remote* areas.

For private hospitals, separation rates ranged from 96 per 1,000 for people living in *Remote* areas to 183 per 1,000 for people living in *Major cities*.

Socioeconomic status

For public hospitals, separation rates were highest for people living in areas classified as being the lowest SES group (320 separations per 1,000).

For private hospitals, separation rates were highest for people living in areas classified as being the highest SES group (242 per 1,000).

3.1 Age group and sex

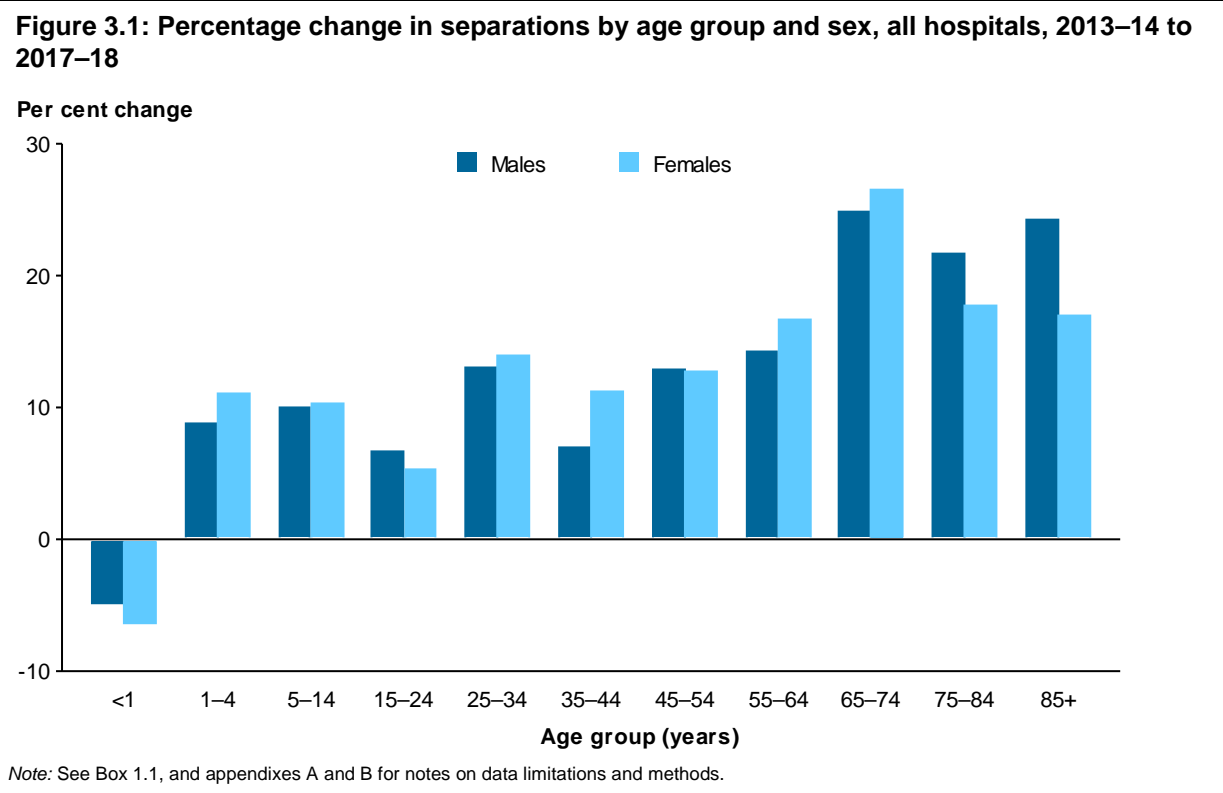
This section presents information on the age group and sex of the patient, including the numbers of separations and patient days in public and private hospitals, over time and for 2017–18.

Changes over time

Between 2013–14 and 2017–18, there were large increases in separations for people aged 65–74, 85 and over, specifically:

- For people aged 65–74, separations rose by 26% overall (Figure 3.1), an average increase of 5.9% each year. This was faster than the population growth for this age group of about 4.1% each year over the same period.
- For people aged 85 and over, separations rose by 20% overall, an average increase of 4.7% each year, compared with the population growth for this age group of about 3.5% each year over the same period.

The apparent decrease in separations for patients aged under 1 is due to a change in the assignment of qualification status for newborn care in New South Wales (because these data do not include *Newborns* without at least one qualified day). See Section 5.4 — ‘Newborn care’ for more information.



Age group and sex, 2017–18

In 2017–18, 5.9 million separations were for females (52%), and 5.3 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 (15.9 million and 14.4 million patient days, respectively)
- people aged 65 and over (who make up about 15% of the population) accounted for 42% of separations and 49% of patient days
- people aged 85 and over (who make up about 2% of the population) accounted for about 7% of separations and 13% of patient days.

Table 3.1: Separations and patient days by age group and sex, all hospitals, 2017–18

Age group (years)	Separations			Patient days		
	Males	Females	Persons ^(a)	Males	Females	Persons ^(a)
0–4	221,145	158,856	380,009	655,740	517,387	1,173,138
5–9	90,372	68,054	158,427	135,185	107,004	242,190
10–14	70,280	59,877	130,158	128,884	126,380	255,265
15–19	104,696	143,485	248,224	234,873	327,133	562,201
20–24	129,422	243,287	372,772	350,470	519,992	870,608
25–29	138,872	327,757	466,681	383,164	731,514	1,114,811
30–34	162,409	403,447	565,879	441,670	938,597	1,380,353
35–39	184,563	352,466	537,043	522,808	802,983	1,325,821
40–44	217,444	308,207	525,663	568,550	662,250	1,230,827
45–49	280,424	339,265	619,700	685,085	731,302	1,416,407
50–54	337,850	363,440	701,297	789,504	790,140	1,579,658
55–59	416,232	418,067	834,344	979,061	920,881	1,900,042
60–64	486,537	456,798	943,342	1,160,279	1,045,047	2,205,367
65–69	578,309	505,413	1,083,732	1,404,189	1,231,081	2,635,291
70–74	628,973	532,014	1,160,994	1,577,345	1,404,535	2,981,888
75–79	540,217	453,450	993,670	1,485,481	1,399,760	2,885,244
80–84	401,502	359,142	760,648	1,300,357	1,388,617	2,688,978
85–89	245,554	253,055	498,610	996,608	1,264,535	2,261,144
90–94	92,947	126,185	219,132	463,207	743,071	1,206,278
95+	18,433	34,495	52,928	106,658	216,064	322,722
Total^(b)	5,346,192	5,906,770	11,253,275	14,369,141	15,868,343	30,238,329

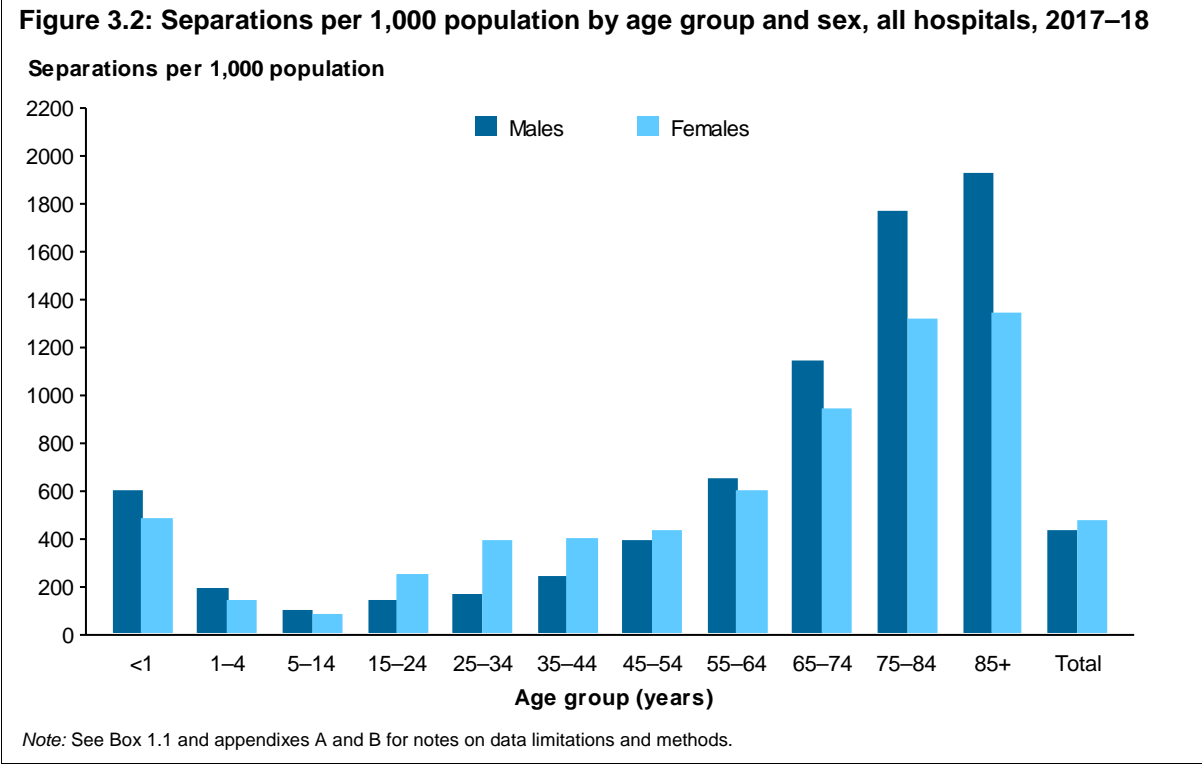
(a) *Persons* includes separations and patient days for episodes for which the sex of the patient was not reported as male or female.

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

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

Separation rates

In 2017–18, overall there were 457 separations per 1,000 population (age-specific rate), with higher rates for females than males in the 15–54 age groups, and higher 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.



Where to go for more information:

More information on the patient’s sex and age group is available in tables S3.1 to S3.6 that accompany this report online, and in Section 3.2 — ‘Aboriginal and Torres Strait Islander people’.

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

3.2 Aboriginal and Torres Strait Islander people

In 2017–18, 551,000 separations (4.9%) were reported for people of Aboriginal and Torres Strait Islander origin (Table 3.2), who represent about 2.8% of the Australian population. 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.

About 89% of separations for Indigenous Australians were from public hospitals (493,000), compared with 58% of separations for other Australians. For public hospitals, about 7.3% of separations were reported for Indigenous Australians.

The majority of separations (92%) for Indigenous Australians were reported as Aboriginal but not Torres Strait Islander origin, 4% were reported as Torres Strait Islander but not Aboriginal origin and 4% as Aboriginal and Torres Strait Islander origin (Table 3.2).

Table 3.2: Separations, by Indigenous status, public and private hospitals, 2017–18

Indigenous status	Public hospitals	Private hospitals	Total
Aboriginal but not Torres Strait Islander origin	455,551	51,591	507,142
Torres Strait Islander but not Aboriginal origin	19,181	2,982	22,163
Aboriginal and Torres Strait Islander origin	18,006	3,889	21,895
<i>Indigenous Australians</i>	<i>492,738</i>	<i>58,462</i>	<i>551,200</i>
Neither Aboriginal nor Torres Strait Islander origin	6,186,120	4,276,788	10,462,908
Not reported	47,917	191,250	239,167
Total	6,726,775	4,526,500	11,253,275

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Separation rates

In 2017–18, there were 1,071 separations per 1,000 population for Indigenous Australians—about 2.6 times the separation rate for other Australians (Table 3.3).

About 80% of this difference is due to the markedly higher rate of separations for dialysis for Indigenous Australians compared with other Australians (572 and 44 per 1,000 population, respectively), which also contributed to higher rates of same-day separations for Indigenous Australians compared with for other Australians.

For Indigenous Australians, there were 287 overnight acute separations per 1,000 population, which was almost twice the rate for other Australians (146 per 1,000).

Age group and sex

In 2017–18, about 551,000 separations were reported for Aboriginal and Torres Strait Islander people (Table 3.4). Of these:

- 57% were for females, compared with 52% for other Australians
- 9% were for children aged 0 to 14, compared with 6% for other Australians (Figure 3.3)
- 16% were for people aged 65 and over, compared with 44% for other Australians.

Table 3.3: Separations, by Indigenous status and type of care, all hospitals, 2017–18

	Indigenous Australians	Other Australians	All Australians ^(a)
Separations			
Same-day acute separations for dialysis	253,670	1,233,108	1,486,778
Other same-day acute separations	105,195	4,740,072	4,845,267
<i>Total same-day acute separations</i>	<i>358,865</i>	<i>5,973,180</i>	<i>6,332,045</i>
Overnight acute separations	173,255	3,800,550	3,973,805
Separations for care other than acute	19,080	928,345	947,425
All separations	551,200	10,702,075	11,253,275
Separations per 1,000 population^(b)			
Same-day acute separations for dialysis	572.3	44.0	53.0
Other same-day acute separations	177.4	182.3	182.5
<i>Total same-day acute separations</i>	<i>749.7</i>	<i>226.3</i>	<i>235.6</i>
Overnight acute separations	286.8	146.4	150.0
Separations for care other than acute	34.8	34.5	34.6
All separations	1,071.3	407.3	420.2

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

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

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

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

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

The report also produced correction factors to estimate the ‘true’ number of separations for Indigenous Australians. For example, the national correction factor of 1.09 suggested that the ‘true’ number of separations should be about 9% higher than reported for Indigenous Australians. Using this factor, it is estimated that about 601,000 separations were for Indigenous Australians in 2017–18. As other Australians may include unidentified Indigenous Australians, the ‘true’ number of separations for other Australians would be reduced and could be estimated at about 10,652,000 separations.

Using the same method (and assuming that the age distributions for unidentified and identified Indigenous Australians is similar), the ‘true’ separation rates for 2017–18 could be estimated as about 1,167 per 1,000 population for Indigenous Australians and 405 per 1,000 for other Australians. These rates indicate that, after adjusting for under-identification, Indigenous Australians were hospitalised at about 2.9 times the rate for other Australians.

Where to go for more information:

More information on separations by Indigenous status is available in tables S3.7 to S3.9 that accompany this report online. More information on data limitations and methods is available in appendixes A and B.

Table 3.4: Separations by Indigenous status, age group and sex, all hospitals, 2017–18

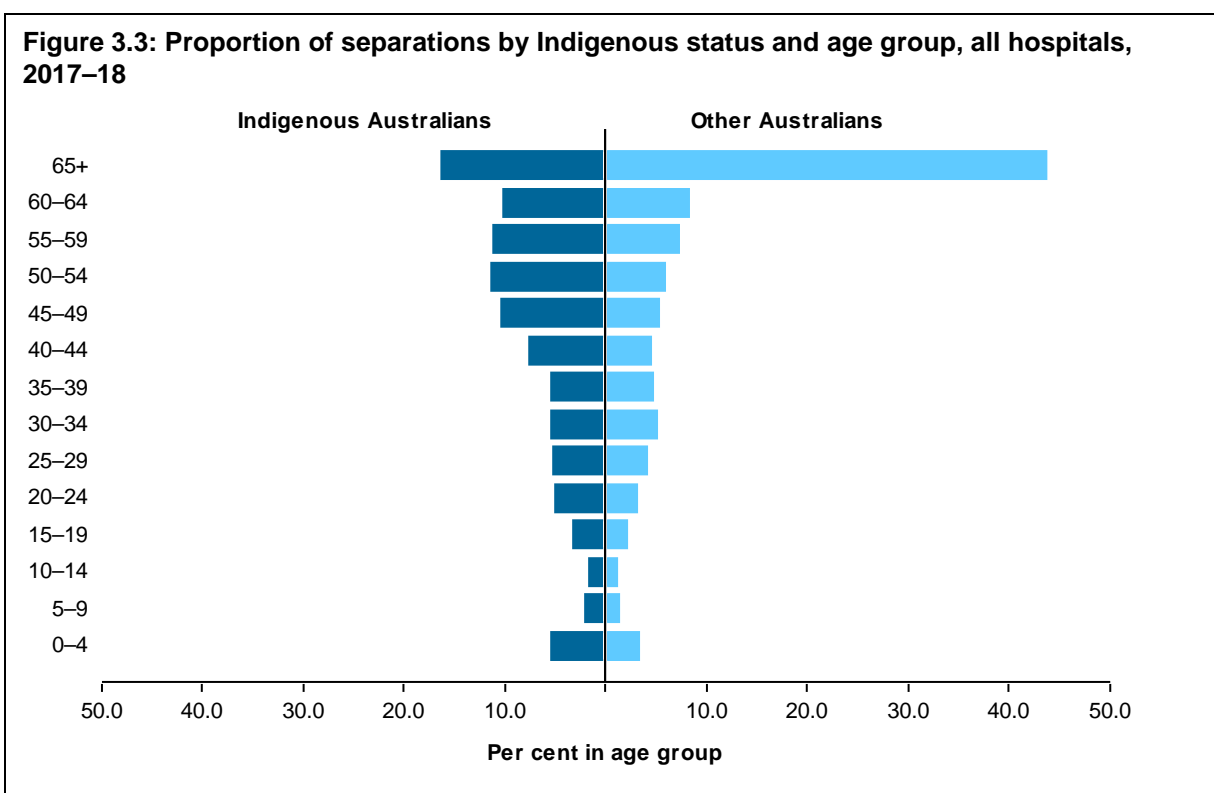
Age group (years)	Indigenous Australians			Other Australians ^(a)		
	Males	Females	Persons ^(b)	Males	Females	Persons ^(b)
0–4	17,223	12,993	30,216	203,922	145,863	349,793
5–9	6,020	4,957	10,977	84,352	63,097	147,450
10–14	4,534	4,495	9,029	65,746	55,382	121,129
15–19	6,082	11,912	17,994	98,614	131,573	230,230
20–24	8,152	19,463	27,616	121,270	223,824	345,156
25–29	8,978	20,106	29,085	129,894	307,651	437,596
30–34	10,512	18,778	29,290	151,897	384,669	536,589
35–39	11,722	17,440	29,162	172,841	335,026	507,881
40–44	19,183	22,571	41,754	198,261	285,636	483,909
45–49	26,337	30,294	56,631	254,087	308,971	563,069
50–54	30,560	32,270	62,830	307,290	331,170	638,467
55–59	26,993	34,675	61,668	389,239	383,392	772,676
60–64	22,799	32,552	55,351	463,738	424,246	887,991
65+	36,691	52,904	89,595	2,469,244	2,210,850	4,680,119
Total^(c)	235,786	315,412	551,200	5,110,406	5,591,358	10,702,075

(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 Box 1.1, and appendixes A and B for notes on data limitations and methods.



3.3 Remoteness area

Remoteness area categories divide Australia into areas depending on distances from population centres. The patient's reported area of usual residence is used to derive the remoteness of their area of usual residence. Data for 2017–18 is presented using the 2016 Australian Statistical Geography Standard (ASGS) (ABS 2016), therefore data presented here may not be comparable with data published in previous reports. See Appendix B for more information on remoteness areas.

Overall, the numbers of separations per 1,000 population were highest for people living in *Very remote* and *Remote* areas (815 and 536 per 1,000 population, respectively) (Table 3.5). The standardised separation rate ratio (SRR) for people living in *Very remote* areas was 1.9, indicating that the separation rate was 90% higher than the national separation rate.

For public hospitals, separation rates ranged from 691 per 1,000 for people living in *Very remote* areas to 232 per 1,000 for patients living in *Major cities*.

For private hospitals, separation rates ranged from 96 per 1,000 for people living in *Remote* areas to 183 per 1,000 for people living in *Major cities*. In part, this may reflect the distribution of private hospitals across remoteness areas.

Table 3.5: Selected separation statistics, by remoteness area of usual residence, public and private hospitals, 2017–18

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations	4,305,045	1,383,785	726,670	132,370	128,878	6,726,775
Separations per 1,000 population ^(b)	232.2	276.7	317.6	439.5	691.3	254.6
Separation rate ratio	0.9	1.1	1.2	1.7	2.7	..
Private hospitals						
Separations	3,413,737	774,810	268,012	29,170	22,909	4,526,500
Separations per 1,000 population ^(b)	182.8	143.5	111.3	96.2	123.3	167.7
Separation rate ratio	1.1	0.9	0.7	0.6	0.7	..
All hospitals						
Separations	7,718,782	2,158,595	994,682	161,540	151,787	11,253,275
Separations per 1,000 population^(b)	415.0	420.2	428.9	535.7	814.6	422.4
Separation rate ratio	1.0	1.0	1.0	1.3	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 for analyses by remoteness area differ from rates calculated by state or territory.

Note: See Box 1.1, 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 tables S3.10 and S3.11 that accompany this report online.

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

3.4 Socioeconomic status

This section presents information on separations by the average socioeconomic status (SES) of the patient's area of usual residence. 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.

In 2017–18, 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 (320 separations per 1,000 population), and the SRR for this group was 1.3, indicating that the separation rate was 30% higher than the national separation rate (Table 3.6).

For private hospitals, the highest separation rates were for patients living in areas classified as being the highest (least disadvantaged) SES group (242 per 1,000). See Appendix B for more information on SES groups.

Table 3.6: Selected separation statistics by socioeconomic status of area of usual residence, public and private hospitals, 2017–18

	Socioeconomic status of area of usual residence					Total ^(a)
	1—Lowest	2	3	4	5—Highest	
Public hospitals						
Separations	1,720,187	1,527,630	1,416,746	1,124,532	886,299	6,726,775
Separations per 1,000 population ^(b)	319.8	278.2	271.1	222.0	171.0	254.7
Separation rate ratio	1.3	1.1	1.1	0.9	0.7	..
Private hospitals						
Separations	554,424	741,382	927,358	1,005,190	1,279,587	4,526,500
Separations per 1,000 population ^(b)	98.8	130.3	173.6	197.3	242.0	167.8
Separation rate ratio	0.6	0.8	1.0	1.2	1.4	..
All hospitals						
Separations	2,274,611	2,269,012	2,344,104	2,129,722	2,165,886	11,253,275
Separations per 1,000 population^(b)	418.6	408.5	444.7	419.3	413.0	422.4
Separation rate ratio	1.0	1.0	1.1	1.0	1.0	..

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

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

Note: See Box 1.1, 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 tables S3.12 and S3.13 that accompany this report online.

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, 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 patient was waiting for residential aged care.

Key findings

Mode and urgency of admission

In 2017–18, 27% 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 (40% and 48%, 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 2017–18, about 91% of separations were for *Acute* care, 4% for *Rehabilitation* care and just under 3% for both *Newborn* care and *Mental health* care. About 46,000 separations (0.4%) were for *Palliative care*, and the remainder were for other subacute and non-acute types of care.

Public hospitals accounted for about 62% of *Acute* care, while private hospitals accounted for about 80% of *Rehabilitation* care.

Principal diagnosis

In 2017–18, about 9% of separations (over 1 million) had a principal diagnosis in the ICD-10-AM chapter *Diseases of the digestive system* and a further 8% in the chapter *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified*.

Dialysis for kidney disease was the most common reason for care (1.5 million separations), followed by *Other medical care* (579,000, mostly for chemotherapy).

4.1 Mode and urgency of admission

This section presents information on how the admitted patient episode of care began (the mode of admission) and the urgency with which they were admitted (urgency of admission).

Mode of admission

The mode of admission can be reported as:

- *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)
- *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.

Same-day acute separations

In both public and private hospitals, most same-day acute separations were *New admission to hospital* (99% overall) (Table 4.1). Public hospitals recorded higher proportions of *Admitted patient transferred from another hospital* (1.0%) compared to private hospitals (0.3%).

Overnight acute separations

For both public and private hospitals, the majority of overnight acute separations were *New admission to hospital* (93% overall) (Table 4.1).

Higher proportions of overnight acute separations were *Admitted patient transferred from another hospital*, compared with same-day acute separations. About 6.5% of overnight acute separations in public hospitals and 6.1% in private hospitals were transferred from another hospital.

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 other planned care, such as dialysis).

Between 2013–14 and 2017–18, emergency admissions in public hospitals rose from 2.4 million to 2.8 million, an average increase of 4.4% per year (Table 4.2). Over the same period, emergency admissions in private hospitals increased from 205,000 to 252,000.

Over this period, elective admissions in private hospitals increased by an average of 2.7% per year, compared with a 2.8% average increase in public hospitals.

The number of separations with an urgency of admission of *Not assigned* increased by an average of 6.9% each year in public hospitals and 5.2% in private hospitals.

Table 4.1: Acute separations, by mode of admission and same-day/overnight status, public and private hospitals, 2017–18

Mode of admission	Public hospitals	Private hospitals	Total
Same-day acute separations			
New admission to hospital ^(a)	3,520,660	2,745,879	6,266,539
Admitted patient transferred from another hospital	36,997	7,328	44,325
Statistical admission: type change	612	334	946
Not reported	9,267	10,968	20,235
Total	3,567,536	2,764,509	6,332,045
Overnight acute separations			
New admission to hospital ^(a)	2,618,992	1,078,755	3,697,747
Admitted patient transferred from another hospital	181,754	70,217	251,971
Statistical admission: type change	11,149	3,135	14,284
Not reported	3,900	5,903	9,803
Total	2,815,795	1,158,010	3,973,805

(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 Box 1.1, appendixes A and B for notes on data limitations and methods.

Table 4.2: Separations by urgency of admission, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Emergency	2,383,578	2,514,638	2,655,379	2,800,301	2,827,176	4.4	1.0
Elective	2,328,197	2,384,343	2,436,994	2,527,982	2,594,428	2.7	2.6
Not assigned	1,002,098	1,080,644	1,179,538	1,258,487	1,304,483	6.8	3.7
Not reported ^(a)	997	713	570	578	688	-8.9	19.0
Total	5,714,870	5,980,338	6,272,481	6,587,348	6,726,775	4.2	2.1
Private hospitals							
Emergency	205,300	213,810	222,862	238,970	252,424	5.3	5.6
Elective	3,292,873	3,441,036	3,551,977	3,613,632	3,667,134	2.7	1.5
Not assigned	479,587	508,984	546,973	566,343	600,186	5.8	6.0
Not reported ^(a)	4,145	6,199	5,475	7,522	6,756	13.0	-10.2
Total	3,981,905	4,170,029	4,327,287	4,426,467	4,526,500	3.3	2.3

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

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

Urgency of admission by funding source

For *Public patients*, 39% of separations were emergency admissions, 39% were elective admissions, and for 22% the urgency of admission was *Not assigned* (Table 4.3). Just over two thirds (68%) of public patients in private hospitals had a *Not assigned* urgency of admission—consistent with the numbers of publicly-funded dialysis separations in private hospitals in Western Australia and South Australia.

The majority (74%) of *Private health insurance-funded* separations were elective admissions. Of the private health insurance-funded separations in public hospitals, almost half (48%) were reported as emergency admissions.

Same-day acute care

In 2017–18, about 13% of same-day acute separations were emergency admissions; and 97% of these were in public hospitals. About 67% of same-day acute separations were elective admissions, and more than half of these occurred in private hospitals (54%) (Table 4.4).

Overnight acute care

In 2017–18, over half (54%) of all overnight acute separations were emergency admissions; 89% of these were in public hospitals. About 35% of overnight acute separations were elective admissions, with about 61% of these occurring in private hospitals (Table 4.4).

Where to go for more information:

More information on separations by mode of admission is in Table S4.1 that accompanies this report online.

More information on mode and urgency of admission is in:

- *Emergency department care 2017–18: Australian hospital statistics*
- ‘Chapter 5 — What services were provided?’ — for rehabilitation care and palliative care
- ‘Chapter 6 — What interventions were performed?’ — for emergency and elective admissions involving surgery.
- ‘Chapter 7 — Costs and funding’.

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

Table 4.3: Separations by funding source and urgency of admission, public and private hospitals, 2017–18

Funding source	Urgency of admission			Total ^(a)
	Emergency	Elective	Not assigned	
Public hospitals				
Public patients ^(b)	2,271,161	2,192,691	1,147,519	5,612,041
Private health insurance	437,841	339,522	128,231	905,599
Self-funded	13,486	26,466	6,287	46,239
Workers compensation	17,259	4,702	707	22,669
Motor vehicle third party personal claim	28,451	3,520	1,668	33,640
Department of Veterans' Affairs	43,610	17,918	11,246	72,783
Other ^(c)	15,368	9,609	8,825	33,804
<i>Total</i>	<i>2,827,176</i>	<i>2,594,428</i>	<i>1,304,483</i>	<i>6,726,775</i>
Private hospitals				
Public patients ^(b)	8,359	54,777	132,991	196,128
Private health insurance	213,670	3,117,326	424,782	3,761,448
Self-funded	4,784	283,897	10,105	298,788
Workers compensation	2,193	59,938	1,138	63,356
Motor vehicle third party personal claim	376	7,158	313	7,849
Department of Veterans' Affairs	22,104	115,278	24,845	162,363
Other ^(c)	938	28,760	6,012	36,568
<i>Total</i>	<i>252,424</i>	<i>3,667,134</i>	<i>600,186</i>	<i>4,526,500</i>
All hospitals				
Public patients ^(b)	2,279,520	2,247,468	1,280,510	5,808,169
Private health insurance	651,511	3,456,848	553,013	4,667,047
Self-funded	18,270	310,363	16,392	345,027
Workers compensation	19,452	64,640	1,845	86,025
Motor vehicle third party personal claim	28,827	10,678	1,981	41,489
Department of Veterans' Affairs	65,714	133,196	36,091	235,146
Other ^(c)	16,306	38,369	14,837	70,372
Total	3,079,600	6,261,562	1,904,669	11,253,275

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

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

(c) *Other patients* includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a *Public patient* election status), *Other*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and *not reported*.

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

Table 4.4: Acute separations, by same-day/overnight status and urgency of admission, public and private hospitals, 2017–18

Urgency of admission	Public hospitals	Private hospitals	Total
Same-day acute separations			
Emergency	807,165	23,406	830,571
Elective	1,960,185	2,268,121	4,228,306
Not assigned	800,132	472,572	1,272,704
Total	3,567,536	2,764,509	6,332,045
Overnight acute separations			
Emergency	1,914,549	225,351	2,139,900
Elective	546,843	852,426	1,399,269
Not assigned	354,334	79,346	433,680
Total	2,815,795	1,158,010	3,973,805

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

When were patients admitted?

There were about 8,400 emergency admissions and 22,400 non-emergency admissions to hospitals across Australia each day (Figure 4.1).

Month of admission

The highest number of admissions occurred in May (1.0 million) and the lowest occurred in December (865,000 admissions) (Figure 4.1).

The number of emergency admissions per day was relatively stable, ranging from 8,200 per day in January to about 8,700 per day in August. The number of non-emergency admissions per day was more variable, ranging from about 19,600 per day in December to about 24,500 per day in May.

Day of admission

The majority of admissions (9.9 million admissions, or 88.1%) occurred on a week day (Figure 4.2). The highest proportion of admissions occurred on Wednesdays (18.2%) and the lowest occurred on Sundays (4.7%).

Emergency admissions were relatively uniform across the week, with 12.7% occurring on a Sunday and 15.1% 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 (19.5%) and the lowest occurred on Sundays (1.7%).

Figure 4.1: Separations by urgency of admission and month of admission, all hospitals, 2017–18

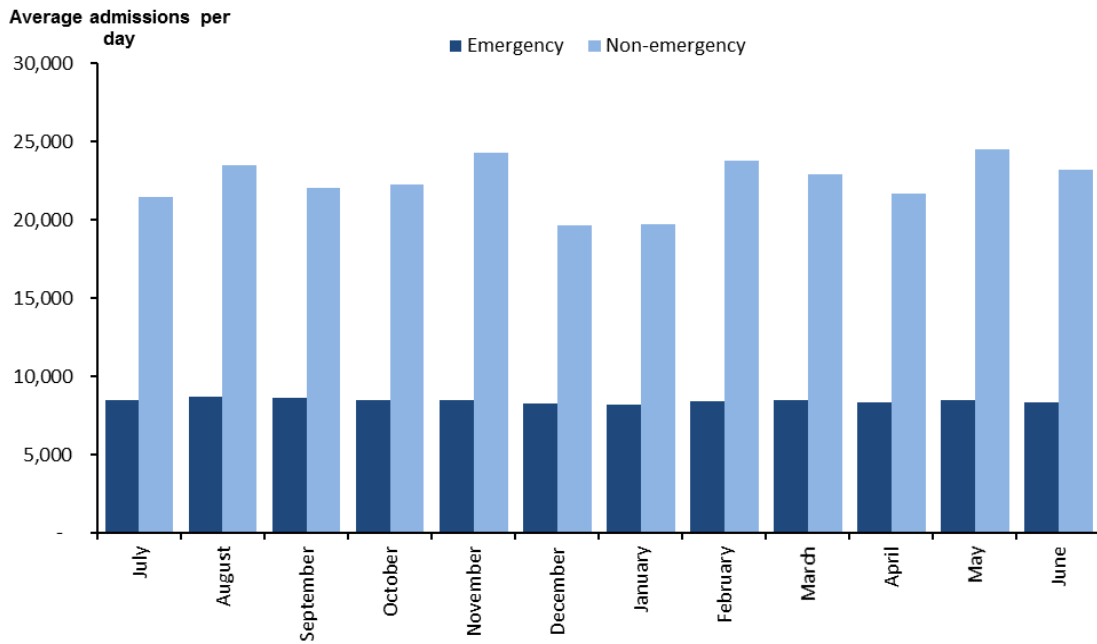
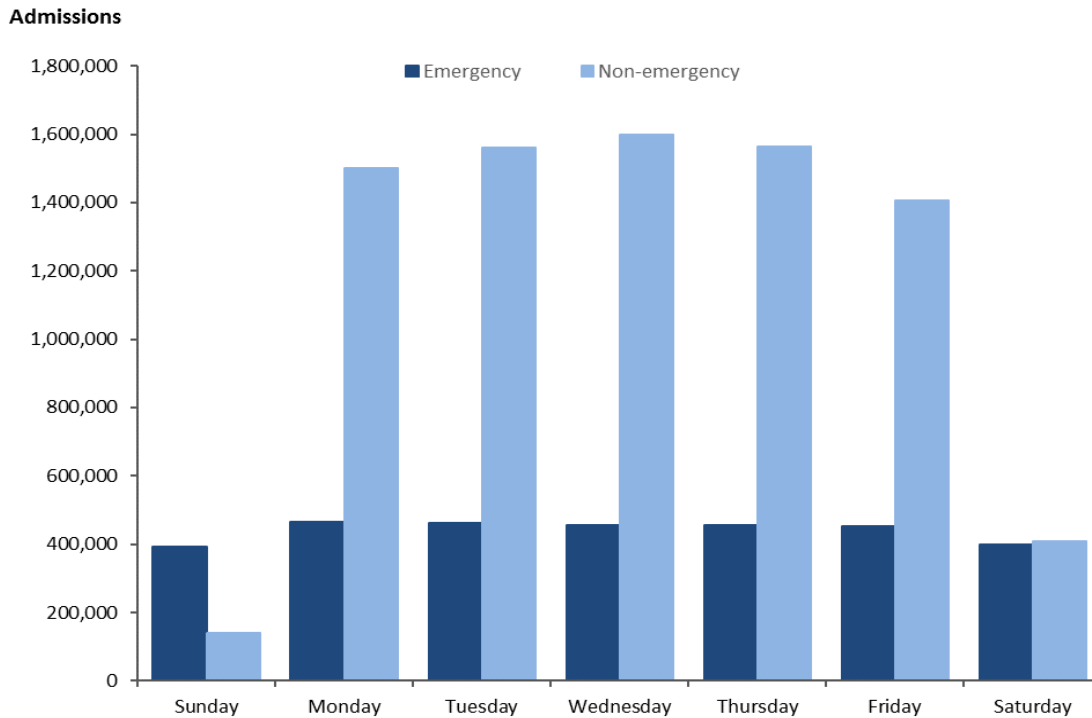


Figure 4.2: Separations by urgency of admission and day of admission, all hospitals, 2017–18



4.2 Care type

The care type describes the overall nature of a clinical service provided to an admitted patient during an episode of care. The care type can be classified as:

- *Acute* (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.*

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 2013–14 and 2017–18, the number of separations for *Acute care* increased by 3.8% on average per year for public hospitals, and by 1.4% per year for private hospitals (Table 4.5).

Between 2016–17 and 2017–18, the number of separations for *Acute care* increased by 2.6% for public hospitals, and by 1.6% for private hospitals.

Due to the introduction of the *Mental health* care type from 1 July 2015, and changes in admission practices and coverage, the changes over time presented in Table 4.5 should be interpreted with caution. See Appendix A for more information.

Between 2013–14 and 2017–18, the number of separations for subacute and non-acute care rose from about 462,000 to about 610,000, an average increase of 7.2% per year.

Separations for subacute and non-acute care rose by 1.3% each year for public hospitals and by 10.8% each year for private hospitals.

Changes in the numbers of separations for *Newborn care* between 2016–17 and 2017–18 in part reflect changes in the assignment of qualification status in New South Wales.

Table 4.5: Separations by care type, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Acute	5,447,244	5,705,939	5,860,520	6,163,262	6,320,935	3.8	2.6
Subacute and non-acute care							
Rehabilitation ^(a)	99,091	102,815	102,784	95,041	93,751	-1.4	-1.4
Palliative care	32,585	34,594	36,499	37,315	39,117	4.7	4.8
Geriatric evaluation and management	34,321	32,446	32,171	35,312	36,676	1.7	3.9
Psychogeriatric care	2,416	1,895	1,455	1,219	1,332	-13.8	9.3
Maintenance care	23,123	25,472	26,694	28,136	28,108	5.0	-0.1
<i>Subacute and non-acute care</i>	<i>191,536</i>	<i>197,222</i>	<i>199,620</i>	<i>197,031</i>	<i>201,676</i>	<i>1.3</i>	<i>2.4</i>
Newborn (qualified) ^(b)	75,953	77,093	79,190	80,697	62,392	-4.8	-22.7
Newborn (unqualified)	169,228	170,762	175,643	173,073	190,964	3.1	10.3
Mental health care ^(c)	..	..	133,143	146,354	141,768	..	-3.1
<i>Total public hospitals^(d)</i>	<i>5,714,870</i>	<i>5,980,338</i>	<i>6,272,481</i>	<i>6,587,348</i>	<i>6,726,775</i>	<i>4.2</i>	<i>2.1</i>
Private hospitals							
Acute	3,694,442	3,828,761	3,790,717	3,850,352	3,910,361	1.4	1.6
Subacute and non-acute care							
Rehabilitation	255,567	309,862	331,998	349,934	372,120	9.8	6.3
Palliative care	6,392	6,217	5,721	6,169	6,444	0.2	4.5
Geriatric evaluation and management	211	119	124	142	119	-13.3	-16.2
Psychogeriatric care	7,116	7,216	6,730	8,377	8,770	5.4	4.7
Maintenance care	1,663	1,797	5,153	17,522	21,346	89.3	21.8
<i>Subacute and non-acute care</i>	<i>270,949</i>	<i>325,211</i>	<i>349,733</i>	<i>382,144</i>	<i>408,800</i>	<i>10.8</i>	<i>7.0</i>
Newborn (qualified) ^(b)	16,174	15,680	15,440	12,514	11,629	-7.9	-7.1
Newborn (unqualified)	47,322	45,013	46,747	45,605	42,628	-2.6	-6.5
Mental health care ^(c)	..	..	170,909	180,007	195,178	..	8.4
<i>Total private hospitals^{(d)(e)}</i>	<i>3,981,905</i>	<i>4,170,029</i>	<i>4,327,287</i>	<i>4,426,467</i>	<i>4,526,500</i>	<i>3.3</i>	<i>2.3</i>
All hospitals^(d)	9,696,775	10,150,367	10,599,768	11,013,815	11,253,275	3.8	2.2

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

(b) Changes in the numbers of separations for *Newborn care* between 2016–17 and 2017–18 in part reflect changes in the assignment of qualification status in New South Wales.

(c) The care type *Mental health* was implemented from 1 July 2015. Mental health admitted patient activity was previously assigned to one of the other care types (for example, as *Acute* care or as *Subacute* and *non-acute* care). Therefore, data presented for 2015–16 to 2017–18 may not be comparable with data presented for earlier periods.

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

(e) 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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

How much activity was there in 2017–18?

In 2017–18, for the public and private sectors combined, 90.9% of separations were classified as episodes of *Acute care*, 4.1% as *Rehabilitation care*, 3.0% as *Mental health care* and 0.5% as *Newborn* (with at least one qualified day) (Table 4.5).

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 80% of separations for *Rehabilitation care*.

Where to go for more information:

More information on separations by care type is in tables S4.2 and S4.3 that accompany this report online, and 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.

Definitions for care types are available online at

<http://meteor.aihw.gov.au/content/index.phtml/itemId/584408>.

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

4.3 Principal diagnosis

The principal diagnosis 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*).

This section 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 2017–18.

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

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

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

Due to the change in the ACS, 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, accompanied by corresponding increases in other ICD-10-AM chapters—for example, *S00–T98 Injury, poisoning and certain other consequences of external causes* and *M00–M99 Diseases of the musculoskeletal system and connective tissue*. Therefore, the data presented by principal diagnosis for 2015–16 to 2017–18 are not comparable with data for previous reporting periods.

ICD-10-AM disease chapters

In 2017–18, just under one-quarter (24%, 2.7 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* (close to 1.5 million separations), radiotherapy and chemotherapy (Table 4.6).

The relative distribution of separations by ICD-10-AM chapter varied across public and private hospitals. For example, about 84% of separations for both *Certain infectious and parasitic diseases* and 85% for *Certain conditions originating in the perinatal period* were from public hospitals. For *Diseases of the eye and adnexa*, about 72% of separations were from private hospitals.

Table 4.6: Separations, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
A00–B99	Certain infectious and parasitic diseases	160,099	29,803	189,902
C00–D48	Neoplasms	317,859	375,451	693,310
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	125,843	72,152	197,995
E00–E89	Endocrine, nutritional and metabolic diseases	120,876	81,705	202,581
F00–F99	Mental and behavioural disorders	239,445	227,748	467,193
G00–G99	Diseases of the nervous system	194,934	142,303	337,237
H00–H59	Diseases of the eye and adnexa	120,917	308,068	428,985
H60–H95	Diseases of the ear and mastoid process	41,912	31,713	73,625
I00–I99	Diseases of the circulatory system	389,662	194,261	583,923
J00–J99	Diseases of the respiratory system	393,641	113,979	507,620
K00–K93	Diseases of the digestive system	513,144	555,133	1,068,277
L00–L99	Diseases of the skin and subcutaneous tissue	129,885	49,418	179,303
M00–M99	Diseases of the musculoskeletal system and connective tissue	248,115	546,784	794,899
N00–N99	Diseases of the genitourinary system	292,079	208,521	500,600
O00–O99	Pregnancy, childbirth and the puerperium	391,744	125,620	517,364
P00–P96	Certain conditions originating in the perinatal period	57,347	10,415	67,762
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	26,363	11,822	38,185
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	622,691	307,216	929,907
S00–T98	Injury, poisoning and certain other consequences of external causes	608,880	173,102	781,982
Z00–Z99	Factors influencing health status and contact with health services	1,728,242	961,285	2,689,527
	Not reported	3,097	1	3,098
Total		6,726,775	4,526,500	11,253,275

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Aboriginal and Torres Strait Islander people

About 49% of separations for Indigenous Australians in 2017–18 had a principal diagnosis in the ICD-10-AM chapter *Factors influencing health status and contact with health services*, compared with 23% for other Australians (Table 4.7).

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 6.6% of separations. It accounted for 7.0% of separations for other Australians.

Separation rates were higher for Indigenous than other Australians for most of the 20 ICD-10-AM chapters. For example, the rate for Indigenous Australians was almost 7 times the rate for other Australians for *Factors influencing health status and contact with health services* (which includes *Care involving dialysis*), and was 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 4.7: Separations by principal diagnosis in ICD-10-AM chapters, by Indigenous status, all hospitals, 2017–18

Principal diagnosis	Indigenous Australians		Other Australians ^(a)		Total	
	Separations	per 1,000 population	Separations	per 1,000 population	Separations	per 1,000 population
A00–B99	9,825	14.8	180,077	7.1	189,902	7.3
C00–D48	8,447	19.1	684,863	24.7	693,310	24.6
D50–D89	3,876	8.0	194,119	7.3	197,995	7.3
E00–E89	9,632	18.2	192,949	7.5	202,581	7.8
F00–F99	21,940	34.3	445,253	18.2	467,193	18.7
G00–G99	7,864	13.1	329,373	12.8	337,237	12.9
H00–H59	4,513	12.0	424,472	14.6	428,985	14.6
H60–H95	3,693	4.1	69,932	2.9	73,625	2.9
I00–I99	14,945	34.3	568,978	20.1	583,923	20.4
J00–J99	29,042	47.4	478,578	18.6	507,620	19.3
K00–K93	26,071	44.2	1,042,206	41.0	1,068,277	41.1
L00–L99	11,283	17.3	168,020	6.6	179,303	6.9
M00–M99	12,428	24.4	782,471	28.8	794,899	28.8
N00–N99	14,210	25.2	486,390	19.2	500,600	19.3
O00–O99	27,941	32.5	489,423	21.1	517,364	21.6
P00–P96	5,051	3.7	62,711	2.8	67,762	2.8
Q00–Q99	1,695	1.5	36,490	1.6	38,185	1.6
R00–R99	29,508	52.4	900,399	34.5	929,907	34.9
S00–T98	36,185	54.9	745,797	29.2	781,982	30.0
Z00–Z99	272,492	609.0	2,417,035	88.4	2,689,527	97.4
Not reported	559	0.8	2,539	0.1	3,098	0.1
Total	551,200	1,071.3	10,702,075	407.3	11,253,275	42020

(a) *Other Australians* includes separations for which the Indigenous status was not reported.

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Most common principal diagnoses

Same-day acute separations

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 4.8).

Public hospitals provided the majority of same-day acute separations for *Pain in throat and chest* (91%) and *Care involving dialysis* (81%) (Table 4.8).

Private hospitals provided the majority of same-day acute separations for *Procreative management* (96%), *Other retinal disorders* (91%), *Embedded and impacted teeth* (91%) and *Benign neoplasm of colon, rectum, anus and anal canal* (80%). The principal diagnosis *Other cataract* (70%) also contributed to high counts of private hospital same-day acute separations.

Overnight acute separations

The most common principal diagnosis (at the 3-character level) reported for overnight acute separations was *Single spontaneous delivery*, which accounted for 3.9% of overnight acute separations in public hospitals and 2.0% in private hospitals (Table 4.9).

Public hospitals provided the majority of overnight acute separations. Private hospitals provided a large majority of overnight acute separations for *Sleep disorders* (71%), *Gonarthrosis* (arthrosis of knee, 67%) and *Coxarthrosis* (arthrosis of hip, 66%).

Comparison of Table 4.8 with Table 4.9 shows differences in the types of conditions that are most commonly treated on an overnight basis compared with those receiving same-day treatment.

Table 4.8: Same-day acute separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private	Other	Total
			free-standing day facilities	private hospitals	
Z49	Care involving dialysis	1,203,604	163,284	119,890	1,486,778
Z51	Other medical care	264,320	79,725	234,507	578,552
H26	Other cataract	66,668	81,260	77,373	225,301
R10	Abdominal and pelvic pain	65,111	24,497	40,129	129,737
C44	Other malignant neoplasms of skin	28,159	31,970	39,235	99,364
R07	Pain in throat and chest	85,697	1,276	6,817	93,790
D12	Benign neoplasm of colon, rectum, anus and anal canal	18,655	26,920	47,826	93,401
Z45	Adjustment and management of drug delivery or implanted device	23,487	11,027	48,283	82,797
R19	Other symptoms and signs involving the digestive system and abdomen	29,816	15,178	36,985	81,979
H35	Other retinal disorders	6,951	57,568	13,066	77,585
Z09	Follow-up examination after treatment for conditions other than malignant neoplasms	24,074	17,149	34,364	75,587
K01	Embedded and impacted teeth	5,960	16,717	47,224	69,901
Z31	Procreative management	2,921	40,679	21,637	65,237
K21	Gastro-oesophageal reflux disease	16,557	16,640	31,979	65,176
D50	Iron deficiency anaemia	36,892	7,291	13,335	57,518
K92	Other diseases of digestive system	24,969	7,565	23,905	56,439
Z12	Special screening examination for neoplasms	11,700	17,868	26,737	56,305
Z08	Follow-up examination after treatment for malignant neoplasms	22,713	4,421	26,359	53,493
M54	Dorsalgia	16,459	3,183	25,984	45,626
E61	Deficiency of other nutrient elements	16,759	4,066	19,324	40,149
K50	Crohn's disease [regional enteritis]	22,413	2,506	14,535	39,454
	Other	1,573,651	343,229	840,996	2,757,876
Total		3,567,536	974,019	1,790,490	6,332,045

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 4.9: Overnight acute separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
O80	Single spontaneous delivery	110,229	23,366	133,595
O82	Single delivery by caesarean section	65,966	30,934	96,900
G47	Sleep disorders	21,693	54,329	76,022
R07	Pain in throat and chest	53,424	11,712	65,136
J44	Other chronic obstructive pulmonary disease	56,654	7,841	64,495
J18	Pneumonia, organism unspecified	51,894	9,934	61,828
M17	Gonarthrosis (arthrosis of knee)	19,433	38,792	58,225
K80	Cholelithiasis	38,945	18,582	57,527
L03	Cellulitis	48,542	8,038	56,580
I50	Heart failure	41,276	11,775	53,051
R10	Abdominal and pelvic pain	41,863	10,632	52,495
I21	Acute myocardial infarction	40,559	6,491	47,050
I48	Atrial fibrillation and flutter	28,673	16,416	45,089
N39	Other disorders of urinary system	33,385	9,557	42,942
O81	Single delivery by forceps and vacuum extractor	27,163	9,839	37,002
I25	Chronic ischaemic heart disease	13,889	21,889	35,778
K40	Inguinal hernia	15,292	20,176	35,468
A41	Other sepsis	30,675	4,349	35,024
M16	Coxarthrosis (arthrosis of hip)	11,863	22,930	34,793
T81	Complications of procedures, not elsewhere classified	25,721	8,491	34,212
K35	Acute appendicitis	29,405	4,728	34,133
	Other	2,009,251	807,209	2,816,460
Total		2,815,795	1,158,010	3,973,805

Note: See Box 1.1, 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 tables S4.4 to S4.9 that accompany this report online, and 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 interventions were performed?’ — for emergency and elective admissions involving surgery.

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

4.4 How many separations were due to injury and poisoning?

This section presents information for 2017–18 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 that do not require admission to hospital: for example, that were not medically treated, were treated by general practitioners or were treated in emergency departments (without being admitted).

Separations for injury and poisoning

In 2017–18, about 782,000 separations (about 30 per 1,000 population) had a principal diagnosis for injury or poisoning. The majority (78%) of these were treated in public hospitals (Table 4.10).

About 46% of these separations, in public and private hospitals combined, had a principal diagnosis for *Injuries to upper and lower limbs*.

This table includes rehabilitation care separations, which were not included in this analysis before 2015–16. Therefore, principal diagnosis data for 2015–16 to 2017–18 are not comparable with data presented before 2015–16. See Box 4.2 for more information.

Aboriginal and Torres Strait Islander people

Indigenous Australians were hospitalised with a principal diagnosis of injury or poisoning at almost twice the rate of other Australians (55 per 1,000 and 29 per 1,000, respectively) (Table 4.11).

Injuries to upper and lower limbs accounted for 40% of these separations for Indigenous Australians and 46% for other Australians, while *Injuries to the head and neck* accounted for 25% of separations for Indigenous Australians and 16% for other Australians.

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. More than one external cause code may be reported for a separation, and the external causes presented may not relate to the principal diagnosis.

Falls (37%, 288,000 separations) and *Complications of medical and surgical care* (18%, 138,000 separations) were the most frequently reported external causes of injury or poisoning (Table 4.12).

Public hospitals had notably higher proportions (more than 97%) of separations with external causes of *Intentional self-harm*, *Assault*, *Accidental poisoning*, and *Accidental drowning and submersion*, than private hospitals.

Table 4.10: Separations with a principal diagnosis of injury or poisoning, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
S00–S19	Injuries to head & neck	116,441	11,998	128,439
S20–S39	Injuries to thorax, abdomen, back, spine & pelvis	64,455	16,667	81,122
S40–S99	Injuries to upper and lower limbs	265,831	94,695	360,526
T00–T19	Injuries to multi- or unspecified region; foreign body effects	9,701	1,152	10,853
T20–T35	Burns and frostbite	8,048	291	8,339
T36–T65	Poisoning and toxic effects	41,935	525	42,460
T66–T79	Other and unspecified effects of external causes	16,737	665	17,402
T80–T88	Complications of medical and surgical care	85,732	47,108	132,840
T89–T98	Other trauma complications; external cause sequelae	0	1	1
Total		608,880	173,102	781,982
Separations per 1,000 population		23.5	6.4	29.8

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

Table 4.11: Separations and separations per 1,000 population^(a) with a principal diagnosis of injury or poisoning, by Indigenous status, all hospitals, 2017–18

Principal diagnosis		Indigenous Australians	Other Australians	Total
S00–S19	Injuries to head & neck	8,980	119,459	128,439
S20–S39	Injuries to thorax, abdomen, back, spine & pelvis	2,814	78,308	81,122
S40–S99	Injuries to upper and lower limbs	14,341	346,185	360,526
T00–T19	Injuries to multi- or unspecified region; foreign body effects	609	10,244	10,853
T20–T35	Burns and frostbite	715	7,624	8,339
T36–T65	Poisoning and toxic effects	3,172	39,288	42,460
T66–T79	Other and unspecified effects of external causes	787	16,615	17,402
T80–T88	Complications of medical and surgical care	4,767	128,073	132,840
T89–T98	Other trauma complications; external cause sequelae	0	1	1
Total		36,185	745,797	781,982
Separations per 1,000 population^(a)		54.9	29.2	30.0

(a) The total separations per 1,000 population differs from that presented in Table 4.10 due to differences in the age groups used to calculate age-standardised rates by Indigenous status.

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 4.12: Separations with a principal diagnosis of injury or poisoning, by external cause in ICD-10-AM subchapter groupings^(a), public and private hospitals, 2017–18

External cause		Public hospitals	Private hospitals	Total
V01–V99	Transport accidents	65,095	8,433	73,528
W00–W19	Falls	233,404	54,547	287,951
W20–W64	Exposure to mechanical forces	95,769	10,787	106,556
W65–W74	Accidental drowning and submersion	697	13	710
W75–W84	Other accidental threats to breathing	845	72	917
W85–W99	Exposure to electricity, radiation, extreme temperature/pressure	782	31	813
X00–X19	Exposure to smoke, fire, flames, hot substances	6,485	205	6,690
X20–X39	Exposure to venomous plants, animals, forces of nature	4,503	152	4,655
X40–X49	Accidental poisoning	11,043	257	11,300
X50–X59	Other external causes of accidental injury	37,246	38,882	76,128
X60–X84	Intentional self-harm	30,947	136	31,083
X85–Y09	Assault	23,051	285	23,336
Y10–Y34	Events of undetermined intent	4,569	199	4,768
Y35–Y36	Legal intervention and operations of war	106	5	111
Y40–Y84	Complications of medical and surgical care	93,758	44,511	138,269
Y85–Y98	Sequelae and supplementary factors	361	184	545
	Not reported	219	14,403	14,622
Total		608,880	173,102	781,982

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Aboriginal and Torres Strait Islander people

For Indigenous Australians, *Falls* (20%) and *Assault* (20%) were the most commonly reported external cause of injury and poisoning, accounting for 40% of all reported external causes of injury and poisoning (Table 4.13). *Falls* was also the most commonly reported external cause for other Australians (38%), followed by *Complications of medical and surgical care* (18%).

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

Table 4.13: Separations with a principal diagnosis of injury or poisoning, by external cause in ICD-10-AM groupings^(a) and Indigenous status, all hospitals, 2017–18

External cause	Indigenous Australians	Other Australians	Total
V01–V99 Transport accidents	3,144	70,384	73,528
W00–W19 Falls	7,351	280,600	287,951
W20–W64 Exposure to mechanical forces	6,060	100,496	106,556
W65–W74 Accidental drowning and submersion	46	664	710
W75–W84 Other accidental threats to breathing	43	874	917
W85–W99 Exposure to electricity, radiation, extreme temperature/pressure	29	784	813
X00–X19 Exposure to smoke, fire, flames, hot substances	601	6,089	6,690
X20–X39 Exposure to venomous plants, animals, forces of nature	246	4,409	4,655
X40–X49 Accidental poisoning	849	10,451	11,300
X50–X59 Other external causes of accidental injury	2,240	73,888	76,128
X60–X84 Intentional self-harm	2,849	28,234	31,083
X85–Y09 Assault	7,222	16,114	23,336
Y10–Y34 Events of undetermined intent	434	4,334	4,768
Y35–Y36 Legal intervention and operations of war	20	91	111
Y40–Y84 Complications of medical and surgical care	4,929	133,340	138,269
Y85–Y98 Sequelae and supplementary factors	34	511	545
Not reported	88	14,534	14,622
Total	36,185	745,797	781,982

(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 Box 1.1 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: 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 a National Healthcare Agreement (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 accounted for 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

Table 4.14 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*.

In 2017–18, about 8.6 patient days per 1,000 patient days were for patients waiting for a residential aged care place (Table 4.14). 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.

Due to changes in ACS 2105 *Non-acute care* from 1 July 2015, the data presented for this performance indicator for 2017–18 may not be comparable with data for this performance indicator before the 2015–16 reference period. In addition, there may be differences in the assignment of the *Maintenance care* type among jurisdictions.

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 4.14: 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 usual residence, all hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous status									
Indigenous	3.3	..	15.1	3.5	7.5	6.7	..	10.0	7.7
Other Australians	7.5	0.2	15.2	10.5	20.9	10.3	13.6	14.6	8.6
Remoteness area of usual residence									
Major cities	7.9	0.0	10.9	9.2	15.9	n.p.	15.3	n.p.	7.1
Inner regional	6.3	0.8	13.8	11.8	11.4	7.1	2.0	..	7.0
Outer regional	5.4	1.3	30.8	20.0	31.7	15.6	n.p.	15.9	18.4
Remote	0.6	..	43.7	8.4	42.6	34.2	n.p.	15.0	22.7
Very remote	11.3	..	45.3	1.3	240.1	69.9	n.p.	6.3	31.5
Socioeconomic status of area of usual residence									
1-Lowest	9.0	0.2	19.1	14.4	14.6	14.2	9.6	8.7	10.8
2	9.2	0.5	18.1	12.7	31.8	7.4	2.1	14.6	11.2
3	8.9	0.4	13.3	8.7	20.3	9.5	4.0	12.2	8.5
4	7.1	0.1	11.0	8.5	12.1	3.7	15.9	15.7	6.7
5-Highest	3.0	0.0	13.5	7.5	18.6	3.0	15.8	19.6	5.1
Total	7.3	0.2	15.2	10.0	20.4	10.2	13.3	11.9	8.6

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

5 What services were provided?

This chapter presents information on the nature of the services provided for admitted patients including:

- the broad category of service (see Box 5.1)
- the Australian Refined Diagnosis Related Groups (AR-DRGs)—this includes the numbers of separations by Major Diagnostic Category (MDC) and AR-DRGs
- whether the patient spent time in an intensive care unit (ICU), or were assisted by a breathing machine
- the intent of care—including who used these services, why they received care, who paid for the care and how the admitted patient episode ended.

In previous reports, this chapter also included information about hospital-in-the-home. Information on hospital-in-the-home is available in tables that accompany this report online.

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

Key findings

Broad categories of service

In 2017–18, 54% of separations were for medical care, 23% were for surgical care and 12% for other acute care. Private hospitals accounted for 59% of surgical separations and 58% of mental health care separations.

Newborn care

In 2017–18, there were just under 308,000 newborn separations. The majority of these separations (82%) occurred in public hospitals. The most common principal diagnosis for newborns with at least one qualified day was *Disorders related to short gestation and low birth weight, not elsewhere classified*. For newborns without qualified days, about 88% did not report any interventions.

Rehabilitation care

In 2017–18, there were almost 466,000 separations for *Rehabilitation care*, with 80% occurring in private hospitals. Just over 82% of rehabilitation care separations were for people aged over 60, and most (81%) were for people living in *Major cities*.

Palliative care

In 2017–18, there were close to 46,000 separations for *Palliative care* in public and private hospitals, with 55% of those having a principal diagnosis that was cancer-related.

Mental health care

In 2017–18, there were 336,000 separations for *Mental health care*, with 58% of these occurring in private hospitals. Most mental health care separations in public hospitals (84%) involved a stay of at least one night, while most mental health care separations in private hospitals (78%) involved same-day care.

5.1 Broad category of service

This section presents information by broad category of service (see Box 5.1), over time and for 2017–18. It includes the number of separations, and for overnight care also includes the number of patient days and average length of stay.

Box 5.1: Broad categories of service

Separations are categorised into the following broad categories of service:

- *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* (between 2015–16 and 2017–18) or for which specialised psychiatric care days were reported (for 2013–14 to 2015–16), excluding separations for childbirth. Reporting of mental health care separations varied across jurisdictions in 2015–16.
- *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*.

See Box 1.1 and Appendix A for more information.

Changes over time

In public hospitals, *Emergency surgical* separations increased by an average of 3.0% each year between 2013–14 and 2017–18, and *Emergency medical* separations increased by an average of 4.6% each year (Table 5.1). In private hospitals, *Non-emergency medical* separations increased by an average of 3.6% each year between 2013–14 and 2017–18.

Between 2016–17 and 2017–18, *Emergency* separations increased by 5.9% in private hospitals whilst *Childbirth* separations in private hospitals decreased by 6.6%.

How much activity was there in 2017–18?

In 2017–18, public hospitals accounted for the majority of *Emergency* admissions (92%), *Medical* separations (77%) and *Childbirth* separations (77%) (Table 5.1). Private hospitals accounted for 59% of *Surgical* separations and 58% of *Mental health* separations.

Patient days and length of stay

Emergency admissions in public hospitals had shorter stays (5.7 days, on average) compared with *Emergency* admissions in private hospitals (6.4 days).

For *Childbirth*, *Emergency medical* and *Emergency surgery* separations, the average lengths of stay were longer in private hospitals than in public hospitals (Table 5.2).

Table 5.1: Separations^(a) by broad category of service, public and private hospitals, 2013–14 to 2017–18^(b)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Since 2013–14	Since 2016–17
Public hospitals							
Childbirth	225,323	226,997	233,788	232,188	231,765	0.7	–0.2
<i>Surgical total</i>	977,975	997,363	1,023,069	1,047,376	1,069,202	2.3	2.1
Emergency	265,617	272,800	283,165	290,535	299,193	3.0	3.0
Non-emergency	712,358	724,563	739,904	756,841	770,009	2.0	1.7
<i>Medical total</i>	3,830,481	4,039,090	4,257,949	4,516,184	4,623,330	4.8	2.4
Emergency	1,945,308	2,061,202	2,182,895	2,311,645	2,331,070	4.5	0.8
Non-emergency	1,885,173	1,977,888	2,075,054	2,204,539	2,292,260	5.0	4.0
<i>Other acute care total</i>	380,033	403,745	419,510	448,234	459,044	4.8	2.4
Emergency	68,357	71,086	74,932	79,901	83,220	5.0	4.2
Non-emergency	311,676	332,659	344,578	368,333	375,824	4.8	2.0
Mental health care	115,142	120,870	140,040	146,335	141,760	5.3	–3.1
<i>Subacute and non-acute care total</i>	185,916	192,273	198,109	197,023	198,984	1.7	1.0
Rehabilitation	96,764	100,444	102,405	95,041	93,751	–0.8	–1.4
Palliative care	32,581	34,590	36,498	37,315	39,117	4.7	4.8
Other subacute and non-acute care	56,571	57,239	59,206	64,667	66,116	4.0	2.2
<i>Total emergency</i>	2,279,282	2,405,088	2,540,992	2,682,081	2,718,161	4.5	1.3
<i>Total non-emergency</i>	2,909,207	3,035,110	3,159,536	3,329,713	3,443,919	4.3	3.4
Public hospital total	5,714,870	5,980,338	6,272,481	6,587,348	6,726,775	4.2	2.1
Private hospitals							
Childbirth	78,865	75,650	75,881	72,295	67,491	–3.8	–6.6
<i>Surgical total</i>	1,429,973	1,486,804	1,521,285	1,522,042	1,530,563	1.7	0.6
Emergency	39,124	41,460	42,738	45,280	47,958	5.2	5.9
Non-emergency	1,390,849	1,445,344	1,478,547	1,476,762	1,482,605	1.6	0.4
<i>Medical total</i>	1,213,449	1,248,109	1,313,010	1,365,615	1,410,211	3.8	3.3
Emergency	145,309	150,848	158,020	171,550	180,308	5.5	5.1
Non-emergency	1,068,140	1,097,261	1,154,990	1,194,065	1,229,903	3.6	3.0
<i>Other acute care total</i>	840,136	875,491	894,639	904,369	914,257	2.1	1.1
Emergency	16,125	16,656	16,612	17,687	20,146	5.7	13.9
Non-emergency	824,011	858,835	878,027	886,682	894,111	2.1	0.8
Mental health care	154,859	165,955	179,439	180,006	195,178	6.0	8.4
<i>Subacute and non-acute care total</i>	264,623	318,020	343,026	382,140	408,799	11.5	7.0
Rehabilitation	255,555	309,849	331,997	349,934	372,120	9.8	6.3
Palliative care	6,392	6,217	5,721	6,169	6,444	0.2	4.5
Other subacute and non-acute ^(c)	2,676	1,954	5,308	26,037	30,235	83.3	16.1
<i>Total emergency</i>	200,558	208,964	217,370	234,517	248,412	5.5	5.9
<i>Total non-emergency</i>	3,283,000	3,401,440	3,511,564	3,557,509	3,606,619	2.4	1.4
Private hospital total	3,981,905	4,170,029	4,327,287	4,426,467	4,526,500	3.3	2.3
Total separations	9,696,775	10,150,367	10,599,768	11,013,815	11,253,275	3.8	2.2

(a) Excludes separations for *Newborns without qualified days*, 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 to 2017–18 are not comparable with data reported in previous years.

(c) For 2016–17 and 2017–18, 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, 5.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.2: Patient days and average length of stay, for overnight acute separations, by broad category of service, public and private hospitals, 2017–18

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	667,398	3.0	312,618	4.5	980,016	3.4
<i>Surgical total</i>	3,373,737	5.6	2,139,536	5.3	5,513,273	5.3
Emergency	1,944,630	7.2	318,805	7.6	2,263,435	7.2
Non-emergency	1,429,107	3.9	1,820,731	3.0	3,249,838	3.4
<i>Medical total</i>	7,142,719	4.4	2,014,241	5.3	9,156,960	4.4
Emergency	5,607,548	3.6	946,469	5.6	6,554,017	3.8
Non-emergency	1,535,171	5.2	1,067,772	4.9	2,602,943	5.0
<i>Other acute care total</i>	583,950	5.0	195,526	4.2	779,476	4.5
Emergency	486,128	6.4	85,823	5.9	571,951	6.3
Non-emergency	97,822	3.5	109,703	2.4	207,525	2.8
<i>Total emergency</i>	8,038,306	5.7	1,351,097	6.4	9,389,403	5.8
<i>Total non-emergency</i>	3,062,100	4.2	2,998,206	3.4	6,060,306	3.7
Total	11,767,804	4.2	4,661,921	4.0	16,429,725	4.1

Note: See boxes 1.1, 5.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about separations by broad category of service is in tables S5.1 to S5.3 that accompany this report online, and in ‘Chapter 4 — Why did people receive care?’ for urgency of admission.

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 acute care separations for Major Diagnostic Categories (MDCs) and AR-DRGs for 2017–18 using AR-DRG version 8.0.

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 interventions reported (IHPA 2014).

MDC overview

In 2017–18:

- for public hospitals:
 - *Medical* DRGs accounted for 75% of separations (4.8 million) (Table 5.3)
 - *Surgical* DRGs accounted for 18% (1.1 million)
 - *Diseases and disorders of the kidney and urinary tract* was the most common MDC for public hospitals (23% of separations).
- for private hospitals:
 - *Surgical* DRGs accounted for 40% of acute care separations (1.6 million) (Table 5.3)
 - *Medical* DRGs accounted for 37% (1.4 million)
 - *Diseases and disorders of the digestive system* was the most common MDC (17%).

Private hospitals accounted for 70% of acute care separations for *Diseases and disorders of the eye*.

AR-DRGs for same-day acute care

In 2017–18, the 20 most common AR-DRGs accounted for almost two-thirds (61%) of same day acute separations (Table 5.4).

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 (81%) of same-day acute separations for *Haemodialysis*.

Private hospitals provided 89% of same-day acute separations for *Retinal procedures* and 83% of *Dental extractions and restorations* (Table 5.4).

AR-DRGs for overnight acute care

In 2017–18, the 2 most common AR-DRGs for overnight acute separations were for childbirth, followed by respiratory infections (Table 5.5).

Public hospitals provided the majority of overnight separations for *Vaginal delivery, intermediate complexity* and *Vaginal delivery, minor complexity* (80% and 79%, respectively).

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

Table 5.3: Acute care separations by Major Diagnostic Category AR-DRG version 8.0 and medical/surgical/ other partition, public and private hospitals, 2017–18

Major Diagnostic Category		Public hospitals	Private hospitals	Total
PR	Pre-MDC (tracheostomies, transplants, ECMO)	13,205	5,177	18,382
01	Diseases and disorders of the nervous system	349,575	95,209	444,784
02	Diseases and disorders of the eye	132,678	311,147	443,825
03	Diseases and disorders of the ear, nose, mouth and throat	247,133	240,116	487,249
04	Diseases and disorders of the respiratory system	383,754	116,582	500,336
05	Diseases and disorders of the circulatory system	507,530	192,842	700,372
06	Diseases and disorders of the digestive system	678,090	679,191	1,357,281
07	Diseases and disorders of the hepatobiliary system and pancreas	112,321	37,776	150,097
08	Diseases and disorders of the musculoskeletal system and connective tissue	455,541	405,720	861,261
09	Diseases and disorders of the skin, subcutaneous tissue and breast	241,827	218,658	460,485
10	Endocrine, nutritional and metabolic diseases and disorders	105,549	78,575	184,124
11	Diseases and disorders of the kidney and urinary tract	1,471,387	421,786	1,893,173
12	Diseases and disorders of the male reproductive system	52,967	71,439	124,406
13	Diseases and disorders of the female reproductive system	126,947	181,876	308,823
14	Pregnancy, childbirth and puerperium	406,557	127,683	534,240
15	Newborns and other neonates	74,689	12,665	87,354
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	139,772	78,561	218,333
17	Neoplastic disorders(haematological and solid neoplasms)	318,157	342,498	660,655
18	Infectious and parasitic diseases	98,896	15,770	114,666
19	Mental diseases and disorders	48,192	16,751	64,943
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	37,554	5,074	42,628
21	Injuries, poisoning and toxic effects of drugs	195,579	25,904	221,483
22	Burns	8,284	298	8,582
23	Factors influencing health status and other contacts with health services	171,098	236,844	407,942
ED	Error DRGs ^(a)	6,049	4,377	10,426
	Surgical	1,148,321	1,564,086	2,712,407
	Medical	4,775,966	1,444,176	6,220,142
	Other	459,044	914,257	1,373,301
Total		6,383,331	3,922,519	10,305,850

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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.4: Separations for the 20 most common AR-DRGs version 8.0 for same-day acute separations, public and private hospitals, 2017–18

AR-DRG		Public hospitals	Private free-standing day facilities	Other private hospitals	Total
L61Z	Haemodialysis	1,196,000	162,477	119,681	1,478,158
R63Z	Chemotherapy	258,909	78,179	231,406	568,494
G48B	Colonoscopy, minor complexity	86,022	83,013	138,894	307,929
C16Z	Lens procedures	73,814	93,604	80,017	247,435
G46B	Complex endoscopy, minor complexity	40,500	64,557	95,349	200,406
Z40Z	Other contacts with health services with endoscopy, same-day	48,334	37,685	78,258	164,277
G47C	Gastrosocopy, minor complexity	39,314	45,969	63,532	148,815
Z64B	Other factors influencing health status, minor complexity	49,372	15,499	56,351	121,222
D40Z	Dental extractions and restorations	20,200	28,469	69,391	118,060
Q61B	Red blood cell disorders, intermediate complexity	57,506	12,643	22,833	92,982
C03B	Retinal procedures, minor complexity	9,628	59,830	14,806	84,264
J11B	Other skin, subcutaneous tissue and breast procedures, minor complexity	28,123	23,361	31,017	82,501
F74B	Chest pain, minor complexity	76,546	591	3,017	80,154
I82Z	Other same-day treatment for musculoskeletal disorders	48,654	3,400	24,160	76,214
L41Z	Cystourethroscopy for urinary disorder, same-day	36,088	4,606	34,882	75,576
O66B	Antenatal and other obstetric admissions, minor complexity	64,265	24	9,100	73,389
N07B	Other uterus and adnexa procedures for non-malignancy, minor complexity	11,055	22,173	26,133	59,361
O05Z	Abortion with OR procedures	18,001	28,880	8,308	55,189
I40Z	Infusions for musculoskeletal disorders, same-day	17,869	1,687	29,378	48,934
J08C	Other skin grafts and debridement procedures, minor complexity	9,457	17,100	19,885	46,442
	Other	1,377,879	190,272	634,092	2,202,243
Total		3,567,536	974,019	1,790,490	6,332,045

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.5: Separations for the 20 most common AR-DRG version 8.0 for overnight acute separations, public and private hospitals, 2017–18

AR-DRG		Public hospitals	Private hospitals	Total
O60B	Vaginal delivery, intermediate complexity	65,690	16,193	81,883
O60C	Vaginal delivery, minor complexity	51,780	13,740	65,520
E62A	Respiratory infections and inflammations, major complexity	49,469	6,998	56,467
E63B	Sleep apnoea, minor complexity	9,696	42,232	51,928
O01C	Caesarean delivery, minor complexity	29,078	20,641	49,719
G70A	Other digestive system disorders, major complexity	39,690	7,865	47,555
J64B	Cellulitis, minor complexity	40,296	5,185	45,481
F74B	Chest pain, minor complexity	38,400	6,052	44,452
G10B	Hernia procedures, minor complexity	18,458	25,661	44,119
I04B	Knee replacement, minor complexity	15,029	28,748	43,777
O01B	Caesarean delivery, intermediate complexity	32,504	10,355	42,859
H08B	Laparoscopic cholecystectomy, minor complexity	22,924	17,382	40,306
E62B	Respiratory infections and inflammations, minor complexity	31,973	6,541	38,514
I16Z	Other shoulder procedures	6,924	30,431	37,355
I03B	Hip replacement, minor complexity	14,880	20,192	35,072
G70B	Other digestive system disorders, minor complexity	28,686	4,912	33,598
E65B	Chronic obstructive airways disease, minor complexity	28,434	4,643	33,077
D11Z	Tonsillectomy and adenoidectomy	13,620	19,312	32,932
F42B	Circulatory disorders, not admitted for AMI with invasive cardiac investigative procedures, minor complexity	10,390	22,157	32,547
I68B	Non-surgical spinal disorders, minor complexity	22,670	9,566	32,236
	Other	2,245,204	839,204	3,084,408
Total		2,815,795	1,158,010	3,973,805

AR-DRG—Australian Refined Diagnosis Related Group; AMI—acute myocardial infarction; OR—operating room; ≥—greater than or equal to.
 Note: See Box 1.1 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 tables S5.4 to S5.7 that accompany this report online, and 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

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 or a paediatric ICU must:

- be capable of providing complex, multisystem life support for an indefinite period
- be a tertiary referral centre for patients (for children if a paediatric ICU) 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 (to infants and children aged less than 16 if a paediatric ICU), 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. For more information about level 3 adult ICUs and paediatric ICUs see Appendix A.

The quality of data submitted for separations involving ICU varies across jurisdictions. See appendixes A and B for more information.

Hours in intensive care

In 2017–18, 12.8 million hours in ICU were reported for 161,000 separations (Table 5.6).

In public hospitals, 10.4 million hours (434,000 patient days) were spent in an ICU for 115,000 separations. Just over 1.7% of separations involved time in an ICU and the average period in ICU was 90 hours per separation (just under 4 days).

For private hospitals, data was only available for New South Wales, Victoria, Queensland, Western Australia and South Australia. Across these states, 2.3 million hours (98,500 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 51 hours per separation (just over 2 days).

Table 5.6: Separations involving a stay in an intensive care unit, public and private hospitals, 2017–18

	Public hospitals ^(a)	Private hospitals ^(b)	Total
Number of hospitals reporting separations involving a stay in ICU	106	n.p.	n.p.
Separations involving a stay in ICU	115,042	46,388	161,430
Hours in ICU	10,402,444	2,353,330	12,755,774
Average duration of stay in ICU (hours) ^(c)	90.42	50.73	79.02
Separations that involved a stay in ICU per 1,000 separations	17.10	10.25	14.35

(a) ICU hours were provided for all public hospitals with an ICU or a Neonatal ICU in Victoria, including for ICUs that were not level 3.

(b) For private hospitals, data were not available for Tasmania, the Australian Capital Territory and the Northern Territory.

(c) For separations involving time in an ICU.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Hours of continuous ventilatory support

Continuous ventilatory support (CVS—also known as invasive ventilatory support or mechanical ventilation) refers to the use of a machine to assist breathing.

In 2017–18, 4.1 million hours of CVS were reported for 46,000 separations (Table 5.7). If a patient undergoes CVS on more than 1 occasion during their admitted patient episode, then the CVS hours are summed for reporting.

Public hospitals provided 3.7 million hours (154,000 patient days) of CVS for 38,000 separations. Overall, 0.6% of separations in public hospitals involved CVS and the average duration of CVS was 97 hours per separation (just over 4 days).

For private hospitals, data was only available for New South Wales, Victoria, Queensland, Western Australia and South Australia. Across these states, 373,000 hours (15,500 patient days) of CVS was provided for 8,000 separations. Fewer than 0.2% of separations in private hospitals involved CVS and the average duration of CVS was 47 hours per separation (just under 2 days).

Periods of ventilatory support that are associated with anaesthesia during surgery, and which are considered an integral part of the surgical procedure, are not reported. The quality of data submitted for separations involving CVS varies across jurisdictions. See appendixes A and B for more information.

Table 5.7: Separations involving continuous ventilatory support (CVS), public and private hospitals, 2017–18

	Public hospitals	Private hospitals ^(a)	Total
Number of hospitals reporting separations involving CVS	209	n.p.	n.p.
Separations involving CVS	38,412	7,954	46,366
Hours of CVS	3,709,045	373,440	4,082,485
Average duration of CVS ^(b)	96.56	46.95	88.05
Separations that involved CVS per 1,000 separations	5.71	1.76	4.12

(a) For private hospitals, data were not available for Tasmania, the Australian Capital Territory and the Northern Territory.

(b) For separations involving CVS.

Note: See Box 1.1 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 2017–18, 161,000 separations reported a stay in ICU and 46,000 separations reported periods of CVS (Table 5.8).

Overall, 24% of separations (39,500 of 161,400) that reported hours in an ICU also reported hours of CVS—28% for public hospitals and 15% for private hospitals.

Over 85% of separations that reported hours of CVS also reported hours in an ICU (39,500 of 46,400).

Table 5.8: Numbers of separations reporting time in an intensive care unit or involving continuous ventilatory support, public and private hospitals, 2017–18

	Separations that involved a stay in ICU	Separations that did not involve a stay ICU	ICU hours not reported	Total
Public hospitals				
Separations that involved CVS	32,653	5,759	0	38,412
Separations that did not involve CVS	82,389	6,605,974	0	6,688,363
CVS hours not reported	0	0	0	0
<i>Total public hospitals</i>	<i>115,042</i>	<i>6,611,733</i>	<i>0</i>	<i>6,726,775</i>
Private hospitals				
Separations that involved CVS	6,857	1,097	0	7,954
Separations that did not involve CVS	39,531	4,344,567	0	4,384,098
CVS hours not reported	0	0	134,448	134,448
<i>Total private hospitals</i>	<i>46,388</i>	<i>4,345,664</i>	<i>134,448</i>	<i>4,526,500</i>
All hospitals				
Separations that involved CVS	39,510	6,856	0	46,366
Separations that did not involve CVS	121,920	10,950,541	0	11,072,461
CVS hours not reported	0	0	134,448	134,448
Total	161,430	10,957,397	134,448	11,253,275

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

Information about separations involving a stay in the ICU or CVS by state and territory is available in tables S5.8 and S5.9, which accompany this report online.

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

5.4 Newborn care

This section presents an overview of *Newborn* care for newborns with both qualified and unqualified days. A day is considered 'qualified' for health insurance benefits purposes 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 (METeOR ID: 327254).

A newborn admission to hospital can occur at any time within the first 9 days of life, including at the time of birth.

The reporting of unqualified newborns has changed over time and varies across jurisdictions. Prior to 2017–18, newborn episodes involving unqualified care were routinely excluded from national reporting on the basis that they didn't meet admission criteria for all purposes. However, due to changes in newborn care practices (such as care being provided to unqualified newborns on the ward rather than in a special care nursery) stakeholders have expressed interest in the reporting of all newborn episodes, regardless of qualification status (AIHW 2017).

Newborn care is reported in this section in total, or for both qualified and unqualified newborns, as indicated (see also Chapter 4). See Appendix A for more information.

Changes over time

Between 2013–14 and 2017–18, separations for newborns were relatively stable, decreasing by an average of less than 0.1% per year (Figure 5.1).

Over the same period, separations for qualified newborns decreased by an average of 7.9% per year for private hospitals and by 4.8% per year for public hospitals (Table 5.9). However, these decreases mostly reflect changes in the assignment of qualification status in New South Wales between 2016–17 and 2017–18.

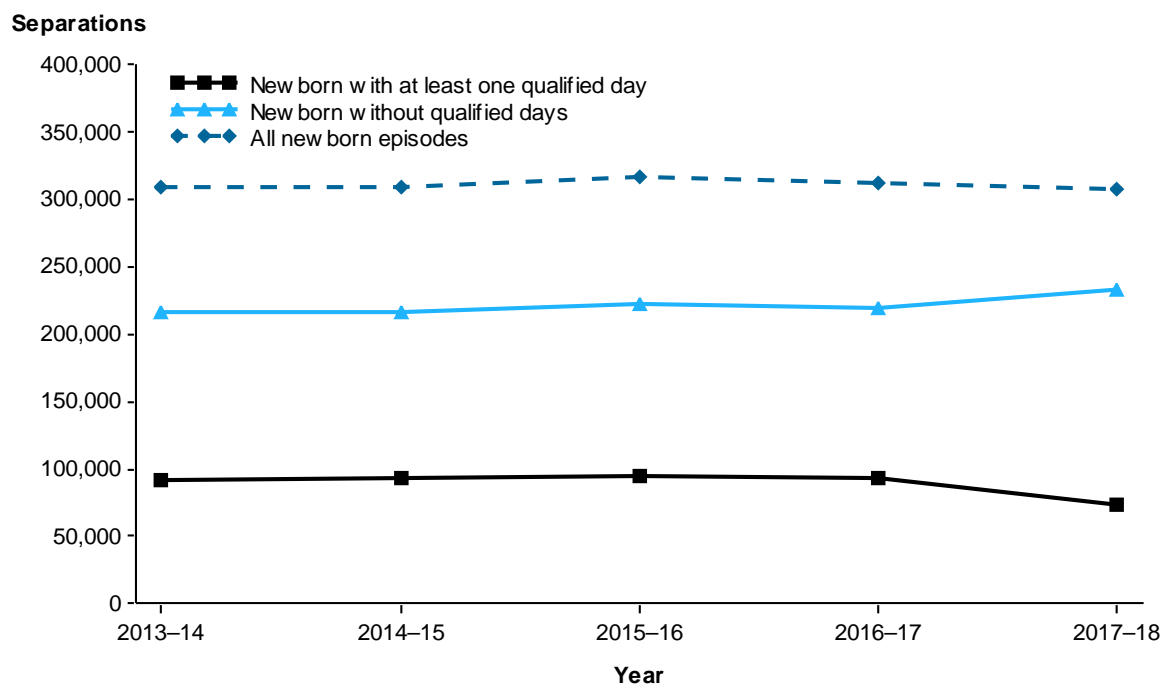
Separations for unqualified newborns between 2013–14 and 2017–18 decreased by an average of 2.6% per year for private hospitals, and increased by an average of 3.1% per year for public hospitals (Table 5.10). However, as above, these figures reflect changes in the assignment of qualification status in New South Wales between 2016–17 and 2017–18.

How much activity was there in 2017–18?

In 2017–18, there were almost 308,000 newborn separations. The majority of these (82%) occurred in public hospitals (tables 5.9 and 5.10).

Newborns with at least one qualified day accounted for 24% of all newborn care separations—25% of separations in public hospitals and 21% of separations in private hospitals (tables 5.9 and 5.10).

Figure 5.1: Separations for newborns, all hospitals, 2013–14 to 2017–18



Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.9: Separations for newborns with at least one qualified day, public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales							
Public hospitals	37,058	37,576	38,735	38,829	17,432	-17.2	-55.1
Private hospitals	6,834	6,754	6,572	4,477	4,161	-11.7	-7.1
<i>All hospitals</i>	<i>43,892</i>	<i>44,330</i>	<i>45,307</i>	<i>43,306</i>	<i>21,593</i>	<i>-16.3</i>	<i>-50.1</i>
Victoria							
Public hospitals	13,769	14,300	15,004	15,833	15,794	3.5	-0.2
Private hospitals	3,543	3,474	3,277	3,158	3,012	-4.0	-4.5
<i>All hospitals</i>	<i>17,312</i>	<i>17,774</i>	<i>18,281</i>	<i>18,991</i>	<i>18,806</i>	<i>2.1</i>	<i>-1.0</i>
Queensland							
Public hospitals	11,261	11,175	11,209	11,930	14,641	6.8	22.7
Private hospitals	2,636	2,408	2,425	2,279	2,079	-5.8	-8.8
<i>All hospitals</i>	<i>13,897</i>	<i>13,583</i>	<i>13,634</i>	<i>14,209</i>	<i>16,720</i>	<i>4.7</i>	<i>17.7</i>
Western Australia							
Public hospitals	5,914	5,912	6,202	6,129	6,160	1.0	0.5
Private hospitals	1,947	1,706	1,790	1,631	1,385	-8.2	-15.1
<i>All hospitals</i>	<i>7,861</i>	<i>7,618</i>	<i>7,992</i>	<i>7,760</i>	<i>7,545</i>	<i>-1.0</i>	<i>-2.8</i>
South Australia							
Public hospitals	4,334	4,358	4,558	4,418	4,717	2.1	6.8
Private hospitals	731	851	857	798	699	-1.1	-12.4
<i>All hospitals</i>	<i>5,065</i>	<i>5,209</i>	<i>5,415</i>	<i>5,216</i>	<i>5,416</i>	<i>1.7</i>	<i>3.8</i>
Tasmania							
Public hospitals	1,451	1,044	906	944	948	-10.1	0.4
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	1,301	1,630	1,528	1,536	1,648	6.1	7.3
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Northern Territory							
Public hospitals	865	1,098	1,048	1,078	1,052	5.0	-2.4
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>
Total							
Public hospitals	75,953	77,093	79,190	80,697	62,392	-4.8	-22.7
Private hospitals	16,174	15,680	15,440	12,514	11,629	-7.9	-7.1
All hospitals	92,127	92,773	94,630	93,211	74,021	-5.3	-20.6

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.10: Separations for newborns without qualified days, public and private hospitals, states and territories, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales							
Public hospitals	42,041	41,649	41,959	41,765	62,263	10.3	49.1
Private hospitals	16,160	14,971	16,669	18,124	17,224	1.6	-5.0
<i>All hospitals</i>	<i>58,201</i>	<i>56,620</i>	<i>58,628</i>	<i>59,889</i>	<i>79,487</i>	<i>8.1</i>	<i>32.7</i>
Victoria							
Public hospitals	48,272	48,656	51,062	49,780	50,296	1.0	1.0
Private hospitals ^(a)	2,341	2,438	3,305	1,928	2,029	-3.5	5.2
<i>All hospitals</i>	<i>50,613</i>	<i>51,094</i>	<i>54,367</i>	<i>51,708</i>	<i>52,325</i>	<i>0.8</i>	<i>1.2</i>
Queensland							
Public hospitals	36,662	37,262	37,649	36,854	34,768	-1.3	-5.7
Private hospitals	15,602	14,762	14,196	13,277	12,305	-5.8	-7.3
<i>All hospitals</i>	<i>52,264</i>	<i>52,024</i>	<i>51,845</i>	<i>50,131</i>	<i>47,073</i>	<i>-2.6</i>	<i>-6.1</i>
Western Australia							
Public hospitals	19,945	20,303	21,388	21,437	21,309	1.7	-0.6
Private hospitals	9,096	9,008	8,770	8,186	7,445	-4.9	-9.1
<i>All hospitals</i>	<i>29,041</i>	<i>29,311</i>	<i>30,158</i>	<i>29,623</i>	<i>28,754</i>	<i>-0.2</i>	<i>-2.9</i>
South Australia							
Public hospitals	12,474	12,397	12,539	12,334	11,831	-1.3	-4.1
Private hospitals	713	760	716	674	655	-2.1	-2.8
<i>All hospitals</i>	<i>13,187</i>	<i>13,157</i>	<i>13,255</i>	<i>13,008</i>	<i>12,486</i>	<i>-1.4</i>	<i>-4.0</i>
Tasmania							
Public hospitals	2,875	3,605	3,943	3,758	3,669	6.3	-2.4
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	4,051	3,996	4,204	4,109	3,967	-0.5	-3.5
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>
Northern Territory							
Public hospitals	2,908	2,894	2,899	3,036	2,861	-0.4	-5.8
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total							
Public hospitals	169,228	170,762	175,643	173,073	190,964	3.1	10.3
Private hospitals	47,322	45,013	46,747	45,605	42,628	-2.6	-6.5
All hospitals	216,550	215,775	222,390	218,678	233,592	1.9	6.8

(a) The reporting of newborns without qualified days is not compulsory in the Victorian private sector.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Who used these services?

Aboriginal and Torres Strait Islander people

In 2017–18, 17,500 newborn separations (5.7%) were reported for Aboriginal and Torres Strait Islander people (Table 5.11). The proportion of all separations that were for newborns was greater for Indigenous Australians compared to other Australians (3.2% and 2.7%, respectively).

Table 5.11: Newborn care separations, by Indigenous status, all hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous Australians									
Separations	5,906	1,423	5,305	1,986	830	380	185	1,529	17,544
Separations per 1,000	13.7	13.8	12.6	11.9	11.2	7.6	14.2	13.5	12.8
Proportion of all hospital separations (%)	5.5	4.8	3.7	1.7	2.9	5.4	5.0	1.3	3.2
Other Australians^(a)									
Separations	95,174	69,708	58,488	34,313	17,072	6,267	6,541	2,506	290,069
Separations per 1,000	13.4	11.5	13.3	13.9	11.6	15.6	15.7	14.1	12.9
Proportion of all hospital separations (%)	3.1	2.4	2.4	3.2	2.3	2.9	4.7	3.9	2.7
Total									
Separations	101,080	71,131	63,793	36,299	17,902	6,647	6,726	4,035	307,613
Separations per 1,000	13.4	11.5	13.3	13.8	11.6	14.7	15.7	13.9	12.9
Proportion of all hospital separations (%)	3.2	2.4	2.4	3.0	2.3	3.0	4.7	2.2	2.7

(a) *Other Australians* includes separations for which Indigenous status was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

What care did newborns receive?

Most common principal diagnosis

In 2017–18, for newborns with at least one qualified day:

- the 20 most common principal diagnoses accounted for 89% of separations (Table 5.12)
- the most common diagnosis was *Disorders related to short gestation and low birth weight, not elsewhere classified* (29% of separations)
- the majority of separations with a principal diagnosis of *Slow fetal growth and fetal malnutrition* (96%) occurred in public hospitals.

In 2017–18, for newborns without qualified days:

- the 20 most common principal diagnoses accounted for 94% of separations (Table 5.13)
- the most common principal diagnosis was *Liveborn infants according to place of birth* (63% of separations), which is recorded as the principal diagnosis only when the newborn is completely well (including those babies who have had a circumcision performed).

Table 5.12: Separations for the 20 most common principal diagnosis 3-character ICD-10-AM groupings for newborns with at least one qualified day, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
P07	Disorders related to short gestation and low birth weight, not elsewhere classified	17,741	4,083	21,824
P22	Respiratory distress of newborn	7,442	1,386	8,828
P59	Neonatal jaundice from other and unspecified causes	5,564	1,170	6,734
Z03	Medical observation and evaluation for suspected diseases and conditions	5,099	679	5,778
P70	Transitory disorders of carbohydrate metabolism specific to fetus and newborn	4,039	1,125	5,164
P36	Bacterial sepsis of newborn	2,528	105	2,633
P05	Slow fetal growth and fetal malnutrition	2,084	440	2,524
P92	Feeding problems of newborn	1,915	220	2,135
Z38	Liveborn infants according to place of birth	1,287	718	2,005
P28	Other respiratory conditions originating in the perinatal period	1,239	418	1,657
P55	Immune haemolytic disease of fetus and newborn	806	67	873
Z76	Persons encountering health services in other circumstances	741	111	852
P12	Birth trauma to scalp	672	69	741
P80	Hypothermia of newborn	610	109	719
P08	Disorders related to long gestation and high birth weight	641	31	672
P29	Cardiovascular disorders originating in the perinatal period	536	69	605
P96	Other conditions originating in the perinatal period	511	40	551
P21	Birth asphyxia	440	108	548
R63	Symptoms and signs concerning food and fluid intake	511	28	539
P81	Other disturbances of temperature regulation of newborn	404	47	451
	Other diagnoses	7,582	606	8,188
Total		62,392	11,629	74,021

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.13: Separations for the 20 most common principal diagnosis 3-character ICD-10-AM groupings for newborns without qualified days, public and private hospitals^(a), 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
Z38	Liveborn infants according to place of birth	116,018	30,863	146,881
Z03	Medical observation and evaluation for suspected diseases and conditions	23,630	2,051	25,681
P70	Transitory disorders of carbohydrate metabolism specific to fetus and newborn	4,218	641	4,859
P92	Feeding problems of newborn	3,469	1,057	4,526
P07	Disorders related to short gestation and low birth weight, not elsewhere classified	3,282	741	4,023
Q38	Other congenital malformations of tongue, mouth and pharynx	2,521	1,303	3,824
P12	Birth trauma to scalp	2,944	223	3,167
P22	Respiratory distress of newborn	2,736	410	3,146
P05	Slow fetal growth and fetal malnutrition	2,552	406	2,958
Q66	Congenital deformities of feet	2,468	225	2,693
P59	Neonatal jaundice from other and unspecified causes	1,963	670	2,633
P08	Disorders related to long gestation and high birth weight	2,343	198	2,541
Z76	Persons encountering health services in other circumstances	2,165	349	2,514
P28	Other respiratory conditions originating in the perinatal period	1,759	560	2,319
P15	Other birth trauma	1,479	74	1,553
R63	Symptoms and signs concerning food and fluid intake	1,133	224	1,357
P83	Other conditions of integument specific to fetus and newborn	1,098	151	1,249
P96	Other conditions originating in the perinatal period	1,063	142	1,205
P29	Cardiovascular disorders originating in the perinatal period	1,006	114	1,120
P39	Other infections specific to the perinatal period	872	127	999
	Other diagnoses	12,245	2,099	14,344
Total		190,964	42,628	233,592

(a) The reporting of newborns without qualified days is not compulsory in the Victorian private sector.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Interventions

In 2017–18, for newborns with at least one qualified day:

- the 10 most common ACHI interventions accounted for 72% of interventions reported (Table 5.14)
- the most common intervention reported was *Intravenous administration of pharmacological agent, anti-infective agent* (15% of interventions reported)
- about 26% of separations did not report any interventions.

Table 5.14: The 10 most common ACHI interventions for newborns with at least one qualified day, public and private hospitals, 2017–18

Intervention		Public hospitals	Private hospitals	Total
96199-02	Intravenous administration of pharmacological agent, anti-infective agent	23,625	1,901	25,526
96202-07	Enteral administration of pharmacological agent, nutritional substance	17,709	4,310	22,019
96199-19	Intravenous administration of pharmacological agent, other and unspecified pharmacological agent	18,919	2,382	21,301
90677-00	Other phototherapy, skin	17,069	2,999	20,068
95550-01	Allied health intervention, social work	8,988	115	9,103
92209-00	Management of non-invasive ventilatory support, <= 24 hours	6,660	845	7,505
96199-07	Intravenous administration of pharmacological agent, nutritional substance	5,233	525	5,758
92044-00	Other oxygen enrichment	3,750	1,418	5,168
95550-03	Allied health intervention, physiotherapy	4,417	246	4,663
96199-08	Intravenous administration of pharmacological agent, electrolyte	4,107	150	4,257
	Other interventions	46,588	2,756	49,344
	No intervention or not reported	15,523	3,831	19,354
Total interventions^(a)		157,065	17,647	174,712

(a) Numbers of interventions are counts of ACHI intervention codes. It is possible that a single intervention code may represent multiple intervention or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

In 2017–18, for newborns without qualified days:

- the 10 most common ACHI interventions accounted for 80% of interventions reported (Table 5.15)
- about 88% of separations did not report any interventions
- the most common intervention reported was for *Allied health intervention, audiology* (29% of interventions reported), almost all occurring in public hospitals.

Table 5.15: The 10 most common ACHI interventions for newborns without qualified days, public and private hospitals^(a), 2017–18

Intervention	Public hospitals	Private hospitals	Total
95550-06 Allied health intervention, audiology	8,036	11	8,047
95550-03 Allied health intervention, physiotherapy	4,736	239	4,975
90677-00 Other phototherapy, skin	3,004	1,065	4,069
96199-02 Intravenous administration of pharmacological agent, anti-infective agent	1,840	227	2,067
30278-02 Lingual fraenotomy	830	731	1,561
92168-00 Vaccination against hepatitis B	1,505	14	1,519
30278-00 Lingual fraenectomy	503	704	1,207
92209-00 Management of non-invasive ventilatory support, <= 24 hours	994	116	1,110
96199-19 Intravenous administration of pharmacological agent, other and unspecified pharmacological agent	815	160	975
11300-00 Brain stem evoked response audiometry	0	920	920
Other interventions	5,222	1,508	6,730
No intervention or not reported	167,421	38,122	205,543
Total interventions^(b)	27,485	5,695	33,180

(a) The reporting of newborns without qualified days is not compulsory in the Victorian private sector.

(b) Numbers of interventions are counts of ACHI intervention codes. It is possible that a single intervention code may represent multiple intervention or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How was care completed?

Overall, 95% of newborn separations had a separation mode of *Discharged home*. *Discharge/transfer to an (other) acute hospital* accounted for 4% of separations and all other modes of separation accounted for less than 1% of all separations (Table 5.16).

For *Newborn* care, separation modes can be related to the mother's completion of care. For example, if a mother is transferred to another hospital to receive care, the newborn may be transferred to accompany the mother. If the infant is still aged 9 days or less when transferred to another hospital, then a second separation for the newborn will be recorded. If the newborn is transferred when they are 10 days or older, they will be admitted with a care type other than *Newborn* (for example, *Acute*) (see METeOR ID: 584408).

An infant admitted to hospital with a care type of *Newborn* will not have a care type change to *Acute*, even if they remain in hospital after the first 9 days of life. See appendix A for more information.

Who paid for the care?

In 2017–18, 94% of newborn care separations in public hospitals were for *Public patients* (Table 5.17). In private hospitals, 95% of separations were for patients who used *Private health insurance* to fund all or part of their admission. Overall, *Other* funding sources accounted for less than 2% of all separations.

Table 5.16: Separations for newborn care, by mode of separation, public and private hospitals, 2017–18

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	239,697	53,429	293,126
Discharge/transfer to an (other) acute hospital	11,409	758	12,167
Discharge/transfer to other health care accommodation	160	9	169
Statistical discharge: type change	522	19	541
Left against medical advice/discharge at own risk	724	16	740
Died	769	23	792
Not reported	75	3	78
Total^(b)	253,356	54,257	307,613

(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) Total includes records where the mode of separation was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.17: Separations for newborn care, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	238,758	118	238,876
Private health insurance	9,228	51,756	60,984
Self-funded	3,059	839	3,898
Other ^(b)	2,311	1,544	3,855
Total	253,356	54,257	307,613

(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, Workers compensation, Motor vehicle third party personal claim, Department of Veteran Affairs, 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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about *Newborn care* is available in tables S5.10 to S5.13 that accompany this report online, and in:

- *Australia's mothers and babies 2017—in brief* (forthcoming)—based on data sourced from the National Perinatal Data Collection
- *Perinatal data visualisations*—based on data sourced from the National Perinatal Data Collection—available at <https://www.aihw.gov.au/reports/mothers-babies/perinatal-data-visualisations/contents/data-visualisations>
- *MyHealthyCommunities: Child and maternal health in 2013–2015*. Web report, available at www.aihw.gov.au/reports/primary-health-care/child-maternal-health-2013-2015.

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

5.5 Rehabilitation care

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 2013–14 and 2017–18, rehabilitation care rose by an average of 9.8% per year in private hospitals and fell by 1.3% per year in public hospitals. For private hospitals, the number of rehabilitation care separations increased by 6.3% between 2016–17 and 2017–18 (Table 4.5). See appendix A for more information.

How much activity was there in 2017–18?

In 2017–18, there were almost 466,000 rehabilitation care separations, with the majority (80%) occurring in private hospitals. *Rehabilitation* care accounted for 91% of subacute and non-acute separations for private hospitals and 46% for public hospitals (see Section 4.2).

Who used these services?

Age group and sex

Females accounted for more than half (57%) of all rehabilitation care separations (Table 5.18). There were more separations for males than for females in the age groups 0–4 years, 10–14 and 15–19 years. People aged 65 and over accounted for 72% of all rehabilitation care separations.

Aboriginal and Torres Strait Islander people

In 2017–18, Indigenous Australians had lower separation rates for rehabilitation care than other Australians (8.2 per 1,000 and 16.0 per 1,000, respectively) (Table 5.19). Rehabilitation care also accounted for a smaller proportion of all separations for Indigenous Australians compared with Other Australians (0.6% and 4.3%, respectively).

Remoteness area

People in *Major cities* had much higher rates of rehabilitation care compared to people who live in other remoteness areas (19 separations per 1,000 population compared to 16 per 1,000 nationally) (Table 5.20). In part, this may reflect the distribution of private hospitals across remoteness areas, as private hospitals accounted for 80% of rehabilitation care separations.

Table 5.18: Separations for rehabilitation care, by age group and sex, all hospitals, 2017–18

Age group	Male	Female	Persons ^(a)
0–4	201	133	334
5–9	226	270	496
10–14	314	268	582
15–19	802	627	1,429
20–24	1,006	1,115	2,121
25–29	1,358	1,486	2,844
30–34	1,761	1,846	3,607
35–39	2,117	2,446	4,563
40–44	3,018	3,730	6,748
45–49	5,647	5,928	11,575
50–54	7,945	10,075	18,020
55–59	14,314	17,046	31,362
60–64	20,609	26,424	47,033
65–69	27,333	36,918	64,251
70–74	35,172	43,410	78,582
75–79	30,850	39,713	70,563
80–84	23,442	33,064	56,506
85–89	15,470	25,925	41,395
90–94	7,520	11,676	19,196
95+	1,634	3,028	4,662
Total^(b)	200,739	265,128	465,869

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.19: Separations for rehabilitation care, by Indigenous status, all hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous									
Separations	1,441	207	881	199	182	23	34	179	3,146
Separations per 1,000	12.0	7.0	8.2	3.9	8.1	1.4	9.7	3.7	8.2
Proportion of all separations (%)	1.4	0.7	0.6	0.2	0.6	0.3	0.9	0.2	0.6
Other Australians^(a)									
Separations	272,652	43,985	90,573	11,687	30,674	1,798	9,397	1,959	462,725
Separations per 1,000	28.7	6.0	16.3	4.1	13.5	2.5	22.8	13.5	16.0
Proportion of all separations (%)	8.8	1.5	3.7	1.1	4.1	0.8	6.7	3.0	4.3
Total									
Separations	274,093	44,192	91,454	11,886	30,856	1,821	9,431	2,138	465,871
Separations per 1,000	28.5	6.0	16.1	4.2	13.5	2.4	22.8	11.5	16.0
Proportion of all separations (%)	8.6	1.5	3.5	1.0	4.0	0.8	6.6	1.2	4.1

(a) Other Australians includes separations for which Indigenous status was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.20: Separation statistics for rehabilitation care, by remoteness area of usual residence, public and private hospitals, 2017–18

	Remoteness area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Public hospitals						
Separations	69,439	16,394	6,550	547	395	93,751
Separations per 1,000	3.6	2.8	2.5	2.2	3.1	3.3
Separation rate ratio	1.1	0.8	0.8	0.7	1.0	..
Private hospitals						
Separations	307,163	50,502	11,730	497	215	372,120
Separations per 1,000	15.8	8.1	4.4	4.0	2.0	12.9
Separation rate ratio	1.2	0.6	0.3	0.3	0.2	..

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Why did people receive rehabilitation care?

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 5.21).

In public hospitals, *Statistical admission: care type change* was the second most common admission mode for rehabilitation care separations, accounting for 39% 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 5.21: Separations for rehabilitation care, by mode of admission, public and private hospitals, 2017–18

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	26,322	296,362	322,684
Admitted patient transferred from another hospital	30,837	52,046	82,883
Statistical admission: care type change	36,529	23,646	60,175
Not reported	63	66	129
Total	93,751	372,120	465,871

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How urgent was the care?

In 2017–18, more than three-quarters (78%) of rehabilitation care separations were reported as *Elective* admissions (treatment could be delayed by at least 24 hours) (Table 5.22). The proportion of *Elective* admissions varied between public and private hospitals, accounting for 88% of rehabilitation care separations in private hospitals and 39% in public hospitals. Overall, 21% of rehabilitation care separations had a *Not assigned* urgency of admission.

Table 5.22: Separations for rehabilitation care, by urgency of admission, public and private hospitals, 2017–18

Urgency of admission	Public hospitals	Private hospitals	Total ^(a)
Emergency	2,885	523	3,408
Elective	36,522	328,980	365,502
Not assigned	54,344	42,616	96,960
Total	93,751	372,120	465,871

(a) The totals include separations for which the urgency of admission was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Principal diagnosis

ICD-10-AM disease chapters

In 2017–18, more than half (51%, 236,000) 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 5.23). 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%).

More than 92% of separations for *Diseases of the musculoskeletal system and connective tissue* were from private hospitals.

Most common principal diagnoses

The 20 most common principal diagnoses accounted for more than two-thirds (69%) of rehabilitation care separations, including 57% of rehabilitation care separations in public hospitals and 72% in private hospitals (Table 5.24).

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 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 94% respectively).

Public hospitals provided the majority of rehabilitation care separations for *Intracerebral haemorrhage* and *Intracranial injury* (66% and 60%, respectively).

Table 5.23: Separations for rehabilitation care, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
A00–B99	Certain infectious and parasitic diseases	1,253	1,311	2,564
C00–D48	Neoplasms	2,801	8,030	10,831
D50–D89	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	191	231	422
E00–E89	Endocrine, nutritional and metabolic diseases	1,766	1,433	3,199
F00–F99	Mental and behavioural disorders	1,220	625	1,845
G00–G99	Diseases of the nervous system	9,875	20,478	30,353
H00–H59	Diseases of the eye and adnexa	54	178	232
H60–H95	Diseases of the ear and mastoid process	558	641	1,199
I00–I99	Diseases of the circulatory system	18,613	32,681	51,294
J00–J99	Diseases of the respiratory system	2,921	6,850	9,771
K00–K93	Diseases of the digestive system	1,716	3,065	4,781
L00–L99	Diseases of the skin and subcutaneous tissue	925	1,401	2,326
M00–M99	Diseases of the musculoskeletal system and connective tissue	18,389	217,714	236,103
N00–N99	Diseases of the genitourinary system	962	1,259	2,221
Q00–Q99	Congenital malformations, deformations and chromosomal abnormalities	116	678	794
R00–R99	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	9,436	23,395	32,831
S00–T99	Injury, poisoning and certain other consequences of external causes	22,123	51,429	73,552
Z00–Z99	Factors influencing health status and contact with health services	806	714	1,520
	Other ICD-10-AM chapters ^(a)	14	7	21
	Not reported	12	0	12
Total rehabilitation care separations		93,751	372,120	465,871

(a) All other principal diagnoses for which there were fewer than 100 separations for 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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.24: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for rehabilitation care separations, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
M17	Gonarthrosis [arthrosis of knee]	4,973	99,428	104,401
M16	Coxarthrosis [arthrosis of hip]	2,506	39,387	41,893
S72	Fracture of femur	8,155	13,519	21,674
M54	Dorsalgia	1,166	16,140	17,306
I63	Cerebral infarction	10,090	6,212	16,302
R26	Abnormalities of gait and mobility	4,177	10,540	14,717
M25	Other joint disorders, not elsewhere classified	1,699	10,875	12,574
M62	Other disorders of muscle	2,357	9,501	11,858
G20	Parkinson's disease	1,915	7,339	9,254
S32	Fracture of lumbar spine and pelvis	2,415	6,530	8,945
M48	Other spondylopathies	758	7,913	8,671
T84	Complications of internal orthopaedic prosthetic devices, implants and grafts	876	7,743	8,619
S82	Fracture of lower leg, including ankle	1,940	5,765	7,705
I25	Chronic ischaemic heart disease	270	7,420	7,690
M51	Other intervertebral disc disorders	554	6,606	7,160
R29	Other symptoms and signs involving the nervous and musculoskeletal systems	1,636	4,787	6,423
G81	Hemiplegia	1,946	2,642	4,588
S42	Fracture of shoulder and upper arm	1,026	3,336	4,362
I61	Intracerebral haemorrhage	2,530	1,330	3,860
S06	Intracranial injury	2,094	1,399	3,493
	Other diagnoses	40,668	103,708	144,376
	Total	93,751	372,120	465,871

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Interventions

In 2017–18, allied health interventions (which lie within the ACHI chapter *Non-invasive, cognitive and other interventions, not elsewhere classified*) were the most frequently reported interventions for rehabilitation care separations (Table 5.25).

The 10 most common interventions reported accounted for 85% of interventions reported. They included physiotherapy (34%), occupational therapy (17%) and hydrotherapy (10%).

Some interventions were predominantly provided in private hospitals, such as hydrotherapy (96%) and exercise therapy (98%).

Who paid for the care?

In public hospitals, 73% of rehabilitation care separations were for *Public patients*, and 89% of rehabilitation care separations from private hospitals were for patients who used *Private health insurance* to fund all or part of their admission (Table 5.26). The *Department of Veterans' Affairs* funded 2% of rehabilitation care separations in public hospitals and 6% in private hospitals. See 'Chapter 7 Costs and funding' for similar information for all separations.

Table 5.25: The 10 most common ACHI interventions for rehabilitation care, public and private hospitals, 2017–18

Intervention	Public hospitals	Private hospitals	Total
95550-03 Allied health intervention, physiotherapy	82,813	449,494	532,307
95550-02 Allied health intervention, occupational therapy	67,513	196,420	263,933
96153-00 Hydrotherapy	6,021	154,774	160,795
96129-00 Exercise therapy, total body	2,036	99,936	101,972
95550-01 Allied health intervention, social work	44,250	27,381	71,631
95550-00 Allied health intervention, dietetics	30,041	32,418	62,459
95550-11 Allied health intervention, other	3,378	47,044	50,422
95550-05 Allied health intervention, speech pathology	24,616	18,250	42,866
96130-00 Skills training in activities related to body position/mobility/movement	233	30,562	30,795
95550-09 Allied health intervention, pharmacy	18,358	10,210	28,568
Other interventions	45,768	187,103	232,871
No intervention or not reported	3,394	375	3,769
Total interventions^(a)	325,027	1,253,592	1,578,619

(a) Numbers of interventions are counts of ACHI intervention codes. It is possible that a single intervention code may represent multiple intervention or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.26: Separations for rehabilitation care, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	68,066	919	68,985
Private health insurance	21,710	331,608	353,318
Self-funded	300	4,016	4,316
Workers compensation	380	9,770	10,150
Motor vehicle third party personal claim	1,269	1,922	3,191
Department of Veterans' Affairs	1,849	23,310	25,159
Other ^(b)	177	575	752
Total	93,751	372,120	465,871

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How was care completed?

In 2017–18, the most common mode of separation for rehabilitation care separations was *Discharged home* (92%) (Table 5.27).

In 2017–18, 10% 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 10% 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 5.27: Separations for rehabilitation care, by mode of separation, public and private hospitals, 2017–18

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	69,831	360,330	430,161
Discharge/transfer to an (other) acute hospital	9,395	4,177	13,572
Discharge/transfer to residential aged care service ^(b)	2,993	1,313	4,306
Discharge/transfer to other health care accommodation	1,383	355	1,738
Statistical discharge: type change	8,972	5,505	14,477
Left against medical advice/discharge at own risk	697	276	973
Statistical discharge from leave	161	20	181
Died	292	131	423
Other ^(c)	27	13	40
Total	93,751	372,120	465,871

(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) *Other* includes records where the separation mode was *Discharge to an (other) psychiatric hospital* or not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about rehabilitation care is in Table S5.14 by SES group, that accompanies this report online and in 'Chapter 4 — Why did people receive care?' for changes over time.

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

5.6 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).

In this report, palliative care refers to separations with a care type of *Palliative care* (unless otherwise specified).

Changes over time

Between 2013–14 and 2017–18, palliative care separations remained stable overall in private hospitals and increased by 4.7% per year for public hospitals (see Table 4.5 in 'Why did people receive care?'). Palliative care separations accounted for less than 0.5% of all hospital separations over the 5-year period.

How much activity was there in 2017–18?

In 2017–18, there were almost 46,000 separations with a care type of palliative care. The majority (86%) of these occurred in public hospitals (Table 5.28).

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 and the diagnoses reported).

Mode of admission

Overall, 39% 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 5.28).

Statistical admission: care type change accounted for 46% 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 (36%) of *Admitted patient transferred from another hospital* than public hospitals (17%)

How urgently was palliative care required?

In 2017–18, 18% of patients admitted for palliative care were reported as *Emergency* admissions (Table 5.29). For public hospitals, 57% of palliative care separations had a *Not assigned* urgency of admission. For private hospitals, 71% of palliative care separations were *Elective* admissions.

Table 5.28: Separations for palliative care by mode of admission, public and private hospitals, 2017–18

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	14,176	3,656	17,832
Admitted patient transferred from another hospital	6,742	2,308	9,050
Statistical admission: care type change	18,008	479	18,487
Not reported	191	1	192
Total	39,117	6,444	45,561

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.29: Separations for palliative care by urgency of admission, public and private hospitals, 2017–18

Urgency of admission	Public hospitals	Private hospitals	Total
Emergency	7,290	897	8,187
Elective	9,342	4,603	13,945
Not assigned	22,484	944	23,428
Total^(a)	39,117	6,444	45,561

(a) Total includes separations for which the urgency of admission was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations

Principal diagnosis

Neoplasm-related (cancer-related) conditions accounted for 55% of principal diagnoses reported for palliative care separations, with *Malignant neoplasm of bronchus and lung* accounting for 9% of palliative care separations. The 5 most common neoplasm-related principal diagnoses for palliative care (at the 3 character level) are presented in Table 5.30, as are the top 5 non-neoplasm-related principal diagnoses for palliative care, which included heart failure and respiratory disorders.

Interventions

For palliative care, 7 of the 10 most commonly reported interventions were allied health interventions and included social work, physiotherapy and spiritual care (previously pastoral care) (Table 5.31). Just under 13% of palliative care separations did not report an intervention.

Table 5.30: 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, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
Neoplasm-related				
C34	Malignant neoplasm of bronchus and lung	3,514	554	4,068
C79	Secondary malignant neoplasm of other and unspecified sites	2,210	382	2,592
C78	Secondary malignant neoplasm of respiratory and digestive organs	1,836	317	2,153
C25	Malignant neoplasm of pancreas	1,318	310	1,628
C61	Malignant neoplasm of prostate	872	271	1,143
	Other neoplasm-related principal diagnosis	10,882	2,517	13,399
Other				
I50	Heart failure	1,244	179	1,423
J44	Other chronic obstructive pulmonary disease	1,181	137	1,318
A41	Other sepsis	1,153	69	1,222
J69	Pneumonitis due to solids and liquids	1,003	54	1,057
J18	Pneumonia, organism unspecified	932	45	977
	Other (excludes neoplasm-related principal diagnoses)	12,972	1,609	14,581
Total palliative care separations		39,117	6,444	45,561

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.31: The 10 most common ACHI interventions for palliative care, public and private hospitals, 2017–18

Intervention	Public hospitals	Private hospitals	Total
95550-01 Allied health intervention, social work	16,535	1,711	18,246
95550-03 Allied health intervention, physiotherapy	15,270	1,959	17,229
95550-02 Allied health intervention, occupational therapy	10,238	954	11,192
95550-00 Allied health intervention, dietetics	8,609	504	9,113
95550-12 Allied health intervention, spiritual care	6,041	1,009	7,050
95550-05 Allied health intervention, speech pathology	6,199	329	6,528
95550-09 Allied health intervention, pharmacy	5,445	434	5,879
96027-00 Prescribed/self-selected medication assessment	3,025	66	3,091
96187-00 Spiritual support	838	939	1,777
13706-02 Administration of packed cells	1,129	244	1,373
Other interventions	9,822	1,778	11,600
No intervention or not reported	9,584	2,151	11,735
Total interventions^(a)	83,151	9,927	93,078

(a) Numbers of interventions are counts of ACHI intervention codes. It is possible that a single intervention code may represent multiple intervention or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

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).

Who paid for the care?

Public patients made up 76% of palliative care separations from public hospitals and 28% of palliative care separations from private hospitals (Table 5.32).

In private hospitals, 58% of palliative care separations were for patients who used *Private health insurance* to fund all or part of their admission. The *Department of Veterans' Affairs* funded 3% of palliative care separations in public hospitals, and 4% in private hospitals.

How was care completed?

In 2017–18, the most common mode of separation for palliative care separations was *Died* (62%) (Table 5.33). 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 5.32: Separations for palliative care, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	29,745	1,824	31,569
Private health insurance	7,827	3,722	11,549
Self-funded	88	69	157
Department of Veterans' Affairs	1,323	277	1,600
Other ^(b)	134	552	686
Total	39,117	6,444	45,561

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.33: Separations for palliative care, by mode of separation, public and private hospitals, 2017–18

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	9,280	2,422	11,702
Discharge/transfer to an (other) acute hospital ^(b)	2,425	239	2,664
Discharge/transfer to residential aged care service	1,521	113	1,634
Discharge/transfer to other health care accommodation	390	5	395
Statistical discharge: type change	662	42	704
Left against medical advice/discharge at own risk	108	7	115
Statistical discharge from leave	139	4	143
Died	24,583	3,612	28,195
Not reported	9	0	9
Total^(c)	39,117	6,444	45,561

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about palliative care is in tables S5.15 to S5.18 that accompany this report online, and in:

- the AIHW report *Palliative care services in Australia* (AIHW 2018f)
- 'Chapter 4 — Why did people receive care?' for changes over time.

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

5.7 Mental health care

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).

For 2017–18, mental health care refers to separations for which the care type was reported as *Mental health*. The care type *Mental health* was introduced from 1 July 2015. Prior to this, mental health admitted patient activity was assigned to one of the other care types. See Box 5.1, Chapter 4 and appendixes A and B for more information.

How much activity was there in 2017–18?

In 2017–18, there were 337,000 mental health care separations, with the majority (58%) occurring in private hospitals (Table 4.5).

For public hospitals, the majority (84%) of mental health care separations involved a stay of at least one night. For private hospitals, the majority (78%) of mental health care separations were for same-day care (Table S5.19).

Who used these services?

Age group and sex

Females accounted for more than half (58%) of all mental health care separations (Table 5.34 and Figure 5.1). There were more separations for females than for males in all age groups except those aged 0 to 9 years. People aged 15 to 64 accounted for 87% of mental health care separations.

Why did people receive mental health care?

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 5.35).

In public hospitals *Admitted patient transferred from another hospital* was the second most common admission mode for mental health care separations, accounting for 16% of these separations.

How urgent was the care?

In 2017–18, over two-thirds (65%) 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* (Table 5.36). Overall, 9% of mental health care separations had a *Not assigned* urgency of admission.

Table 5.34: Separations for mental health care, by age group and sex, all hospitals, 2017–18

Age group	Male	Female	Total
0–4	168	38	206
5–9	483	51	534
10–14	999	1,836	2,835
15–19	5,865	12,460	18,334
20–24	11,800	18,778	30,580
25–29	13,032	18,104	31,142
30–34	14,358	17,716	32,076
35–39	15,478	18,164	33,642
40–44	15,526	18,856	34,382
45–49	15,289	19,301	34,591
50–54	12,257	17,030	29,287
55–59	11,230	17,662	28,895
60–64	8,629	12,545	21,174
65–69	6,484	8,042	14,527
70–74	4,779	5,446	10,225
75–79	2,025	4,015	6,040
80–84	1,204	2,126	3,330
85–89	868	2,087	2,955
90–94	529	1,370	1,899
95+	119	172	291
Total^(a)	141,122	195,799	336,946

(a) Includes records for which the age or sex of the patient was not provided.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

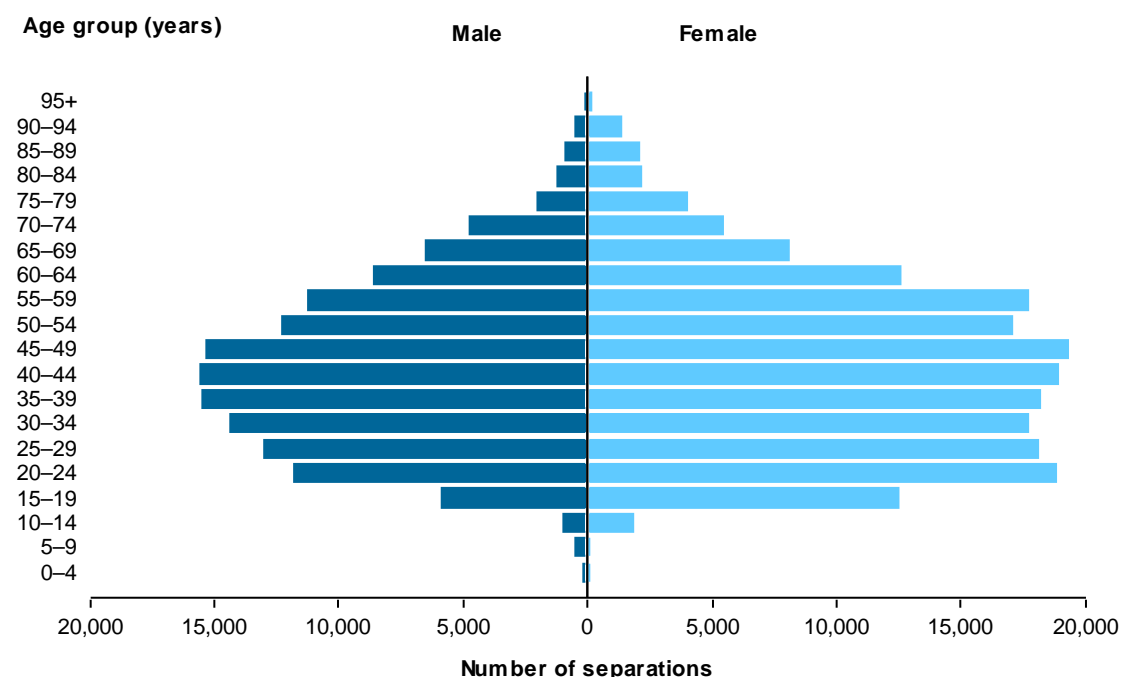
Table 5.35: Separations for mental health care, by mode of admission, public and private hospitals, 2017–18

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	101,504	189,564	291,068
Admitted patient transferred from another hospital	22,978	1,749	24,727
Statistical admission: care type change	16,155	143	16,298
Not reported	1,131	3,722	4,853
Total	141,768	195,178	336,946

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Figure 5.2: Separations for mental health care, by age group and sex, all hospitals, 2017–18



Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 5.36: Separations for mental health care, by urgency of admission, public and private hospitals, 2017–18

Urgency of admission	Public hospitals	Private hospitals	Total
Emergency	92,446	2,226	94,672
Elective	22,245	183,321	205,566
Not assigned	26,519	4,185	30,704
Total^(a)	141,768	195,178	336,946

(a) Total includes separations for which the urgency of admission was not reported.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Principal diagnosis

In 2017–18, most (95%, 320,000) mental health care separations in public and private hospitals had a principal diagnosis in the ICD-10-AM chapter *Mental and behavioural disorders* (Table 5.37), with 39% of these for *Mood (affective) disorders*, which includes depression and bipolar disorders. The most frequently reported ICD-10-AM principal diagnosis chapters other than *Mental and behavioural disorders* were *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* and *Injury, poisoning and certain other consequences of external causes*.

About 73% 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 5.37: Separations for mental health care, by principal diagnosis in ICD-10-AM chapters, public and private hospitals, 2017–18

Principal diagnosis	Public hospitals	Private hospitals	Total
F00–F09 Organic, including symptomatic, mental disorders	1,752	316	2,068
F10–F19 Mental and behavioural disorders due to psychoactive substance use	13,777	32,765	46,542
F20–F29 Schizophrenia, schizotypal and delusional disorders	39,867	8,911	48,778
F30–F39 Mood (affective) disorders	34,099	91,019	125,118
F40–F48 Neurotic, stress-related and somatoform disorders	19,583	46,987	66,570
F50–F59 Behavioural syndromes associated with physiological disturbances and physical factors	2,158	4,565	6,723
F60–F69 Disorders of adult personality and behaviour	11,302	9,480	20,782
F70–F79 Mental retardation	222	37	259
F80–F89 Disorders of psychological development	622	264	886
F90–F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	1,625	487	2,112
F99 Unspecified mental disorder	104	4	108
G00–G99 Diseases of the nervous system	581	99	680
O00–O99 Pregnancy, childbirth and the puerperium	182	4	186
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	8,353	149	8,502
S00–T99 Injury, poisoning and certain other consequences of external causes	4,709	20	4,729
Z00–Z99 Factors influencing health status and contact with health services	2,425	36	2,461
Other ICD-10-AM chapters	290	35	325
Not reported	117	0	117
Total mental health care separations	141,768	195,178	336,946

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Interventions

In 2017–18, almost one-third (30%) of mental health care separations did not have any interventions recorded, including 40% in public hospitals and 23% in private hospitals (Table 5.38). Separations may report more than one intervention.

Generalised allied health interventions (including psychology, social work, spiritual care and other therapies) were the most frequently reported procedure for mental health care separations, accounting for 59% of interventions in public hospitals and 15% in private hospitals.

For private hospitals, the most common intervention was *Psychological/psychosocial therapies* (which includes cognitive behaviour therapy, music therapy, art therapy and psychological skills training), accounting for 40% of interventions in private hospitals.

Table 5.38: The 10 most common ACHI interventions for mental health care, public and private hospitals, 2017–18

Intervention		Public hospitals	Private hospitals	Total
1916	Generalised allied health interventions	137,042	48,741	185,783
1873	Psychological/psychosocial therapies	7,788	129,083	136,871
1910	Cerebral anaesthesia	27,933	29,995	57,928
1907	Electroconvulsive therapy	26,441	30,425	56,866
1880	Therapies using agents, not elsewhere classified	1,358	20,586	21,944
1867	Counselling or education relating to personal care and other activities of daily/independent living	1,626	13,225	14,851
1823	Mental, behavioural or psychosocial assessment	6,911	7,661	14,572
1872	Alcohol and drug rehabilitation and detoxification	303	13,589	13,892
1869	Other counselling or education	240	12,675	12,915
1822	Assessment of personal care and other activities of daily/independent living	11,534	1,368	12,902
1868	Psychosocial counselling	326	4,890	5,216
1876	Skills training in movement	602	4,018	4,620
1878	Skills training for personal care and other activities of daily/independent living	908	2,155	3,063
1915	Other client support interventions	1,224	1,751	2,975
1920	Administration of pharmacotherapy	741	1,563	2,304
1908	Other therapeutic interventions	62	1,820	1,882
1879	Other skills training	809	341	1,150
1824	Other assessment, consultation, interview, examination or evaluation	179	910	1,089
1855	Other electrocardiography [ECG]	772	0	772
	Other interventions	4,219	1,267	5,486
	No intervention reported	56,152	45,793	101,945
Total interventions^(a)		231,018	326,063	557,081

(a) Numbers of interventions are counts of ACHI intervention codes. It is possible that a single intervention code may represent multiple intervention or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Length of stay

In 2017–18, the average length of stay for overnight mental health care separations was 16.6 days in public hospitals, and 18.5 days in private hospitals (Table 5.39). About, 99% of patient days for overnight separations with a *Mental health* care type involved specialised psychiatric care.

Table 5.39: Patient days and average length of stay for overnight mental health care, public and private hospitals, 2017–18

	Public hospitals		Private hospitals		Total	
	Patient days	Average length of stay	Patient days	Average length of stay	Patient days	Average length of stay
Overnight patient days	1,979,397	16.6	808,409	18.5	2,787,806	17.1
Overnight specialised psychiatric care	1,957,732	16.4	797,432	18.3	2,755,164	16.9

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Who paid for the care?

Over 89% of mental health care separations from public hospitals were for *Public patients*, and 86% 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 5.40). The *Department of Veterans' Affairs* funded 3% of mental health care separations in public hospitals and 7% in private hospitals. See 'Chapter 7 Costs and funding' for similar information for all separations.

Table 5.40: Separations for mental health care, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	126,720	183	126,903
Private health insurance	8,411	168,583	176,994
Self-funded	600	4,240	4,840
Workers compensation	190	7,246	7,436
Motor vehicle third party personal claim	177	331	508
Department of Veterans' Affairs	4,410	13,094	17,504
Other ^(b)	1,260	1,501	2,761
Total	141,768	195,178	336,946

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How was care completed?

In 2017–18, the most common mode of separation for mental health care separations was *Discharged home* (93%) (Table 5.41).

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 2% 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 5.41: Separations for mental health care, by mode of separation, public and private hospitals, 2017–18

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	119,893	192,702	312,595
Discharge/transfer to an (other) acute hospital	8,411	1,176	9,587
Discharge/transfer to residential aged care service ^(b)	1,302	13	1,315
Discharge/transfer to an (other) psychiatric hospital	3,735	14	3,749
Discharge/transfer to other health care accommodation	1,905	144	2,049
Statistical discharge: type change	2,835	128	2,963
Left against medical advice/discharge at own risk	1,969	965	2,934
Statistical discharge from leave	1,582	31	1,613
Died	88	5	93
Total^(c)	141,768	195,178	336,946

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about mental health care is in tables S5.19 to S5.22 that accompany this report online, and in:

- the AIHW report *Mental health services in Australia* (AIHW 2019a), which uses a different method to identify mental health care separations
- ‘Chapter 4 — Why did people receive care?’ for changes over time.

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

5.8 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.

In 2017–18, 93% of separations (10.4 million) had a mode of separation of *Discharged home* (Table 5.42). Patients were more likely to be *Discharged home* from private hospitals (97% or 4.4 million), compared with public hospitals (90% or 6.0 million).

In public hospitals, 5% of separations had a mode of separation of *Discharge/transfer to an (other) hospital* compared to 1% of private hospital separations.

The number of separations with a mode of separation of *Discharge/transfer to an (other) hospital (acute and psychiatric)* (410,538) does not match the number of separations with a mode of admission of *Admitted patient transferred from another hospital* (435,605; 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.

Table 5.42: Separations, by mode of separation, public and private hospitals, 2017–18

Separation mode	Public hospitals	Private hospitals	Total
Discharged home ^(a)	6,028,041	4,401,935	10,429,976
Discharge/transfer to an (other) acute hospital	339,619	64,381	404,000
Discharge/transfer to residential aged care service ^(b)	78,398	8,509	86,907
Discharge/transfer to an (other) psychiatric hospital	6,398	140	6,538
Discharge/transfer to other health care accommodation ^(c)	19,925	2,116	22,041
Statistical discharge: type change	123,837	31,510	155,347
Left against medical advice/discharge at own risk	62,022	3,470	65,492
Statistical discharge from leave	3,446	93	3,539
Died ^(d)	64,451	14,346	78,797
Not reported	638	0	638
Total	6,726,775	4,526,500	11,253,275

(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.

(d) Does not include *Newborns without qualified days*.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information about mode of separation is available in tables S5.23 to S5.25 that accompany this report online, and in:

- ‘Chapter 5 — What services were provided?’ — for rehabilitation care and palliative care
- ‘Chapter 6 — What interventions were performed?’ — for admissions involving surgery.

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

6 What interventions were performed?

Interventions 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 all interventions reported
- how Australia compares with other OECD countries for selected procedures
- differential access to hospital procedures—a performance indicator related to accessibility
- emergency surgery—including who used these services, why they required care, what services were provided and who paid for the care
- elective surgery—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 2017–18, 23.7 million interventions were reported, with 12.1 million performed in public hospitals and 11.6 million in private hospitals.

Surgery

Overall, 1 in 4 hospitalisations involved surgery and 58% of these occurred in private hospitals.

In 2017–18, there were 352,000 emergency admissions involving surgery and 86% of these occurred in public hospitals. The most common emergency surgery performed was *Appendicectomy* accounting for over 30,000 emergency admissions.

In 2017–18, there were 2.3 million elective admissions involving surgery and 66% of these occurred in private hospitals. Between 2013–14 and 2017–18, elective admissions involving surgery rose by an average of 1.7% per year—by 2.0% for public hospitals and by 1.6% for private hospitals.

Waiting times for surgery

In 2017–18, the time within which 50% were admitted for their awaited procedure varied by remoteness area of the patient's usual residence, ranging from 33 days in *Remote areas* to 44 days in *Outer regional areas*.

In general, publicly funded patients had longer waiting times compared with other patients. The time within which 50% of *Public patients* were admitted was 44 days, compared to 22 days for *Private health insurance* patients and 16 days for other patients.

Patients with a cancer-related principal diagnosis had shorter waiting times compared with patients waiting for surgery for other reasons (21 days and 50 days, respectively).

6.1 Overview of interventions

This section presents an overview of the interventions performed in public and private hospitals. It presents information on interventions at the ACHI chapter-level for public and private hospitals, and information on the 20 most common interventions (at the more detailed block-level), for same-day acute and overnight acute separations.

What is an intervention?

Interventions include surgical procedures, non-surgical investigative procedures, and therapeutic interventions.

They require specialised training and/or require special facilities or services available only in an acute care setting. As such, interventions encompass:

- surgical procedures
- non-surgical investigative and therapeutic procedures, such as X-rays and diagnostic testing
- patient support interventions that are neither investigative nor therapeutic, such as anaesthesia
- physiological assessments undertaken by doctors, nurses, and allied health professionals
- manufacture and fitting of devices, aids or equipment
- psychological therapies and skills training.

In 2017–18, interventions were recorded using the 10th edition of the Australian Classification of Health Interventions (ACHI) (ACCD 2016).

How many interventions were reported in 2017–18?

Overall, 23.7 million interventions were reported, with 12.1 million performed in public hospitals, and 11.6 million in private hospitals (Table 6.1).

In 2017–18:

- 76% (5.1 million) of public hospital separations and 95% (4.3 million) of private hospital separations involved at least one intervention
- public hospitals accounted for 78% of *Obstetric procedures* (which includes childbirth), 77% of *Procedures on the respiratory system* and 72% of *Procedures on the urinary system* (mainly for dialysis)
- private hospitals accounted for 75% of *Dental services procedures*, 74% of *Procedures on nervous system* and 72% of *Procedures on the breast*.

Table 6.1: Number of interventions^(a), by ACHI chapter, public and private hospitals, 2017–18

ACHI chapter		Public hospitals	Private hospitals	Total
1–86	Procedures on nervous system	117,641	328,085	445,726
110–129	Procedures on endocrine system	10,986	11,815	22,801
160–256	Procedures on eye and adnexa	224,640	555,568	780,208
300–333	Procedures on ear and mastoid process	34,274	48,233	82,507
370–422	Procedures on nose, mouth and pharynx	110,087	206,927	317,014
450–490	Dental services	96,230	288,201	384,431
520–572	Procedures on respiratory system	199,124	60,557	259,681
600–777	Procedures on cardiovascular system	320,885	294,912	615,797
800–817	Procedures on blood and blood-forming organs	47,539	32,730	80,269
850–1011	Procedures on digestive system	783,841	1,385,135	2,168,976
1040–1129	Procedures on urinary system	1,465,656	556,394	2,022,050
1160–1203	Procedures on male genital organs	48,557	85,331	133,888
1240–1299	Gynaecological procedures	240,530	390,960	631,490
1330–1347	Obstetric procedures	604,255	170,698	774,953
1360–1580	Procedures on musculoskeletal system	411,851	604,477	1,016,328
1600–1718	Dermatological and plastic procedures	401,461	492,437	893,898
1740–1759	Procedures on breast	26,921	69,158	96,079
1786–1800	Radiation oncology procedures	15,399	7,623	23,022
1820–1923	Interventions, n.e.c.	6,889,753	5,969,476	12,859,229
1940–2016	Imaging services	68,655	51,792	120,447
	Interventions reported	12,118,359	11,610,511	23,728,870
	No intervention or not reported ^(b)	1,638,395	213,460	1,851,855
Total separations		6,726,775	4,526,500	11,253,275

(a) Numbers of interventions are counts of ACHI procedure codes. It is possible that a single procedure code may represent multiple interventions or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Interventions reported for same-day acute care

For same-day acute separations in 2017–18:

- 10.6 million interventions were reported (Table 6.2)
- 79% of separations in public hospitals and 99% of separations in private hospitals involved an intervention
- *Cerebral anaesthesia* (general anaesthesia and sedation, 2.4 million interventions), *Haemodialysis* (1.5 million) and *Administration of pharmacotherapy* (mostly chemotherapy, 888,000) accounted for 45% of all interventions.

Table 6.2: Interventions^(a) reported for the 20 most common ACHI procedure blocks for same-day acute separations, public and private hospitals, 2017–18

Procedure block	Public hospitals	Private free-standing day facilities	Other private hospitals	Total
1910 Cerebral anaesthesia	760,024	494,735	1,126,381	2,381,140
1060 Haemodialysis	1,198,823	173,141	138,160	1,510,124
1920 Administration of pharmacotherapy	436,454	103,398	348,243	888,095
911 Fibreoptic colonoscopy with excision	111,613	120,417	240,058	472,088
1008 Panendoscopy with excision	95,891	104,486	201,764	402,141
905 Fibreoptic colonoscopy	82,003	87,253	143,888	313,144
200 Other extraction of crystalline lens	77,459	98,841	93,270	269,570
193 Insertion of intraocular lens prosthesis	77,237	94,245	83,670	255,152
1620 Excision of lesion(s) of skin and subcutaneous tissue	76,996	60,460	112,854	250,310
1909 Conduction anaesthesia	84,102	73,145	71,816	229,063
1893 Administration of blood and blood products	122,620	25,628	56,125	204,373
1265 Curettage and evacuation of uterus	55,041	34,262	54,176	143,479
458 Surgical removal of tooth	13,378	33,443	95,499	142,320
1916 Generalised allied health interventions	111,349	1,335	21,764	134,448
1089 Examination procedures on bladder	46,750	7,053	53,599	107,402
209 Application, insertion or removal procedures on retina, choroid or posterior chamber	12,493	72,555	19,251	104,299
72 Percutaneous neurotomy of other peripheral nerve	4,692	11,233	75,965	91,890
1005 Panendoscopy	21,598	33,789	33,528	88,915
1259 Examination procedures on uterus	32,129	4,218	37,485	73,832
1297 Procedures for reproductive medicine	2,849	47,045	22,577	72,471
Other	950,161	337,691	1,136,670	2,424,522
Interventions reported	4,373,662	2,018,373	4,166,743	10,558,778
No intervention or not reported ^(b)	764,270	1,523	37,417	803,210
Total separations	3,567,536	974,019	1,790,490	6,332,045

(a) Numbers of interventions are counts of ACHI procedure codes. It is possible that a single procedure code may represent multiple interventions or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Interventions reported for overnight acute care

For overnight acute separations in 2017–18:

- 10.7 million interventions were reported (Table 6.3)
- 72% of separations in public hospitals and 90% of separations in private hospitals involved at least one intervention
- *Generalised allied health interventions* (for example, physiotherapy and other rehabilitation procedures) accounted for 39% of interventions in public hospitals (2.7 million).

Table 6.3: Interventions^(a) reported for the 20 most common ACHI procedure blocks for overnight acute separations, public and private hospitals, 2017–18

Procedure block		Public hospitals	Private hospitals	Total
1916	Generalised allied health interventions	2,711,899	703,448	3,415,347
1910	Cerebral anaesthesia	838,950	749,417	1,588,367
1909	Conduction anaesthesia	162,291	162,679	324,970
1893	Administration of blood and blood products	194,571	64,540	259,111
1822	Assessment of personal care and other activities of daily/independent living	193,288	12,453	205,741
1920	Administration of pharmacotherapy	117,525	31,153	148,678
1336	Spontaneous vertex delivery	114,694	27,623	142,317
1340	Caesarean section	72,135	38,072	110,207
1334	Medical or surgical induction of labour	80,775	22,609	103,384
570	Non-invasive ventilatory support	81,566	20,608	102,174
668	Coronary angiography	54,848	45,507	100,355
1344	Postpartum suture	77,740	18,512	96,252
1333	Analgesia and anaesthesia during labour and delivery procedure	65,632	25,007	90,639
1628	Other debridement of skin and subcutaneous tissue	71,798	15,348	87,146
986	Division of abdominal adhesions	40,061	38,131	78,192
1828	Sleep study	17,509	56,757	74,266
1566	Excision procedures on other musculoskeletal sites	39,125	24,790	63,915
1518	Arthroplasty of knee	17,759	39,379	57,138
412	Tonsillectomy or adenoidectomy	20,786	35,191	55,977
965	Cholecystectomy	32,370	23,342	55,712
	Other	1,885,852	1,604,637	3,490,489
	Interventions reported	6,891,174	3,759,203	10,650,377
	No intervention or not reported ^(b)	794,665	120,045	914,710
Total separations		2,815,795	1,158,010	3,973,805

(a) Numbers of interventions are counts of ACHI procedure codes. It is possible that a single procedure code may represent multiple interventions or that a specific intervention may require the reporting of more than one code. Therefore, the number of intervention codes reported does not precisely reflect the number of separate interventions performed.

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information on interventions is available in:

- 'Chapter 5 — What services were provided?' — for rehabilitation care and palliative care
- 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 S6.1 to S6.6 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.

How many separations had a surgical procedure in 2017–18?

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). See Appendix B for more information.

Surgical separations for childbirth and subacute and non-acute separations are included in these counts. Therefore, the data presented in this section and in Sections 6.4 and 6.5 for the 2015–16 to 2017–18 reports are not comparable with the data presented in reports for 2014–15 and earlier, for which they were not included.

In 2017–18:

- a surgical procedure was reported for 24% of all separations (2.7 million)—17% of public hospital separations and 35% of private hospital separations (Table 6.4)
- 4% of surgical separations had an urgency of admission of *Not assigned* (for example, for childbirth or other planned procedures) or not reported
- for public hospitals, 66% of surgical separations were elective admissions, 26% were emergency admissions and 7% did not have an urgency assigned
- for private hospitals, 95% of surgical separations were elective admissions, 3% were emergency admissions and 2% did not have an urgency assigned.

Table 6.4: Separations with a surgical AR-DRG (version 8.0), by urgency of admission, public and private hospitals, states and territories, 2017–18

Urgency of admission	Public hospitals	Private hospitals	Total
Emergency	303,538	48,193	351,731
Elective	761,301	1,497,511	2,258,812
Not assigned/not reported	85,275	30,707	115,982
Total	1,150,114	1,576,411	2,726,525

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Where to go for more information:

More information on surgical separations is available in Table S6.7 that accompanies this report online, and in:

- 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.

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

6.2 How does Australia compare?

This section presents comparisons of selected surgical 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 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 proportion of surgeries performed laparoscopically for:
 - cholecystectomies
 - inguinal herniorrhaphies
 - appendicectomies.

The specifications and international data for these indicators were sourced from the OECD report *Health statistics 2018* (OECD 2018). The data for OECD countries (other than Australia) relate to the calendar year 2016 (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 indicators

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.

In 2017–18:

- the proportion of cataracts performed as same-day procedures in Australia (97.3%) was higher than the 2016 OECD average (69.1%) (Table 6.5)
- Tasmania had the highest rate (98.5%) and the Northern Territory the lowest (93.4%).

Proportion of tonsillectomies that were performed on a same-day basis

In 2017–18:

- Australia's proportion of tonsillectomies that were performed on a same-day basis (13.6%) was lower than the 2016 OECD average and (32.8%) (Table 6.5)
- Victoria had the highest rate (19.3%) and Western Australia the lowest (1.7%).

Number of caesarean sections per 100 live births

In 2017–18:

- Australia's rate of caesarean sections per 100 live births (35.10) was higher than the 2016 OECD average (26.4) (Table 6.5)
- rates of caesarean section ranged from 31.7 per 100 live births in the Northern Territory, to 37.9 per 100 births in Western Australia.

Number of coronary revascularisation procedures per 100,000 population

In 2017–18:

- the *Coronary revascularisation procedure* rate for Australia was below the 2016 OECD average (201.3 and 247.0 per 100,000 population, respectively), and within the interquartile range (Table 6.5)
- *Coronary angioplasty* accounted for 78.6% of all *Coronary revascularisation procedures* in Australia, similar to the 2016 OECD countries average (78.9%).

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

In 2017–18:

- Australia's rate of hip replacement surgery in 2017–18 was below the 2016 OECD average (163.9 and 174.3 per 100,000 population, respectively) (Table 6.5).
- Australia's rate of knee replacement surgery was above the 2016 OECD average (204.7 and 131.6 per 100,000 population, respectively).

Proportion of selected surgical procedures that were performed laparoscopically

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

In 2017–18, Australia had higher proportions of the 3 selected procedures that were performed laparoscopically:

- 94.2% of cholecystectomies in Australia were performed laparoscopically, compared with the 2016 OECD average (85.1%) (Table 6.6)
- 91.4% of appendicectomies in Australia were performed laparoscopically, compared with the 2016 OECD average (63.6%)
- 44.0% of repairs of inguinal hernia in Australia were performed laparoscopically, compared with the 2016 OECD average (25.3%).

Table 6.5: Selected indicators, all hospitals, states and territories (2017–18) and OECD statistics (2016)^(a)

	Cataract surgery (% undertaken as same-day separations)	Tonsillectomies (% undertaken as same-day separations)	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	97.6	12.9	34.3	203.0	79.7	148.5	201.0
Victoria	97.8	19.3	35.4	207.2	76.8	176.2	183.4
Queensland	97.3	17.2	34.9	194.5	77.1	146.8	210.5
Western Australia	95.6	1.7	37.9	210.9	81.5	190.2	246.9
South Australia	96.9	6.3	35.0	183.7	75.8	181.2	237.4
Tasmania ^(c)	98.5	3.1	33.2	164.2	77.8	217.1	207.4
Australian Capital Territory ^(c)	96.2	15.9	34.3	215.1	86.3	210.2	175.2
Northern Territory ^(c)	93.4	7.5	31.7	247.6	100.0	76.5	77.9
Australia^(d)	97.3	13.6	35.1	201.3	78.6	163.9	204.7
OECD average	69.1	32.8	26.4	247.0	78.9	174.3	131.6
OECD interquartile range ^(e)	54.1–96.8	6.4–55.6	20.2–31.2	156.7–183.4	79.7–87.5	131.3–240.3	89.0–175.9
Number of OECD countries	29	26	28	29	29	31	30

(a) For some OECD countries, the data relate to a year other than 2016.

(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 2018.

Table 6.6: Proportion of selected procedures performed laparoscopically, all hospitals, states and territories (2017–18) and OECD statistics (2016)^(a)

	Cholecystectomy		Appendicectomy		Repair of inguinal hernia	
	Number of Procedures	Proportion (%) performed laparoscopically	Number of Procedures	Proportion (%) performed laparoscopically	Number of Procedures	Proportion (%) performed laparoscopically
New South Wales	17,247	93.6	12,236	91.5	14,499	51.7
Victoria	14,259	94.6	9,910	91.5	11,353	36.9
Queensland	11,829	96.0	9,468	93.6	9,395	51.2
Western Australia	5,645	94.1	4,675	89.3	4,779	34.7
South Australia	3,830	90.4	2,830	89.3	3,007	33.8
Tasmania ^(b)	1,220	92.1	753	80.7	1,090	35.3
Australian Capital Territory ^(b)	873	93.4	804	93.9	627	24.1
Northern Territory ^(b)	489	95.3	499	90.8	329	45.9
Australia^(c)	55,392	94.2	41,175	91.4	45,079	44.0
OECD average		85.1		63.6		25.3
OECD interquartile range^(d)		85.1–91.6		47.0–81.6		10.1–46.2
Number of OECD countries		27		26		23

(a) For some OECD countries, the data relate to a year other than 2016.

(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 2018.

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 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 6.7 presents separations per 1,000 population for selected hospital procedures. *Cataract extraction* was the most common procedure (9.2 per 1,000 population). The rates for *Cataract extraction* varied between public and private sectors (2.8 and 6.4 per 1,000 population, respectively) but were similar by Indigenous status and by SES status. Persons living in *Inner regional* areas had the highest separation rates for *Cataract extraction* (9.9 per 1,000).

Where to go for more information:

More information about these procedures by states and territories is in Table S6.8 that accompanies this report online.

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 6.7: Differential access to hospital procedures^(a) (separations per 1,000 population), all hospitals, 2017–18

	Cataract extraction	Cholecystectomy	Coronary angioplasty	Coronary artery bypass graft	Cystoscopy	Haemorrhoidectomy	Hip replacement	Hysterectomy ^(b)
Hospital sector								
Public	2.8	1.3	0.9	0.2	2.4	0.8	0.7	1.4
Private	6.4	0.8	0.6	0.2	3.1	1.3	0.9	1.7
Indigenous status^(c)								
Indigenous	8.3	3.1	2.6	0.8	4.2	1.3	1.1	2.9
Other Australians	8.9	2.1	1.5	0.4	5.4	2.1	1.6	2.9
Remoteness of residence								
Major cities	8.9	2.1	1.6	0.4	5.5	1.9	1.5	2.9
Inner regional	9.9	2.5	1.5	0.5	5.4	2.7	1.9	3.9
Outer regional	9.5	2.3	1.6	0.5	5.3	2.1	1.8	3.4
Remote	8.4	2.3	1.6	0.5	4.7	1.7	1.5	3.0
Very remote	9.7	2.0	1.7	0.6	3.7	1.0	1.4	2.5
Socioeconomic status of area of residence								
1—Lowest	8.4	2.3	1.5	0.4	4.7	2.0	1.3	2.9
2	9.2	2.2	1.6	0.5	5.3	2.1	1.7	3.2
3	9.9	2.3	1.7	0.4	5.9	2.1	1.7	3.4
4	9.2	2.1	1.6	0.4	5.9	2.0	1.7	3.2
5—Highest	9.4	1.8	1.6	0.4	5.6	2.1	1.8	2.8
Total	9.2	2.2	1.6	0.4	5.5	2.1	1.6	3.1

(continued)

Table 6.7 (continued): Differential access to hospital procedures^(a) (separations per 1,000 population), all hospitals, 2017–18

	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	0.1
Private	1.0	1.4	1.1	1.7	0.8	1.5	0.3
Indigenous status^(c)							
Indigenous	1.3	1.5	1.7	1.6	0.5	2.1	0.2
Other Australians	1.9	2.0	1.6	2.4	1.2	2.5	0.4
Remoteness of residence							
Major cities	1.9	1.9	1.6	2.4	1.2	2.4	0.4
Inner regional	2.1	2.3	1.8	2.4	1.1	3.1	0.5
Outer regional	2.0	2.4	1.6	2.4	1.0	2.8	0.4
Remote	1.8	2.1	1.6	1.8	0.9	2.3	0.3
Very remote	1.2	1.7	1.3	1.6	0.4	1.2	0.2
Socioeconomic status of area of residence							
1—Lowest	1.6	1.9	1.2	1.9	0.8	2.1	0.3
2	1.9	2.2	1.6	2.3	1.1	2.6	0.4
3	2.0	2.3	1.8	2.5	1.2	2.7	0.5
4	2.0	2.0	1.8	2.7	1.2	2.6	0.4
5—Highest	2.0	1.9	1.9	2.8	1.4	2.5	0.5
Total	1.9	2.0	1.6	2.4	1.1	2.5	0.4

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

(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 Box 1.1 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 2017–18. It includes information about who used these services, why they received care, who paid for the care and how the episode ended.

Box 6.1 Emergency admissions involving surgery

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).

Surgical separations for childbirth and subacute and non-acute separations are included in these counts. Therefore, the data presented in this section for the 2015–16 to 2017–18 reports are not comparable with the data presented in reports for 2014–15 and earlier, for which they were not included.

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.

Changes over time

Between 2013–14 and 2017–18, emergency admissions involving surgery increased by:

- 2.9% on average per year for public hospitals, and increased in all states and territories (Table 6.8). The Australian Capital Territory had the highest increase (4.4% per year)
- 5.1% on average per year for private hospitals, and increased in most states and territories. Victoria had the highest increase (7.4%).

How much activity was there in 2017–18?

In 2017–18, there were 352,000 emergency admissions involving surgery in Australian hospitals (Table 6.8). Public hospitals accounted for the majority (86%) of emergency admissions involving surgery.

Nationally, there were 13.6 emergency admissions involving surgery per 1,000 population.

Table 6.8: Emergency admissions involving surgery, public and private hospitals, states and territories, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales							
Public hospitals	88,698	90,254	92,808	94,808	95,854	2.0	1.1
Private hospitals	3,780	3,558	4,009	3,958	4,979	7.1	25.8
<i>All hospitals</i>	<i>92,478</i>	<i>93,812</i>	<i>96,817</i>	<i>98,766</i>	<i>100,833</i>	<i>2.2</i>	<i>2.1</i>
Victoria							
Public hospitals	63,202	66,879	68,262	69,633	72,161	3.4	3.6
Private hospitals	10,633	11,692	12,045	13,480	14,149	7.4	5.0
<i>All hospitals</i>	<i>73,835</i>	<i>78,571</i>	<i>80,307</i>	<i>83,113</i>	<i>86,310</i>	<i>4.0</i>	<i>3.8</i>
Queensland							
Public hospitals	49,063	50,653	52,205	53,563	56,206	3.5	4.9
Private hospitals	11,547	13,354	13,416	13,639	13,723	4.4	0.6
<i>All hospitals</i>	<i>60,610</i>	<i>64,007</i>	<i>65,621</i>	<i>67,202</i>	<i>69,929</i>	<i>3.6</i>	<i>4.1</i>
Western Australia							
Public hospitals	31,123	30,976	33,577	34,570	36,357	4.0	5.2
Private hospitals	5,351	4,907	5,217	5,583	5,820	2.1	4.2
<i>All hospitals</i>	<i>36,474</i>	<i>35,883</i>	<i>38,794</i>	<i>40,153</i>	<i>42,177</i>	<i>3.7</i>	<i>5.0</i>
South Australia							
Public hospitals	21,003	21,646	22,787	22,927	22,963	2.3	0.2
Private hospitals	7,318	7,553	7,634	8,186	8,956	5.2	9.4
<i>All hospitals</i>	<i>28,321</i>	<i>29,199</i>	<i>30,421</i>	<i>31,113</i>	<i>31,919</i>	<i>3.0</i>	<i>2.6</i>
Tasmania							
Public hospitals	6,301	6,556	6,491	6,411	6,486	0.7	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	6,710	6,809	7,279	7,689	7,982	4.4	3.8
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	4,854	4,830	4,980	5,327	5,529	3.3	3.8
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total							
Public hospitals	270,954	278,603	288,389	294,928	303,538	2.9	2.9
Private hospitals	39,531	41,878	43,010	45,506	48,193	5.1	5.9
All hospitals	310,485	320,481	331,399	340,434	351,731	3.2	3.3

(a) Includes surgical separations for childbirth separations and subacute and non-acute separations 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.

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Who used these services?

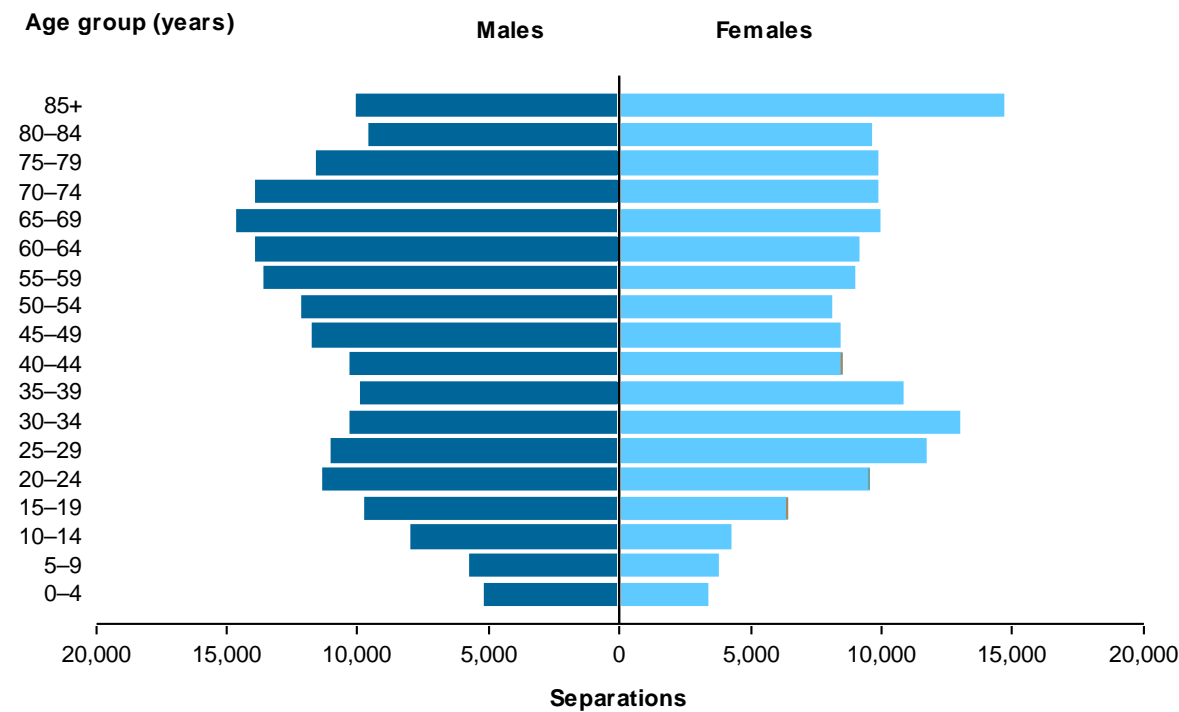
This section presents information by the patient’s sex, age group, Indigenous status and for the remoteness and SES of the patient’s area of usual residence.

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, 80 and over. People aged 65 and over accounted for 32% of all emergency admissions involving surgery.

Almost twice as many boys aged 10–14 were admitted as an emergency admission compared with girls in that age group.

Figure 6.1: Emergency admissions involving surgery, by sex and age group, all hospitals, 2017–18



Note: See Box 1.1 for notes on definitions and data limitations.

Aboriginal and Torres Strait Islander people

The quality of the data provided for Indigenous status in 2017–18 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 2017–18, 17,200 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 (27 per 1,000 and 13 per 1,000 population, respectively) (Table 6.9).

Remoteness area

In 2017–18, the rate of emergency admissions involving surgery was highest for those living in *Very remote* areas (26 per 1,000) and rates fell with decreasing remoteness to 13 per 1,000 in *Major cities* (Table 6.9).

Socioeconomic status

The rate of emergency admissions involving surgery was highest for those living in areas in the lowest (most disadvantaged) SES group (14 per 1,000) and rates fell with decreasing disadvantage (Table 6.9).

Table 6.9: Emergency admissions involving surgery per 1,000 population, by Indigenous status, remoteness and socioeconomic status of area of usual residence, public and private hospitals, 2017–18

	Separations per 1,000 population			Separations
	Public hospitals	Private hospitals	Total	
Indigenous status^(a)				
Indigenous	26.7	0.4	27.1	17,243
Other Australians	11.4	1.8	13.2	334,488
Remoteness area of usual residence				
Major cities	10.8	1.9	12.8	233,889
Inner regional	13.1	1.7	14.9	69,861
Outer regional	14.2	1.0	15.2	32,853
Remote	18.8	1.1	19.9	5,719
Very remote	24.9	0.6	25.6	4,779
Socioeconomic status of area of usual residence				
1—Lowest	13.5	0.8	14.3	73,804
2	12.6	1.3	13.9	73,374
3	12.5	1.9	14.3	73,324
4	10.6	2.3	12.9	64,998
5—Highest	9.3	2.6	11.9	61,501
Total	11.8	1.8	13.6	351,731

(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 Box 1.1 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* (313,000, 89%), which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions, 11% were transferred from another hospital (Table 6.10).

Table 6.10: Emergency admissions involving surgery, by mode of admission, public and private hospitals, 2017–18

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	271,803	40,917	312,720
Admitted patient transferred from another hospital	31,486	7,271	38,757
Other/not reported	249	5	254
Total	303,538	48,193	351,731

(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 Box 1.1 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 the 20 most common principal diagnoses (at the more detailed 3 character level).

The 20 most common principal diagnoses for emergency admissions involving surgery accounted for more than half of the principal diagnoses reported (Table 6.11). The most common principal diagnosis was *Acute appendicitis*, with 89% of these occurring in public hospitals.

What surgeries were performed?

This section presents information on surgical interventions (operating room procedures, excluding anaesthesia) undertaken during emergency admissions involving surgery.

In 2017–18, 652,000 surgical interventions were reported for emergency admissions involving surgery (Table 6.12). From 2016–17, all interventions were counted, whereas only the first intervention was reported in previous years. Therefore, the information presented in Table 6.12 is not comparable with similar tables in reports prior to 2016–17.

The 20 most common surgical interventions accounted for almost half (49%) of all surgical interventions reported for emergency admissions involving surgery.

Other debridement of skin and subcutaneous tissue was the most common surgical intervention (at the procedure block level) for emergency admissions involving surgery. (Table 6.12), and 92% of these were performed in public hospitals.

Table 6.11: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for emergency admissions involving surgery, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
K35	Acute appendicitis	27,085	3,477	30,562
S72	Fracture of femur	18,476	2,649	21,125
I21	Acute myocardial infarction	15,626	2,030	17,656
S82	Fracture of lower leg, including ankle	11,829	1,463	13,292
K80	Cholelithiasis	10,814	2,156	12,970
S52	Fracture of forearm	9,125	1,307	10,432
S61	Open wound of wrist and hand	8,228	874	9,102
S62	Fracture at wrist and hand level	6,973	639	7,612
K61	Abscess of anal and rectal regions	6,375	669	7,044
T81	Complications of procedures, not elsewhere classified	5,229	985	6,214
S42	Fracture of shoulder and upper arm	5,382	667	6,049
K56	Paralytic ileus and intestinal obstruction without hernia	4,076	750	4,826
S66	Injury of muscle and tendon at wrist and hand level	4,370	293	4,663
L02	Cutaneous abscess, furuncle and carbuncle	4,215	316	4,531
S01	Open wound of head	3,756	308	4,064
O02	Other abnormal products of conception	3,902	134	4,036
S81	Open wound of lower leg	3,328	472	3,800
E11	Type 2 diabetes mellitus	3,450	269	3,719
O00	Ectopic pregnancy	3,079	143	3,222
O82	Single delivery by caesarean section	3,007	139	3,146
	Other	145,213	28,453	173,666
Total		303,538	48,193	351,731

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 6.12: Number of procedures^(a) reported for the 20 most common ACHI procedure blocks for emergency admissions involving surgery, public and private hospitals, 2017–18

Procedure block		Public hospitals	Private hospitals	Total
1628	Other debridement of skin and subcutaneous tissue	40,505	3,383	43,888
1566	Excision procedures on other musculoskeletal sites	33,229	6,016	39,245
926	Appendectomy	32,176	4,288	36,464
668	Coronary angiography	20,967	4,439	25,406
671	Transluminal coronary angioplasty with stenting	17,424	3,536	20,960
986	Division of abdominal adhesions	15,548	3,530	19,078
965	Cholecystectomy	13,987	2,966	16,953
569	Ventilatory support	11,529	587	12,116
1479	Fixation of fracture of pelvis or femur	10,484	1,424	11,908
607	Examination procedures on ventricle	8,717	2,951	11,668
1265	Curettage and evacuation of uterus	8,832	681	9,513
1466	Repair of tendon of hand	8,662	806	9,468
648	Insertion of permanent transvenous electrode for cardiac pacemaker or defibrillator	6,474	2,610	9,084
1539	Open reduction of fracture of ankle or toe	7,306	1,023	8,329
1489	Arthroplasty of hip	6,888	1,322	8,210
930	Incision procedures on rectum or anus	6,883	803	7,686
1429	Open reduction of fracture of radius	6,420	1,067	7,487
570	Non-invasive ventilatory support	6,967	430	7,397
650	Insertion of cardiac pacemaker generator	4,991	2,159	7,150
1636	Repair of nail	6,353	683	7,036
	Other	276,331	56,739	333,070
Total surgical procedures		550,673	101,443	652,116

(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 Box 1.1 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 6.13).

Table 6.13: Patient days and average length of stay for emergency admissions involving surgery, public and private hospitals, 2017–18

	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	28,296	1.0	5,928	1.0	34,224	1.0
Overnight	1,971,500	7.2	321,404	7.6	2,292,904	7.2
Total	1,999,796	6.6	327,332	6.8	2,327,128	6.6

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Who paid for the care?

For public hospitals, three-quarters (75%) of emergency admissions involving surgery were for *Public patients*, and 18% were for patients who used *Private health insurance* to fund all or part of their admission (Table 6.14).

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

Table 6.14: Emergency admissions involving surgery, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	227,903	1,760	229,663
Private health insurance	54,670	40,913	95,583
Self-funded	2,743	1,257	4,000
Workers compensation	6,586	1,487	8,073
Motor vehicle third party personal claim	5,728	102	5,830
Department of Veterans Affairs	2,902	2,445	5,347
Other ^(b)	3,006	229	3,235
Total	303,538	48,193	351,731

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How was care completed?

Almost 84% of emergency admissions involving surgery had a mode of separation of *Discharged home* (Table 6.15). A relatively high proportion were *Discharged/transferred to an (other) acute hospital* for both public and private hospitals (9% and 7%, respectively).

Where to go for more information:

For more information on emergency admissions involving surgery is available in tables S6.9 to S6.13 that accompany this report online, including by:

- Principal diagnosis chapter
- ACHI procedure chapter
- MDCs and AR-DRGs
- type of surgical intervention undertaken.

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 6.15: Emergency admissions involving surgery, by mode of separation, public and private hospitals, 2017–18

Mode of separation	Public hospitals	Private hospitals	Total
Discharged home ^(a)	252,801	41,961	294,762
Discharge/transfer to an (other) acute hospital	26,412	3,584	29,996
Discharge/transfer to residential aged care service ^(b)	2,932	426	3,358
Discharge/transfer to an (other) psychiatric hospital	95	3	98
Discharge/transfer to other health care accommodation ^(c)	1,391	65	1,456
Statistical discharge: type change	11,777	1,497	13,274
Left against medical advice/discharge at own risk	3,265	36	3,301
Statistical discharge from leave	79	1	80
Died	4,771	620	5,391
Not reported	15	15	30
Total	303,538	48,193	351,731

(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 Box 1.1 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 2017–18. 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.

Box 6.2 Elective admissions involving surgery

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.

Surgical separations for childbirth and subacute and non-acute separations are included in these counts. Therefore, the data presented in this section for the 2015–16 to 2017–18 reports are not comparable with the data presented in reports for 2014–15 and earlier, for which they were not included.

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.

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). See Appendix B for further information on the difference between the NESWTDC and elective surgery information from the NHMD.

Changes over time

Between 2013–14 and 2017–18:

- elective admissions involving surgery rose by an average of 1.7% per year (Table 6.16)—by 1.9% per year in public hospitals and 0.9% per year in private hospitals
- for public hospitals, elective admissions involving surgery increased in most states and territories, except South Australia. The Australian Capital Territory had the largest increase in elective admissions involving surgery for public hospitals (4.8% per year)
- for private hospitals, New South Wales had the highest average annual rise in elective admissions involving surgery (2.7%) (for jurisdictions whose private hospital data could be reported)
- over this period, private hospitals consistently accounted for the majority (66%) of elective admissions involving surgery.

How much activity was there in 2017–18?

In 2017–18,

- there were 2.3 million elective admissions involving surgery in Australia's public and private hospitals (Table 6.16)
- nationally, there were 86 elective admissions involving surgery per 1,000 population (Table 6.17)
- public hospitals provided 29 elective admissions involving surgery per 1,000 population and private hospitals provided 57 per 1,000 population.

Who used these services?

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

Sex and age group

Females accounted for more than half (56%) of elective admissions involving surgery (Figure 6.2). There were more elective admissions involving surgery for females than males in the age groups from 15–64 and 85 and over. In particular, for the age groups from 30–39, females were 3 times as likely as their male counterparts to have had an elective admission involving surgery.

Aboriginal and Torres Strait Islander people

The quality of the data provided for Indigenous status in 2017–18 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 (86 per 1,000) was 30% higher than the rate for Indigenous Australians (66 per 1,000) (Table 6.17).

Remoteness area

In 2017–18 the rate of elective admissions involving surgery was lowest for those living in *Very remote* areas (60 per 1,000) and highest for those living in *Inner regional* areas (92 per 1,000) (Table 6.17). Rates also varied by hospital sector:

- 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)
- for private hospitals, the rate was highest for those living in *Major cities* (59 per 1,000) and fell with increasing remoteness to (24 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.

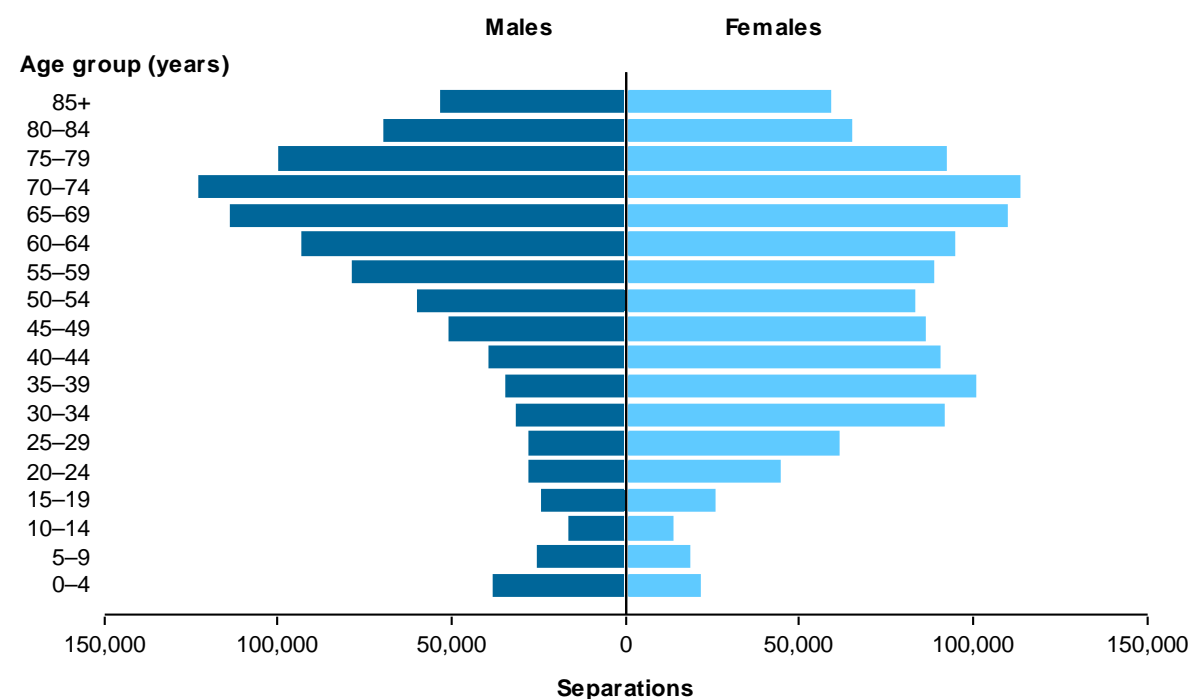
Table 6.16: Elective admissions involving surgery, public and private hospitals, states and territories, 2013–14 to 2017–18^(a)

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
New South Wales							
Public hospitals	198,207	203,573	205,515	208,478	212,452	1.8	1.9
Private hospitals	407,777	428,624	440,626	443,906	453,193	2.7	2.1
<i>All hospitals</i>	<i>605,984</i>	<i>632,197</i>	<i>646,141</i>	<i>652,384</i>	<i>665,645</i>	<i>2.4</i>	<i>2.0</i>
Victoria							
Public hospitals	213,891	216,213	217,203	227,337	231,461	2.0	1.8
Private hospitals	344,271	353,725	356,269	357,601	359,931	1.1	0.7
<i>All hospitals</i>	<i>558,162</i>	<i>569,938</i>	<i>573,472</i>	<i>584,938</i>	<i>591,392</i>	<i>1.5</i>	<i>1.1</i>
Queensland							
Public hospitals	121,213	127,330	134,021	138,424	145,226	4.6	4.9
Private hospitals	312,160	324,854	328,509	328,227	332,883	1.6	1.4
<i>All hospitals</i>	<i>433,373</i>	<i>452,184</i>	<i>462,530</i>	<i>466,651</i>	<i>478,109</i>	<i>2.5</i>	<i>2.5</i>
Western Australia							
Public hospitals	75,895	73,338	78,593	77,527	77,879	0.6	0.5
Private hospitals	168,234	173,364	178,921	179,231	180,541	1.8	0.7
<i>All hospitals</i>	<i>244,129</i>	<i>246,702</i>	<i>257,514</i>	<i>256,758</i>	<i>258,420</i>	<i>1.4</i>	<i>0.6</i>
South Australia							
Public hospitals	64,450	64,018	60,700	58,366	57,294	-2.9	-1.8
Private hospitals	109,663	110,186	113,026	112,568	114,070	1.0	1.3
<i>All hospitals</i>	<i>174,113</i>	<i>174,204</i>	<i>173,726</i>	<i>170,934</i>	<i>171,364</i>	<i>-0.4</i>	<i>0.3</i>
Tasmania							
Public hospitals	14,245	14,826	18,022	17,982	16,545	3.8	-8.0
Private hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>All hospitals</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Australian Capital Territory							
Public hospitals	11,537	11,744	12,692	13,439	13,923	4.8	3.6
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	6,464	6,469	6,588	6,830	6,521	0.2	-4.5
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>
Total							
Public hospitals	705,902	717,511	733,334	748,383	761,301	1.9	1.7
Private hospitals	1,401,605	1,453,556	1,482,819	1,489,173	1,497,511	1.7	0.6
All hospitals	2,107,507	2,171,067	2,216,153	2,237,556	2,258,812	1.7	0.9

(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.

Note: See Box 1.1 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, 2017–18



Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Socioeconomic status

In 2017–18, rates ranged from 71 per 1,000 population for those living in areas classified as being in the lowest (most disadvantaged) SES group to 94 per 1,000 for those living in areas classified as being in the highest (least disadvantaged) SES group (Table 6.17). Rates also varied by hospital sector:

- for public hospitals, the rate was highest for people living in areas classified as being in the lowest SES group (36 per 1,000) and rates fell with increasing SES to 17 per 1,000 for people living in areas classified in the highest SES group
- for private hospitals, the rate was highest for people living in areas classified as being in the highest SES group (77 per 1,000) and lowest for people living in areas classified in the lowest SES group (35 per 1,000).

Table 6.17: Elective admissions involving surgery per 1,000 population, by Indigenous status, remoteness and socioeconomic status of area of usual residence, public and private hospitals, 2017–18

	Separations per 1,000 population			Separations
	Public hospitals	Private hospitals	Total	
Indigenous status^(a)				
Indigenous	47.9	17.6	65.6	36,993
Other Australians	28.6	57.1	85.6	2,221,819
Remoteness area of usual residence				
Major cities	25.9	58.7	84.7	1,556,605
Inner regional	36.9	54.5	91.5	467,389
Outer regional	37.3	45.5	82.9	193,092
Remote	38.6	37.5	76.1	22,814
Very remote	35.5	24.2	59.7	10,331
Socioeconomic status of area of usual residence				
1—Lowest	35.8	34.7	70.6	381,534
2	35.1	47.3	82.5	452,335
3	31.9	59.2	91.1	476,350
4	25.3	64.4	89.8	453,017
5—Highest	17.0	76.8	93.8	486,630
Total	29.2	56.5	85.7	2,258,812

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

How did people access these services?

Most elective admissions involving surgery were *New admissions to hospital* (98%), which includes all planned and unplanned admissions except transfers from other hospitals and statistical admissions (Table 6.18).

Table 6.18: Elective admissions involving surgery by mode of admission, public and private hospitals, 2017–18

Admission mode	Public hospitals	Private hospitals	Total
New admission to hospital ^(a)	744,550	1,478,722	2,223,272
Admitted patient transferred from another hospital	13,606	10,722	24,328
Other/not reported	3,145	8,067	11,212
Total	761,301	1,497,511	2,258,812

(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 Box 1.1, and appendixes A and B for notes on definitions and data limitations.

Why did people receive the care?

This section presents information for the 20 most common principal diagnoses (at the 3-character ICD 10 AM level).

In 2017–18, for elective admissions involving surgery:

- the 20 most common principal diagnoses accounted for 45% of the principal diagnoses reported (Table 6.19)
- the most common principal diagnosis was *Other cataract* (229,000 or 10%), with 71% of these occurring in private hospitals
- 96% of admissions with a principal diagnosis of *Procreative management* and 93% of those with a principal diagnosis of *Obesity* were in private hospitals
- More than half (52%) of admissions with a principal diagnosis of *Cholelithiasis* (gallstones) occurred in public hospitals.

Table 6.19: Separations for the 20 most common principal diagnoses in 3-character ICD-10-AM groupings for elective admissions involving surgery, public and private hospitals, 2017–18

Principal diagnosis		Public hospitals	Private hospitals	Total
H26	Other cataract	67,328	161,814	229,142
C44	Other malignant neoplasms of skin	32,537	79,731	112,268
H35	Other retinal disorders	6,984	70,993	77,977
Z31	Procreative management	2,884	61,226	64,110
M17	Gonarthrosis [arthrosis of knee]	19,018	43,264	62,282
M23	Internal derangement of knee	11,341	39,131	50,472
K40	Inguinal hernia	17,554	24,863	42,417
J35	Chronic diseases of tonsils and adenoids	14,267	25,441	39,708
G56	Mononeuropathies of upper limb	13,684	21,899	35,583
O04	Medical abortion	6,102	28,095	34,197
M16	Coxarthrosis [arthrosis of hip]	10,584	22,581	33,165
N92	Excessive, frequent and irregular menstruation	15,605	16,060	31,665
K80	Cholelithiasis	16,000	15,012	31,012
M75	Shoulder lesions	5,231	23,796	29,027
E66	Obesity	1,896	26,947	28,843
J34	Other disorders of nose and nasal sinuses	8,344	20,208	28,552
H25	Senile cataract	10,567	16,193	26,760
Z47	Other orthopaedic follow-up care	11,135	11,596	22,731
N20	Calculus of kidney and ureter	10,092	12,169	22,261
C50	Malignant neoplasm of breast	9,672	11,928	21,600
	Other	470,476	764,564	1,235,040
Total		761,301	1,497,511	2,258,812

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

What surgeries were performed?

This section presents information on surgical interventions (operating room procedures, excluding anaesthesia) undertaken in elective admissions involving surgery.

In 2017–18, for elective admissions involving surgery:

- almost 4 million surgical interventions were reported (Table 6.20)
- the 20 most common surgical interventions accounted for 41% of all surgical interventions reported
- *Excision of lesion(s) of skin and subcutaneous tissue* and *Insertion of intraocular lens prosthesis* (as part of a cataract removal and lens replacement procedure) were the two most common surgical interventions, both accounting for 7% of surgical interventions
- 68% of surgical interventions were undertaken in private hospitals.

Table 6.20: Interventions^(a) reported for the 20 most common ACHI procedure blocks for elective admissions involving surgery, public and private hospitals, 2017–18

Intervention	Public hospitals	Private hospitals	Total	
1620	Excision of lesion(s) of skin and subcutaneous tissue	92,742	201,461	294,203
193	Insertion of intraocular lens prosthesis	79,360	181,428	260,788
1265	Curettage and evacuation of uterus	55,163	94,302	149,465
209	Application, insertion or removal procedures on retina, choroid or posterior chamber	12,401	91,029	103,430
1259	Examination procedures on uterus	36,115	49,366	85,481
412	Tonsillectomy or adenoidectomy	28,195	51,822	80,017
1297	Procedures for reproductive medicine	2,842	70,059	72,901
986	Division of abdominal adhesions	24,765	38,642	63,407
1651	Local skin flap, single stage	12,034	48,043	60,077
1518	Arthroplasty of knee	17,692	39,411	57,103
1566	Excision procedures on other musculoskeletal sites	14,831	39,880	54,711
990	Repair of inguinal hernia	18,506	28,438	46,944
1554	Other application, insertion or removal procedures on other musculoskeletal sites	17,985	25,096	43,081
309	Myringotomy	12,508	28,806	41,314
965	Cholecystectomy	19,719	20,859	40,578
76	Release of carpal and tarsal tunnel	14,312	25,861	40,173
889	Procedures for morbid obesity	2,854	36,045	38,899
1489	Arthroplasty of hip	11,805	27,030	38,835
1649	Other full thickness skin graft	13,338	23,119	36,457
1067	Endoscopic insertion, replacement or removal of ureteric stent	16,549	19,041	35,590
	Other	756,344	1,560,060	2,316,404
Total surgical procedures		1,260,060	2,699,798	3,959,858

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

Note: See Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Length of stay

The length of stay for elective admissions involving surgery varied between public and private hospitals. For overnight separations, the ALOS was 3.6 days for public hospitals and 3.0 days for private hospitals (Table 6.21).

Table 6.21: Patient days and average length of stay for elective admissions involving surgery, public and private hospitals, 2017–18

	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	401,652	1.0	884,396	1.0	1,286,048	1.0
Overnight	1,278,418	3.6	1,863,972	3.0	3,142,390	3.2
Total	1,680,070	2.2	2,748,368	1.8	4,428,438	2.0

Note: See Box 1.1 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 6.22).

In private hospitals, 82% of elective admissions involving surgery were for *Private health insurance* patients and 10% were *Self-funded*.

How was care completed?

Just over 97% of elective admissions involving surgery were *Discharged home*, and almost 2% were transferred to another hospital for further care (Table 6.23).

Table 6.22: Elective admissions involving surgery, by funding source, public and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(a)	678,889	23,980	702,869
Private health insurance	57,647	1,225,415	1,283,062
Self-funded	15,713	156,432	172,145
Workers compensation	3,164	36,704	39,868
Motor vehicle third party personal claim	1,948	3,398	5,346
Department of Veterans Affairs	1,886	39,006	40,892
Other ^(b)	2,054	12,576	14,630
Total	761,301	1,497,511	2,258,812

(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 Box 1.1 and appendixes A and B for notes on definitions and data limitations.

Table 6.23: Elective admissions involving surgery, by mode of separation, public and private hospitals, 2017–18

Mode of separation	Public hospitals	Private hospitals	Total
Discharged home ^(a)	737,882	1,455,142	2,193,024
Discharge/transfer to an (other) acute hospital	12,623	26,357	38,980
Discharge/transfer to residential aged care service ^(b)	1,416	584	2,000
Discharge/transfer to an (other) psychiatric hospital	28	14	42
Discharge/transfer to other health care accommodation ^(c)	988	602	1,590
Statistical discharge: type change	5,185	13,710	18,895
Left against medical advice/discharge at own risk	2,290	427	2,717
Statistical discharge from leave	116	14	130
Died	760	661	1,421
Not reported	13	0	13
Total	761,301	1,497,511	2,258,812

(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 Box 1.1 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 available in tables S6.14 to S6.18 that accompany this report online, including by:

- Principal diagnosis chapter
- ACHI intervention chapter
- MDCs and AR-DRGs—based on the AR-DRG classification of acute care separations
- type of surgical procedure undertaken.

More information about public hospital elective surgery is available in *Elective surgery waiting times 2017–18: Australian hospital statistics (AIHW 2018c)*.

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

6.6 Elective surgery in public hospitals

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. These data were 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 2017–18: Australian hospital statistics* (AIHW 2018c).

The information in the section includes supply-related measures such as population rates of elective surgery provision and waiting times statistics for different population groups.

In 2017–18, there were 725,322 admissions from public hospital elective surgery waiting lists for which the 'cluster' data were available.

Box 6.3: Data limitations

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 2017–18. 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 Victoria, 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 2017–18: Australian hospital statistics* (AIHW 2018c).

Admissions from public hospital elective surgery waiting lists are not necessarily the same as elective admissions involving surgery (see Section 6.5). See Appendix B for more information.

How long did people wait for care?

Overall, the time within which 50% of patients were admitted was 41 days (Table 6.24) and the time within which 90% of patients were admitted was 270 days. About 1.8% of patients waited more than 365 days for their surgery.

These overall statistics differ from those reported in *Elective surgery waiting times 2017–18: Australian hospital statistics* (AIHW 2018c) due to the data limitations noted in Box 6.3.

Table 6.24: Waiting time statistics for admissions from public hospital elective surgery waiting lists, 2017–18

Waiting time statistic	Total
Admissions	725,322
Median waiting time (days)	41
90th percentile waiting time (days)	270
Percentage waited greater than 365 days (%)	1.8

Note: See boxes 1.1 and 6.3, and appendixes A and B for notes on definitions and data limitations.

How did the use of public hospital elective surgery differ for Indigenous and other Australians?

In 2017–18, there were 26,000 admissions from public hospital waiting lists for elective surgery for patients identified as Aboriginal and/or Torres Strait Islander (Table 6.25).

Population rates

The standardised SRRs presented in Figure 6.3 compare the separation rates for Indigenous Australians with the rates for other Australians for the 25 most common intended procedures in 2017–18.

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.

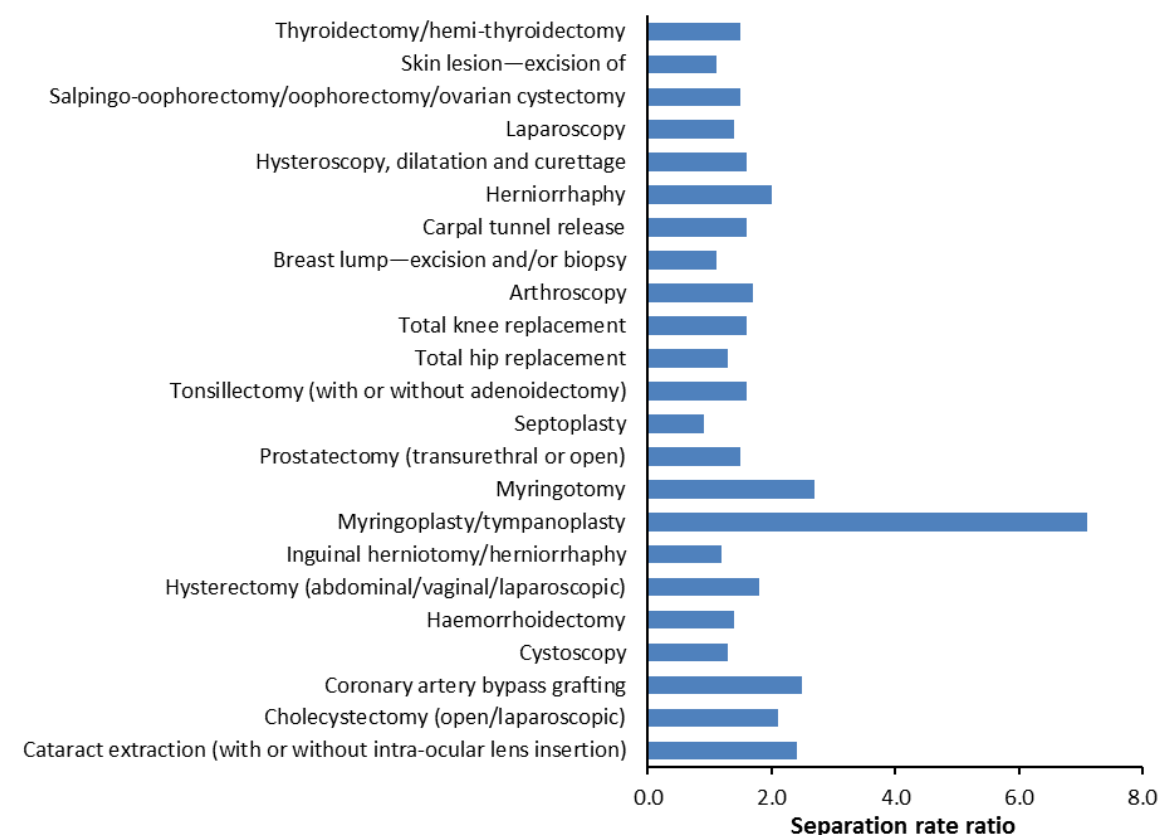
For 19 of the 25 intended procedures, the SRRs indicate that the separation rates for Indigenous Australians were at least 30% higher than the rates for other Australians, including *Myringoplasty/tympanoplasty* (7.7, or 770% as high) and *Coronary artery bypass graft* (3.5). The rates for Indigenous 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 time within which 50% of Indigenous Australians were admitted for their awaited procedure was greater than that for other Australians (50 days and 41 days, respectively; Table 6.25).

The waiting time was shorter (or similar) for 6 of the 25 most common intended procedures. The greatest difference in the time within which 50% of patients were admitted was for *Myringoplasty/tympanoplasty* (116 days for Indigenous Australians, and 239 days for other Australians). *Haemorrhoidectomy*, *Inguinal herniotomy/herniorrhaphy*, *Thyroidectomy/hemi-thyroidectomy*, *Myringotomy*, and *Coronary artery bypass graft* had shorter waiting times for Indigenous Australians.

Figure 6.3: Standardised separation rate ratios for Indigenous persons compared with other Australians, for admissions from public hospital elective surgery waiting lists for the 25 most common intended procedures^(a), 2017–18



(a) Data are not shown for *Varicose veins treatment* and *Prostatectomy* as there were fewer than 100 admissions for Indigenous people.
 Note: See boxes 1.1 and 6.3, and appendixes A and B for notes on definitions and data limitations.

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*, 23% for patients in *Inner regional* areas, and 10% for patients in *Outer regional* areas (Table 6.26).

Population rates

For people living in *Very remote* areas, the rate for *Myringoplasty/tympanoplasty* was 11 times the national rate, and the rate of *Cataract extraction* was twice the national rate.

Waiting times

The time within which 50% of patients were admitted for their awaited procedure varied by remoteness, ranging from 33 days for people living in *Remote* areas to 44 days for people living in *Outer regional* (Table 6.27).

For *Cataract extraction*, people from *Inner regional* areas had the longest waiting time (50% admitted within 139 days), and people from *Major cities* had the shortest (50% admitted within 69 days).

Table 6.25: Time within which 50% of patients were admitted (days)^(a) from public hospital elective surgery waiting lists, for the 25 most common intended procedures, by Indigenous status, 2017–18

Intended procedure	Indigenous Australians	Other Australians^(b)	All Australians
Arthroscopy	85	71	72
Breast lump—excision and/or biopsy	19	15	15
Carpal tunnel release	74	60	60
Cataract extraction (with or without intra-ocular lens insertion)	133	84	85
Cholecystectomy (open/laparoscopic)	52	46	46
Colectomy/anterior resection/large bowel resection	13	20	20
Coronary artery bypass grafting	27	24	24
Cystoscopy	28	48	48
Haemorrhoidectomy	73	66	67
Herniorrhaphy	67	56	56
Hysterectomy (abdominal/vaginal/laparoscopic)	26	26	26
Hysteroscopy, dilatation and curettage	50	56	56
Inguinal herniotomy/herniorrhaphy	65	51	51
Laparoscopy	116	239	196
Myringoplasty/tympanoplasty	65	67	67
Myringotomy ^(c)	34	30	30
Prostate biopsy	n.p.	29	29
Prostatectomy (transurethral or open)	56	47	47
Septoplasty	49	43	43
Skin lesion—excision of	296	253	255
Thyroidectomy/hemi-thyroidectomy	33	26	26
Tonsillectomy (with or without adenoidectomy)	50	55	54
Total hip replacement	156	122	125
Total knee replacement	188	120	121
Varicose veins treatment	n.p.	196	198
Other procedures	134	98	99
Total—all procedures	50	41	41
Number of separations	26,039	699,283	725,322

(a) The 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 and 6.3, and appendixes A and B for notes on definitions and data limitations.

Table 6.26: 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, 2017–18

Intended procedure	Remoteness area of usual residence					Total ^(a)
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
Arthroscopy	0.4	0.8	0.8	1.0	0.6	0.5
Breast lump—excision and/or biopsy	0.3	0.4	0.3	0.2	0.3	0.3
Carpal tunnel release	0.4	0.5	0.6	0.7	0.5	0.4
Cataract extraction (with or without intra-ocular lens insertion)	2.3	2.5	3.1	4.3	4.8	2.4
Cholecystectomy (open/laparoscopic)	0.6	0.9	0.9	1.0	0.8	0.7
Coronary artery bypass grafting	0.1	0.1	0.1	0.1	0.1	0.1
Cystoscopy	2.2	2.3	1.8	2.0	1.5	2.2
Haemorrhoidectomy	0.2	0.3	0.2	0.4	0.4	0.2
Herniorrhaphy	0.4	0.6	0.6	0.7	0.5	0.5
Hysterectomy (abdominal/vaginal/laparoscopic)	0.4	0.6	0.5	0.5	0.5	0.4
Hysteroscopy, dilatation and curettage	1.2	1.7	1.3	1.4	0.9	1.3
Inguinal herniotomy/herniorrhaphy	0.6	0.7	0.7	0.9	0.5	0.6
Laparoscopy	0.4	0.7	0.5	0.5	0.3	0.4
Myringoplasty/tympanoplasty	0.1	0.1	0.1	0.3	1.1	0.1
Myringotomy ^(b)	0.2	0.4	0.3	0.4	0.5	0.3
Prostate biopsy	0.2	0.2	0.2	0.2	0.1	0.2
Prostatectomy (transurethral or open)	0.2	0.3	0.3	0.3	0.3	0.3
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	0.2	0.2	0.2	0.2	0.1	0.2
Septoplasty	0.2	0.3	0.2	0.2	0.1	0.2
Skin lesion—excision of	1.5	2.3	2.3	2.9	3.2	1.8
Thyroidectomy/hemi-thyroidectomy	0.2	0.2	0.2	0.1	0.1	0.2
Tonsillectomy (with or without adenoidectomy)	0.7	1.2	0.9	0.9	0.5	0.8
Total hip replacement	0.3	0.5	0.5	0.4	0.4	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	0.2	0.1	0.2
Other procedures	11.4	15.0	14.8	18	15.2	12.5
Total	25.4	33.7	32.4	38.3	33.9	27.8
Total separations	463,570	167,057	75,242	11,470	5,899	725,322

(a) The total includes records for which the remoteness area 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 and 6.3, and appendixes A and B for notes on definitions and data limitations.

Table 6.27: Time within which 50% of patients were admitted (days) from public hospital elective surgery waiting lists, for the 25 most common intended procedures, by remoteness of area of usual residence, 2017–18^(a)

Intended procedure	Remoteness area of usual residence					Total ^(b)
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
Arthroscopy	75	70	70	54	48	72
Breast lump—excision and/or biopsy	15	15	15	n.p.	n.p.	15
Carpal tunnel release	60	61	63	49.5	n.p.	60
Cataract extraction (with or without intra-ocular lens insertion)	69	139	129	84	114	85
Cholecystectomy (open/laparoscopic)	45	45.5	49	43	56	46
Coronary artery bypass grafting	21	19.5	16	n.p.	n.p.	20
Cystoscopy	24	23	27	26	27	24
Haemorrhoidectomy	58	28	28	30	n.p.	48
Herniorrhaphy	63	73	73	45	n.p.	67
Hysterectomy (abdominal/vaginal/laparoscopic)	55	60	58	49	n.p.	56
Hysteroscopy, dilatation and curettage	26	25	26	21	29	26
Inguinal herniotomy/herniorrhaphy	55	59	59	40.5	n.p.	56
Laparoscopy	51	53	54	47	n.p.	51
Myringoplasty/tympanoplasty	259	175	161	n.p.	117	196
Myringotomy ^(c)	71	61	57	42	60	67
Prostate biopsy	28	30	38	n.p.	n.p.	29
Prostatectomy (transurethral or open)	48	45	47	n.p.	n.p.	47
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	44	42	44	n.p.	n.p.	43
Septoplasty	267	227	251	n.p.	n.p.	255
Skin lesion—excision of	27	24	25	21	24	26
Thyroidectomy/hemi-thyroidectomy	55	55	52	n.p.	n.p.	54
Tonsillectomy (with or without adenoidectomy)	122	135	103	89.5	83	125
Total hip replacement	109	140	149	134	n.p.	121
Total knee replacement	177	234	245	197	n.p.	198
Varicose veins treatment	98	110	93	n.p.	n.p.	99
Other procedures	30	33	30	26	27	30
Total	40	43	44	33	40	41

(a) 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 and 6.3, 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, 25% 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 6.28).

Population rates

Across all intended procedures, people living in areas classified as being in the highest SES group had the lowest admission rates from public hospital elective surgery waiting lists (17 per 1,000 population), while people from the lowest SES area had the highest (34 per 1,000).

People living in areas classified as being in the lowest SES group had three times the admission rates compared with people living in areas classified as being in the highest SES group for; *Carpal tunnel release*, *Haemorrhoidectomy*, *Hysterectomy*, *Myringotomy*, *Septoplasty* and *Thyroidectomy/hemi-thyroidectomy* (Table 6.28).

Waiting times

The time within which 50% of patients were admitted ranged from 35 days for people living in areas classified as the highest SES group to 44 days for people living in areas classified as the lowest SES group (Table 6.29).

The intended procedure with the greatest variation in waiting times by socioeconomic status was *Septoplasty*, ranging from 198 days for people living in areas classified as being the highest SES to 285 days for people in the highest SES group.

Breast lump—excision and/or biopsy, *Prostatectomy* and *Skin lesion—excision of* were amongst the intended procedures with the least variation by SES group.

Table 6.28: 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), 2017–18

Intended procedure	Socioeconomic status of area of usual residence					Total ^(b)
	1—Lowest	2	3	4	5—Highest	
Arthroscopy	0.7	0.7	0.6	0.4	0.3	0.5
Breast lump—excision and/or biopsy	0.4	0.4	0.4	0.3	0.2	0.3
Carpal tunnel release	0.6	0.5	0.5	0.3	0.2	0.4
Cataract extraction (with or without intra-ocular lens insertion)	3.0	2.9	2.6	2.1	1.4	2.4
Cholecystectomy (open/laparoscopic)	1.0	0.8	0.7	0.6	0.4	0.7
Coronary artery bypass grafting	0.1	0.1	0.1	0.1	0.1	0.1
Cystoscopy	2.5	2.4	2.4	2	1.4	2.2
Haemorrhoidectomy	0.3	0.2	0.2	0.2	0.1	0.2
Herniorrhaphy	0.6	0.6	0.5	0.4	0.3	0.5
Hysterectomy (abdominal/vaginal/laparoscopic)	0.6	0.6	0.5	0.4	0.2	0.4
Hysteroscopy, dilatation and curettage	1.7	1.5	1.5	1.2	0.8	1.3
Inguinal herniotomy/herniorrhaphy	0.7	0.7	0.6	0.6	0.4	0.6
Laparoscopy	0.5	0.5	0.5	0.4	0.2	0.4
Myringoplasty/tympanoplasty	0.1	0.1	0.1	0.1	0	0.1
Myringotomy ^(c)	0.3	0.4	0.3	0.2	0.1	0.3
Prostate biopsy	0.2	0.2	0.2	0.1	0.1	0.2
Prostatectomy (transurethral or open)	0.3	0.3	0.3	0.2	0.2	0.3
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	0.2	0.2	0.2	0.2	0.1	0.2
Septoplasty	0.3	0.3	0.2	0.2	0.1	0.2
Skin lesion—excision of	2.2	2.0	1.9	1.6	1.0	1.8
Thyroidectomy/hemi-thyroidectomy	0.3	0.2	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	0.8	0.8	0.7	0.5	0.3	0.6
Varicose veins treatment	0.2	0.2	0.2	0.1	0.1	0.2
Other procedures	15.1	14.4	13.7	11.2	7.8	12.5
Total	34.3	32.5	30.3	24.6	16.5	27.8
Total admissions	182,927	175,233	156,883	123,241	84,844	725,322

(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 and 6.3, and appendixes A and B for notes on definitions and data limitations.

Table 6.29: Time within which 50% of patients were admitted (days) from public hospital elective surgery waiting lists for the 25 most common intended procedures, by socioeconomic status of area of usual residence, 2017–18

Intended procedure	Socioeconomic status of area of residence					Total ^(a)
	1—Lowest	2	3	4	5—Highest	
Arthroscopy	76	76	73	70	65	72
Breast lump—excision and/or biopsy	15	16	15	15	14	15
Carpal tunnel release	63	63	58	60	51	60
Cataract extraction (with or without intra-ocular lens insertion)	111	108	77	67	57	85
Cholecystectomy (open/laparoscopic)	49	45	44	43	47	46
Coronary artery bypass grafting	22	20	19	21	15	20
Cystoscopy	25	24	23	23	24	24
Haemorrhoidectomy	45	40	52	54	53	48
Herniorrhaphy	72	70	65	60	63	67
Hysterectomy (abdominal/vaginal/laparoscopic)	62	59	55	54	47	56
Hysteroscopy, dilatation and curettage	27	26	25	26	25	26
Inguinal herniotomy/herniorrhaphy	60	59	55	50	53	56
Laparoscopy	55	50	50	50	50	51
Myringoplasty/tympanoplasty	178	247	178	244	204	196
Myringotomy ^(b)	69	68	65	68	63	67
Prostate biopsy	31	28	28	30	28	29
Prostatectomy (transurethral or open)	49	48	43	43	49	47
Salpingo-oophorectomy/oophorectomy/ovarian cystectomy	48	43	42	44	42	43
Septoplasty	285	266	209	265	198	255
Skin lesion—excision of	25	26	26	26	26	26
Thyroidectomy/hemi-thyroidectomy	53	59	55	48	52	54
Tonsillectomy (with or without adenoidectomy)	144	139	108	110	113	125
Total hip replacement	143	137	114	100	101	121
Total knee replacement	220	216	193	169	157	198
Varicose veins treatment	99	95	85	113	129	99
Other procedures	33	33	31	29	27	30
Total	44	43	40	37	35	41

(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 and 6.3, and appendixes A and B for notes on definitions and data limitations.

How did waiting times for public hospital elective surgery differ by funding source?

This section compares the waiting times for public patients with those for patients funded by other sources. Differences in the conditions treated and in the urgency categories assigned 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 6.30).

Overall, the time within which 50% of *Public patients* were admitted for their awaited procedure was 44 days, compared with 22 days for *Private health insurance-funded* separations and 16 days for other patients (Table 6.30).

Intended procedures

The time within which 50% of *Public patients* were admitted for their awaited procedure was longer for all of the 25 most common intended procedures compared with *Private health insurance-funded* patients and *Other patients* (Table S6.17).

The greatest difference was for *Hysterectomy (abdominal/vaginal/laparoscopic)* (275 days for *Public patients* and 87 days for *Private health insurance-funded* separations).

Surgical speciality

The time within which 50% of *Public patients* were admitted was longer compared with *Private health insurance-funded* patients for all surgical specialties except *Cardiothoracic surgery* (Table 6.30). The greatest difference was for *Ophthalmology surgery* (84 days for *Public patients*, 21 days for *Private health insurance-funded* patients and 13 days for *Other patients*), followed by *Otolaryngology, head and neck surgery* and *Orthopaedic surgery*.

Table 6.30: Time within which 50% of patients were admitted (days) from public hospital elective surgery waiting lists, by surgical speciality^(a) and funding source, 2017–18

Surgical speciality	Public patients ^(b)		Private health insurance		Other patients ^(c)		Total	
	Admissions	Time (days)	Admissions	Time (days)	Admissions	Time (days)	Admissions	Time (days)
Cardiothoracic surgery	9,853	19	1,006	20	113	14	10,972	19
Otolaryngology, head and neck surgery	55,608	88	3,492	28	2,422	20	61,522	83
General surgery	136,003	33	11,916	22	2,333	20	150,252	31
Gynaecology	78,220	36	4,955	24	1,291	21	84,466	35
Neurosurgery	10,792	44	1,426	16	272	20	12,490	38
Ophthalmology surgery	84,973	84	4,478	21	5,719	13	95,170	73
Orthopaedic surgery	97,627	81	6,306	29	3,759	17	107,692	75
Plastic surgery	50,139	28	4,840	19	1,717	8	56,696	27
Urological surgery	95,343	27	5,859	22	1,308	18	102,510	26
Vascular surgery	15,180	25	1,476	15	355	13	17,011	23
Paediatric surgery ^(a)	7,362	46	1,367	24	153	26	8,882	42
Other	14,926	24	2,008	16	725	28	17,659	23
Total	656,026	44	49,129	22	20,167	16	725,322	41

(a) In 2017–18, *Paediatric surgery* was not reported for Victoria, Queensland, and the Northern Territory.

(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 and 6.3, and appendixes A and B for notes on definitions and data limitations.

Neoplasm-related 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—for example, for patients awaiting surgery for neoplasms (cancer) can be compared with waiting times for patients awaiting surgery for other conditions.

In this section, information is presented 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 2017–18, the time within which 50% of patients were admitted for surgery with a neoplasm-related principal diagnosis (21 days) was shorter than those for other admissions (50 days), and were shorter for most surgical specialties (Table 6.31). Separations for *Public patients* generally had longer waiting times than *Private health insurance-funded* patients, regardless of the type of principal diagnosis or surgical specialty (S6.18).

For *Otolaryngology, head and neck surgery*, the time within which 50% of patients with a neoplasm-related principal diagnosis were admitted was 20 days, compared with 90 days for other diagnoses and 83 days overall.

Urological surgery was the surgical specialty with the least variation in waiting times for separations with a neoplasm-related principal diagnosis compared with other diagnoses (24 days for neoplasms, compared with 27 days for other diagnoses and 26 days overall).

Table 6.31: Time within which 50% of patients were admitted (days) from public hospital elective surgery waiting lists, with a neoplasm-related principal diagnosis (or other principal diagnosis), by surgical specialty, public hospitals, 2017–18

Surgical specialty	Neoplasm-related	Other diagnosis	Overall
Cardiothoracic surgery	12	23	19
Otolaryngology, head and neck surgery	20	90	83
General surgery	18	47	31
Gynaecology	27	37	35
Neurosurgery	14	49	38
Ophthalmology surgery	33	75	73
Orthopaedic surgery	33	76	75
Plastic surgery	24	34	27
Urological surgery	24	27	26
Vascular surgery	15	23	23
Paediatric surgery ^(a)	28	43	42
Other	24	23	23
Total	21	50	41

(a) In 2017–18, *Paediatric surgery* was not reported for Victoria, Queensland, and the Northern Territory.

Note: See boxes 1.1 and 6.3, 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 2017–18, the time within which 50% of patients with a principal diagnosis of *Lung cancer* were admitted for surgery was 13 days, with 90% of patients admitted for surgery within 34 days (Table 6.32).

The time within which 50% of patients with a principal diagnosis of *Breast cancer* were admitted for surgery was 14 days, with 90% of patients admitted for surgery within 28 days.

The time within which 50% of patients with a principal diagnosis of *Prostate cancer* were admitted for surgery was 30 days, with 90% of patients admitted for surgery within 91 days.

Table 6.32: Waiting time statistics for admissions from waiting lists for elective surgery, for selected principal diagnoses for cancer, public hospitals, 2017–18

Cancer type	Separations	Days waited at 50th percentile	Days waited at 90th percentile
Bladder cancer	8,523	21	67
Bowel cancer	5,494	15	32
Breast cancer	11,307	14	28
Gynaecological cancer	7,437	23	75
Kidney cancer	1,544	27	81
Lung cancer	1,637	13	34
Melanoma	5,135	15	30
Prostate cancer	8,148	30	91
All other principal diagnoses	676,097	44	281
Total	725,322	41	270

Note: See boxes 1.1 and 6.3, 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 available in Sections 6.4 and 6.5.

More information about urgency of admission is available in:

- Section 4.1 — ‘Mode and urgency of admission’
- ‘Chapter 5 — What services were provided’ — for mental health care, rehabilitation care and palliative care
- Sections 6.4 and 6.5.

More information about the funding source is available in tables S6.19 and S6.20 that accompany this report online, and in ‘Chapter 7 — Costs and funding’.

More information on elective surgery waiting times is available in

- is available in Table S6.21 (for neoplasm-related principal diagnoses) that accompanies this report online.
- *Elective surgery waiting times 2017–18: Australian hospital statistics* (AIHW 2018c).

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

7 Costs and funding

This chapter presents estimates of the relative cost of care and information on who paid for the care (for example, the funding source). It also presents some information on how much care was contracted between hospitals.

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 2017–18, in public hospitals, average cost weights were lowest for *Public patient* and *Private health insurance-funded* separations. The highest average cost weights were for separations funded by *Motor vehicle third party personal claim*.

For private hospitals, average cost weights were lowest for *Public patient* and *Self-funded* separations.

Surgical separations were, on average, 3 times more costly than medical separations.

Funding source

Between 2013–14 and 2017–18, the number of *Private health insurance* separations increased by an average of 4.7% each year—by 4.6% each year for public hospitals and 3.4% each year for private hospitals. Over the same period, *Department of Veterans' Affairs* separations decreased by an average of 3.9% each year.

In 2017–18:

- more than half (51%) of separations in all hospitals were for *Public patients* and 41% were for *Private health insurance* patients
- 83% of public hospital separations were for *Public patients*
- 82% of private hospital separations were for *Private health insurance* patients
- 68% of *Department of Veterans' Affairs* funded separations occurred in private hospitals.

Contracted care

In 2017–18, there were more than 98,000 episodes of inter-hospital contracted care—in which part of the patient's care or treatment was provided under contract by another hospital. 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?

The AR-DRGs reported for admitted patients (see Chapter 5) provide a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital resources.

The 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.

The National Hospital Cost Data Collection (NHCDC) estimates the average cost of each AR-DRG: and the cost weight for each AR-DRG is the average cost for that AR-DRG, divided by the average cost across all AR-DRGs (Independent Hospital Pricing Authority [IHPA] 2015, 2018). 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).

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 2015–16 reporting period. For 2015–16, the national average cost for a public hospital separation (that is, for a cost weight of 1.00) was estimated as \$5,323 (IHPA 2018).

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 (IHPA 2015). Therefore, the private hospital cost weights may not accurately reflect the average cost weights for *Private free-standing day hospital facilities*. An average cost for a private hospital separation has not been published since 2008–09, and so is not presented here.

AR-DRG version 8.0 is used in tables that present information for 2017–18 only. For the purpose of presenting the public cost weights time series in Table 7.1, AR-DRG version 7.0 (2013–14) was used for all years.

Average cost weights

The average cost weight for a hospital (or group of hospitals) is calculated as the sum of the 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

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.

From 2015–16, 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 to 2017–18 are not comparable with the data for previous reporting periods. Average cost weights are not shown for *Public psychiatric hospitals* due to the small numbers of acute separations.

Using public cost weights for both public and private hospitals, 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*.

Table 7.1: Average cost weight of acute separations^(a), public acute^(b) and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Average public cost weight of separations^(b)							
Public hospitals							
Public acute hospitals ^(c)	0.98	0.98	0.95	0.93	0.92	-1.5	-0.5
Private hospitals							
Private free-standing day hospital facilities	0.42	0.42	0.43	0.42	0.42	-0.3	-1.4
Other private hospitals	0.99	0.99	1.01	1.00	0.99	0.1	-0.3
<i>Private hospitals total</i>	<i>0.86</i>	<i>0.85</i>	<i>0.86</i>	<i>0.86</i>	<i>0.85</i>	<i>-0.2</i>	<i>-0.8</i>
All hospitals^(c)	0.93	0.93	0.91	0.90	0.90	-1.0	-0.6
Average private cost weight of separations^(d)							
Private hospitals							
Private free-standing day hospital facilities	0.33	0.33	0.34	0.33	0.33	-0.3	-1.2
Other private hospitals	0.96	0.97	0.99	0.98	0.98	0.5	-0.2
<i>Private hospitals total</i>	<i>0.82</i>	<i>0.81</i>	<i>0.83</i>	<i>0.83</i>	<i>0.82</i>	<i>0.1</i>	<i>-0.8</i>

(a) Separations for which the care type was reported as *Acute*, *Newborn* (with qualified days) or was not reported. For 2015–16 to 2017–18, acute care separations do not include *Mental health care* and therefore, the cost weights for 2015–16 to 2017–18 may not be comparable with earlier periods.

(b) AR-DRG version 7.0 public cost weights 2013–14 were used for both public and private hospitals for all years.

(c) Does not include *Public psychiatric hospitals*.

(d) AR-DRG version 6.0x overnight private hospitals cost weights 2012–13 used.

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

Average cost weights in 2017–18

The average cost weight for public acute hospitals, ranged from 1.06 in New South Wales and Tasmania to 0.59 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*, which had an average cost weight of 0.10 in 2015–16).

In public hospitals, the lowest average cost weights were for *Public patient* separations (0.93), and the highest average cost weights were for separations funded by *Motor vehicle third party personal claim* (2.04) (Table 7.3).

In private hospitals, the low average cost weight for *Public patients* (0.34) reflects the relatively large numbers of contracted care for dialysis in Western Australia and South Australia. *Self-funded* separations had lower average costs (0.72) than most other separations.

Table 7.2: Average public cost weights^(a) for acute separations^(b), public acute^(c) and private hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public acute hospitals ^(c)	1.06	0.90	0.96	0.92	1.01	1.06	1.01	0.59	0.96
Private hospitals									
Private free-standing day hospital facilities	0.47	0.40	0.48	0.29	0.35	n.p.	..	..	0.42
Other private hospitals	1.04	0.96	0.91	0.94	1.01	n.p.	n.p.	n.p.	0.97
<i>Private hospitals total</i>	<i>0.89</i>	<i>0.83</i>	<i>0.81</i>	<i>0.74</i>	<i>0.82</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>0.83</i>
Public acute and private hospitals^(c)	1.00	0.88	0.89	0.84	0.93	n.p.	n.p.	n.p.	0.91

(a) AR-DRG version 8.0 public cost weights 2015–16 were used for both public acute and private hospitals.

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

(c) Does not include *Public psychiatric hospitals*.

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

Table 7.3: Average cost weight^(a) of separations^(b), by funding source, public acute^(c) and private hospitals, 2017–18

Funding source	Public hospitals	Private hospitals	Total
Public patients ^(d)	0.93	0.34	0.91
Private health insurance	1.09	0.86	0.91
Self-funded	1.14	0.72	0.78
Workers compensation	1.25	1.30	1.29
Motor vehicle third party personal claim	2.04	1.34	1.94
Department of Veterans' Affairs	1.19	0.98	1.05
Other ^(e)	1.23	0.77	0.99
Total	0.96	0.83	0.91

(a) AR-DRG version 8.0 public cost weights 2015–16 were used for both public acute and private hospitals.

(b) Separations for which the care type was reported as *Acute* or *Newborn* (with qualified days) or was not reported.

(c) *Public acute hospitals* does not include *Public psychiatric hospitals*.

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

(e) *Other* includes separations with a funding source of *Other compensation*, *Department of Defence*, *Correctional facilities*, *Other hospital or public authority* (without a *Public patient election status*), *Other*, *Health service budget—no charge raised due to hospital decision* (in private hospitals) and not reported.

Note: See Box 1.1, 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 by applying the 2015–16 AR-DRG version 8.0 national public sector estimated costs to the AR-DRG reported for each separation, and summing the costs and separations by Major Diagnostic Category (MDC). 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.

While the estimated costs presented in Table 7.4 are not accurate reflections of the actual costs in 2017–18 (as they are based on estimates for the 2015–16 reference period), they are useful in comparing the relative costs of care provided in each MDC.

The MDC with the highest average cost (\$119,016) was *Pre-MDC (tracheostomies, transplants and extracorporeal membranous oxygenation)* and the lowest (\$1,312) was

reported for *Diseases and disorders of the kidney and urinary tract* (which includes *L61Z Haemodialysis*).

Separations involving surgery (*Surgical DRGs*) were 3.4 times more costly than separations with *Medical DRGs* (Table 7.4) and 2.5 times more costly than separations with *Other DRGs* (which include non-operating room interventions, such as endoscopies).

Table 7.4: Selected cost statistics^(a), by Major Diagnostic Category, AR-DRG version 8.0 and Medical/Surgical/Other partition, public hospitals, 2017–18

Major Diagnostic Category		Cost by volume (\$'000) ^(b)	Average cost
PR	Pre-MDC (tracheostomies, transplants, ECMO)	1,571,608	119,016
01	Diseases and disorders of the nervous system	2,431,448	6,955
02	Diseases and disorders of the eye	415,694	3,133
03	Diseases and disorders of the ear, nose, mouth and throat	942,152	3,812
04	Diseases and disorders of the respiratory system	2,707,979	7,057
05	Diseases and disorders of the circulatory system	3,561,904	7,018
06	Diseases and disorders of the digestive system	3,332,252	4,914
07	Diseases and disorders of the hepatobiliary system and pancreas	996,001	8,867
08	Diseases and disorders of the musculoskeletal system and connective tissue	3,949,430	8,670
09	Diseases and disorders of the skin, subcutaneous tissue and breast	1,216,477	5,030
10	Endocrine, nutritional and metabolic diseases and disorders	712,677	6,752
11	Diseases and disorders of the kidney and urinary tract	1,929,857	1,312
12	Diseases and disorders of the male reproductive system	245,145	4,628
13	Diseases and disorders of the female reproductive system	596,331	4,697
14	Pregnancy, childbirth and puerperium	2,194,049	5,397
15	Newborns and other neonates	1,156,965	15,490
16	Diseases and disorders of the blood and blood-forming organs, and immunological disorders	452,680	3,239
17	Neoplastic disorders (haematological and solid neoplasms)	933,056	2,933
18	Infectious and parasitic diseases	954,346	9,650
19	Mental diseases and disorders	420,463	8,725
20	Alcohol/drug use and alcohol/drug induced organic mental disorders	180,297	4,801
21	Injuries, poisoning and toxic effects of drugs	1,114,759	5,700
22	Burns	106,819	12,895
23	Factors influencing health status and other contacts with health services	460,822	2,693
ED	Error DRGs ^(c)	126,814	20,965
	<i>Surgical DRG</i>	13,809,233	12,026
	<i>Medical DRG</i>	16,699,145	3,496
	<i>Other DRG</i>	2,201,647	4,796
Total		32,710,025	5,124

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

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

(b) Expenditure estimate is calculated using the 2015–16 Round 20 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 \$5,323.

(c) An *Error DRG* is assigned to hospital records that contain clinically atypical or invalid information.

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

Where to go for more information:

More information on costs of care and funding source, for states and territories is in Table S7.1 that accompanies this report online.

More information on the costs of hospital care in 2017–18 will be available in:

- *Hospital resources 2017–18: Australian hospital statistics* (AIHW, forthcoming)
- *Health expenditure Australia, 2017–18* (AIHW, forthcoming).

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

7.2 Who paid for the care?

The funding source describes the major source of funds used to pay for a separation. However, *Private health insurance* was reported for any separation that used *Private health insurance* to fund all or part of their admission, regardless of whether it was the major source of funds.

A separation may be funded by more than one funding source, but information on separations from multiple funding sources is not available.

Changes over time

Between 2013–14 and 2017–18:

- *Public patient* separations increased by an average of 4.7% each year (Table 7.5). They increased by 4.5% each year in public hospitals and by 10.6% each year in private hospitals
- *Private health insurance* separations increased by an average of 3.6% each year. They increased by 4.6% each year in public hospitals and by 3.4% each year in private hospitals
- *Self-funded* separations increased by an average of 0.4% each year
- *Department of Veterans' Affairs* separations decreased by an average of 3.9% each year.

Who paid in 2017–18?

In 2017–18 for all hospitals combined, more than half (52%) of all separations were for *Public patients*, and 42% were for *Private health insurance* patients (Table 7.6). Over 83% of separations in public hospitals were for *Public patients*, compared with 4% in private hospitals. For private hospitals, 83% of separations were for *Private health insurance* patients, compared with 14% in public hospitals.

Where to go for more information:

More detailed information by funding source is available in tables S7.2 to S7.7 that accompany this report online.

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

Table 7.5: Separations by funding source, public and private hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Public hospitals							
Public patients ^(a)	4,701,799	4,949,069	5,186,320	5,465,027	5,612,041	4.5	2.7
Private health insurance	755,901	814,702	871,902	911,707	905,599	4.6	-0.7
Self-funded	52,781	49,331	46,921	48,900	46,239	-3.3	-5.4
Workers compensation	21,034	21,887	22,422	22,770	22,669	1.9	-0.4
Motor vehicle third party personal claim	28,846	27,779	28,094	29,492	33,640	3.9	14.1
Department of Veterans' Affairs	95,901	90,788	85,008	78,835	72,783	-6.7	-7.7
Other ^(b)	58,608	26,782	31,814	30,617	33,804	-12.9	10.4
Total	5,714,870	5,980,338	6,272,481	6,587,348	6,726,775	4.2	2.1
Private hospitals^(c)							
Public patients ^(a)	131,135	155,252	162,522	182,972	196,128	10.6	7.2
Private health insurance	3,288,535	3,456,176	3,601,976	3,631,071	3,761,448	3.4	3.6
Self-funded	287,194	286,403	286,570	292,225	298,788	1.0	2.2
Workers compensation	60,122	56,530	58,262	57,998	63,356	1.3	9.2
Motor vehicle third party personal claim	6,458	6,686	6,980	7,398	7,849	5.0	6.1
Department of Veterans' Affairs	180,013	178,265	174,290	165,633	162,363	-2.5	-2.0
Other ^(b)	28,448	30,717	36,687	39,389	36,568	6.5	-7.2
Total	3,981,905	4,170,029	4,327,287	4,426,467	4,526,500	3.3	2.3
All hospitals^(c)							
Public patients ^(a)	4,832,934	5,104,321	5,348,842	5,647,999	5,808,169	4.7	2.8
Private health insurance	4,044,436	4,270,878	4,473,878	4,542,778	4,667,047	3.6	2.7
Self-funded	339,975	335,734	333,491	341,125	345,027	0.4	1.1
Workers compensation	81,156	78,417	80,684	80,768	86,025	1.5	6.5
Motor vehicle third party personal claim	35,304	34,465	35,074	36,890	41,489	4.1	12.5
Department of Veterans' Affairs	275,914	269,053	259,298	244,468	235,146	-3.9	-3.8
Other ^(b)	87,056	57,499	68,501	70,006	70,372	-5.2	0.5
Total	9,696,775	10,150,367	10,599,768	11,013,815	11,253,275	3.8	2.2

(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, 2016–17 data for the Australian Capital Territory are excluded from the funding source categories for private hospitals and all hospitals.

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

Hospital type

In 2017–18:

- public hospitals accounted for 97% of *Public patient* separations and 19% of *Private health insurance-funded* separations (Table 7.6)
- private hospitals accounted for 3% of *Public patient* separations and 81% of *Private health insurance-funded* separations
- 17% of separations in *Women’s and children’s hospitals* and 15% of separations in *Principal referral hospitals* were *Private health insurance-funded*.

Table 7.6: Separations by hospital peer group/type of hospital and funding source, public and private hospitals, 2017–18

Hospital peer group/type	Public patients ^(a)	Private health insurance	Other patients ^(b)	Total
Principal referral	2,041,718	385,796	93,553	2,521,067
Women's and children's	225,511	47,833	6,824	280,168
Public acute group A	1,908,345	275,446	59,244	2,243,035
Public acute group B	715,331	72,978	19,367	807,676
Public acute group C	466,836	70,355	15,511	552,702
Other	254,300	53,191	14,636	322,127
<i>Public hospitals total</i>	<i>5,612,041</i>	<i>905,599</i>	<i>209,135</i>	<i>6,726,775</i>
Private free-standing day hospital facilities	111,089	685,553	179,301	975,943
Other private hospitals	85,039	3,075,895	389,623	3,550,557
<i>Private hospitals total</i>	<i>196,128</i>	<i>3,761,448</i>	<i>568,924</i>	<i>4,526,500</i>
All hospitals	5,808,169	4,667,047	778,059	11,253,275

(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.

Note: See Box 1.1, 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 Table S7.8 that accompanies this report online, and 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 interventions 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 2017–18: Australian hospital statistics* (AIHW, forthcoming).

7.3 How much care was contracted between hospitals?

Hospitals may outsource, or purchase contracted care services from another hospital, which may involve all or part of the admitted patient episode, including diagnostic and clinical services.

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. 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.

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 2017–18, 98,600 separations had an *Inter-hospital contracted patient status* indicating that contracted care services were provided by a contracted hospital ('contracted patient from public/private sector hospital') (Table 7.7). Over 93,000 separations had an *Inter-hospital contracted patient status* indicating that the episode occurred at the contracting hospital ('contracted patient to public/private sector hospital').

About 92,500 public hospital separations were reported as contracted to the private sector, but only 87,200 private hospital separations were reported as contracted from the public sector.

Table 7.7: Separations by inter-hospital contracted patient status, public and private hospitals, 2017–18

	Public hospitals	Private hospitals	Total
Inter-hospital contracted patient from public sector hospital	7,273	87,198	94,471
Inter-hospital contracted patient from private sector hospital	3,503	607	4,110
Contracted separations reported by the contracted hospital	10,776	87,805	98,581
Inter-hospital contracted patient to public sector hospital	596	48	644
Inter-hospital contracted patient to private sector hospital	92,495	83	92,578
Contracted separations reported by the contracting hospital	93,091	131	93,222

Note: See Box 1.1, 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 Table S7.9 that accompanies this report online.

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

8 Information related to safety and quality of the health system

This chapter presents information about admitted patient experiences that may be related to the safety and quality of the health system (see Box 8.1 for limitations).

The first section 'Patient experience of the health system' contains admitted patient data about events that occur in hospital that, in some cases, may relate more broadly to the safety and quality of the health system. It includes information from the ABS patient experience survey, potentially preventable hospitalisations, unplanned readmissions and conditions that arose during the hospital stay.

The second section 'Safety and quality of care in hospitals' presents admitted patient data specifically relating to the safety and quality of care delivered by the hospital. It includes information on falls in hospital that resulted in patient harm and draws largely on the Hospital Acquired Complications (HACs) specifications developed by the Australian Commission for the Safety and Quality of Health Care (ACSQHC 2016).

Box 8.1: Data limitations

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.

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
- it is not possible to identify adverse events or complications that arise after the patient was discharged. The results should therefore be treated with caution.
- the information presented for separate indicators in this chapter may not be mutually exclusive. 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. More information on the overlap of these indicators is available in Table S8.1 that accompanies this report online.
- 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 previous reports, this chapter included information for the performance indicator 'Adverse events'. The specifications for this indicator are currently under review. However, data for this indicator are available in supplementary tables S8.10 to S8.14 that accompany this report online.

Information for the NHA performance indicator Healthcare associated infections has been reported in *Bloodstream infections associated with hospital care 2017–18: Australian hospital statistics* (AIHW 2019b).

Key findings

Patient experience of the health system

Potentially preventable hospitalisations

In 2017–18, 748,000 separations were classified as potentially preventable hospitalisations (PPHs), accounting for 6.6% of all separations.

More than 85,000 PPHs were for vaccine-preventable conditions, an increase of 46.5% from 2016–17. Most of this increase can be attributed to an increase in hospitalisations for vaccine-preventable influenza.

Unplanned readmissions

In 2017–18, 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.

Safety and quality of care in hospitals

Falls

In 2017–18, more than 40,000 falls resulting in patient harm in hospitals were recorded; a rate of 3.6 falls per 1,000 separations—4.9 per 1,000 in public hospitals and 1.6 per 1,000 in private hospitals. About 35,000 of these falls occurred in the same health facility.

Hospital-acquired complications

In 2017–18, 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 185,000 separations, from a total of 9.4 million separations that were in-scope for this measure (about 2.0%, or 1 in 50 separations).

There were 96,000 separations (1.0% of in-scope separations) with *Healthcare-associated infections* acquired in hospital. Other hospital-acquired complications included *Cardiac complications* (0.5% of in-scope separations), *Delirium* (0.4%) and *Medication complications* (0.2%).

8.1 Patient experience of the health system

This section presents information on the patient's experience during their hospital stay. However, some of the information may also inform on the patient's experience across different parts of Australia's health system. For example:

- 'Potentially preventable hospitalisations' — may relate to the provision of primary care and community-based health care
- 'Conditions that arose during the hospital stay' — some conditions may relate to the provision of hospital care, but others may relate to the provision of primary care
- 'Unplanned readmissions' — some readmissions may relate to the provision of hospital care, but others may relate to the unavailability of appropriate post-discharge care in the community.

This section also includes the NHA performance indicator 'Patient experience' — presenting survey results for questions related to admitted patient care.

Performance indicator: Potentially preventable hospitalisations

Potentially preventable hospitalisations (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 aspects of the health 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 (see METeOR identifier: 658499). 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.
- *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.

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

'By 2014–15, improve the provision of primary care and reduce the proportion of potentially preventable hospital admissions by 7.6 per cent over the 2006–07 baseline to 8.5 per cent of total hospital admissions' (METeOR identifier: 658538).

Changes over time

Between 2013–14 and 2017–18, overall rates of PPHs increased from 24.4 per 1,000 population to 27.9 per 1,000 (Table 8.1). Between 2013–14 and 2017–18, rates of *Acute* PPHs and *Chronic* PPHs (excluding diabetes) decreased.

Between 2016–17 and 2017–18, *Vaccine-preventable* PPHs rose by 46.5%, reflecting large increases in admissions for *Pneumonia and vaccine-preventable influenza* in most states and territories. Most of this increase can be attributed to an increase in hospitalisations for vaccine-preventable influenza.

Table 8.1: Selected potentially preventable hospitalisations per 1,000 population, by PPH category, all hospitals, 2013–14 to 2017–18

	2013–14	2014–15	2015–16	2016–17	2017–18	Change (%)	
						Average since 2013–14	Since 2016–17
Vaccine preventable conditions ^(a)	1.3	1.8	2.0	2.1	3.1	24.9	46.5
Acute conditions	12.0	12.2	12.6	13.0	12.9	1.7	–0.9
<i>Chronic conditions</i> ^(b)	11.2	11.5	12.1	12.5	12.3	2.3	–1.4
Diabetes complications	1.7	1.7	1.8	1.8	1.9	3.1	4.0
Chronic conditions (excluding diabetes)	9.6	9.7	10.2	10.7	10.5	2.2	–2.3
Total^(c)	24.4	25.2	26.5	27.3	27.9	3.5	2.2

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

How many PPHs were there in 2017–18?

In 2017–18, 748,000 separations in public and private hospitals were classified as PPHs (Table 8.2). They accounted for 6.6% of all hospital separations—8.6% of public hospital separations and 3.6% of private hospital separations. More than three-quarters of PPHs (78%) were reported for public hospitals. *Diabetes complications* accounted for about 15% of separations that were classified as *Chronic condition* PPHs.

The Northern Territory had the highest rates of *Vaccine-preventable* PPHs and *Chronic* PPHs (Table 8.3). South Australia had the highest rates of *Acute* PPHs.

Table 8.2: Separations for potentially preventable hospitalisations, public and private hospitals, 2017–18

PPH category	Public hospitals	Private hospitals	Total
Vaccine preventable conditions	73,359	11,777	85,136
Acute conditions	247,186	82,698	329,884
<i>Chronic conditions</i>	<i>270,949</i>	<i>72,490</i>	<i>343,439</i>
Diabetes complications	41,869	8,404	50,273
Chronic conditions (excluding diabetes) ^(a)	229,080	64,086	293,166
Total^(b)	581,840	165,902	747,742
Proportion of total separations (%)	8.6	3.7	6.6

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Table 8.3: Separations for potentially preventable hospitalisations, public and private hospitals, by state/territory of residence, 2017–18

	Vaccine-preventable conditions	Acute conditions	Total chronic conditions	Total
New South Wales				
Separations	30,308	93,153	98,203	217,865
Separations per 1,000 population	3.4	11.2	10.7	24.8
Victoria				
Separations	18,121	76,195	92,596	184,986
Separations per 1,000 population	2.6	11.6	13.1	27.0
Queensland				
Separations	19,568	82,397	79,763	179,082
Separations per 1,000 population	3.7	16.2	14.7	34.1
West Australia				
Separations	4,875	34,619	30,451	69,259
Separations per 1,000 population	1.8	13.1	11.1	25.8
South Australia				
Separations	6,755	24,102	25,173	55,199
Separations per 1,000 population	3.3	13.0	11.5	27.4
Tasmania				
Separations	1,497	6,466	7,887	15,638
Separations per 1,000 population	2.3	11.8	11.7	25.6
Australian Capital Territory				
Separations	1,071	4,184	3,609	8,756
Separations per 1,000 population	2.6	10.2	8.9	21.4
Northern Territory				
Separations	2,295	6,331	4,533	12,716
Separations per 1,000 population	10.3	27.1	22.6	58.0
Total				
Separations	85,136	329,884	343,439	747,742
Separations per 1,000 population	3.1	12.9	12.3	27.9

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

How do rates of PPHs differ by population groups?

Indigenous status

For Indigenous Australians, the overall rate of PPHs per 1,000 population was 3 times the rate for other Australians (Table 8.4). The rate of PPHs for *Vaccine-preventable conditions* for Indigenous Australians was more than 4 times the rate for other Australians.

Remoteness area

For 2017–18, the overall rate of PPHs was highest for residents of *Remote* and *Very remote* areas (45 and 66 per 1,000 population, respectively) and lowest for residents of *Major cities* (26 per 1,000) (Table 8.4).

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 8.4).

Table 8.4: 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, 2017–18

	Vaccine-preventable conditions	Acute conditions	Total chronic conditions ^(a)	Diabetes complications	Chronic conditions (excluding diabetes)	Total
Indigenous status						
Indigenous Australians ^(b)	12.7	31.5	38.0	7.2	30.8	79.9
Other Australians	2.9	12.3	11.8	1.8	10.1	26.7
Remoteness area of usual residence						
Major cities	3.2	11.9	11.6	1.7	9.9	26.2
Inner regional	2.6	13.8	13.1	2.1	11.0	29.2
Outer regional	2.8	15.5	13.8	2.2	11.6	31.8
Remote	5.0	22.6	17.6	3.0	14.6	44.5
Very remote	11.3	30.1	26.9	4.7	22.2	66.1
Socioeconomic status of area of usual residence						
1—Lowest	4.2	14.4	14.9	2.5	12.4	32.8
2	2.9	13.2	13.4	2.1	11.4	29.2
3	3.2	13.4	12.9	2.0	10.9	29.1
4	2.8	11.9	11.0	1.6	9.4	25.4
5—Highest	2.4	10.9	8.9	1.2	7.8	22.0
Total	3.1	12.9	12.3	1.9	10.5	27.9

(a) As more than 1 chronic condition may be reported for a separation, the sum of *Diabetes complications* and *Chronic conditions (excluding diabetes)* does not necessarily equal the total number of separations for *Chronic conditions*.

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

Note: See Box 1.1 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 of area of usual residence and SES of area of usual residence is in tables S8.2 to S8.6 that accompany this report online at www.aihw.gov.au/hospitals/.

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

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

Conditions that arose during the hospital stay

The NHMD includes 'condition onset flags' (COF) that can help to identify conditions that arose during the hospital stay (that is, the condition was not present on admission).

Conditions that arise during the hospital stay include adverse events (some of which may have been preventable), while other conditions that arise during the stay may not have been preventable. They include conditions that:

- are newly arising conditions (for example, pneumonia, rash, confusion, hypotension, electrolyte imbalance or cyst)
- are abnormal reactions to, or later complications of, surgical or medical care (for example, post-procedural shock, disruption of wound or urinary tract infection)
- result from a misadventure during surgical or medical care (accidental laceration during procedure, medication error)
- have an impact on obstetric care—including complications or unsuccessful interventions of labour and delivery, or prenatal/postpartum management.

For neonates, it includes conditions in the birth episode arising during the birth event (conditions associated with birth trauma, neonatal aspiration, or newborn affected by delivery or intrauterine procedures) or conditions that arose following birth (for example respiratory distress, jaundice, feeding problems).

Condition onset flag in 2017–18

In 2017–18, 973,000 separations (8.8% of all separations for which COF data were provided) recorded a condition that arose during the episode of care (Table 8.5).

There is some overlap between separations for which a condition was reported as arising during the episode and other measures reported in this chapter. For example, 3% of separations for which a condition was reported as arising during the episode were classified as *Falls* and 19% were classified as *Hospital-acquired complications* (see Section 8.2).

Separations with condition that arose during the episode of care accounted for 10.5% of public hospital separations and 6.4% of private hospital separations.

As the coverage of the COF data for 2017–18 was greater than coverage in earlier years (particularly for private hospitals), these data may not be comparable with data presented in earlier reports. See Appendix A for more information.

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 8.5)
- 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 8.5: Proportion (%) of separations^(a) with a condition noted as arising during the episode of care^(b), by same-day/overnight status, broad category of service and urgency of admission, public and private hospitals, 2017–18

	Public hospitals		Private hospitals		Total	
	Separations	Proportion (%)	Separations	Proportion (%)	Separations	Proportion (%)
Same-day separations						
Childbirth	3,381	38.4	28	26.2	3,409	38.2
Surgical (emergency)	508	1.8	49	0.8	557	1.6
Surgical (non-emergency)	5,776	1.4	9,906	1.1	15,682	1.2
Medical (emergency)	7,636	1.0	174	1.5	7,810	1.0
Medical (non-emergency)	16,597	0.8	6,390	0.6	22,987	0.8
Other (emergency)	174	2.6	25	0.4	199	1.6
Other (non-emergency)	3,179	0.9	12,106	1.4	15,285	1.3
Mental health	215	0.9	163	0.1	378	0.2
Rehabilitation	80	0.3	3,121	1.1	3,201	1.0
Palliative care	81	4.3	1	0.6	82	4.0
Other subacute and non-acute care	29	5.1	212	0.9	241	1.0
<i>Total same-day</i>	<i>37,656</i>	<i>1.0</i>	<i>32,175</i>	<i>1.0</i>	<i>69,831</i>	<i>1.0</i>
Overnight separations						
Childbirth	140,078	62.8	34,635	51.4	174,713	60.2
Surgical (emergency)	82,931	30.6	11,205	26.7	94,136	30.1
Surgical (non-emergency)	92,735	25.6	95,286	15.9	188,021	19.5
Medical (emergency)	177,266	11.4	23,417	13.9	200,683	11.6
Medical (non-emergency)	59,706	20.2	27,584	12.6	87,290	17.0
Other (emergency)	21,607	28.3	2,713	18.7	24,320	26.7
Other (non-emergency)	5,641	20.1	5,059	11.3	10,700	14.7
Specialised mental health	17,062	14.4	8,656	19.8	25,718	15.9
Rehabilitation	26,437	38.0	26,113	32.6	52,550	35.1
Palliative care	8,441	22.7	1,086	17.3	9,527	21.9
Other subacute and non-acute care	19,615	29.9	1,563	20.4	21,178	28.9
<i>Total overnight</i>	<i>651,519</i>	<i>21.0</i>	<i>237,317</i>	<i>18.3</i>	<i>888,836</i>	<i>20.2</i>

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

The 20 most common conditions that arose during the hospital stay

In 2017–18, the 20 most common conditions accounted for 42% of all conditions that arose during the hospital stay (Table 8.6).

The most common single condition reported was *Hypotension* (low blood pressure), a common side effect following anaesthesia, blood loss or infection. Four obstetric conditions were also in the 20 most common conditions, and combined accounted for about 208,000 conditions that arose during the hospital stay.

Table 8.6: Separations for the 20 most common conditions reported with onset during the episode of care^{(a)(b)}, public and private hospitals, 2017–18

Condition	Public hospitals	Private hospitals	Total
I95 Hypotension	96,419	33,858	130,277
E87 Other disorders of fluid, electrolyte and acid-base balance	81,155	19,390	100,545
O70 Perineal laceration during delivery	67,332	14,786	82,118
R11 Nausea and vomiting	34,450	28,383	62,833
K59 Other functional intestinal disorders	45,554	15,174	60,728
R00 Abnormalities of heart beat	39,483	11,503	50,986
O68 Labour and delivery complicated by fetal stress (distress)	39,053	7,548	46,601
O99 Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium	37,421	5,963	43,384
T81 Complications of procedures, not elsewhere classified	27,610	13,945	41,555
O72 Postpartum haemorrhage	32,913	3,202	36,115
E83 Disorders of mineral metabolism	31,470	4,520	35,990
R50 Fever of other and unknown origin	21,437	9,747	31,184
R07 Pain in throat and chest	22,253	8,066	30,319
E86 Volume depletion	25,785	4,358	30,143
N17 Acute kidney failure	24,050	5,446	29,496
N39 Other disorders of urinary system	20,572	8,355	28,927
R33 Retention of urine	19,622	7,644	27,266
B96 Other bacterial agents as the cause of diseases classified to other chapters	18,825	7,581	26,406
F05 Delirium, not induced by alcohol and other psychoactive substances	20,494	4,959	25,453
D64 Other anaemias	15,847	7,695	23,542
Other diagnoses	985,481	335,663	1,321,144
Total	1,707,226	557,786	2,265,012

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Where to go for more information:

More information on conditions that arose during the episode is available in tables S8.7 and S8.8 that accompany this report online.

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

Performance indicator: Unplanned readmissions

'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.

It 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.

This measure is restricted to readmissions to the same public hospital between 1 July 2017 and 30 June 2018, where the initial admission for the procedure occurred between 1 July 2017 and 19 May 2018. Where a patient is readmitted more than once within 28 days of the procedure, only the first readmission is included.

The data presented here for 2017–18 are comparable with data for the same performance indicator presented for 2016–17.

This indicator 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 readmissions in 2017–18

For the selected surgeries, rates of unplanned readmissions in public hospitals were highest for *Tonsillectomy and adenoidectomy* (39 per 1,000 separations) and *Hysterectomy* (29 per 1,000 separations) (Table 8.7). Of the selected surgeries, rates of unplanned readmissions were lowest for *Cataract extractions* (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 www.meteor.aihw.gov.au/content/index.phtml/itemId/658485.

More information on unplanned readmissions by Indigenous status, remoteness and SES of area of usual residence is available in Table S8.9 that accompanies this report online.

More information on performance indicators is available in Appendix C.

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

Table 8.7: Separations^(a) and rate per 1,000 separations, unplanned/unexpected readmissions within 28 days for selected procedures, public hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total ^(c)
Appendicectomy									
Separations	9,873	7,242	6,259	3,402	2,063	536	697	365	27,035
Number of readmissions	201	120	136	81	52	12	24	15	560
Per 1,000 separations	20.4	16.6	21.7	23.8	25.2	22.4	34.4	41.1	20.7
Cataract extraction									
Separations	19,971	24,213	7,439	9,591	5,423	1,619	1,129	680	60,474
Number of readmissions	64	57	40	23	17	5	1	4	188
Per 1,000 separations	3.2	2.4	5.4	2.4	3.1	3.1	0.9	5.9	3.1
Hip replacement									
Separations	3,814	3,102	1,911	1,423	769	318	254	28	10,196
Number of readmissions	70	65	57	32	13	6	1	1	213
Per 1,000 separations	18.4	21.0	29.8	22.5	16.9	18.9	3.9	35.7	20.9
Hysterectomy									
Separations	3,510	3,243	2,408	1,136	846	258	138	65	10,468
Number of readmissions	96	73	86	44	33	8	6	6	308
Per 1,000 separations	27.4	22.5	35.7	38.7	39	31	43.5	92.3	29.4
Knee replacement									
Separations	5,673	3,499	2,775	1,664	963	292	288	61	13,551
Number of readmissions	121	93	91	38	28	16	2		351
Per 1,000 separations	21.3	26.6	32.8	22.8	29.1	54.8	6.9		25.9
Prostatectomy									
Separations	2,980	2,856	1,680	785	539	230	144	45	8,474
Number of readmissions	103	70	87	23	17	9	7	4	297
Per 1,000 separations	34.6	24.5	51.8	29.3	31.5	39.1	48.6	88.9	35
Tonsillectomy and adenoidectomy									
Separations	6,966	8,242	4,751	1,944	2,071	406	524	227	23,187
Number of readmissions	251	232	285	123	81	23	15	19	906
Per 1,000 separations	36.0	28.1	60.0	63.3	39.1	56.7	28.6	83.7	39.1

(a) Separations are counted in the denominator if the admission for the selected procedure occurred between 1 July 2017 and 19 May 2018.

(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 Box 1.1 and appendixes A and B for notes on data limitations and methods.

Performance indicator: Patient experience

This section presents selected information from the Australian Bureau of Statistics' (ABS) 2017–18 Patient Experience Survey (ABS 2018b). 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.

'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.

There were 19,000 people aged 15 and over surveyed in 2017–18. 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.

At least 88% of patients responded 'always' or 'often' to each of these questions for both doctors and nurses (Table 8.8). About 92% of patients responded 'always' or 'often' to the questions about whether the doctors or nurses showed respect to them.

Table 8.8: Patient experience in hospital, people aged 15 years and over, 2017–18

	Always	Often	Sometimes/ rarely/never
Hospital doctors and specialists			
Listened carefully	76.2	14.5	8.8
Showed respect	78.6	13.4	7.4
Spent enough time with person	73.6	13.9	11.9
Hospital nurses			
Listened carefully	77.6	14.1	8.0
Showed respect	80.7	12.1	7.0
Spent enough time with person	76.7	13.0	9.9

Source: ABS 2018b.

Where to go for more information:

Information about the specification used for this performance indicator is available at www.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.

8.2 Safety and quality of care in hospitals

This section presents information on the safety and quality of the care provided to admitted patients in hospitals. It includes:

- ‘Falls resulting in patient harm in hospitals’
- ‘Hospital-acquired complications’—using the Australian Commission on Safety and Quality in Healthcare’s (ACSQHC) list of 16 hospital-acquired complications (HACs).

Performance indicator: Falls resulting in patient harm in hospital

‘Falls resulting in patient harm in hospitals’ can be considered as an indicator of the safety of care. This indicator is intended to report separations where a fall occurred in hospital during the episode of care, resulting in patient harm.

Before 2017–18, the ICD-10-AM place of occurrence code for *Health service area* did not distinguish between falls occurring in hospitals from falls occurring in other health-related facilities. Therefore, before 2017–18, the rates of falls in hospitals may have been overestimated. For ICD-10-AM 10th edition (implemented from 1 July 2017), there are two codes for *Health service area*, identifying whether the place of occurrence was in ‘this facility’ or ‘not this facility’.

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. 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*.

Falls in hospitals 2017–18

In 2017–18, more than 40,000 separations reported a fall that occurred in a health service area, at a rate of 3.6 per 1,000 separations (Table 8.9). More falls per 1,000 separations were reported for public hospitals (4.9 per 1,000 separations) than for private hospitals (1.6 per 1,000).

For 2017–18, about 88% of all *Falls in health service areas* were identified as occurring in ‘this facility’ (35,000 separations or 3.1 per 1,000), and 24% were classified as *Hospital-acquired complications*.

Where to go for more information:

Information about the specification used for this performance indicator is available at www.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 8.9: Separations for falls resulting in patient harm in hospitals, per 1,000 separations, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(a)	
									Rate	Number
Hospital sector										
Public hospitals	6.3	3.5	4.2	6.5	5.4	7.5	1.7	4.6	4.9	32,754
Private hospitals	1.5	1.5	2.0	1.2	1.8	0.8	1.6	2.6	1.6	7,368
Indigenous status										
Indigenous Australians	2.5	2.3	2.0	1.8	1.2	4.7	1.1	3.5	1.8	990
Other Australians	4.4	2.8	3.3	4.3	4.2	4.7	2.9	4.2	3.7	39,132
Remoteness area^(b)										
Major cities	4.4	2.7	3.2	4.4	4.0	7.2	4.4	4.0	3.6	27,949
Inner regional	3.9	3.0	3.4	3.5	3.9	4.6	5.6	4.8	3.6	7,721
Outer regional	4.2	3.4	3.0	4.1	5.0	4.5	2.2	7.4	3.6	3,569
Remote and Very remote	3.5	2.9	2.3	3.3	1.9	9.8	1.3	11.6	2.1	654
Socioeconomic status^(c)										
1—Lowest	5.0	2.8	3.8	4.9	3.8	5.5	1.4	7.7	4.0	9,077
2	4.4	3.0	3.5	4.6	4.9	4.7	1.8	7.0	3.9	8,842
3	4.4	2.8	3.1	3.9	3.5	4.8	2.2	4.6	3.5	8,214
4	4.2	2.7	2.9	3.9	3.5	2.8	1.5	3.7	3.2	6,914
5—Highest	3.6	2.7	2.5	3.0	3.8	2.9	2.0	4.0	3.2	6,842
Total										
Falls	13,747	8,106	8,418	3,279	4,621	1,037	314	600	40,122	..
Falls per 1,000 separations	4.3	2.8	3.2	4.2	3.9	4.7	1.7	4.2	3.6	..
Falls in this facility	11,856	7,266	7,568	2,838	4,001	951	267	535	35,282	..
Falls in this facility per 1,000 separations	3.7	2.5	2.9	3.6	3.4	4.3	1.5	3.7	3.1	..

(a) The total includes separations for which the place of usual residence was not reported.

(b) 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.

(c) Disaggregation by socioeconomic group is based on the area of usual residence of the patient, rather than the location of the hospital.

Note: See Box 1.1 and appendixes A and B for notes on data limitations and methods.

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*). Records were not excluded based on the type of hospital, the length of stay, the age of the patient or whether the patient subsequently died. Therefore, the rates of HACs presented in this section may differ from those reported elsewhere. About 9.4 million separations were included in the analysis—5.5 million in public hospitals and 3.9 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 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.

The ACSQHC advises that the reporting of diagnoses and COF is likely to be more complete in public hospitals than in private hospitals. Therefore, comparisons of HACs data between hospital sectors should be treated with caution. As the HACs data presented in this section are presented at the national level (and by state or territory in tables accompanying this report online) the data have not been risk-adjusted to account for hospitals that treat more high-risk patients (for example, due to the age of the patient or the presence of comorbidities), or for hospitals that treat relatively small numbers of patients.

(continued)

Box 8.2 (continued): Methods and limitations—Hospital-acquired complications

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 2017–18 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.

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 (see Section 8.1).

Separations including a hospital-acquired complication in 2017–18

In 2017–18, one or more of the ACSQHC list of hospital-acquired complications was reported for 185,000 separations (Table 8.10), from a total of 9.4 million separations that were in-scope for analysis. They accounted for 2.0% (1 in 50) of in-scope hospital separations. About 19% of separations with a condition that arose during the episode (Section 8.1.2), had a condition that was classified as a hospital-acquired complication.

The most common hospital-acquired complication reported was *Healthcare-associated infections*, affecting 96,000 separations, or 1.0% of in-scope separations.

The second most common complication category was *Cardiac complications*, which was reported for 46,000 separations (0.5% of in-scope separations). Other common hospital-acquired complications included *Delirium* (33,000 separations, or 0.4% of in-scope separations) and *Medication complications* (16,000, separations, or 0.2% of in-scope separations).

Table 8.10: Separations^{(a)(b)} with one or more hospital-acquired complications, by complication category, public and private hospitals^(c), 2017–18

Complication class	Public hospitals		Private hospitals	
	Separations	Per 100	Separations	Per 100
Pressure injury	2,818	0.1	1,032	<0.1
Falls resulting in fracture or other intracranial injury	2,295	<0.1	702	<0.1
Healthcare associated infection	75,927	1.4	20,190	0.5
Surgical complications requiring unplanned return to theatre ^(d)	8,256	0.2	3,178	0.1
Unplanned intensive care unit admission ^(e)	n.a.	n.a.	n.a.	n.a.
Respiratory complications	12,270	0.2	2,080	0.1
Venous thromboembolism	4,540	0.1	2,540	0.1
Renal failure	1,053	<0.1	211	<0.1
Gastrointestinal bleeding	6,509	0.1	1,966	0.1
Medication complications	13,707	0.3	2,302	0.1
Delirium	24,937	0.5	7,927	0.2
Persistent incontinence	2,492	<0.1	978	<0.1
Malnutrition	4,171	0.1	1,286	<0.1
Cardiac complications	32,918	0.6	13,033	0.3
Third and fourth degree perineal laceration during delivery	5,491	0.1	534	<0.1
Neonatal birth trauma	1,312	<0.1	107	<0.1
Total	140,896	2.6	44,597	1.1

(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) The ACSQHC advises that the reporting of diagnoses and COF is likely to be more complete in public hospitals than in private hospitals. Therefore, comparisons of HACs data between hospital sectors should be treated with caution.

(d) *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 2017–18 does not include an unplanned return to theatre indicator.

(e) 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 2017–18.

Note: See boxes 1.1 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 89% of hospital-acquired complications from the ACSQHC list (Table 8.11). The total counts in Table 8.10 differ from Table 8.9, 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 13% of ACSQHC hospital-acquired complications.

It was closely followed by *Arrhythmias* and *Urinary tract infections*, both accounting for 11% of all hospital-acquired complications reported from the ACSQHC list.

Table 8.11: Separations^(a) with one or more hospital-acquired complications in a class, for the 20 most common complication diagnoses, public and private hospitals^(b), 2017–18

Complication		Public hospitals	Private hospitals	Total
11.01	Delirium	24,937	7,927	32,864
14.02	Arrhythmias	19,594	9,466	29,060
03.01	Urinary tract infection	20,208	8,160	28,368
03.03	Pneumonia	19,737	3,728	23,465
03.04	Blood stream infection	16,462	2,948	19,410
10.03	Hypoglycaemia	10,090	1,273	11,363
06.02	Aspiration pneumonia	7,503	1,213	8,716
09.01	Gastrointestinal bleeding	6,509	1,966	8,475
14.01	Heart failure and pulmonary oedema	5,352	1,814	7,166
03.02	Surgical site infection	4,989	1,928	6,917
14.04	Acute coronary syndrome including unstable angina, STEMI and NSTEMI	5,065	1,046	6,111
15.01	Third and fourth degree perineal laceration during delivery	5,491	534	6,025
06.01	Respiratory failure including acute respiratory distress syndrome requiring ventilation	4,767	867	5,634
13.01	Malnutrition	4,171	1,286	5,457
04.02	Surgical wound dehiscence	4,137	1,217	5,354
03.06	Multi-resistant organism	4,206	1,056	5,262
04.01	Post-operative haemorrhage/haematoma requiring transfusion and/or return to theatre	3,496	1,761	5,257
03.05	Central line and peripheral line associated bloodstream infection	3,698	746	4,444
03.07	Infection associated with prosthetic/implantable devices	3,386	827	4,213
07.02	Deep vein thrombosis	2,473	1,610	4,083
Other complications		22,425	6,693	29,118
<i>Total separations</i>		<i>140,696</i>	<i>44,597</i>	<i>185,493</i>
Total complications		198,696	58,066	256,762

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.

(b) The ACSQHC advises that the reporting of diagnoses and COF is likely to be more complete in public hospitals than in private hospitals. Therefore, comparisons of HACs data between hospital sectors should be treated with caution.

Note: See boxes 1.1 and 8.2, 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 17.4 days in public hospitals and 16.2 days in private hospitals (Table 8.12), longer than the ALOS for all overnight separations (4.6 days and 5.2 days, respectively).

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 8.12: Average length of stay (days) for overnight separations with and without a hospital-acquired complication, by Surgical/Medical/Other partition, all hospitals, 2017–18

	Public hospitals			Private hospitals		
	Separations with a HAC complication	Separations without a HAC complication	Total	Separations with a HAC complication	Separations without a HAC complication	Total
Surgical	17.5	4.1	5.2	14.7	3.0	3.4
Medical	17.7	4.8	5.1	18.2	7.0	7.4
Other	13.5	4.9	5.6	12.9	3.0	3.3
Total	17.4	4.6	5.2	16.2	4.8	5.2

Note: See boxes 1.1 and 8.2, 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 8.1 — 'Conditions that arose during the hospital stay'.

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

Appendix A: Data Quality Statements

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 www.meteor.aihw.gov.au.

Information relevant to interpretation of the National Elective Surgery Waiting Times Data Collection is available in *Elective surgery waiting times 2017–18: Australian hospital statistics* (AIHW 2018c) and at www.meteor.aihw.gov.au/content/index.phtml/itemId/623795.

Information relevant to interpretation of the ABS' *Patient experiences in Australia: summary of findings, 2017–18* (ABS 2018b) 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 2017–18. The data set includes records for admitted patient separations between 1 July 2017 and 30 June 2018.

Data for 2017–18 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 2017–18, 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 two overnight private hospitals 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, resulted in large increases in patient days overall for Queensland (2015–16) and for New South Wales (2016–17). Therefore, information presented by care type from 2015–16 will 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 2017–18 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 2017–18, 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 2017).
- 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 that affects time series for funding source.
- Between 2013–14 and 2017–18, changes in coverage or data supply for New South Wales, Queensland and South Australia may affect the interpretation of the data.
 - For New South Wales:
 - between 2015–16 and 2016–17, increases in the numbers of separations for private hospitals are, in part, accounted for by improvements in the coverage of reporting
 - between 2016–17 and 2017–18, changes in admission practices resulted in an apparent decrease in separations for public hospitals. The New South Wales Ministry of Health estimated that about 83,000 separations in 2016–17 would

not have been included if the admission practice changes had been implemented in that year.

- between 2016–17 and 2017–18, changes in the classification of qualified days for *Newborn* episodes resulted in an apparent decrease in separations for both public and private hospitals. However, the overall number of *Newborn* separations in 2017–18 was consistent with the overall number in 2016–17. See Section 5.4.
- For Queensland, between 2014–15 and 2017–18, relatively large increases in same-day separations in public hospitals partly reflects changes in admission practices for chemotherapy at a small number of large establishments.
- 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. During 2017–18, the Repatriation General Hospital closed, and the Royal Adelaide Hospital was relocated (which affected the numbers of patients admitted).
- For the Australian Capital Territory, data were not available for some private hospitals.
- Caution should be used in comparing diagnosis, intervention and external cause data over time, as the classifications and coding standards for those data can change over time.
- 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 care type

The care type *Mental health* 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*).

It should be noted that implementation of the *Mental health* care type was not consistently managed across jurisdictions for the 2015–16 and 2016–17 reference periods. Examination of the data provided for *Mental health* care in 2017–18 indicates that all jurisdictions have completed implementation. However, time series data for separations and patient days for *Mental health* care should be treated with caution.

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 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, 2017–18

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 for 2017–18.

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 2017–18 is of an adequate standard for reporting, but should still be considered to under count the number of Aboriginal and Torres Strait Islander patients. There is a continued effort to improve the quality of this data element through data validation processes and communication channels.

Queensland

The Queensland Department of Health noted that for 2017–18, Indigenous status was reported as ‘not stated’ for 3.1% of admitted patient separations (0.3% of public hospital separations and 6.8% 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 2017–18. 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 Wellbeing 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 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 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, intervention and external cause data can be affected by variations in the quality of the coding, and the numbers of diagnoses and/or interventions reported. Comparability can also be influenced by state-specific coding standards.

The quality of these 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 Agency for Health Information conducts state-wide external audits of admitted patient data across public health services. The annual audits review 11,000 acute and mental health records submitted to the Victorian Admitted Episodes Dataset (VAED). The VAED audits assess the accuracy of ICD-10-AM/ACHI coding, and the application of ACSs, along with key demographic and administrative data. The main focus of the VAED audits has moved from random to targeted reviews and as a result state-wide weighted results are no longer produced. In previous audits the state-wide rate of AR-DRG change for audited records was consistently below 5%, indicating a high quality of coded data.

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 manages 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.

Australian Capital Territory

The Australian Capital Territory conducts regular coding data quality improvement and integrity activities including internal audits on the ICD-10-AM/ACHI coded data, and analysis using the PICQ™ tool to ensure a high standard of coding quality. Data validations at the hospital and corporate level are automatically undertaken as part of processing the data flow, 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 interventions that are used to define the adjacent AR-DRG grouping.

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.

For AR-DRG version 8.0, most adjacent AR-DRGs are split by 'complexity' which is determined by the inclusion of significant additional diagnoses, also known as complications or comorbidities (CCs).

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 2017–18

Table A1 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, 67% of separations were allocated to the lowest resource split for adjacent AR-DRGs, ranging from 61% for South Australia and the Northern Territory to 69% for Victoria.

For private hospitals, 74% of separations were allocated to the lowest resource split for adjacent AR-DRGs, ranging from 71% in Western Australia to 75% in Victoria.

For *Vaginal and caesarean deliveries*, the proportion allocated to the lowest resource split was 40% for public hospitals, and 49% for private hospitals. There was some variation among jurisdictions, with public hospital proportions ranging from 33% in the Northern Territory to 46% in 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
- complications arising during pregnancy, childbirth and the puerperium
- procedures on the eye and adnexa
- post-procedural complications
- Electroconvulsive therapy.

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 interventions* (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*.

Obstetrics

Diagnoses

From 1 July 2017, significant revisions to the classification and standardisation of obstetrics were undertaken. Forty-two codes were deleted from chapter 15 *Pregnancy, childbirth and the puerperium (O00–O99)*. The deleted codes were complications of interventions that were not complications of pregnancy, childbirth and the puerperium (such as complications of anaesthesia). In addition, some conditions previously reported as obstetric conditions only will now require the coding of additional diagnosis information. For example, gestational diabetes will be accompanied by a diabetes code, and sepsis of pregnancy will be accompanied by the type of infectious agent.

Interventions

Obstetric interventions

Changes were made to coding standards, making assignment of an ACHI delivery code from block 1336 to 1340 a requirement when coding an ICD-10-AM delivery code (O80–O84). Prior to July 2017, assignment of these ACHI codes was optional. This change has resulted in significant increases in some obstetrics intervention codes, notably procedure code 90467-00 *Spontaneous vertex delivery*.

Procedures on the eye and adnexa

From 1 July 2017, significant revisions to the classification of *Procedures on the eye and adnexa* (blocks 160–220) were undertaken and 77 codes (including 8 blocks) were deleted. The deleted codes were deemed to be too specific for administrative purposes, and where appropriate have been combined with other codes. This resulted in large increases in reported interventions for the remaining blocks between 2016–17 and 2017–18.

Changes were also made to the coding standards for cataract surgery requiring a code from ACHI Block 193 *Insertion of intraocular lens prosthesis* to be reported where any ACHI code within Block 200 *Extraction of crystalline lens* was reported. This resulted in a very large increase in procedures reported in Block 193 between 2016–17 and 2017–18.

Post-procedural complications

From 1 July 2017, 50 additional codes for complications relating to prosthetic devices, implants and grafts (T82–T85) and 97 additional codes for intraoperative and post-procedural disorders across various ICD-10-AM chapters were introduced. Previously, these complications and disorders were included under the ‘other/not specified’ codes at the end of respective chapters. The expansion of codes reflects the diversity of complications and disorders related to surgical and medical care and trauma. This change did not impact any of the analyses presented in this report.

Electroconvulsive therapy

From 1 July 2017 changes were made to coding standards for *Electroconvulsive therapy* requiring each intervention be coded separately—up to 21 treatments in a single admission.

This resulted in a large increase in interventions reported in Block 1907 between 2016–17 and 2017–18.

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 2014–15 and earlier.

For 2017–18, 5.9 million supplementary codes were reported, with at least 1 reported for 32.7% of separations in public hospitals and 29.2% in private hospitals (Table A2). In comparison, for 2016–17, 5.5 million supplementary codes were reported, with at least 1 supplementary code reported for 31.3% of separations in public hospitals and 28.4% in private hospitals.

Where to go for more information:

More information on supplementary codes for chronic conditions by state/territory and sector is available in tables SA.1 and SA.2 that accompany this report online.

Table A1: 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, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
All adjacent AR-DRGs split by complexity only									
Public hospitals									
Separations	1,158,397	1,099,500	955,138	383,240	270,284	84,433	70,654	68,576	4,090,222
Standardised proportion in lowest resource level	0.64	0.69	0.65	0.65	0.61	0.66	0.65	0.61	0.67
Private hospitals									
Separations	637,546	634,847	609,670	251,589	189,828	n.p.	n.p.	n.p.	2,400,133
Standardised proportion in lowest resource level	0.72	0.75	0.72	0.71	0.74	n.p.	n.p.	n.p.	0.74
Adjacent AR-DRGs for vaginal and caesarean deliveries									
Public hospitals									
Separations	73,448	60,325	45,345	24,716	15,231	4,325	5,144	3,221	231,755
Standardised proportion in lowest resource level	0.43	0.38	0.38	0.37	0.41	0.46	0.39	0.33	0.40
Private hospitals									
Separations	20,752	17,291	13,885	8,562	3,705	n.p.	n.p.	n.p.	67,491
Standardised proportion in lowest resource level	0.50	0.50	0.51	0.46	0.50	n.p.	n.p.	n.p.	0.49

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

Source: National Hospital Morbidity Database.

Table A2: Separations with supplementary codes reported, public and private hospitals, states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals									
Separations	1,860,985	1,846,342	1,486,922	679,851	440,060	128,746	116,053	167,816	6,726,775
Separations with supplementary codes	632,862	590,412	478,940	217,486	165,786	46,060	42,826	23,089	2,197,461
Proportion with supplementary codes	34.0	32.0	32.2	32.0	37.7	35.8	36.9	13.8	32.7
Supplementary codes	1,117,366	1,026,492	868,140	371,454	312,982	80,389	76,325	36,436	3,889,584
Average number of codes	1.8	1.7	1.8	1.7	1.9	1.7	1.8	1.6	1.8
Private hospitals									
Separations	1,342,911	1,061,888	1,134,921	513,839	338,493	n.p.	n.p.	n.p.	4,526,500
Separations with supplementary codes	440,520	247,095	343,921	121,651	119,203	n.p.	n.p.	n.p.	1,323,358
Proportion with supplementary codes	32.8	23.3	30.3	23.7	35.2	n.p.	n.p.	n.p.	29.2
Supplementary codes	665,641	366,725	541,731	177,306	180,256	n.p.	n.p.	n.p.	2,007,634
Average number of codes	1.5	1.5	1.6	1.5	1.5	n.p.	n.p.	n.p.	1.5

Source: National Hospital Morbidity Database.

Condition onset flag data

Condition onset flag (COF) information is included in 'Chapter 8 Information related to safety and quality of the health system'.

Quality of the condition onset flag data for 2017–18

Overall, the provision of COF data for 2017–18 had improved compared with that provided for 2013–14 to 2016–17, particularly for private hospitals.

In 2017–18, the coverage of COF data was 100.0% for public hospitals and 98.3% for private hospitals (Table A3). For New South Wales, COF data were missing for 4% of separations in private hospitals.

There was some 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 14.6% for the Northern Territory to 23.0% in Victoria (Table S8.7). This variation is not as marked as in previous years, and in part reflects changes in additional diagnosis coding for Victoria, following clarification of the relevant state coding standard.

For private hospitals, the proportion of overnight separations for which a condition was reported as arising during the episode of care ranged from 16.3% for Western Australia to 22.1% for New South Wales (Table S8.8).

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 A3: Proportion of separations with condition onset flag reported^(a) (%), public and private hospitals, states and territories, 2017–18

	Public hospitals	Private hospitals	All hospitals
New South Wales	99.9	96.0	98.3
Victoria	100.0	100.0	100.0
Queensland	100.0	100.0	100.0
Western Australia	100.0	100.0	100.0
South Australia	100.0	100.0	100.0
Tasmania	100.0	100.0	100.0
Australian Capital Territory	100.0	100.0	100.0
Northern Territory	100.0	100.0	100.0
Australia	100.0	98.8	99.5

(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 7.0 was used for time series presentations of average cost weights and relative stay indexes.
- AR-DRG version 8.0 was used for all other presentations by MDCs or AR-DRGs.

There are differences in the way records are assigned to AR-DRGs between AR DRG version 7.0 and version 8.0 that may affect the comparability of data across separate analyses and across reporting periods. For a full list of changes, refer to the AR-DRG version 8.0 definitions manual (IHPA 2014).

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 (2016–17 and 2017–18) 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: 639479) 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 2017–18), 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 2017–18, 190,000 episodes (accounting for 32% of all subacute and non-acute separations in public and private hospitals) were in scope for the ASNHC NBEDS (Table A4). Table A4 also presents the numbers of subacute and non-acute activity-based funded episodes by care type.

Primary impairment type

Primary impairment type should be reported for all *Rehabilitation care* separations in scope for the ASNHC NBEDS.

For 2017–18, 84% of the 93,000 separations in scope for reporting, provided a valid primary impairment type (Table A5).

The 3 most common primary impairments reported were *Re conditioning/restorative* (18,000 separations), *Orthopaedic conditions—fractures (includes dislocation)* (13,800) and *Stroke—ischæmic* (9,600). Primary impairment type was *Not stated/inadequately described* for 15,100 *Rehabilitation care* separations (Table A6).

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 2017–18, 82% of the 126,000 separations in scope for reporting, provided valid functional independence measure scores (Table A5).

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 2017–18, 68% of the 61,000 separations in scope for reporting, provided valid Resource Utilisation Groups—activities of daily living scores (Table A5).

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 2017–18, 85% of the 1,300 separations in scope for reporting, provided valid HoNOS65+ scores (Table A5).

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 2017–18, 96% of the 35,000 separations in scope for reporting, provided valid SMMSEs scores (Table A5).

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. Almost 74,000 records were provided for palliative care phase data.

Nationally, for 30% of palliative care phases, the patient's palliative care phase type was reported as *Deteriorating*. This proportion varied among jurisdictions—from 21% in Western Australia to 46% in the Australian Capital Territory (Table A7).

Table A4: Subacute and non-acute separations, public and private hospitals, and activity-based funded episodes^(a), states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Public hospitals	70,335	47,028	45,624	14,269	12,797	3,182	4,724	1,025	198,984
Private hospitals	259,441	35,505	70,816	7,163	25,861	n.p.	n.p.	n.p.	408,799
Total subacute and non-acute separations	329,776	82,533	116,440	21,432	38,658	n.p.	n.p.	n.p.	607,783
Subacute and non-acute hospital care—in-scope separations									
Rehabilitation care	34,643	18,217	23,579	7,412	5,149	1,013	2,523	302	92,838
Palliative care	14,104	7,531	8,523	3,002	1,910	710	916	431	37,127
Geriatric evaluation and management	4,712	20,297	5,087	2,166	2,345	1	421	76	35,105
Psychogeriatric care	494	5	186	631	4	2	14	0	1,336
Maintenance care	10,848	686	6,191	1,573	2,900	816	906	171	24,091
Total in-scope subacute and non-acute care	64,801	46,736	43,566	14,784	12,308	2,542	4,780	980	190,497

Table A5: Subacute and non-acute activity based funded episodes^(a)—provision of data elements, states and territories, 2017–18

Data element	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Primary impairment type									
Number of in-scope episodes ^(b)	34,643	18,217	23,579	7,412	5,149	1,013	2,523	302	92,838
In-scope episodes with valid values	22,862	18,217	23,577	6,162	4,934	415	1,276	292	77,735
Invalid/not reported/unknown values (%)	34.0	0.0	0.0	16.9	4.2	59.0	49.4	3.3	16.3
Functional independence measure scores									
Number of in-scope episodes ^(c)	39,026	38,228	27,815	9,537	7,473	1,013	2,853	377	126,322
In-scope episodes with valid values	27,444	38,222	19,580	7,967	7,097	415	1,681	370	102,776
Invalid/not reported/unknown values (%)	29.7	0.0	29.6	16.5	5.0	59.0	41.1	1.9	18.6
Resource Utilisation Groups - activities of daily living scores									
Number of in-scope episodes ^(d)	24,947	8,213	14,551	4,568	4,808	1,521	1,819	601	61,028
In-scope episodes with valid values	10,831	8,200	14,287	1,991	3,951	294	1,403	528	41,485
Invalid/not reported/unknown values (%)	56.6	0.2	1.8	56.4	17.8	80.7	22.9	12.1	32.0
Health of the Nation Outcome Scale 65+ scores									
Number of in-scope episodes ^(e)	494	5	186	631	4	2	14	0	1,336
In-scope episodes with valid values	492	0	186	450	0	0	12	0	1,142
Invalid/not reported/unknown values (%)	0.4	100.0	0.0	28.7	100.0	100.0	14.3	..	14.5
Standardised Mini-Mental State Examination									
Number of in-scope episodes ^(f)	4,712	20,297	5,087	2,166	2,345	1	421	76	35,105
In-scope episodes with valid values	4,712	20,297	5,086	2,025	1,300	1	372	76	33,869
Invalid/not reported/unknown values (%)	0.0	0.0	0.0	6.5	44.6	0.0	11.6	0.0	3.5

(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) Rehabilitation care episodes.

(c) Rehabilitation care and Geriatric evaluation and management episodes for patients aged 18 or over.

(d) Palliative care and Maintenance care episodes for patients aged 18 or over.

(e) Psychogeriatric care episodes.

(f) Geriatric evaluation and management episodes for which the Clinical assessment only indicator was reported as 'No'.

Table A6: Rehabilitation care separations by type of impairment, activity-based funded episodes^(a), states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Stroke—haemorrhagic	1,032	840	1,309	273	204	46	45	17	3,766
Stroke—ischæmic	2,020	1,929	3,985	577	838	43	150	56	9,598
Brain dysfunction—non-traumatic	366	619	1,203	179	209	14	48	4	2,642
Brain dysfunction—traumatic	337	372	812	123	122	5	14	18	1,803
Neurological conditions	800	1,387	1,816	341	219	16	58	10	4,647
Non traumatic spinal cord dysfunction	226	346	225	89	90	2	9	9	996
Traumatic spinal cord dysfunction	169	133	188	33	40	1	5	2	571
Amputation of limb—not resulting from trauma	413	522	396	144	208	15	29	29	1,756
Amputation of limb—resulting from trauma	41	61	40	7	14	3	2	1	169
Arthritis	77	66	68	38	16	6	2	1	274
Pain syndromes	614	554	205	120	37	8	50	2	1,590
Orthopaedic conditions—fractures (includes dislocation)	4,681	3,714	2,598	1,504	863	83	317	54	13,814
Post-orthopaedic surgery	2,579	3,202	1,527	378	335	42	68	6	8,137
Soft tissue injury	245	149	640	109	23	3	27	3	1,199
Cardiac	545	421	247	116	99	9	25	1	1,463
Pulmonary	634	458	218	141	100	10	28	2	1,591
Burns	9	37	83	4	4	0	0	0	137
Congenital deformities	3	39	6	4	4	0	3	0	59
Other disabling impairments	126	198	4,039	123	127	1	7	4	4,625
Major multiple trauma	161	166	305	113	87	4	32	16	884
Developmental disabilities	4	5	4	1	0	0	0	0	14
Re-conditioning/restorative	7,780	2,999	3,663	1,745	1,295	102	357	57	17,998
Not stated/inadequately described	11,781	0	2	1,250	215	600	1,247	10	15,105
Total	34,643	18,217	23,579	7,412	5,149	1,013	2,523	302	92,838

(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 A7: Palliative care phase type, activity-based funded episodes^(a), states and territories, 2017–18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Stable	7,687	3,260	2,415	911	802	120	379	300	15,874
Unstable	8,075	3,973	1,937	545	564	121	168	213	15,596
Deteriorating	8,827	5,119	4,194	1,293	1,187	196	969	261	22,046
Terminal	6,879	3,735	4,454	885	662	178	569	217	17,579
Not reported	196	0	0	2,538	0	0	40	2	2,776
Total	31,664	16,087	13,000	6,172	3,215	615	2,125	993	73,871

(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 2017–18 at <http://meteor.aihw.gov.au/content/index.phtml/itemId/612171>
- Admitted subacute and non-acute hospital care NBEDS 2017–18 at <http://meteor.aihw.gov.au/content/index.phtml/itemId/611617>
- Elective surgery waiting times (removals data) NMDS 2017–18 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).

For 2017–18, data on remoteness area of usual residence are defined using the ABS' ASGS Remoteness Structure 2016 (ABS 2016). The ASGS Remoteness Structure 2016 categorises geographical areas in Australia into remoteness areas, described in detail at www.abs.gov.au, which includes detail of the nature of the changes between the ASGS 2011 and ASGS 2016.

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, Tennant Creek and Norfolk Island.

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 2017–18, the area of usual residence was voluntarily provided by some jurisdictions in the form of a Statistical Area level 1 (SA1).

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.

The AIHW mapped the SA2 of area of usual residence for each separation to remoteness area categories based on the ASGS Remoteness Structure 2016. 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 2016 (SEIFA) 2016 (ABS 2013).

The ABS generate the SEIFA 2016 data using a combination of 2016 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 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.

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, intervention and external cause data for 2017–18 were reported to the NHMD by all states and territories using the 10th edition of the *International statistical classification of diseases and related health problems, 10th revision, Australian modification* (ICD-10-AM) (ACCD 2016), incorporating the *Australian classification of health interventions* (ACHI).

In tables and figures presenting information on diagnoses, external causes and interventions, 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 2016).

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.

Interventions

One or more interventions can be reported for each separation, but interventions are not undertaken for all hospital admissions, so only some of the separation records include intervention 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 intervention information.

The intervention information is presented using 3 methods of grouping interventions based on the ACHI intervention classification:

- ACHI chapters—these 20 groups provide information aggregated at the ACHI chapter level
- ACHI procedure blocks—these 1,413 categories describe interventions 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 interventions—there are more than 6,300 individual interventions; information at this level is included in Section 5.4 — ‘Newborn care’ and in Section 5.5 — ‘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 interventions 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 are allocated to AR-DRGs within MDCs, mainly on the basis of the intervention 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/interventions and/or patient clinical complexity level, the length of stay, and the mode of separation.

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).

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 2017–18, each separation in the NHMD was classified to AR-DRG versions 7.0 (NCCC 2013) 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, 2013–14 to 2017–18

Year	ICD-10-AM edition	Relevant AR-DRG version	AR-DRG version reported in Australian hospital statistics
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
2017–18 ^(e)	10th 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*, 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.

(e) For *Admitted patient care 2017–18: Australian hospital statistics*, AR-DRG version 8.0 Round 20 cost weights (2015–16) were applied to AR-DRG version 8.0 for 2017–18 cost weights analyses, and AR-DRG version 7.0 Round 18 cost weights (2013–14) were applied to AR-DRG version 7.0 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, intervention 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 2017–18 are for hospital separations (discharges, transfers, deaths or changes in care type) in the period 1 July 2017 to 30 June 2018. Data on patients who were admitted on any date before 1 July 2017 are included, provided that they also separated between 1 July 2017 and 30 June 2018. 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 2017 to 30 June 2018) including patients admitted before 1 July 2017, 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 2017–18, but who were admitted before 1 July 2017, will be counterbalanced overall by the patient days for patients in hospital on 30 June 2018, 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 (qualified newborns) have been included in all tables reporting separations, except as specified in tables reporting newborn care (without qualified days) in Section 5.4.

Previously, records for newborn episodes without at least one qualified day (unqualified) were excluded from reporting, except as specified in Chapters 4 and 5, as unqualified newborns did not meet admission criteria for all purposes.

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 2017–18, 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 2017–18, the estimated resident population as at 30 June 2017 was used), from the 2016 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 2016 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 2017. 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 2017. The population for other Australians was based on the estimated resident populations as at 30 June 2017. 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:

Standardised separation rate ratio (SRR) = 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:

- 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, interventions and external causes

For tables with counts of separations by groups of diagnoses, interventions or external causes, a separation is counted once for the group if it has at least one diagnosis, intervention or external cause reported within the group. As more than one diagnosis, intervention 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).

Limitations of counts of interventions

Tables with numbers of interventions are counts of ACHI intervention codes. It is possible for a single intervention code to represent multiple interventions or for a specific intervention to require the reporting of more than 1 code (for example, for some laparoscopic interventions and for cataract extraction/insertion of lens). Therefore, the count of intervention codes reported does not precisely reflect the number of separate interventions performed.

ICD-10-AM codes used for selected analyses

Some tables in this report use ICD-10-AM/ACHI codes to define diagnoses and interventions. 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 interventions (see 'Chapter 6 — What interventions were performed?')

- unplanned/unexpected readmissions and adverse events (see 'Chapter 8 — Information related to safety and quality of the health system').

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*, *Newborn care* (with at least one qualified day) or was not reported, for which the AR-DRG belonged to the *Surgical* partition (involving an operating room intervention), excluding separations for *Childbirth*.
- **Medical:** separations for which the care type was reported as *Acute care*, *Newborn care* (with at least one qualified day) or was not reported, for which the AR-DRG belonged to the *Medical* partition (not involving an operating room intervention), excluding separations for *Childbirth*.
- **Other acute:** separations for which the care type was reported as *Acute care*, *Newborn care* (with at least one qualified day) or was not reported, for which the AR-DRG did not belong to the *Surgical* or *Medical* partitions (involving a non-operating room intervention, 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.

The elective (and emergency) admissions involving surgery (see sections 6.4 and 6.5) defined for admitted patient care data from the NHMD are not necessarily the same as elective surgery (Section 6.6) 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.

See *Elective surgery waiting times 2017–18: Australian hospital statistics* (AIHW 2018c) for information about ‘Median and 90th percentiles’.

Relative stay index analysis

Relative stay indexes (RSIs) have been identified as indicators of efficiency and in previous reports were presented in Chapter 2. The RSI methodology is currently under review and data is not reported for 2017–18.

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 for different sectors and tiers 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. The AHPF has been agreed by Australian and state/territory health ministers. Indicators within the AHPF are currently under development, and endorsement of individual indicators will be sought from the Australian Health Ministers’ Advisory Council.
- National Healthcare Agreement (NHA)—agreed performance indicators and benchmarks are reported annually. The performance indicators presented here are based on data for 2017–18 and on specifications used for reporting on the 2019 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) is also reported by the Steering Committee for the Review of Government Service Provision in the annual Report on Government Services (SCRGSP 2019).

The AIHW provides data from its national hospitals databases to support this range of reporting, and reports on 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 and other indicators that are based on hospital data and reported in the Australian hospital statistics reports, within the context of the 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 dimensions 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 dimensions

<p>Effectiveness</p> <p>Care, intervention or action achieves desired outcome from both the clinical and patient perspective, including as patient reported outcomes.</p> <p>Care provided is based on evidence-based standards.</p>	<p>Safety</p> <p>The avoidance or reduction to acceptable limits of actual or potential harm from health-care management or the environment in which health care is delivered.</p> <p>Includes aspects of the safety of care delivered to health care providers and patients. Including patient reported incidents.</p>
<p>Appropriateness</p> <p>Service is person centred and culturally appropriate. Consumers are treated with dignity, confidentiality and encouraged to participate in choices related to their care.</p> <p>Consumers report positive outcomes and experiences.</p>	<p>Continuity of care</p> <p>Ability to provide uninterrupted, care or service across programs, practitioners and levels over time.</p> <p>Coordination mechanisms work for health care providers and the patient.</p>
<p>Accessibility</p> <p>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</p> <p>The right care is delivered at minimum cost.</p> <p><i>and</i></p> <p>Human and physical capital and technology are maintained and renewed.</p> <p><i>while</i></p> <p>Innovation occurs to improve efficiency and respond to emerging needs.</p>

What data are reported?

This report presents 15 hospital performance indicators and 5 other indicators based on data for 2017–18 that have been included in other AIHW hospitals reports (see Table C2). These include NHPF and NHA indicators, mapped to the relevant AHPF dimensions and OECD indicators.

Indicators related to hospital performance are listed in Table C.2 against the 6 AHPF dimensions. Some indicators can be related to more than one dimension of the AHPF, even though they are presented here against only one. Table C.2 also shows which set of nationally agreed performance indicators the indicator relates to.

Information is also included for another three 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?	Dimension/Indicator	Related national indicator set	
		NHA	AHPF (proposed)
	Effectiveness		
	No indicators available for hospital performance		
	Safety		
Supplementary tables S8.10–S8.14	Adverse events treated in hospitals		✓
AHS: SAB	Health-care associated infections	✓	✓
Table 8.9	Falls resulting in patient harm in hospitals		
	Appropriateness		
Table 8.8	Patient satisfaction/experience	✓	
	Continuity of care		
Table 8.7	Unplanned/unexpected readmissions following selected surgical episodes of care (same public hospital)	✓	✓
	Accessibility		
Figure 2.1	OECD indicator: Hospital discharge rates		
Table 6.5	OECD indicator: Number of caesarean sections per 100 live births		
Table 6.5	OECD indicator: Number of coronary revascularisation procedures per 100,000 population		
Table 6.5	OECD indicator: Number of hip and knee replacement surgeries per 100,000 population		
Tables 6.7, 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 under review	Cost per casemix-adjusted separation for acute and non-acute care episodes		✓
Method under review	Relative stay index		
Figure 2.3	Average length of stay for selected AR-DRGs		
Figure 2.2	OECD indicator: Length of stay		
Table 6.6	OECD indicator: Proportion of cataract surgeries that were performed on a same-day basis		
Table 6.6	OECD indicator: Proportion of appendicectomies that were performed laparoscopically		
Table 6.6	OECD indicator: Proportion of cholecystectomies that were performed laparoscopically		
Table 6.6	OECD indicator: Proportion of tonsillectomies that were performed on a same-day basis		

AHS: ED—Emergency department care 2017–18: Australian hospital statistics.

AHS: ESWT—Elective surgery waiting times 2017–18: Australian hospital statistics.

AHS: SAB—Staphylococcus aureus bacteraemia in Australian hospitals 2017–18: 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 (proposed)
Tables 8.1–8.4	Selected potentially preventable hospitalisations (a measure of the Effectiveness of primary care)	✓	✓
Tables 4.12 and 4.13	Hospitalisations for injury and poisoning (a measure in the 'Health status' domain)		✓
Table 4.16	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: 641014.

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 interventions, 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 10th edition was used for the 2017–18 interventions 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 intervention 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 interventions 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 (ABS 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 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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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
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

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In 2017–18, there were more than 11.3 million admissions to hospital—6.7 million in public hospitals and 4.5 million in private hospitals.

Between 2013–14 and 2017–18, the total number of hospital separations rose by 3.8% on average each year—by 4.2% for public hospitals and by 3.3% for private hospitals.

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