



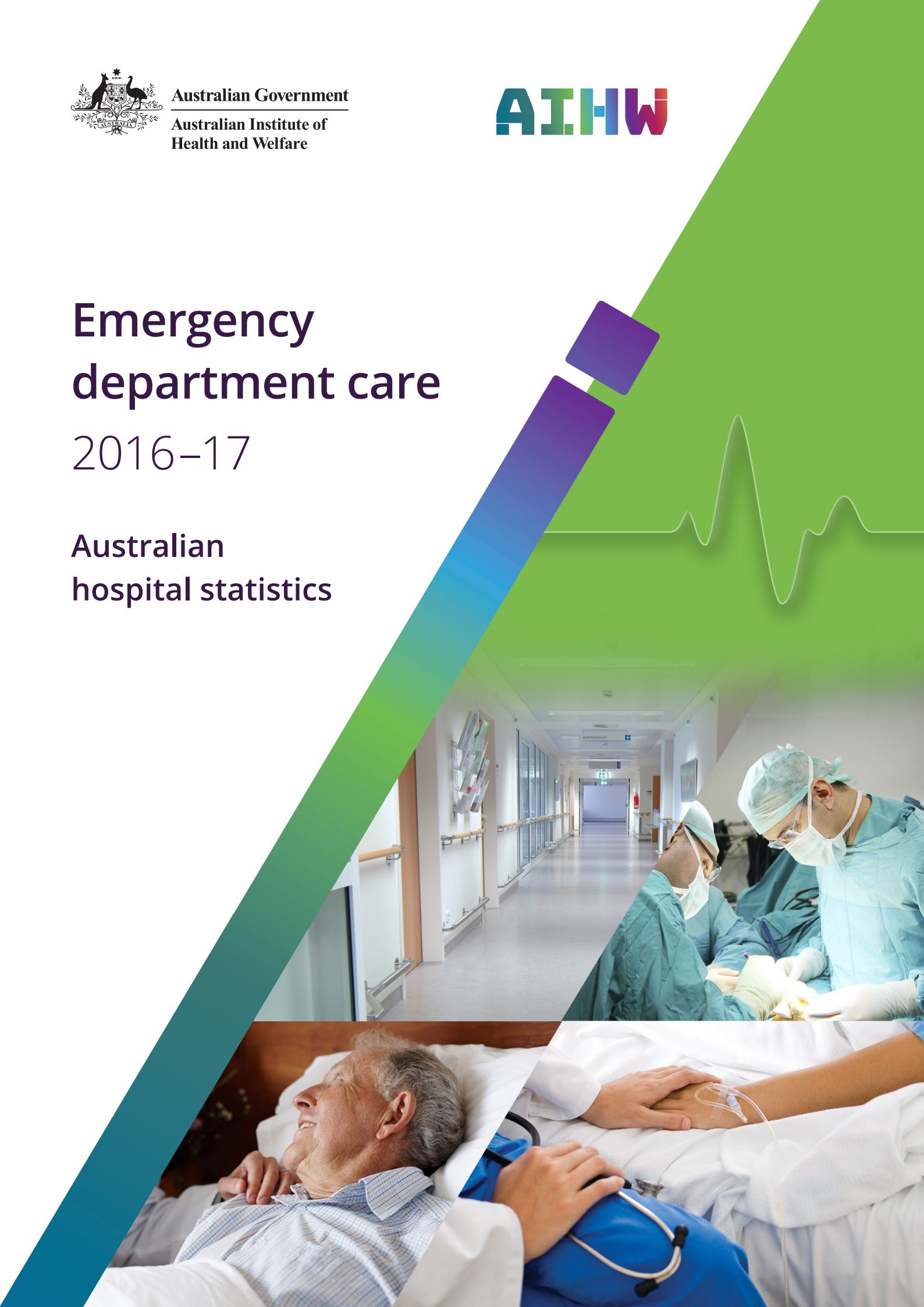
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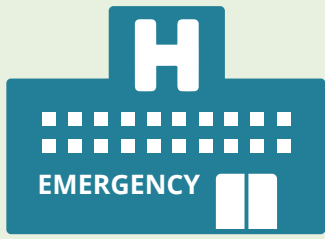
AIHW

Emergency department care

2016–17

Australian
hospital statistics





287 Australian public hospital emergency departments

7.8 million emergency department presentations (averaging more than 21,000 per day)



21% of emergency department presentations were for patients **aged 65 and over** (who make up about 15% of the population)



11% of all emergency department presentations are patients **aged 4 and under** (who make up less than 7% of the population)



73% of all presentations were 'seen on time' for their urgency (triage) category, almost **100%** of *Resuscitation* patients (within seconds), **77%** of *Emergency* patients (within 10 minutes), and **92%** of *Non urgent* patients (within 120 minutes)



The proportion of presentations that were 'seen on time' (within the clinically recommended time) was fairly stable across the period, ranging from 73% (in 2012-13 and 2016-17) to 75% (in 2013-14)



25% of presentations, or almost 2 million, had a diagnosis related to injury and poisoning

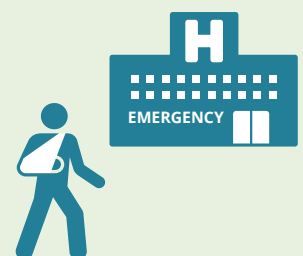


31% of presentations were admitted to hospital after their emergency department care

2.6% increase in emergency department presentations on average each year between 2012-13 and 2016-17, after adjusting for coverage changes



72% of patients spent 4 hours or less in the emergency department (ranging from **64%** in South Australia and the Northern Territory to **75%** in New South Wales)





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Number 80

Emergency department care 2016–17

Australian hospital statistics

Australian Institute of Health and Welfare
Canberra

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Australian Institute of Health and Welfare

Board Chair
Mrs Louise Markus

Director
Mr Barry Sandison

Any enquiries relating to copyright or comments on this publication should be directed to:

Website and Publishing Unit
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Tel: (02) 6244 1000
Email: info@aihw.gov.au

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

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Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
DSS	data set specification
GP	general practitioner
ICD-9-CM	International Classification of Diseases, 9th Revision, Clinical Modification
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
METeOR	Metadata Online Registry
NAPEDC	Non-admitted Patient Emergency Department Care
NBEDS	National Best Endeavours Data Set
NHA	National Healthcare Agreement
NMDS	National Minimum Data Set
NNAPEDCD	National Non-admitted Patient Emergency Department Care Database
NPHEd	National Public Hospital Establishments Database
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
SNOMED CT-AU EDRS	Systematized Nomenclature of Medicine—Clinical Terms—Australian version, Emergency Department Reference Set
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Symbols

<	less than
..	not applicable
n.a.	not available

Summary

Emergency departments are a critical component of Australia's health care system. Many of Australia's public hospitals have purpose-built emergency departments, staffed 24 hours a day, providing care for patients who require urgent medical attention.

In 2016–17:

- there were about 7.8 million presentations to Australian public hospital emergency departments, an average of more than 21,000 per day
- patients aged 4 and under (who make up less than 7% of the population) accounted for about 11% of all emergency department presentations
- patients aged 65 and over (who make up about 15% of the population) accounted for more than 21% of emergency department presentations
- about one-quarter (or almost 2 million) of emergency department presentations had a principal diagnosis in the ICD-10-AM chapter *Injury, poisoning and certain other consequences of external causes*
- the two most common individual principal diagnoses reported were *Abdominal and pelvic pain* (4.3%), and *Pain in the throat and chest* (3.6%)
- about 73% of all presentations were 'seen on time' (within the clinically recommended time for their triage category), with almost 100% of *Resuscitation* patients (needs care immediately), 77% of *Emergency* (needs care within 10 minutes) patients, and 92% of *Non-urgent* (needs care within 120 minutes) 'seen on time'
- the proportion of presentations that were 'seen on time' ranged from 61% in the Northern Territory to 81% in New South Wales
- about 72% of emergency department presentations were completed in 4 hours or less, varying from 64% in South Australia and the Northern Territory to 75% in New South Wales
- about 31% of patients were admitted to hospital after their emergency department care; 49% were admitted in 4 hours or less, and 90% within 10 hours and 44 minutes.

Between 2012–13 and 2016–17:

- presentations to emergency departments increased by 3.7% on average each year. After adjusting for coverage changes, presentations increased by an estimated 2.6% on average each year
- the proportion of presentations that were 'seen on time' (within the clinically recommended time) was fairly stable across the period, ranging from 73% (in 2012–13 and 2016–17) to 75% (in 2013–14)
- the proportion of emergency department presentations completed in 4 hours or less rose from 67% in 2012–13 to 73% in 2015–16, and decreased to 72% in 2016–17.

1 Introduction

Emergency department care 2016–17: Australian hospital statistics focuses on information about emergency department care provided by Australia's public hospitals. It continues the Australian Institute of Health and Welfare's (AIHW) *Australian hospital statistics* series of annual reports describing the characteristics and activity of Australia's hospitals.

This report presents information on care provided in public hospital emergency departments between 1 July 2016 and 30 June 2017. It includes information on overall activity, nationally agreed performance indicators on waiting times for care, time spent in the emergency department, and other waiting times statistics. It also includes comparative information for the previous 4 reporting periods.

Reports on elective surgery waiting times in 2016–17 (Elective surgery waiting times 2016–17: Australian hospital statistics)—and hospital-associated *Staphylococcus aureus* bacteraemia cases (*Staphylococcus aureus* bacteraemia in Australian public hospitals 2016–17: Australian hospital statistics) are scheduled for release later in 2017.

Reports on care provided for admitted patients, non-admitted patients, and hospital resources for 2016–17, as well as a summary overview of Australia's hospitals for 2016–17, will be published in early 2018.

1.1 What's in this report?

Structure of the report

This introduction provides contextual information on the data presented in this report, and its limitations, along with a description of the key terms used. Other chapters provide information on the following subjects:

- 'Chapter 2 How much emergency department activity was there?'—presents information on the number of emergency departments reporting, and the numbers of presentations to public hospital emergency departments.
- 'Chapter 3 Who used emergency departments?'—presents information about the patients who presented to emergency departments, including their age, sex, and Indigenous status, and the remoteness of their area of usual residence.
- 'Chapter 4 How and why were services accessed?'—presents information on arrival mode, triage category, time of presentation, type of visit, reason for the patient's visit, and how the episode ended.
- 'Chapter 5 How long did people wait for emergency department care?'—presents waiting times information, including the proportion of patients seen on time, and the median and 90th percentile waiting times.
- 'Chapter 6 How long did people stay in the emergency department?'—presents information on how long patients stayed in the emergency department, including the proportion of emergency department stays that were completed within 4 hours, and the 90th percentile length of emergency department stay for patients who were subsequently admitted to hospital.

Where possible the chapters present information on:

- changes over time
- activity in 2016–17

- where to go for more information.

Appendix A presents data quality information, and information on apparent variations in the reporting of the data in this report, and on the quality of Indigenous identification.

Appendix B presents technical notes on the methods used in this report.

Appendix C includes information on the public hospital peer groups used in this report.

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

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 2016a).

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

This report presents data on the following National Healthcare Agreement (NHA) performance indicators relevant to emergency department care:

- *Waiting times for emergency hospital care—proportion seen on time* (see Chapter 5)
- *Waiting times for emergency hospital care—proportion of patients whose length of emergency department stay is less than or equal to 4 hours* (see Chapter 6).

Previous reports in this series reported on the NHA performance indicator: *Selected potentially avoidable GP-like presentations in emergency departments*, using an ‘interim’ specification. The AIHW has not reported this indicator, because recent work on it has demonstrated major limitations in the methodology used with the available data.

Another indicator previously referred to in this report was *Admission to hospital from emergency departments*, which included 2 measures—the proportion of patients who were subsequently admitted, whose length of emergency department stay is less than or equal to 4 hours, and the length of emergency department stay at the 90th percentile. While this indicator is no longer reported as an indicator for the National Partnership Agreement on Improving Public Hospital Services, equivalent data are still presented in this report.

1.2 What data are reported?

This section presents information on the data used in this report, and their limitations.

National Non-admitted Patient Emergency Department Care Database

The AIHW has collected and reported on the data in this report under the auspices of the Australian Health Ministers’ Advisory Council, through the National Health Information Agreement.

The data supplied by state and territory health authorities were used by the AIHW to assemble the National Non-admitted Patient Emergency Department Care Database (NNAPEDCD). The data cover waiting times and other characteristics of presentations to public hospital emergency departments.

For 2016–17, jurisdictions were able to provide data for the NNAPEDCD using either the Non-admitted Patient Emergency Department Care (NAPEDC) National Minimum Data Set (NMDS) specification, or the NAPEDC National Best Endeavours Data Set specification (NBEDS—formerly referred to as Data Set Specification or DSS).

For 2016–17, Victoria (excluding Albury hospital), Queensland, and Western Australia provided data using the NAPEDC NBEDS specification, while all other states and territories used the NAPEDC NMDS.

The data provided using the NAPEDC NBEDS might not be entirely comparable with data provided using the NAPEDC NMDS.

Detailed information about the NNAPEDCD is in the data quality statement at Appendix A, and accompanying this report online at <www.aihw.gov.au>.

What are the limitations of the data?

Overall, the quality of the data in the NNAPEDCD is sufficient to be published in this report. However, the limitations of the data (as outlined in Appendix A) should be taken into consideration when data are interpreted.

States and territories are primarily responsible for the quality of the data they provide. However, the AIHW undertakes extensive validations on receipt of data. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these edit queries. The AIHW does not adjust data to account for possible data errors or missing values, except where stated.

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.

How has the scope of the collection changed?

From 2013–14 onwards, the scope of the NAPEDC NMDS (and for the NAPEDC NBEDS/DSS in 2015–16 and 2016–17) has been patients registered for care in public hospital emergency departments that have:

- a purposely designed and equipped area with designated assessment, treatment, and resuscitation areas
- the ability to provide resuscitation, stabilisation, and initial management of all emergencies
- availability of medical staff in the hospital 24 hours a day
- designated emergency department nursing staff 24 hours a day, 7 days a week, and a designated emergency department nursing unit manager.

For 2012–13 and earlier years, the scope of the NAPEDC NMDS was: public hospitals that were classified to peer groups A and B, for the purpose of reporting in *Australian hospital statistics* for the previous financial year period (using the AIHW's previous peer group classification). As a result, comparisons of the non-admitted patient emergency care data provided between 2013–14 and 2016–17 with data provided for earlier periods should take into consideration changes in the scope of the collection.

For more information, see <<http://meteor.aihw.gov.au/content/index.phtml/itemId/612346>>.

How has data coverage changed over time?

Because the scope of the NAPEDC NMDS was restricted to either certain hospital peer groups (2003–04 to 2012–13), or to formal emergency departments (2013–14 to 2016–17), the number of emergency department presentations reported to the NNAPEDCD did not include all emergency or urgent care provided by public hospitals.

Between 2003–04 and 2013–14, the data coverage of the NNAPEDCD was estimated by comparing the number of emergency department presentations reported to the NNAPEDCD with the number of non-admitted patient emergency occasions of service reported to the National Public Hospital Establishments Database (NPHEd). The NPHEd estimate was considered to be a more complete count of emergency care services, because it included emergency care data for all public hospitals, regardless of whether they had a formal emergency department, or other arrangements for providing emergency care. This provided an estimate but not an exact measure of the coverage.

Emergency occasions of service were not reported to the NPHEd from 2014–15 onwards, which meant it was no longer possible to calculate the proportion of all emergency occasions of service that were reported to the NNAPEDCD using the previous method.

For 2014–15, an approximate estimate of coverage was calculated based on emergency occasions of service that were reported to the NPHEd in 2013–14. Using this approach, national coverage of the NNAPEDCD was estimated at about 88% in 2014–15. Estimated coverage by remoteness area of the hospital (using the same approach) varied among remoteness areas, ranging from 100% in *Major Cities* to 18% in *Very remote* areas (AIHW 2015b).

An estimate of coverage for 2016–17 has not been calculated, as the most recent data on all emergency services were for 2013–14, and are now 3 years out of date.

Changes in reporting

Data for 2015–16 for the Australian Capital Territory were not available at the time of publication of this report. Apart from this, there was no change in the coverage of the NNAPEDCD between 2015–16 and 2016–17 (assessed by comparing the hospitals included).

In Queensland, the Sunshine Coast University Hospital opened in March 2017, but this did not constitute a change in coverage, as the emergency department services were previously provided by a number of smaller hospitals in the region, which reported data for the NNAPEDCD.

In Western Australia in 2014–15, Busselton Health Campus began reporting emergency department care data, after the Busselton hospital was redeveloped to include a larger emergency department. This constituted a change in coverage as the activity was previously not reported for the NNAPEDCD.

In 2013–14, New South Wales began reporting data to the NNAPEDCD for an additional 85 hospitals, rising from 95 hospitals in 2012–13 (88% coverage for New South Wales) to 180 hospitals in 2013–14 (99% coverage). This constituted a change in coverage as the activity was previously not reported for the NNAPEDCD.

See Appendix A for more information on issues affecting data quality.

1.3 What terms and methods are used?

This section presents the main calculation methods and common terms used throughout this report. Terms relevant to the data on emergency department care are summarised in Box 1.1, and more terms are included in the Glossary.

Changes over time

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

The rates were not adjusted for other changes in data coverage, except where noted in the text.

Public hospital peer groups

Public hospital peer groups are used to classify hospitals that share similar characteristics, to provide a basis for meaningful comparisons.

This report presents analyses by hospital peer group, including the NHA performance indicators, using the AIHW's peer group classification. The Steering Committee for the Review of Government Service Provision will also use these peer groups to report the NHA performance indicators in the *Report on government services 2018*.

Before 2014–15, this information was presented using the AIHW's previous peer group classification. As a result, the data presented here by public hospital peer group are not directly comparable with those presented in AIHW reports before 2014–15.

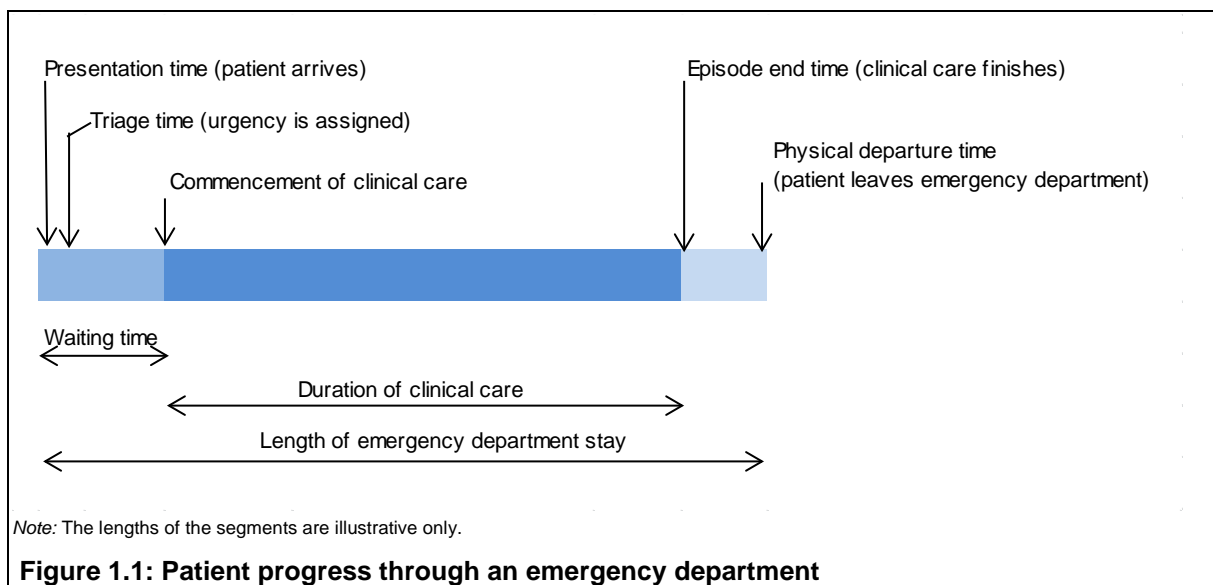
See Appendix C and the AIHW publication *Australian hospital peer groups* (AIHW 2015a) for more information.

Measurement of time in the emergency department

The progress of the patient through the emergency department is recorded in the NNAPEDCD with 5 different time points:

- presentation time—the time of first recorded contact with an emergency department staff member, which may be at the start of clerical registration or of the triage process
- triage time—the time at which the patient was assigned a triage category, which can coincide with presentation time
- clinical care commencement—the time at which care commenced by a doctor, nurse, mental health practitioner or other health professional, which can also coincide with presentation time
- episode end time—the time at which the non-admitted patient emergency department service episode ended
- physical departure time—the time at which the patient departed the emergency department, which can coincide with episode end time.

These time points are used to derive the patient's waiting time to commencement of clinical care (see Chapter 5), the duration of clinical care, and the length of the emergency department stay (Chapter 6). Figure 1.1 shows the patient's progress through an emergency department.



Missing or invalid data

In some cases, the data provided may include missing values (for example, the date/time of physical departure was not recorded), or invalid values (for example, if the time of physical departure was recorded as occurring before the time of presentation).

Because of missing or invalid values (such as time of presentation, or time of start of clinical care), valid waiting time could not be calculated for about 43,000 records with a type of visit of *Emergency presentation*—this excludes records with an episode end status of *Did not wait to be attended to by a health care professional* (277,000 records), *Dead on arrival* (fewer than 400 records), or *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional* (about 51,000 records). These records were not used in the derivation of waiting time statistics.

Further, because of missing or invalid values (such as time of start of clinical care, or time of episode end), duration of clinical care could not be calculated for about 88,000 records—this excludes records with an episode end status of *Did not wait to be attended to by a health care professional*, *Dead on arrival*, or *Registered, advised of another health care service, and left without being attended by a health care professional*.

The length of emergency department stay could not be calculated for about 7,000 records due to missing, or invalid values (such as for time of presentation, or time of physical departure).

Box 1.1: Summary of terms relating to emergency department care

An emergency department **presentation** occurs following the arrival of the patient at the emergency department, and is the earliest occasion of being registered clinically or triaged. The presentation is also used as a counting unit.

The **type of visit** to the emergency department indicates the reason the patient presented to the emergency department. It includes: *Emergency presentation*; *Return visit, planned*; *Pre-arranged admission*; *Patient in transit* (NAPEDC NMDS only); and *Dead on arrival*.

Emergency presentation refers to attendance for an actual or suspected condition that is sufficiently serious to require acute unscheduled care.

An **emergency department stay** is the period between when a patient presents at an emergency department, and when that person is recorded as having physically departed the emergency department.

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

The **triage category** indicates the urgency of the patient's need for medical and nursing care. It is usually assigned by an experienced registered nurse or medical practitioner at, or shortly after, the time of presentation to the emergency department. The triage category assigned is in response to the question: 'This patient should wait for medical assessment and treatment no longer than...?'

The Australasian Triage Scale has 5 categories—as defined in the *National health data dictionary, version 16* (AIHW 2012)—that incorporate the time by which the patient should receive care. The categories are:

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

These categories are equivalent to the Australasian Triage Scale triage categories ATS 1 to ATS 5, respectively (ACEM 2016).

Emergency department waiting time to commencement of clinical care is the time elapsed in minutes for each patient from presentation in the emergency department to the commencement of the emergency department non-admitted clinical care. Presentations were excluded if the waiting time could not be calculated, or the patient *Did not wait to be attended by a health care professional*, was *Dead on arrival* or was *Registered, advised of another health care service and left without being attended by a health care professional*.

Proportion seen on time is the proportion of presentations for which the waiting time to commencement of clinical care was within the time specified in the definition of the triage category, usually represented as a percentage.

For the purpose of this report, a patient with a triage category of *Resuscitation* was considered to be seen on time if the waiting time to commencement of clinical care was less than or equal to 2 minutes.

(continued)

Box 1.1 (continued): Summary of terms relating to emergency department care

The criteria used to determine the proportion of *Resuscitation* patients seen on time varies between jurisdictions, therefore, the proportions of *Resuscitation* patients seen on time presented in this report may differ from those reported by individual jurisdictions.

Proportion ending in admission is the proportion of presentations for which the episode end status was reported as *Admitted to this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)* (NAPEDC NMDS only) or *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)* (NAPEDC NBEDS/DSS only), usually represented as a percentage.

See appendixes A and B for more information.

1.4 Additional information

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

MyHospitals

Emergency department performance information is available on the AIHW's *MyHospitals* website for individual public hospitals at <www.myhospitals.gov.au>.

The information includes the:

- number of presentations to the emergency departments
- percentage of patients seen on time
- percentage of patients who departed the emergency department within 4 hours
- median time patients spent in the emergency department
- time until most patients (90%) had departed the emergency department.

Although the peer groupings used in this report and on the *MyHospitals* website are based on the same peer grouping classification (AIHW 2015a), there are some differences in the names and the groupings. For example, *Principal referral* hospitals are described as *Major hospitals* on the *MyHospitals* website.

Also note that 'patients discharged from the emergency department' do not refer to the same group of patients as those in this report who were 'not subsequently admitted to the same hospital'. For an explanation of these differences, see <www.myhospitals.gov.au/about-the-data>.

Private hospital emergency department activity

Information about emergency occasions of service provided by private hospitals is reported to the Australian Bureau of Statistics' (ABS) Private Health Establishments Collection, and is presented in the ABS' *Private hospitals, Australia* reports.

In 2015–16, about 538,000 accident and emergency services were provided by 36 acute and psychiatric private hospitals. These hospitals included those that did not have a formal accident and emergency unit, but treated accident and emergency patients (ABS 2017).

There were 26 private hospitals with emergency departments that provided levels 4–6 of emergency services, as defined by the *Guide to the role delineation of health services* (NSW Health 2002).

Patient experience in emergency departments

The ABS Patient Experience Survey collects national data on access and barriers to a range of health care services, including emergency visits for persons aged 15 and over (ABS 2016).

The 2015–16 survey found that about 2.5 million people aged 15 and over reported visiting an emergency department in the previous 12 months. Of these, 18% thought their care could have been provided by a general practitioner (GP).

The main reasons respondents presented at emergency departments instead of their GP on the most recent occasion was because:

- they were taken there by ambulance (44%)
- their GP was unavailable (23%)
- their GP did not have the required equipment or facilities (12%)
- they were sent by their GP (10%)
- waiting time for a GP was too long (2%).

The survey found that 70% of respondents reported that doctors and specialists always listened carefully, and 77% reported that emergency department nurses always showed respect.

Updates

Online tables are updated in the event of errors being found in the report after publication.

Where to go for more information

More information on Australia's hospitals is available in:

- *Elective surgery waiting times 2015–16: Australian hospital statistics* (AIHW 2016b)
- *Admitted patient care 2015–16: Australian hospital statistics* (AIHW 2017a)
- *Australia's hospitals 2015–16: at a glance* (AIHW 2017b)
- *Hospital resources 2015–16: Australian hospital statistics* (AIHW 2017c)
- *Non-admitted patient care 2015–16: Australian hospital statistics* (AIHW 2017d)
- *Staphylococcus aureus bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics* (AIHW 2017e).

2 How much emergency department activity was there?

This chapter focuses on public hospitals that reported emergency department activity to the NNAPEDCD. It provides information on their total activity in 2016–17, and over time, including:

- the number and type of public hospitals that provided emergency department care
- the number of presentations to public hospital emergency departments.

Key findings

How many public hospital emergency departments were there?

In 2016–17, 287 public hospital emergency departments reported emergency department presentations. These included all the major public hospitals—classified as *Principal referral and women's and children's hospitals*, *Public acute group A hospitals*, and *Public acute group B hospitals*—as well as some smaller hospitals located in regional and remote areas.

How many emergency department presentations were there?

In 2016–17, there were 7.8 million presentations to Australia's public hospital emergency departments—an average of more than 21,000 presentations each day.

About 34% of emergency department presentations (2.6 million) occurred in *Principal referral and women's and children's hospitals*, and 37% (2.9 million) in *Public acute group A hospitals*.

How has activity changed over time?

Between 2012–13 and 2016–17, the number of presentations to public hospital emergency departments increased by 3.7% on average each year. However, after adjusting for changes in the hospitals reporting to the NNAPEDCD, it is estimated that presentations increased by about 2.6% on average.

Between 2015–16 and 2016–17, emergency department presentations increased by 3.9%. After adjusting for the missing data for the Australian Capital Territory for 2015–16, it is estimated that presentations increased by about 2.0%.

2.1 How many public hospitals had emergency departments?

The NNAPEDCD provides information on the care provided (including waiting times for care) for non-admitted patients registered for care in emergency departments in public hospitals where the emergency department meets the following criteria:

- a purposely designed and equipped area with designated assessment, treatment, and resuscitation areas
- the ability to provide resuscitation, stabilisation, and initial management of all emergencies
- availability of medical staff in the hospital 24 hours a day
- designated emergency department nursing staff 24 hours per day 7 days per week, and a designated emergency department nursing unit manager.

Changes over time

Between 2012–13 and 2016–17, the number of public hospitals that reported emergency department care information to the NNAPEDCD increased from 204 to 287 (Table 2.1). These included the major public hospitals in all states and territories.

The increase in the number of hospitals reporting emergency department presentations between 2012–13 and 2013–14 was mostly due to an increase in reporting for New South Wales hospitals other than *Principal referral and women's and children's hospitals*, *Public acute group A hospitals*, or *Public acute group B hospitals*.

Between 2013–14 and 2016–17, the number of hospitals that reported emergency department presentations to the NNAPEDCD was relatively stable for most states and territories (Table 2.2). In Queensland, the Sunshine Coast University Hospital commenced providing emergency department care in 2016–17. In Western Australia, the decrease in the number of hospitals was due to the closure of the Swan District Hospital during 2015–16.

Interpretation of changes over time should take these changes in coverage into account (see Section 1.2).

Table 2.1: Public hospitals emergency departments, by public hospital peer group, 2012–13 to 2016–17^(a)

	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17
Principal referral and women's and children's hospitals ^(c)	39	39	41	39	40
Public acute group A hospitals	60	60	60	60	60
Public acute group B hospitals ^(d)	45	45	45	45	44
Public acute group C hospitals	38	55	55	55	55
Other hospitals ^(e)	22	90	89	88	88
All hospitals	204	289	290	287	287

(a) Interpretation of all changes over time presented in this report should take into account changes in coverage, as noted in Section 1.2.

(b) Includes public hospitals for the Australian Capital Territory, for which data were not available at the time of publication.

(c) During 2016–17, the Sunshine Coast University Hospital opened.

(d) In November 2015, the St John of God Midland Public Hospital opened, and the Swan District Hospital closed; both hospitals were reported in 2015–16.

(e) Includes hospitals not included in the specified hospital peer groups. See appendix C for more information about peer groups.

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

Table 2.2: Public hospital emergency departments, by state and territory, 2012–13 to 2016–17^(a)

	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17
New South Wales ^(c)	95	180	178	177	177
Victoria	40	40	40	40	40
Queensland ^(d)	27	27	28	26	27
Western Australia ^(e)	17	17	19	19	18
South Australia	14	14	14	14	14
Tasmania	4	4	4	4	4
Australian Capital Territory	2	2	2	2	2
Northern Territory	5	5	5	5	5
Total	204	289	290	287	287

(a) Interpretation of all changes over time presented in this report should take into account changes in coverage, as noted in Section 1.2.

(b) Includes public hospitals for the Australian Capital Territory, for which data were not available at the time of publication.

(c) Between 2012–13 and 2013–14, an additional 85 hospitals reported emergency department care data. Byron Central Hospital commenced providing emergency department care in 2015–16, replacing care previously provided by Mullumbimby Hospital and Byron Bay Hospital.

(d) Data for the Royal Children's Hospital and the Mater Children's Hospital were included from 2012–13 to 2014–15. During 2014–15, they were replaced by the Lady Cilento Children's Hospital; all 3 hospitals reported emergency department care data in that year. During 2016–17, the Sunshine Coast University Hospital opened.

(e) During 2014–15, the Fremantle Hospital's emergency department was replaced by the Fiona Stanley Hospital emergency department; both hospitals were reported for 2014–15. Busselton Hospital reported emergency department care data for the first time in 2014–15. In November 2015, the St John of God Midland Public Hospital opened, and the Swan District Hospital closed; both hospitals were reported in 2015–16.

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

Hospitals that provided emergency department care in 2016–17

In 2016–17, 287 public hospitals reported emergency department presentations to the NNAPEDCD.

Emergency department presentations were reported for:

- 40 of the 43 *Principal referral and women's and children's hospitals* (Table 2.3)—these hospitals are mainly located in *Major cities*, and provide a very broad range of specialist services
- 60 of the 63 *Public acute group A hospitals*—about half of these hospitals are located in regional and remote areas and they provide a wide range of specialist services
- 44 of the 45 *Public acute group B hospitals*—these hospitals provide a narrower range of services than *Principal referral and women's and children's hospitals* and *Public acute group A hospitals*
- 55 of the 144 *Public acute group C hospitals*—these are small hospitals; most small hospitals do not have a formal emergency department, but may provide emergency services under other arrangements.

Emergency department presentations were also reported for 88 other hospitals, including 58 *Public acute group D hospitals*, and 24 *Very small hospitals*.

Table 2.3: Public hospital emergency departments, by public hospital peer group, states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals	13	9	7	5	3	1	1	1	40
Public acute group A hospitals	22	15	12	4	3	2	1	1	60
Public acute group B hospitals	17	9	8	5	4	1	..	..	44
Public acute group C hospitals	38	6	0	4	4	0	..	3	55
Other hospitals ^(a)	87	1	0	0	0	0	..	..	88
All hospitals	177	40	27	18	14	4	2	5	287

(a) Includes hospitals not included in the specified hospital peer groups. See appendix C for more information about peer groups.

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

Where to go for more information

Information on data limitations and methods is available in appendixes A and B. More information on public hospital peer groups is available in Appendix C.

2.2 How many emergency department presentations were there?

This section presents information on the numbers of presentations to public hospital emergency departments for 2016–17, and over time.

Changes over time

Between 2012–13 and 2016–17, the number of emergency department presentations reported to the NNAPEDCD increased by 15%, with an average annual increase of 3.7% (Table 2.4).

However, between 2012–13 and 2013–14, there was a large increase in presentations for New South Wales, coinciding with a large number of additional hospitals that began reporting in 2013–14.

After adjusting for coverage changes between 2012–13 and 2013–14 for New South Wales, and between 2013–14 and 2014–15 for Western Australia, the number of emergency department presentations increased by an estimated 2.6% on average each year between 2012–13 and 2016–17.

Between 2012–13 and 2016–17, emergency department presentations reported by *Principal referral and women's and children's hospitals* increased on average by 5.2% per year (Table 2.4).

Between 2015–16 and 2016–17, the number of emergency department presentations increased by 3.9%—by 5.7% for *Principal referral and women's and children's hospitals*, and by 5.5% for *Public acute group A hospitals*.

After excluding the data for the Australian Capital Territory for 2016–17, presentations increased by 2.0% between 2015–16 and 2016–17.

Table 2.4: Emergency department presentations, by public hospital peer group, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(b)	2016–17	Change (%) ^(a)	
						Average since 2012–13	Since 2015–16
Principal referral and women's and children's hospitals	2,146,221	2,253,566	2,398,687	2,486,675	2,628,218	5.2	5.7
Public acute group A hospitals	2,557,682	2,626,188	2,680,370	2,723,863	2,872,668	2.9	5.5
Public acute group B hospitals	1,372,759	1,382,088	1,399,080	1,406,639	1,394,563	0.4	-0.9
Public acute group C hospitals	460,405	594,398	604,331	625,810	635,816	8.4	1.6
Other hospitals ^(c)	175,290	339,663	283,974	222,882	224,341	6.4	0.7
All hospitals	6,712,357	7,195,903	7,366,442	7,465,869	7,755,606	3.7	3.9

(a) Interpretation of all changes over time presented in this report should take into account changes in coverage. Changes have not been adjusted for the increase in coverage of hospitals in New South Wales between 2012–13 and 2013–14, or in Western Australia between 2013–14 and 2014–15.

(b) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

(c) Includes hospitals not included in the specified hospital peer groups (see appendix C for more information about peer groups).

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

Excluding New South Wales (due to the change in reporting between 2012–13 and 2013–14), the highest average annual increase in emergency department presentations between 2012–13 and 2016–17 was in the Australian Capital Territory (4.9%) (Table 2.5).

Between 2015–16 and 2016–17, the greatest percentage increases in emergency department presentations were reported for the Northern Territory (3.7%) and Victoria (3.0%).

Activity in 2016–17

In 2016–17, there were 7.8 million presentations to public hospital emergency departments, an average of more than 21,000 presentations each day.

About 34% (2.6 million) of presentations to public hospital emergency departments occurred in *Principal referral and women's and children's hospitals*, 37% (2.9 million) in *Public acute group A hospitals*, and 18% (1.4 million) in *Public acute group B hospitals* (Table 2.6).

Emergency department presentations in New South Wales accounted for about 36% of the national total.

Where to go for more information

More information on emergency department presentations by peer group is available in 'Table S5.1: Emergency department presentation statistics, by triage category and public hospital peer group, 2016–17' (which accompanies this report online).

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

Table 2.5: Emergency department presentations, by state and territory, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(c)	2016–17	Change (%) ^(a)		Adjusted change (%) ^(b)	
						Average since 2012–13	Since 2015–16	Average since 2012–13	Since 2015–16
New South Wales	2,278,591	2,646,415	2,681,466	2,733,520	2,784,545	5.1	1.9	2.4	1.9
Victoria	1,528,609	1,572,787	1,610,623	1,679,886	1,731,040	3.2	3.0	3.2	3.0
Queensland	1,284,158	1,351,573	1,378,883	1,439,143	1,457,083	3.2	1.2	3.2	1.2
Western Australia	754,252	742,615	803,821	829,431	835,551	2.6	0.7	1.9	0.9
South Australia	455,220	463,171	469,368	481,889	493,268	2.0	2.4	2.0	2.4
Tasmania	147,064	148,278	150,076	153,541	156,323	1.5	1.8	1.5	1.8
Australian Capital Territory	118,931	125,888	129,961	n.a.	143,860	4.9	n.a.	4.9	n.a.
Northern Territory	145,532	145,176	142,244	148,459	153,936	1.4	3.7	1.4	3.7
Total	6,712,357	7,195,903	7,366,442	7,465,869	7,755,606	3.7	3.9	2.6	2.0

(a) Interpretation of all changes over time presented in this report should take into account changes in coverage, as noted in Section 1.2.

(b) Adjusted for changes in coverage between 2012–13 and 2013–14 for New South Wales, between 2013–14 and 2014–15 for Western Australia, and in 2015–16 for the Australian Capital Territory.

(c) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

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

Table 2.6: Emergency department presentations, by public hospital peer group, states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	Total (%)
Principal referral and women's and children's hospitals	845,070	547,398	495,907	312,759	209,963	61,963	85,093	70,065	2,628,218	33.9
Public acute group A hospitals	906,887	701,718	659,756	275,650	153,446	68,838	58,767	47,606	2,872,668	37.0
Public acute group B hospitals	471,612	350,096	301,420	161,270	84,643	25,522	..	..	1,394,563	18.0
Public acute group C hospitals	377,346	91,117	0	85,872	45,216	0	..	36,265	635,816	8.2
Other hospitals ^(a)	183,630	40,711	0	0	0	0	..	..	224,341	2.9
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606	100.0

(a) Includes hospitals not included in the specified hospital peer groups (see appendix C for more information about peer groups).

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

3 Who used emergency department services?

This chapter presents information on the patients who received care in Australia's public hospital emergency departments. The information in this chapter includes patients':

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

Key findings

How did emergency department use vary by age group and sex?

In 2016–17:

- emergency department presentations were evenly split for males (50.3%) and females (49.7%)
- the most common 10-year age groups presenting at emergency departments were 15–24 (13.4%) and 25–34 (13.6%)
- patients aged 4 and under (who make up less than 7% of the population) accounted for 11% of all emergency department presentations
- patients aged 65 and over (who make up about 15% of the population) accounted for about 21% of all emergency department presentations.

How did emergency department use vary by Indigenous status?

In 2016–17, about 6.5% of emergency department presentations (503,000) were for Aboriginal and Torres Strait Islander people, who represent about 3.5% of the Australian population. For the Northern Territory, 46.5% of emergency department presentations were for Aboriginal and Torres Strait Islander people.

How did emergency department use vary by remoteness area?

In 2016–17, about 63% of emergency department presentations were for people living in *Major cities*, who account for about 71% of the Australian population.

People living in *Remote* and *Very remote* areas (who account for about 2% of the population) accounted for more than 3% of presentations.

3.1 How did emergency department use vary by age group and sex?

In 2016–17, emergency department presentations were evenly split between males (50.3%) and females (49.7%) (Table 3.1).

But for those aged 0–14, substantially more boys (56.0%) than girls (44.0%) presented to emergency departments.

The most common 10-year age groups presenting at emergency departments were those aged 15–24 (13.4%) and 25–34 (13.6%). In these age groups, females accounted for a higher proportion of presentations than males.

In 2016–17, patients aged 4 and under (who make up less than 7% of the population), accounted for about 11% of all emergency department presentations. Males accounted for about 56% of presentations for patients aged 4 and under.

Patients aged 65 and over (who make up about 15% of the population) accounted for about 21% of all emergency department presentations in 2016–17.

3.2 How did emergency department use vary by Indigenous status?

In 2016–17, about 503,000 emergency department presentations (6.5%) were reported for people of Aboriginal and Torres Strait Islander origin (Table 3.2), who represent about 3.1% of the Australian population.

The Northern Territory—the jurisdiction with the highest proportion of Indigenous residents (30.0%)—had the highest proportion of emergency department presentations for Indigenous Australians (46.5%).

Victoria—the state with the lowest proportion of Indigenous residents (0.9%)—recorded the lowest proportion of emergency department presentations for Indigenous Australians (1.9%).

See Box 3.1 for information on the quality of Indigenous status data.

Box 3.1: Quality of Indigenous status data

The quality of the data reported for Indigenous status in emergency departments has not been formally assessed—therefore, caution should be exercised when interpreting these data.

All states and territories reported that the quality of their data for Indigenous status is acceptable for reporting purposes. South Australia and Tasmania reported ongoing work to improve the collection of the data element.

See Appendix A for comments provided by states and territories on the perceived quality of Indigenous status data provided for the NNAPEDCD.

Table 3.1: Emergency department presentations by age group and sex, states and territories, 2016–17

	Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Males	0–4	173,673	109,502	88,372	56,966	31,320	7,680	9,589	8,813	485,915
	5–14	159,834	91,513	84,215	52,070	26,771	7,969	8,231	7,227	437,830
	15–24	175,700	102,204	97,888	52,191	29,613	10,904	9,433	9,110	487,043
	25–34	168,653	105,021	91,745	54,917	27,840	9,603	9,264	12,662	479,705
	35–44	150,956	92,627	82,346	46,003	25,287	8,296	8,060	11,492	425,067
	45–54	147,136	89,477	76,773	43,800	26,090	8,544	6,798	11,965	410,583
	55–64	139,047	82,934	68,470	36,068	23,539	8,511	6,079	8,274	372,922
	65–74	138,910	78,296	64,692	34,074	22,790	8,344	5,574	5,232	357,912
	75–84	113,281	66,647	49,680	27,163	20,402	6,210	4,636	2,178	290,197
	85 and over	61,630	35,836	24,857	14,971	12,917	2,724	2,459	607	156,001
	<i>Total males^(a)</i>	<i>1,428,964</i>	<i>854,117</i>	<i>729,170</i>	<i>418,228</i>	<i>246,571</i>	<i>78,807</i>	<i>70,125</i>	<i>77,566</i>	<i>3,903,548</i>
Females	0–4	134,874	82,933	69,831	44,891	23,920	5,956	7,171	6,862	376,438
	5–14	124,424	72,994	68,256	42,973	22,457	6,846	6,570	5,938	350,458
	15–24	187,866	119,302	118,471	58,936	34,514	12,349	11,698	10,719	553,855
	25–34	185,363	146,370	109,303	66,505	32,657	10,325	12,198	14,708	577,429
	35–44	142,111	102,593	83,767	48,396	24,877	8,417	9,131	12,996	432,288
	45–54	133,625	86,482	75,165	41,314	23,814	8,565	6,829	11,302	387,096
	55–64	126,166	75,570	62,159	34,446	22,296	7,899	6,164	7,235	341,935
	65–74	121,063	72,440	57,430	30,238	21,765	7,406	5,524	3,999	319,865
	75–84	113,451	68,781	49,308	28,333	21,831	5,966	4,888	1,912	294,470
	85 and over	86,463	49,358	34,030	21,205	18,559	3,717	3,545	686	217,563
	<i>Total females^(a)</i>	<i>1,355,470</i>	<i>876,874</i>	<i>727,788</i>	<i>417,240</i>	<i>246,690</i>	<i>77,452</i>	<i>73,719</i>	<i>76,362</i>	<i>3,851,595</i>
	All persons^(b)	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Includes 580 presentations for which the age group of the patient was not reported.

(b) Includes 466 presentations for which the sex of the patient was not reported, and 580 presentations for which the age group of the patient was not reported.

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

Table 3.2: Emergency department presentations by Indigenous status, states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Aboriginal but not Torres Strait Islander origin	177,963	29,064	86,570	71,313	22,969	7,350	4,651	70,082	469,962
Torres Strait Islander but not Aboriginal origin	2,567	850	7,914	569	228	281	75	336	12,820
Aboriginal and Torres Strait Islander origin	5,275	2,645	8,611	1,473	655	537	205	1,136	20,537
<i>Indigenous Australians</i>	<i>185,805</i>	<i>32,559</i>	<i>103,095</i>	<i>73,355</i>	<i>23,852</i>	<i>8,168</i>	<i>4,931</i>	<i>71,554</i>	<i>503,319</i>
Neither Aboriginal nor Torres Strait Islander origin	2,573,778	1,687,575	1,348,924	758,833	450,069	146,660	138,083	81,870	7,185,792
Not reported	24,962	10,906	5,064	3,363	19,347	1,495	846	512	66,495
<i>Other Australians^(a)</i>	<i>2,598,740</i>	<i>1,698,481</i>	<i>1,353,988</i>	<i>762,196</i>	<i>469,416</i>	<i>148,155</i>	<i>138,929</i>	<i>82,382</i>	<i>7,252,287</i>
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

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

Note: See boxes 1.1 and 3.1, and appendixes A and B for more information on terminology, data limitations, and methods.

Where to go for more information

Information on waiting times for emergency department presentations by Indigenous status is available in Chapter 4.

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

3.3 How did emergency department use vary by remoteness of area of usual residence?

In 2016–17, 63% of emergency department presentations were reported for people living in *Major cities*, who make up about 71% of the Australian population.

People living in *Remote* and *Very remote* areas (who make up about 2% of the population) accounted for more than 3% of presentations (Table 3.3).

For people living in *Major cities*, about 53% of emergency department presentations reported were assigned to the 3 most urgent triage categories (*Resuscitation*, *Emergency*, and *Urgent*), compared with about 36% of emergency department presentations reported for people living in *Remote* areas.

The coverage of the NNAPEDCD is not complete, and varied by remoteness of area of the hospital (see Section 1.2 for more information).

The information presented in Table 3.3 is based on the remoteness area of the patient’s usual residence, and this may differ from the remoteness area of the hospital.

Table 3.3: Emergency department presentations by triage category and remoteness of area of usual residence, 2016–17

	Remoteness of area of usual residence					Total ^(a)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Resuscitation	38,131	9,698	5,232	854	575	56,543
Emergency	668,056	183,482	83,724	13,358	8,594	970,883
Urgent	1,894,974	584,162	263,599	44,523	25,769	2,851,977
Semi-urgent	1,935,206	712,374	341,662	77,464	40,401	3,153,383
Non-urgent	352,390	195,879	115,711	26,470	15,352	719,148
Total^(b)	4,890,329	1,686,732	810,541	162,761	90,820	7,755,606

(a) Includes about 114,000 presentations for which the remoteness area was unknown.

(b) Includes about 3,800 presentations for which the triage category was not reported.

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

Where to go for more information

Information on waiting times for emergency department presentations by remoteness of area of usual residence is available in Chapter 4.

Information on data limitations and methods is available in Section 1.2, and in appendixes A and B.

4 How and why were services accessed?

This chapter presents information on how and why patients presented to emergency departments. The information in this chapter includes:

- the type of visit—whether for emergency treatment or another reason
- the urgency of care—the triage category indicates the urgency of the patient's need for medical and nursing care
- the mode of arrival—whether by ambulance, or another form of transport
- the principal diagnosis—the diagnosis chiefly responsible for occasioning the presentation to the emergency department
- the episode end status—including whether the patient was subsequently admitted.

Key findings

How urgently was care required and how did people arrive?

In 2016–17, about 77% of emergency department presentations were assigned a triage category of either *Urgent* or *Semi-urgent*. Fewer than 1% of patients were assigned a triage category of *Resuscitation*.

About 25% of emergency department presentations arrived by *Ambulance, air ambulance or helicopter rescue service*. About 83% of *Resuscitation* patients (who need to be treated immediately) arrived by this mode of transport.

When did people present to the emergency department?

There were more emergency department presentations on the weekends and on Mondays than on other days of the week. About 69% of presentations occurred between 8 am and 8 pm.

Why did people receive care?

In 2016–17, about 25% of all emergency department presentations (almost 2 million) had a principal diagnosis in the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) chapter *Injury, poisoning and certain other consequences of external causes*.

The ICD-10-AM chapter *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* was reported for about 20% of presentations. This chapter includes the diagnoses *Abdominal and pelvic pain* and *Pain in the throat and chest*—which were the 2 most common principal diagnoses reported in 2016–17 (4.3% and 3.6%, respectively).

How was care completed?

In 2016–17, at the conclusion of clinical care in the emergency department, 61% of presentations reported an episode end status of *Departed without being admitted or referred*, 31% were *Admitted to this hospital*, and about 4% *Did not wait to be attended to by a health care professional*.

4.1 What types of visit occur in emergency departments?

The reason that a patient presents to the emergency department is described as the **type of visit**. In the NMDS this can be reported as:

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

Of the 7.8 million presentations reported to the NNAPEDCD for 2016–17, 98.1% were *Emergency presentations*, and 1.6% were *Return visit, planned*. The remaining types of visit accounted for about 0.3% (Table 4.1).

In 2016–17, Victoria, Queensland (also for 2015–16), and Western Australia provided data for the NNAPEDCD using the NAPEDC NBEDS, for which *Patient in transit* is not a valid category of 'Type of visit'. Patients previously assigned to this category in the NMDS, for whom care and treatment is provided, are now assigned to the category *Emergency presentation*. In addition, for the NAPEDC NBEDS, patients who were clinically dead on arrival at the emergency department, but for whom resuscitation or other clinical care is attempted are assigned to the category *Emergency presentation*, not *Dead on arrival*.

All other jurisdictions provided data for the NNAPEDCD using the NAPEDC NMDS, for which *Patient in transit* is a valid category.

It should be noted that the management and reporting of patients who were *Dead on arrival* in emergency departments varies among states and territories. Most states and territories reported records for patients who were dead on arrival.

For South Australia, patients who are *Dead on arrival* are not managed or reported by emergency departments.

For Western Australia, emergency departments only occasionally manage and report patients who are *Dead on arrival*, because the majority of these patients are taken directly to the state morgue.

Table 4.1: Emergency department presentations by type of visit, states and territories, 2016–17

Type of visit	NSW	Vic ^(a)	Qld ^(a)	WA ^{(a)(b)}	SA ^(c)	Tas	ACT	NT	Total
Emergency presentation	2,685,379	1,717,794	1,443,121	828,174	488,630	152,970	142,401	151,102	7,609,571
Return visit, planned	81,026	12,576	11,810	6,561	4,523	2,854	1,395	2,745	123,490
Pre-arranged admission	14,359	593	2,152	437	56	0	60	0	17,657
Patient in transit	363	..	..	..	0	0	0	31	394
Dead on arrival	3,380	77	0	..	..	457	3	1	3,918
Not reported	38	0	0	379	59	42	1	57	576
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Victoria, Queensland and Western Australia provided 2016–17 data for the NNAPEDCD using the NAPEDC NBEDS, for which *Patient in transit* is not a valid category. Patients previously assigned to this category are included in the category *Emergency presentation*. In addition, for the NAPEDC NBEDS, patients who were *Dead on arrival*, but for which resuscitation or other clinical care is attempted are included in the category *Emergency presentation*.

(b) Western Australian emergency departments only occasionally manage and report patients who are *Dead on arrival*, because the majority of these patients are taken directly to the state morgue. In Western Australia, some hospitals reported all presentations as *Emergency presentation*.

(c) For South Australia, patients who are *Dead on arrival* are not managed or reported by emergency departments.

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

4.2 How urgently was care required and how did people arrive at the emergency department?

The **triage category** (assigned to the patient at, or soon after, the time of presentation) indicates the urgency of the patient's need for medical and nursing care (see Box 1.1).

The **arrival mode—transport** indicates the mode of transport by which the patient arrived at the emergency department.

Triage category

Of the 7.8 million emergency department presentations in 2016–17:

- 0.7% were assigned a triage category of *Resuscitation*
- 12.5% were assigned to *Emergency*
- 36.8% were assigned to *Urgent*
- 40.7% were assigned to *Semi-urgent*
- 9.3% were assigned to *Non-urgent* (Table 4.2).

New South Wales had the highest proportion of presentations that were assigned a triage category of *Non-urgent* (12.9%), and Queensland had the lowest proportion (4.8%).

South Australia had the highest proportion of presentations assigned as *Resuscitation* (1.4%), while Queensland had the highest proportion of presentations assigned as *Emergency* (14.8%) and *Urgent* (44.8%).

Arrival mode

In 2016–17, the majority of presentations to emergency departments (75%) had an arrival mode of *Other*—indicating that the patient either walked into the emergency department, or came by private transport, public transport, community transport, or taxi. About 25% arrived by *Ambulance, air ambulance or helicopter rescue service* (Table 4.2).

The proportion of patients who arrived by *Ambulance, air ambulance or helicopter rescue service* fell with decreasing urgency. About 83% of *Resuscitation* patients (who need to receive care immediately) arrived by this mode of transport, compared with fewer than 4% of *Non-urgent* patients (who need to receive care within 2 hours).

The proportion of patients who arrived by *Ambulance, air ambulance or helicopter rescue service* ranged from 18.4% in the Northern Territory to 32.9% in Queensland.

Where to go for more information

Information on waiting times for emergency department presentations by triage category is available in:

- Chapter 5
- Tables S5.1 and S5.2: 'Emergency presentation statistics, by public hospital peer group and triage category, 2016–17' (which accompany this report online).

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

Table 4.2: Emergency department presentations, by triage category and arrival mode, states and territories, 2016–17

Triage category and arrival mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Resuscitation									
Ambulance, air ambulance or helicopter rescue service	15,092	7,272	10,758	5,957	5,693	836	583	691	46,882
Police/correctional services vehicle	108	50	131	61	28	7	2	30	417
Other ^(a)	2,922	1,497	2,211	893	1,066	89	57	404	9,139
Not reported	90	0	0	7	8	0	0	0	105
<i>Total</i>	<i>18,212</i>	<i>8,819</i>	<i>13,100</i>	<i>6,918</i>	<i>6,795</i>	<i>932</i>	<i>642</i>	<i>1,125</i>	<i>56,543</i>
Emergency									
Ambulance, air ambulance or helicopter rescue service	138,620	86,545	109,503	37,622	35,989	8,850	5,578	6,643	429,350
Police/correctional services vehicle	2,020	1,939	3,095	1,975	645	244	389	475	10,782
Other ^(a)	189,639	106,194	103,066	69,255	34,081	6,579	8,727	12,281	529,822
Not reported	730	0	0	141	54	4	0	0	929
<i>Total</i>	<i>331,009</i>	<i>194,678</i>	<i>215,664</i>	<i>108,993</i>	<i>70,769</i>	<i>15,677</i>	<i>14,694</i>	<i>19,399</i>	<i>970,883</i>
Urgent									
Ambulance, air ambulance or helicopter rescue service	282,485	207,026	259,420	73,527	75,463	21,399	15,416	11,295	946,031
Police/correctional services vehicle	4,708	3,637	7,350	4,558	2,097	803	660	1,071	24,884
Other ^(a)	638,360	423,698	385,791	211,147	116,415	33,186	39,304	31,768	1,879,669
Not reported	1,123	0	0	161	71	38	0	0	1,393
<i>Total</i>	<i>926,676</i>	<i>634,361</i>	<i>652,561</i>	<i>289,393</i>	<i>194,046</i>	<i>55,426</i>	<i>55,380</i>	<i>44,134</i>	<i>2,851,977</i>
Semi-urgent									
Ambulance, air ambulance or helicopter rescue service	151,212	107,543	96,110	39,536	33,507	11,536	6,572	8,863	454,879
Police/correctional services vehicle	3,367	1,107	2,780	3,021	1,572	479	201	1,978	14,505
Other ^(a)	992,266	632,600	407,403	329,829	150,760	56,200	51,751	62,407	2,683,216
Not reported	503	0	0	147	72	61	0	0	783
<i>Total</i>	<i>1,147,348</i>	<i>741,250</i>	<i>506,293</i>	<i>372,533</i>	<i>185,911</i>	<i>68,276</i>	<i>58,524</i>	<i>73,248</i>	<i>3,153,383</i>

(continued)

Table 4.2 (continued): Emergency department presentations, by triage category and arrival mode, states and territories, 2016–17

Triage category and arrival mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Non-urgent									
Ambulance, air ambulance or helicopter rescue service	12,145	3,924	4,280	1,654	2,238	700	440	758	26,139
Police/correctional services vehicle	2,079	249	754	524	438	1,907	29	398	6,378
Other ^(a)	343,869	147,684	64,431	55,501	33,053	12,939	14,151	14,874	686,502
Not reported	87	0	0	15	18	9	0	0	129
<i>Total</i>	<i>358,180</i>	<i>151,857</i>	<i>69,465</i>	<i>57,694</i>	<i>35,747</i>	<i>15,555</i>	<i>14,620</i>	<i>16,030</i>	<i>719,148</i>
All triage categories^(b)									
Ambulance, air ambulance or helicopter rescue service	599,755	412,356	480,071	158,297	152,890	43,330	28,589	28,250	1,903,538
Police/correctional services vehicle	12,297	6,982	14,110	10,139	4,780	3,442	1,281	3,952	56,983
Other^(a)	2,169,929	1,311,702	962,902	666,638	335,375	109,366	113,990	121,734	5,791,636
Not reported	2,564	0	0	477	223	185	0	0	3,449
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Includes presentations where patients either walked into the emergency department, or came by private transport, public transport, community transport, or taxi.

(b) Includes about 3,800 presentations for which the triage category was not reported.

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

4.3 When did people present to the emergency department?

The time of presentation at the emergency department is defined as the earliest occasion of being registered clerically or triaged.

Table 4.3 presents the day of the week, and the time of day at which presentations occurred. In 2016–17, there were more presentations on the weekends and on Mondays than on other days.

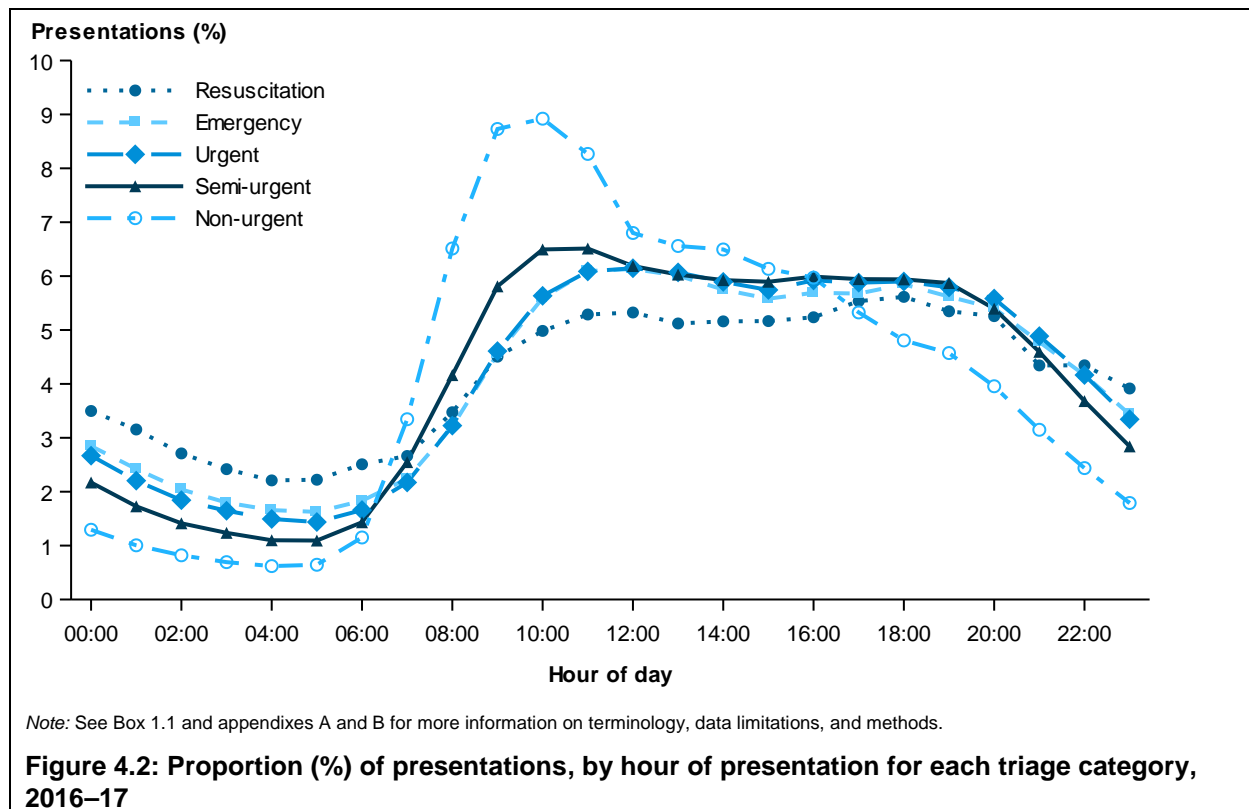
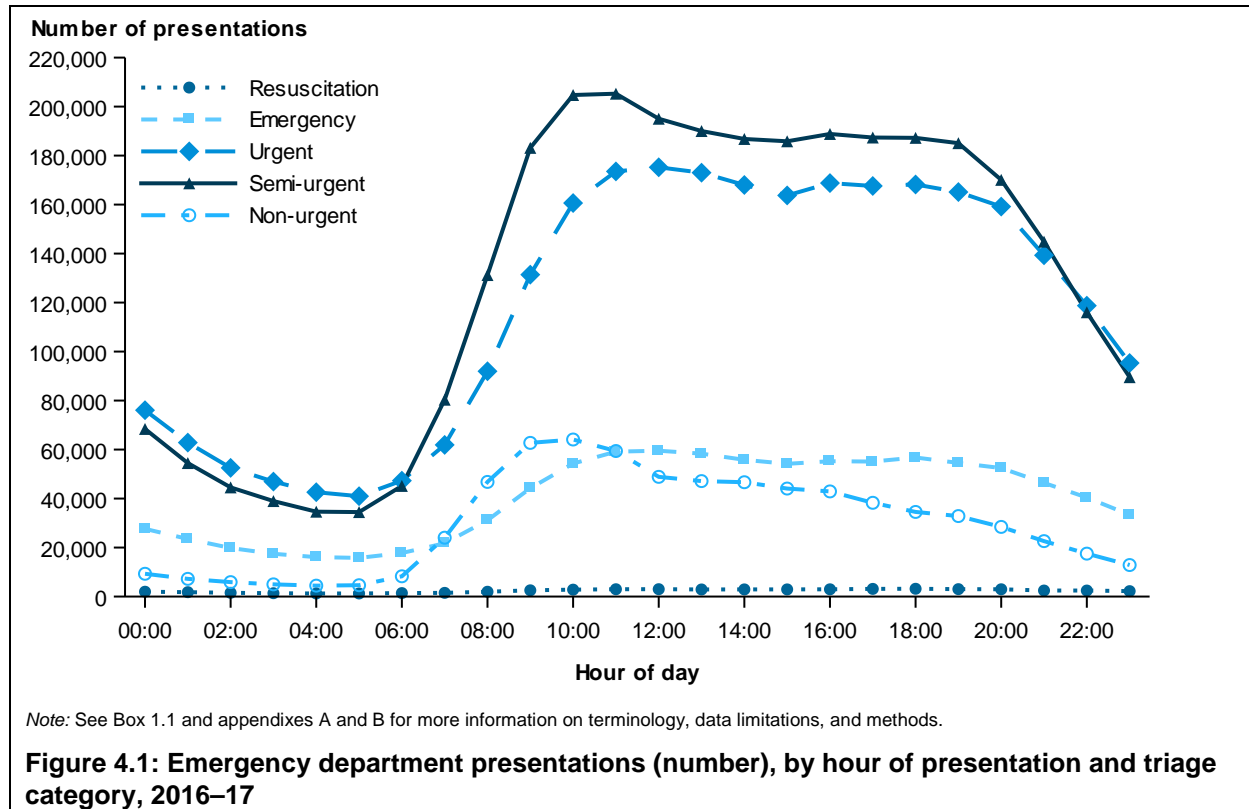
Figure 4.1 presents the number of presentations by triage category and hour of presentation. It highlights the uneven use of emergency department resources throughout the average day. More than two-thirds (69%) of emergency department presentations occurred between 8 am and 8 pm.

Figure 4.2 illustrates the relative distribution of presentations within each triage category across the 24-hour period. It shows that *Resuscitation* presentations are more evenly distributed throughout the day than for other triage categories. The highest proportions of *Non-urgent* presentations occurred between 8 am and 11 am.

Table 4.3: Proportion (%) of presentations by day of week and time of presentation, 2016–17

Time of presentation	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight to 1:59 am	5.0	4.0	4.1	4.1	4.1	4.2	4.7	4.3
2 am to 3:59 am	3.6	2.8	2.8	2.8	2.9	2.9	3.3	3.0
4 am to 5:59 am	2.8	2.4	2.4	2.4	2.4	2.5	2.7	2.5
6 am to 7:59 am	4.0	4.1	4.0	4.0	4.0	4.0	4.0	4.0
8 am to 9:59 am	9.2	10.0	9.5	9.4	9.3	9.3	8.8	9.4
10 am to 11:59 am	12.8	13.3	12.7	12.6	12.5	12.7	12.4	12.7
Midday to 1:59 pm	12.2	12.4	12.1	12.1	12.2	12.4	12.6	12.3
2 pm to 3:59 pm	11.9	11.6	11.5	11.6	11.7	11.8	12.3	11.8
4 pm to 5:59 pm	11.4	11.7	11.8	11.9	11.8	12.0	11.6	11.7
6 pm to 7:59 pm	11.0	11.5	12.0	12.0	11.8	11.4	10.8	11.5
8 pm to 9:59 pm	9.5	9.8	10.2	10.3	10.3	9.8	9.5	9.9
10 pm to 11:59 pm	6.5	6.4	6.7	6.9	7.0	7.1	7.3	6.8
Total (%)	15.0	15.2	14.1	13.8	13.7	14.0	14.2	100.0
Presentations	1,163,932	1,180,233	1,093,333	1,067,958	1,061,209	1,086,290	1,102,651	7,755,606

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



4.4 Why did people receive care?

This section presents information on the reason for the emergency department presentation, described by the diagnoses reported for presentations.

It includes:

- ICD-10-AM diagnoses presented using:
 - principal diagnosis chapters, by state and territory, triage category, and admission status
 - the 20 most common ICD-10-AM principal diagnoses at the 3-character level, by state and territory, and, for patients who were subsequently admitted, by triage category
- major diagnostic block, by state and territory, triage category, and admission status.

In 2016–17, principal diagnosis information was reported using various classifications. For the purpose of this report, the AIHW mapped the provided information to ICD-10-AM 3-character codes, where necessary (see Appendix B for more information).

In 2016–17, about 96% of records reported to the NNAPEDCD included diagnosis information—about 316,000 records either did not contain a principal diagnosis or contained either an International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) or a Systemized Nomenclature of Medicine (SNOMED) code that did not correspond to an ICD-10-AM diagnosis code.

The quality of the information provided for emergency department principal diagnosis data has not been fully assessed. As a result, these data should be interpreted with caution (see Appendix A for more information on data quality).

Principal diagnosis

The principal diagnosis is the diagnosis established at the conclusion of the patient's attendance in an emergency department to be mainly responsible for occasioning the attendance.

ICD-10-AM chapters

In 2016–17, *Injury, poisoning and certain other consequences of external causes* was the most common ICD-10-AM principal diagnosis chapter reported (25% of presentations for which the principal diagnosis was reported), followed by *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (20%) (Table 4.4).

The ICD-10-AM diagnosis chapter *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* includes the diagnoses of *Fever, Nausea and vomiting, Syncope and collapse* (fainting), *Abdominal and pelvic pain*, and *Pain in throat or chest*.

The proportion of presentations by ICD-10-AM chapter varies among states and territories. For example, the proportion of presentations with a principal diagnosis from the chapter *Injury, poisoning and certain other consequences of external causes* ranged from 20% of presentations in the Northern Territory to 29% in Queensland (for presentations for which the principal diagnosis was reported).

Triage category

The principal diagnoses reported for emergency department presentations varied by triage category.

In 2016–17, *Injury, poisoning and certain other consequences of external causes* was the most common ICD-10-AM principal diagnosis chapter reported for presentations with a triage category of *Resuscitation* (27.9%), *Semi-urgent* (32.3%), and *Non-urgent* (35.4%) (Table 4.5).

Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified was the most common ICD-10-AM principal diagnosis chapter reported for patients with a triage category of *Emergency* (31.4%) and *Urgent* (25.2%).

The proportion of presentations that were reported for *Diseases of the circulatory system* varied by triage category, ranging from 24% for *Resuscitation* presentations to less than 1% for *Non-urgent* presentations.

Admission status

Principal diagnoses reported for emergency department presentations varied depending on whether the patient was subsequently admitted to the same hospital or not.

In 2016–17, about 31% of emergency department presentations were subsequently admitted to the hospital (see Section 4.5).

For patients who were subsequently admitted to hospital, the most common ICD-10-AM principal diagnosis chapters were *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (26.4%), *Injury, poisoning and certain other consequences of external causes* (14.5%), and *Diseases of the respiratory system* (10.4%) (Table 4.6).

About 71% of patients who presented with a principal diagnosis in the chapter *Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism*, and 66% of those with a principal diagnosis in the chapter *Diseases of the circulatory system* were subsequently admitted.

Most common principal diagnoses

In 2016–17, the 20 most common 3-character ICD-10-AM principal diagnoses accounted for about 32% of principal diagnoses reported. The most common 3-character ICD-10-AM principal diagnoses were *Abdominal and pelvic pain* (R10, 4.3%), followed by *Pain in throat and chest* (R07, 3.6%) (Table 4.7).

The 20 most common principal diagnoses for patients who were subsequently admitted to hospital differ from the 20 most common principal diagnoses overall. For example, *Angina pectoris* (I20), *Heart failure* (I50), and *Acute myocardial infarction* (I21) are included in the top 20 principal diagnoses for patients who were subsequently admitted (Table 4.8), but do not appear in the top 20 principal diagnoses overall (Table 4.7).

For *Resuscitation* patients who were subsequently admitted, 5.2% had a principal diagnosis of *Acute myocardial infarction* (I21), and 3.2% had a principal diagnosis of *Other chronic obstructive pulmonary disease* (J44) (Table 4.8).

For *Emergency* patients who were subsequently admitted, 14.5% had a principal diagnosis of *Pain in throat and chest* (R07), and 5.6% had a principal diagnosis of *Angina pectoris* (I20).

Table 4.4: Emergency department presentations^(a) by principal diagnosis in ICD-10-AM^(b) chapters, states and territories, 2016–17

Principal diagnosis	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
A00–B99 Certain infectious and parasitic diseases	132,298	79,770	71,801	45,060	21,035	6,580	8,774	7,219	372,537
C00–D48 Neoplasms	10,607	5,374	5,826	2,180	1,471	742	314	319	26,833
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	13,004	11,237	6,514	3,458	2,684	701	577	403	38,578
E00–E90 Endocrine, nutritional and metabolic diseases	24,515	14,278	13,010	5,835	4,849	1,441	1,177	3,048	68,153
F00–F99 Mental and behavioural disorders	94,259	54,114	56,166	31,414	23,596	6,122	4,743	6,540	276,954
G00–G99 Diseases of the nervous system	29,543	31,389	23,197	11,547	8,390	3,652	2,366	1,864	111,948
H00–H59 Diseases of the eye and adnexa	47,823	33,090	14,067	9,148	4,884	1,368	1,940	2,171	114,491
H60–H95 Diseases of the ear and mastoid process	34,799	22,850	18,270	9,160	4,663	1,628	1,724	2,672	95,766
I00–I99 Diseases of the circulatory system	100,288	76,696	89,565	29,573	18,467	7,593	4,876	3,804	330,862
J00–J99 Diseases of the respiratory system	227,946	131,090	110,480	60,949	39,039	11,924	11,809	13,754	606,991
K00–K93 Diseases of the digestive system	143,581	93,448	82,264	47,643	26,946	9,914	7,569	7,656	419,021
L00–L99 Diseases of the skin and subcutaneous tissue	98,424	53,145	50,561	28,657	13,838	4,973	4,092	9,835	263,525
M00–M99 Diseases of the musculoskeletal system and connective tissue	159,517	76,343	43,886	28,356	19,637	7,380	5,937	10,055	351,111
N00–N99 Diseases of the genitourinary system	104,549	72,287	63,664	32,452	17,018	6,131	5,805	6,281	308,187
O00–O99 Pregnancy, childbirth and the puerperium	28,766	39,016	15,552	11,078	5,422	1,539	1,853	1,015	104,241
P00–P96 Certain conditions originating in the perinatal period	1,587	4,616	3,405	1,099	525	217	120	111	11,680
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	616	328	568	173	241	28	39	26	2,019
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	630,491	354,798	231,749	126,034	111,912	27,272	30,660	23,467	1,536,383
S00–T98 Injury, poisoning and certain other consequences of external causes	674,801	418,783	416,908	220,688	115,818	43,634	39,719	31,211	1,961,562
U50–Y98 External causes of morbidity and mortality	15,591	147	14,239	1,959	1,805	86	380	1,123	35,330
Z00–Z99 Factors influencing health status and contact with health services	147,803	69,475	65,638	54,036	35,011	11,801	9,026	10,564	403,354
Not reported ^(c)	63,737	88,766	59,753	75,052	16,017	1,597	360	10,798	316,080
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Presentations include all types of visit.

(b) Principal diagnoses were reported using various ICD-10-AM editions, ICD-9-CM, and SNOMED CT-AU, and were mapped to ICD-10-AM 3-character diagnosis codes.

(c) Includes about 8,000 records for which the provided ICD-9-CM or SNOMED CT-AU code could not be mapped to an ICD-10-AM diagnosis code.

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

Table 4.5: Emergency department presentations^(a) by principal diagnosis in ICD-10-AM^(b) chapters and triage category, 2016–17

Principal diagnosis	Triage category					Total
	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	
A00–B99 Certain infectious and parasitic diseases	1,318	29,703	153,538	171,210	16,740	372,537
C00–D48 Neoplasms	222	3,382	14,027	7,233	1,964	26,833
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	80	7,949	19,354	9,204	1,983	38,578
E00–E90 Endocrine, nutritional and metabolic diseases	832	14,333	35,523	15,001	2,454	68,153
F00–F99 Mental and behavioural disorders	2,572	37,411	134,813	84,472	17,643	276,954
G00–G99 Diseases of the nervous system	2,200	16,249	61,669	28,978	2,843	111,948
H00–H59 Diseases of the eye and adnexa	43	4,673	31,339	59,509	18,909	114,491
H60–H95 Diseases of the ear and mastoid process	20	1,540	20,764	57,057	16,365	95,766
I00–I99 Diseases of the circulatory system	13,558	142,605	124,246	44,374	6,060	330,862
J00–J99 Diseases of the respiratory system	7,034	118,277	285,050	178,310	18,275	606,991
K00–K93 Diseases of the digestive system	975	34,619	205,557	160,539	17,300	419,021
L00–L99 Diseases of the skin and subcutaneous tissue	86	7,310	57,142	158,838	40,115	263,525
M00–M99 Diseases of the musculoskeletal system and connective tissue	211	16,058	96,569	197,688	40,535	351,111
N00–N99 Diseases of the genitourinary system	468	33,136	148,287	114,567	11,706	308,187
O00–O99 Pregnancy, childbirth and the puerperium	360	5,093	43,181	45,745	9,859	104,241
P00–P96 Certain conditions originating in the perinatal period	75	3,317	5,893	2,154	241	11,680
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	16	417	864	575	147	2,019
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	8,450	304,948	717,286	452,720	52,303	1,536,383
S00–T98 Injury, poisoning and certain other consequences of external causes	15,787	152,290	519,014	1,019,655	254,564	1,961,562
U50–Y98 External causes of morbidity and mortality	339	3,807	12,017	14,993	4,172	35,330
Z00–Z99 Factors influencing health status and contact with health services	1,386	20,753	87,192	159,975	133,437	403,354
Not reported ^(c)	511	13,013	78,652	170,586	51,533	316,080
Total	56,543	970,883	2,851,977	3,153,383	719,148	7,755,606

(a) Presentations include all types of visit.

(b) Principal diagnoses were reported using various ICD-10-AM editions, ICD-9-CM, and SNOMED-CT-AU and were mapped to ICD-10-AM 3-character diagnosis codes.

(c) Includes about 8,000 records for which the provided ICD-9-CM or SNOMED-CT-AU code could not be mapped to an ICD-10-AM diagnosis code.

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

Table 4.6: Emergency department presentations^(a) by principal diagnosis in ICD-10-AM^(b) chapters, and admission status, 2016–17

Principal diagnosis	Patient subsequently admitted	Patient not admitted	Total
A00–B99 Certain infectious and parasitic diseases	89,991	282,546	372,537
C00–D48 Neoplasms	16,828	10,005	26,833
D50–D89 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	27,512	11,066	38,578
E00–E90 Endocrine, nutritional and metabolic diseases	44,081	24,072	68,153
F00–F99 Mental and behavioural disorders	95,384	181,570	276,954
G00–G99 Diseases of the nervous system	51,825	60,123	111,948
H00–H59 Diseases of the eye and adnexa	8,792	105,699	114,491
H60–H95 Diseases of the ear and mastoid process	9,415	86,351	95,766
I00–I99 Diseases of the circulatory system	217,051	113,811	330,862
J00–J99 Diseases of the respiratory system	247,438	359,553	606,991
K00–K93 Diseases of the digestive system	192,560	226,461	419,021
L00–L99 Diseases of the skin and subcutaneous tissue	85,990	177,535	263,525
M00–M99 Diseases of the musculoskeletal system and connective tissue	81,625	269,486	351,111
N00–N99 Diseases of the genitourinary system	131,138	177,049	308,187
O00–O99 Pregnancy, childbirth and the puerperium	30,079	74,162	104,241
P00–P96 Certain conditions originating in the perinatal period	4,367	7,313	11,680
Q00–Q99 Congenital malformations, deformations and chromosomal abnormalities	794	1,225	2,019
R00–R99 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	628,188	908,195	1,536,383
S00–T98 Injury, poisoning and certain other consequences of external causes	345,299	1,616,263	1,961,562
U50–Y98 External causes of morbidity and mortality	8,360	26,970	35,330
Z00–Z99 Factors influencing health status and contact with health services	41,749	361,605	403,354
Not reported ^(c)	18,308	297,772	316,080
Total	2,376,774	5,378,832	7,755,606

(a) Presentations include all types of visit.

(b) Principal diagnoses were reported using various ICD-10-AM editions, ICD-9-CM, and SNOMED-CT-AU, and were mapped to ICD-10-AM 3-character diagnosis codes.

(c) Includes about 8,000 records for which the provided ICD-9-CM or SNOMED-CT-AU code could not be mapped to an ICD-10-AM diagnosis code.

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

Table 4.7: The 20 most common principal diagnoses^(a) (3-character level) for emergency department presentations^(b), states and territories, 2016–17

Principal diagnosis		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
R10	Abdominal and pelvic pain	124,834	79,783	61,522	29,711	20,028	6,251	8,021	4,609	334,759
R07	Pain in throat and chest	109,954	73,691	29,117	26,715	21,711	6,170	6,661	5,321	279,340
B34	Viral infection of unspecified site	35,686	34,046	29,307	20,221	5,339	2,285	3,938	2,231	133,053
L03	Cellulitis	49,185	22,600	23,721	14,144	5,724	2,341	2,128	5,276	125,119
M54	Dorsalgia	50,787	30,232	9,091	8,933	6,646	3,117	1,928	2,516	113,250
S01	Open wound of head	34,976	24,922	22,195	14,712	7,521	2,371	2,359	2,372	111,428
T14	Injury of unspecified body region	82,580	7,865	8,979	3,749	5,844	38	237	674	109,966
A09	Other gastroenteritis and colitis of infectious and unspecified origin	47,387	25,521	16,164	6,067	5,538	1,992	2,638	1,285	106,592
Z53	Persons encountering health services for specific procedures, not carried out	54,910	2,036	13,789	11,010	11,013	3,795	4,676	0	101,229
J06	Acute upper respiratory infections of multiple and unspecified sites	45,326	14,861	18,385	9,942	6,010	1,835	1,296	3,171	100,826
S61	Open wound of wrist and hand	35,528	23,771	17,347	10,524	6,290	2,417	1,953	1,476	99,306
N39	Other disorders of urinary system	35,317	19,582	19,836	9,639	5,937	1,563	1,845	1,712	95,431
S93	Dislocation, sprain and strain of joints and ligaments at ankle and foot level	25,735	20,980	25,128	11,207	4,627	2,754	2,310	1,398	94,139
S62	Fracture at wrist and hand level	27,034	25,660	17,773	12,092	4,320	1,942	1,740	1,336	91,897
R11	Nausea and vomiting	37,061	16,513	14,608	7,088	4,898	1,206	1,698	1,017	84,089
R55	Syncope and collapse	26,070	20,094	18,500	7,447	7,893	1,792	1,395	852	84,043
S52	Fracture of forearm	30,320	12,042	19,069	8,495	5,717	1,883	1,801	1,549	80,876
M79	Other soft tissue disorders, not elsewhere classified	39,843	25,104	4,569	3,836	3,739	1,148	1,017	545	79,801
J18	Pneumonia, organism unspecified	24,383	14,304	18,216	9,992	4,236	1,640	2,105	410	75,286
J45	Asthma	28,682	22,970	11,330	1,499	5,754	1,451	1,108	1,240	74,034
S09	Other and unspecified injuries of head	43,358	10,757	3,031	6,026	5,904	493	1,157	1,695	72,421
Total		2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Principal diagnoses were reported using various ICD-10-AM editions, ICD-9-CM, and SNOMED-CT-AU, and were mapped to ICD-10-AM 3-character codes.

(b) Presentations include all types of visit.

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

Table 4.8: The 20 most common principal diagnoses^(a) (3-character level) for patients who were subsequently admitted to the hospital^(b), by triage category, 2016–17

Principal diagnosis	Triage category					Total
	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	
R10 Abdominal and pelvic pain	174	12,359	83,546	35,565	850	132,500
R07 Pain in throat and chest	440	82,715	33,335	5,617	275	122,385
J18 Pneumonia, organism unspecified	985	18,522	28,691	6,425	169	54,794
L03 Cellulitis	35	2,985	19,357	29,044	2,375	53,798
I20 Angina pectoris	113	32,252	9,729	900	45	43,039
R55 Syncope and collapse	641	9,056	26,860	5,240	126	41,926
R06 Abnormalities of breathing	674	12,082	20,310	4,638	188	37,895
N39 Other disorders of urinary system	206	5,793	19,461	9,194	344	34,998
M54 Dorsalgia	68	2,274	15,708	16,004	606	34,663
R50 Fever of other and unknown origin	121	11,027	17,366	5,151	133	33,801
J44 Other chronic obstructive pulmonary disease	1,338	12,550	16,960	2,504	79	33,431
A09 Other gastroenteritis and colitis of infectious and unspecified origin	56	2,883	18,267	10,917	273	32,398
J45 Asthma	615	12,344	16,059	2,263	53	31,334
I50 Heart failure	824	8,202	15,270	3,680	103	28,080
R29 Other symptoms and signs involving the nervous and musculoskeletal systems	154	4,328	14,829	7,728	328	27,370
R11 Nausea and vomiting	29	2,474	14,845	8,749	265	26,363
I48 Atrial fibrillation and flutter	260	14,312	9,865	1,077	77	25,591
N23 Unspecified renal colic	1	4,496	16,488	4,456	99	25,540
K35 Acute appendicitis	8	1,010	16,244	7,676	121	25,059
I21 Acute myocardial infarction	2,218	14,991	5,985	881	88	24,164
R51 Headache	51	3,062	14,756	5,570	195	23,635
Total	42,459	571,517	1,182,184	541,881	38,652	2,376,774

(a) Principal diagnoses were reported using various ICD-10-AM editions, ICD-9-CM, and SNOMED-CT-AU, and were mapped to ICD-10-AM 3-character codes.

(b) Presentations include all type of visits, for which the episode end status was *Admitted to this hospital*.

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

Major diagnostic block

Major diagnostic block is a classification that groups emergency department presentations based on diagnosis information.

They form part of the Independent Hospital Pricing Authority's Urgency Related Groups emergency care classification, developed for activity-based funding purposes (IHPA 2014).

For 2016–17, states and territories provided diagnosis information in several classifications, including SNOMED CT-AU, International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), and various editions of ICD-10-AM (for more information, see appendixes A and B). The AIHW used these diagnoses (using Urgency Related Groups grouper version 1.4) to derive the information on major diagnostic blocks.

In 2016–17, *Injury, single site, major* was the most common major diagnostic block reported for emergency department presentations (16.4%, or 1 in every 6 presentations) in all states and territories, followed by *Digestive system illness* (11.3%) (Table 4.9).

Triage category

The most common major diagnostic block reported for *Resuscitation* presentations was *Circulatory system illness* (21.3%), followed by *Neurological system illness* (17.4%), and *Injury, single site, major* (15.7%) (Table 4.10).

For *Semi-urgent* presentations, the most common major diagnostic block was *Injury, single site, major* (21.3%), followed by *Digestive system illness* (11.1%), and *Injury, single site, minor* (9.7%).

Admission status

For emergency department presentations that were subsequently admitted to hospital in 2016–17, the most common major diagnostic blocks were *Circulatory system illness* (15%) and *Digestive system illness* (14.6%) (Table 4.11).

For presentations that were not admitted, the most common major diagnostic blocks were *Injury, single site, major* (19.4%), and *Digestive system illness* (9.8%).

About 69% of presentations with a major diagnostic block of *Hepatobiliary system illness* (disorders of the liver, gallbladder, or bile ducts) were subsequently admitted to the hospital.

Where to go for more information

Information on the principal diagnoses provided for emergency department presentations, and on data limitations and methods is available in appendixes A and B.

Table 4.9: Emergency department presentations^(a) by major diagnostic block, states and territories, 2016–17

Major diagnostic block	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Poisoning	28,512	14,689	15,392	10,518	5,087	1,602	1,575	927	78,302
Drug reaction	0	0	133	24	40	0	0	0	197
Alcohol/drug abuse and alcohol/drug induced mental disorders	24,576	15,400	14,169	9,588	6,042	1,315	1,018	3,748	75,856
Injury, multiple sites	2,943	11,485	867	1,772	277	334	819	166	18,663
Injury, single site, major	497,301	272,478	225,400	127,589	78,343	23,524	22,524	23,318	1,270,477
Injury, single site, minor	121,286	95,777	158,844	84,422	27,734	14,757	12,921	6,185	521,926
Circulatory system illness	235,587	157,082	134,363	66,094	46,614	14,818	12,876	9,160	676,594
Respiratory system illness	231,771	131,095	106,055	60,657	40,391	11,222	10,703	14,068	605,962
Digestive system illness	316,894	196,982	164,570	94,573	55,003	17,070	18,663	13,332	877,087
Urological system illness	91,640	57,919	51,822	27,993	15,643	5,138	4,659	4,593	259,407
Neurological system illness	160,256	95,701	68,817	37,783	26,900	8,108	7,806	5,651	411,022
Illness of the eyes	49,589	33,577	15,036	10,570	5,220	1,461	2,047	2,365	119,865
Illness of the ear, nose and throat	129,934	68,560	55,806	35,129	18,489	5,899	6,271	7,531	327,619
Musculoskeletal/connective tissue system illness	163,220	83,563	49,863	38,757	21,505	7,623	6,246	11,177	381,954
Illness of skin, subcutaneous tissue, breast	134,478	64,932	63,211	38,924	18,417	6,257	5,318	11,703	343,240
Blood/immune system illness	18,402	14,485	9,340	5,814	3,558	1,045	764	761	54,169
Obstetric illness	32,694	46,625	21,734	14,292	5,728	1,736	1,845	1,150	125,804
Gynaecological illness	24,668	23,730	12,855	7,329	3,208	1,390	1,537	1,721	76,438
Male reproductive system illness	11,151	7,084	6,028	3,867	2,007	544	614	642	31,937
System infection/parasites	100,423	63,876	50,674	38,236	15,518	4,655	5,953	4,871	284,206
Illness of other and unknown systems	1,519	978	1,581	690	231	294	30	63	5,386
Newborn/neonate illness	2,684	6,043	3,629	1,700	973	292	156	260	15,737
Hepatobiliary system illness	25,445	16,813	15,334	8,066	4,909	1,920	1,361	1,400	75,248
Endocrine, nutritional and metabolic system illness	30,212	16,823	15,166	7,177	5,779	1,732	1,308	3,123	81,320
Allergy	23,244	12,169	12,011	5,083	3,551	929	1,255	576	58,818
Psychiatric illness	80,111	44,177	51,666	23,409	19,443	4,847	4,393	3,425	231,471
Social problem	3,943	5,536	2,761	2,282	261	200	136	1,360	16,479
Other presentation	178,066	88,318	70,156	54,666	46,381	15,038	10,697	9,862	473,184
Not stated/inadequately described	63,996	85,143	59,800	18,547	16,016	2,573	365	10,798	257,238
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Presentations include all types of visit.

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

Table 4.10: Emergency department presentations^(a) by major diagnostic block and triage category, 2016–17

Major diagnostic block	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	Total
Poisoning	3,870	21,183	33,685	16,295	3,269	78,302
Drug reaction	0	20	95	74	8	197
Alcohol/drug abuse and alcohol/drug induced mental disorders	1,460	11,092	31,154	22,505	9,645	75,856
Injury, multiple sites	1,072	4,737	7,125	4,860	869	18,663
Injury, single site, major	8,863	87,878	327,359	672,038	174,339	1,270,477
Injury, single site, minor	1,174	22,920	119,949	304,456	73,427	521,926
Circulatory system illness	12,061	314,182	261,327	80,275	8,749	676,594
Respiratory system illness	8,006	131,619	290,150	158,892	17,295	605,962
Digestive system illness	1,167	59,013	446,499	349,660	20,748	877,087
Urological system illness	444	23,637	130,505	94,816	10,005	259,407
Neurological system illness	9,863	62,102	217,509	112,243	9,305	411,022
Illness of the eyes	43	4,765	32,607	62,806	19,644	119,865
Illness of the ear, nose and throat	600	19,033	106,782	167,684	33,520	327,619
Musculoskeletal/connective tissue system illness	240	17,033	101,674	211,609	51,398	381,954
Illness of skin, subcutaneous tissue, breast	142	10,191	75,517	203,629	53,761	343,240
Blood/immune system illness	101	9,095	25,626	16,239	3,108	54,169
Obstetric illness	408	6,013	51,063	55,528	12,792	125,804
Gynaecological illness	55	3,035	33,475	35,246	4,627	76,438
Male reproductive system illness	5	9,452	12,258	8,875	1,347	31,937
System infection/parasites	1,458	39,006	119,418	113,330	10,994	284,206
Illness of other and unknown systems	51	703	2,929	1,455	248	5,386
Newborn/neonate illness	152	3,905	7,605	3,650	425	15,737
Hepatobiliary system illness	200	8,923	45,493	19,106	1,526	75,248
Endocrine, nutritional and metabolic system illness	859	16,396	43,070	18,081	2,914	81,320
Allergy	1,086	15,082	23,969	16,552	2,129	58,818
Psychiatric illness	1,055	33,205	123,575	65,429	8,207	231,471
Social problem	130	1,816	5,726	5,021	3,786	16,479
Other presentation	1,712	28,120	114,916	194,430	134,006	473,184
Not stated/inadequately described	266	6,727	60,917	138,599	47,057	257,238
Total	56,543	970,883	2,851,977	3,153,383	719,148	7,755,606

(a) Presentations include all types of visit.

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

Table 4.11: Emergency department presentations^(a) by major diagnostic block and admission status, 2016–17

Major diagnostic block	Patient subsequently admitted	Patient not admitted	Total
Poisoning	32,034	46,268	78,302
Drug reaction	39	158	197
Alcohol/drug abuse and alcohol/drug induced mental disorders	23,252	52,604	75,856
Injury, multiple sites	9,259	9,404	18,663
Injury, single site, major	224,932	1,045,545	1,270,477
Injury, single site, minor	47,458	474,468	521,926
Circulatory system illness	357,654	318,940	676,594
Respiratory system illness	279,109	326,853	605,962
Digestive system illness	348,152	528,935	877,087
Urological system illness	120,574	138,833	259,407
Neurological system illness	212,905	198,117	411,022
Illness of the eyes	8,929	110,936	119,865
Illness of the ear, nose and throat	54,450	273,169	327,619
Musculoskeletal/connective tissue system illness	85,212	296,742	381,954
Illness of skin, subcutaneous tissue, breast	99,716	243,524	343,240
Blood/immune system illness	32,700	21,469	54,169
Obstetric illness	36,589	89,215	125,804
Gynaecological illness	20,660	55,778	76,438
Male reproductive system illness	9,261	22,676	31,937
System infection/parasites	90,439	193,767	284,206
Illness of other and unknown systems	3,780	1,606	5,386
Newborn/neonate illness	5,231	10,506	15,737
Hepatobiliary system illness	52,130	23,118	75,248
Endocrine, nutritional and metabolic system illness	51,327	29,993	81,320
Allergy	15,286	43,532	58,818
Psychiatric illness	76,021	155,450	231,471
Social problem	6,798	9,681	16,479
Other presentation	67,314	405,870	473,184
Not stated/inadequately described	5,563	251,675	257,238
Total	2,376,774	5,378,832	7,755,606

(a) Presentations include all types of visit.

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

4.5 How was care completed?

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

- *Admitted to this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*
- *Departed without being admitted or referred to another hospital*—the patient left without being transferred to a short-stay unit, hospital-in-the-home, or other admitted patient care unit in this hospital or referred to another hospital
- *Referred to another hospital for admission: emergency department stay completed*—referred to another hospital for admission
- *Did not wait to be attended by a health care professional*
- *Left at own risk*—the patient left after being attended by a health care professional but before the non-admitted patient emergency department service episode was completed
- *Died in emergency department*
- *Dead on arrival*—a patient who was dead on arrival, and an emergency department clinician certified the death of the patient
- *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional.*

(METeOR identifier 616654)

The NAPEDC NBEDS category *Transferred for admitted patient care in this hospital* has been mapped to the NAPEDC NMDS category *Admitted to this hospital* in tables 4.12–4.13 (see METeOR identifier 551305).

Changes to ‘Episode end status’ for 2016–17

Registered, advised of another health care service, and left the emergency department without being attended by a health care professional was introduced into the episode end status data element from 1 July 2016 (for both the NAPEDC NMDS and NBEDS). As a result, the 2016–17 data presented for episode end status are not comparable with the data reported in previous years.

Presentations should be reported as *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional* if they underwent a clerical registration process, were provided with advice about another health care service that could provide assessment and/or treatment of their condition, and left the emergency department without receiving clinical care, with the intention to seek assistance from another health care service (METeOR identifier 616654).

The health care service to which the patient is referred may include primary care/GP clinics, other clinics that provide specialised treatment (for example, mental health care or drug and alcohol treatment), or other health services (such as the patient’s usual GP). The service may be co-located with the hospital in which the emergency department is located, or may be a separate facility.

For 2016–17, New South Wales reported about 97% of the national records with an episode end status of *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional* (52,000). The New South

Wales Ministry of Health advised that, before 2016–17, these records would have been reported as *Departed without being admitted or referred*.

What data was reported in 2016–17?

Victoria, Queensland, and Western Australia provided 2016–17 data for the NNAPEDCD using the NAPEDC NBEDS. This means patients who were awaiting admission, but who died or otherwise left the emergency department are not included in the equivalent NAPEDC NBEDS category *Transferred for admitted patient care in this hospital*. As a result, data for these states might not be comparable with data for other states and territories.

For 2016–17, 61.4% of presentations (for all types of visit) reported an episode end status of *Departed without being admitted or referred*, and this proportion was higher for less urgent triage categories (Table 4.12). For example, 11% of *Resuscitation* patients *Departed without being admitted or referred*, compared with 82% of *Non-urgent* patients.

About 31% of all presentations were *Admitted to this hospital* at the conclusion of treatment in the emergency department, and this proportion was lower for less urgent triage categories—ranging from 75% for *Resuscitation* patients to 5% for *Non-urgent* patients.

About 4% of presentations had an episode end status of *Did not wait to be attended by a health care professional*. This proportion also varied by triage category, and was lowest for *Resuscitation* patients (less than 0.1%) and highest for *Non-urgent* patients (7%).

New South Wales (65.1%), Western Australia (67.4%), Tasmania (66.6%), and the Australian Capital Territory (62.6%) had higher proportions than the national average (61.4%) of presentations with an episode end status of *Departed without being admitted or referred* (Table 4.13).

New South Wales (2.9%) and Western Australia (2.8%) had the lowest proportion of presentations where the patient *Did not wait to be attended by a health care professional*, and the Northern Territory had the highest (6.7%).

South Australia had the highest proportion of presentations where the patient was *Referred to another hospital for admission* (2.5%).

There is a difference between the number of presentations with a type of visit of *Dead on arrival* (3,918; Table 4.1) and the number of presentations with an episode end status of *Dead on arrival* (4,149; Table 4.13). All presentations with a type of visit of *Dead on arrival* had an episode end status of *Dead on arrival*. However, some presentations with an episode end status of *Dead on arrival* did not have a type of visit of *Dead on arrival*. The majority of these presentations were in New South Wales (3,380 with a type of visit of *Dead on arrival* and 3,531 with an episode end status of *Dead on arrival*).

Proportion of presentations ending in admission

Nationally, 31% of presentations with a type of visit of *Emergency presentation* had an episode end status of *Admitted to this hospital* (Table 4.14). Victoria had the highest proportion of patients who were subsequently admitted (36%), and New South Wales had the lowest (26%).

The comparability of triage categorisation between states and territories may be influenced by how states and territories assign triage categories. Although triage category is not a measure of the need for admission to hospital, the proportion of presentations in each category that had an episode end status of *Admitted to this hospital* can be used to indicate the comparability of the triage categorisation. The proportion of patients who were subsequently admitted does not include patients referred to another hospital for admission.

The proportion of patients who were subsequently admitted varied by triage category between states and territories, indicating that the assignment of triage categories may not be comparable (see Appendix A for more information).

For example, for *Resuscitation* patients, the proportion who were subsequently admitted ranged from 69% in New South Wales to 85% in both the Australian Capital Territory and the Northern Territory. Western Australia had the lowest proportion of patients who were subsequently admitted for *Emergency* and *Urgent* presentations.

Where to go for more information

More information on emergency department presentations that end in admission to the same hospital is available in Chapter 6.

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

Table 4.12: Emergency department presentations, by triage category and episode end status, 2016–17

Episode end status	Triage category					Total ^(a)
	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	
Admitted to this hospital ^(b)	42,459	571,517	1,182,184	541,881	38,652	2,376,774
Departed without being admitted or referred	6,164	338,795	1,485,241	2,333,761	593,002	4,757,647
Referred to another hospital for admission	4,356	42,358	68,453	28,326	2,581	146,110
Did not wait	18	2,507	59,835	162,961	52,355	279,629
Left at own risk	432	11,790	47,796	60,697	13,477	134,253
Died in emergency department	2,962	1,175	455	88	23	4,705
Dead on arrival	74	12	23	31	3,483	4,149
Registered, advised of another health care service, and left without being attended by a health care professional	72	2,606	7,740	25,382	15,475	51,520
Not reported	6	123	250	256	100	819
Total	56,543	970,883	2,851,977	3,153,383	719,148	7,755,606

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

(b) Includes presentations for which the NAPERDC NBEDS *Episode end status* was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

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

Table 4.13: Emergency department presentations by episode end status, states and territories, 2016–17

Episode end status	NSW	Vic	Qld	WA ^(a)	SA ^(b)	Tas	ACT	NT	Total
Admitted to this hospital ^(c)	713,109	620,576	515,461	221,246	163,023	43,615	46,375	53,369	2,376,774
Departed without being admitted or referred	1,811,476	969,210	837,602	563,121	294,139	104,109	90,038	87,952	4,757,647
Referred to another hospital for admission	61,663	26,190	24,698	18,275	12,505	1,054	1,603	122	146,110
Did not wait	81,938	87,774	45,830	23,740	19,142	6,200	4,678	10,327	279,629
Left at own risk	60,196	26,176	32,537	7,946	4,089	769	1,104	1,436	134,253
Died in emergency department	1,982	1,009	689	679	185	72	59	30	4,705
Dead on arrival	3,531	80	41	41	..	453	3	0	4,149
Registered, advised of another health care service, and left without being attended by a health care professional	50,118	25	225	356	96	0	0	700	51,520
Not reported	532	0	0	147	89	51	0	0	819
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

(a) Western Australian emergency departments only occasionally manage and report patients who are *Dead on arrival*, because the majority of these patients are taken directly to the state morgue.

(b) For South Australia, patients who are *Dead on arrival* are not managed or reported by emergency departments.

(c) Includes presentations from Victoria, Queensland and Western Australia for which the NAPEDC NBEDS Episode end status category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*. This category does not include patients who died or otherwise left the emergency department.

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

Table 4.14: Proportion (%) of *Emergency presentations* with an episode end status of *Admitted to this hospital*, by triage category, states and territories, 2016–17

Triage category	NSW	Vic^(a)	Qld^(a)	WA^(a)	SA	Tas	ACT	NT	Total
Resuscitation	69	76	80	72	81	83	85	85	75
Emergency	53	66	63	52	60	61	65	65	59
Urgent	37	48	43	36	41	39	43	51	41
Semi-urgent	14	23	16	14	18	16	20	21	17
Non-urgent	5	6	5	4	8	5	6	14	5
Total^(b)	26	36	35	27	33	28	32	35	31

(a) Includes presentations for which the NAPEDC NBEDS Episode end status category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(b) Includes presentations for which the Triage category was not reported

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

5 How long did people wait for emergency department care?

Emergency department waiting time is 'the time elapsed for each patient from presentation in the emergency department to commencement of clinical care' (see Figure 1.1).

The waiting times in this chapter (see Box 5.1) are for presentations with a type of visit of *Emergency presentation* only. Patients who present to the emergency department for other types of visit (*Return visit, planned; Pre-arranged admission; Patient in transit and Dead on arrival*) do not necessarily undergo the same processes as *Emergency presentations*.

This chapter also includes information for the NHA performance indicator 'Waiting times for emergency hospital care—proportion seen on time'.

Box 5.1: Measures of emergency department waiting times

The **proportion of presentations seen on time** are presented according to the urgency of the patients need for care (their triage category—see Box 1.1).

The **median waiting time** is the time within which 50% of all patients commenced clinical care. Half of the patients waited a shorter time, and half waited longer.

The **90th percentile waiting time** is the time within which 90% of all patients commenced clinical care—the remaining 10% of patients waited longer.

Records were excluded from the calculation of waiting time statistics if:

- the triage category was not reported
- the patient *Did not wait to be attended to by a health care professional, was Dead on arrival or was Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*—about 335,000 presentations were excluded in 2016–17
- the waiting time could not be calculated—about 43,000 presentations were excluded in 2016–17.

Key findings

How have waiting times changed over time?

In 2016–17, about 73% of *Emergency presentations* were 'seen on time', a decrease from 74% in 2015–16. It had increased between 2012–13 and 2013–14 from 73% to 75%; and was 74% in both 2014–15 and 2015–16 (excluding data for the Australian Capital Territory in 2015–16).

Between 2012–13 and 2016–17, the median waiting time for *Emergency presentations* fluctuated between 18 and 19 minutes and remained stable at 19 minutes between 2015–16 and 2016–17.

Between 2012–13 and 2015–16, the time by which 90% of presentations were seen decreased from 101 to 93 minutes, before increasing to 95 minutes in 2016–17 (excluding data for the Australian Capital Territory in 2015–16).

How long did people wait for care in 2016–17?

In 2016–17, the median waiting time for *Emergency presentations* was 19 minutes, ranging from 14 minutes in New South Wales to 30 minutes in both the Australian Capital Territory and the Northern Territory.

In 2016–17, 90% of presentations were seen within 95 minutes, ranging from 76 minutes in New South Wales to 125 minutes in the Northern Territory.

In 2016–17, the proportion of *Emergency presentations* seen on time ranged from 61% in the Northern Territory to 81% in New South Wales.

Almost 100% of *Resuscitation* patients, 77% of *Emergency* patients, and 92% of *Non-urgent* patients were seen on time.

5.1 How have waiting times changed over time?

For Western Australia, the date and time of commencement of clinical care was missing for about 23,000 emergency department presentations for a *Public acute group B hospital* in 2016–17, and for about 43,000 in 2015–16. As a result, the 2015–16 and 2016–17 waiting times data for Western Australia (and particularly for *Public acute group B hospitals*) should be interpreted with caution.

For 2015–16, the data for the Australian Capital Territory were not available, therefore comparisons over time should be interpreted with caution.

Proportion seen on time

The proportion seen on time is the proportion of presentations for which the waiting time to commencement of clinical care was within the time specified in the definition of the triage category (see Box 1.1 for more information).

The proportion of *Emergency presentations* that were seen on time increased from 73% in 2012–13 to 75% in 2013–14, then decreased to 74% in 2014–15 and 2015–16, and decreased again to 73% in 2016–17 (Table 5.1).

Between 2012–13 and 2013–14, the proportion of *Emergency presentations* seen on time increased in most states and territories. But between 2013–14 and 2016–17, it decreased in most states and territories, except for New South Wales (stable at 81%) and the Northern Territory (where it increased from 57% to 61%).

Median waiting time

The median waiting time (also known as the 50th percentile waiting time) is the time within which 50% of presentations commenced clinical care. Half of the patients had a shorter waiting time and half had a longer waiting time.

Between 2012–13 and 2014–15, the median waiting time for *Emergency presentations* decreased from 19 minutes to 18 minutes (Table 5.1). Between 2014–15 and 2015–16, the median waiting time increased from 18 minutes to 19 minutes, and it remained stable at 19 minutes in 2016–17.

The median waiting time generally increased in most states and territories between 2012–13 and 2016–17. Victoria's median waiting time remained relatively stable. New South Wales, the Northern Territory and the Australian Capital Territory were the only jurisdictions where median waiting times fell between 2012–13 and 2016–17.

90th percentile waiting time

The 90th percentile waiting time is the time within which 90% of presentations commenced clinical care. For the remaining 10% of patients, the waiting time was longer.

Overall, the time by which 90% of presentations were seen decreased from 101 minutes in 2012–13 to 93 minutes between 2013–14 and 2015–16. It increased to 95 minutes in 2016–17 (Table 5.1). Between 2012–13 and 2016–17, the 90th percentile waiting time decreased for New South Wales, Victoria, the Australian Capital Territory, and the Northern Territory.

Table 5.1: Emergency presentation waiting time statistics, states and territories, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(a)	2016–17
New South Wales					
Median waiting time (minutes)	17	15	15	15	14
90th percentile waiting time (minutes)	92	80	78	78	76
Proportion seen on time (%)	78	81	81	81	81
Victoria					
Median waiting time (minutes)	20	19	19	19	20
90th percentile waiting time (minutes)	109	100	97	96	97
Proportion seen on time (%)	73	75	75	74	73
Queensland					
Median waiting time (minutes)	18	19	20	20	20
90th percentile waiting time (minutes)	91	91	93	95	96
Proportion seen on time (%)	74	73	71	70	69
Western Australia^(b)					
Median waiting time (minutes)	26	24	25	27	28
90th percentile waiting time (minutes)	108	95	99	106	115
Proportion seen on time (%)	66	70	68	65	64
South Australia					
Median waiting time (minutes)	16	16	20	20	22
90th percentile waiting time (minutes)	90	93	113	109	117
Proportion seen on time (%)	75	73	66	66	64
Tasmania					
Median waiting time (minutes)	24	23	25	27	28
90th percentile waiting time (minutes)	102	98	107	120	111
Proportion seen on time (%)	71	72	70	66	65
Australian Capital Territory					
Median waiting time (minutes)	44	33	37	n.a.	30
90th percentile waiting time (minutes)	197	152	147	n.a.	116
Proportion seen on time (%)	51	61	59	n.a.	62
Northern Territory					
Median waiting time (minutes)	35	34	31	30	30
90th percentile waiting time (minutes)	152	151	130	123	125
Proportion seen on time (%)	57	57	60	61	61
Total					
Median waiting time (minutes)	19	18	18	19	19
90th percentile waiting time (minutes)	101	93	93	93	95
Proportion seen on time (%)	73	75	74	74	73

(a) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

(b) Waiting times information could not be calculated for emergency department presentations for a *Public acute group B hospital* in Western Australia for about 43,000 presentations in 2015–16 and 23,000 presentations in 2016–17.

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

5.2 How long did people wait for care in 2016–17?

In 2016–17, the proportion of patients seen on time ranged from 61% in the Northern Territory to 81% in New South Wales (Table 5.2).

In general, the proportion seen on time was higher for the more urgent triage categories, with almost 100% of *Resuscitation* and 77% of *Emergency* patients seen on time (clinically recommended times of ‘immediate (within seconds)’ and ‘within 10 minutes’, respectively).

For *Non-urgent* patients (clinically recommended time of within 2 hours), 92% were seen on time.

For *Urgent* presentations (which account for 36% of presentations; see Table 4.2) (clinically recommended time of within 30 minutes), the proportion seen on time ranged from 50% for Western Australia and the Australian Capital Territory to 76% for New South Wales.

The time within which 50% of patients commenced clinical care (the median waiting time) ranged from 14 minutes in New South Wales to 30 minutes in the Australian Capital Territory and the Northern Territory.

The 90th percentile waiting time to commencement of clinical care also varied, from 76 minutes in New South Wales to 125 minutes in the Northern Territory.

Table 5.2: Emergency presentation waiting time statistics^(a), states and territories, 2016–17

Triage category	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total
Emergency presentations	2,685,379	1,717,794	1,443,121	828,174	488,630	152,970	142,401	151,102	7,609,571
	Proportion seen on time (%)								
Resuscitation	100	100	100	100	100	100	99	100	100
Emergency	81	77	72	80	67	75	77	66	77
Urgent	76	70	60	50	52	57	50	55	66
Semi-urgent	81	73	74	65	69	65	63	58	74
Non-urgent	94	89	94	92	92	89	91	88	92
<i>Total</i>	<i>81</i>	<i>73</i>	<i>69</i>	<i>64</i>	<i>64</i>	<i>65</i>	<i>62</i>	<i>61</i>	<i>73</i>
	Waiting time (minutes)								
Median waiting time (minutes)	14	20	20	28	22	28	30	30	19
90th percentile waiting time (minutes)	76	97	96	115	117	111	116	125	95

(a) Records were excluded from the calculation of waiting time if the patient *Did not wait to be attended to by a health care professional, was Dead on arrival, was Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*, or if the waiting time could not be calculated, or the triage category was missing.

(b) Waiting times information could not be calculated for about 23,000 emergency department presentations in 2016–17 for a *Public acute group B hospital* in Western Australia.

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

How did waiting times vary by Indigenous status?

More than 489,500 *Emergency presentations* (6.9%) were reported for patients who identified as being of Aboriginal and/or Torres Strait Islander origin. Nationally, the median waiting time for Indigenous Australians (18 minutes) was similar to that for other Australians (19 minutes) (Table 5.3).

The national median waiting times for Indigenous Australians were shorter than those for other Australians for *Urgent*, *Semi-urgent*, and *Non-urgent* patients, and were the same for *Resuscitation* and *Emergency* patients.

It should be noted that differences in waiting times may have been influenced by differences in the mix of triage categories for Indigenous Australians compared with other Australians. For example, nationally, a higher proportion of Indigenous Australians were assigned to the *Semi-urgent* and *Non-urgent* triage categories compared with other Australians.

Because the quality of the Indigenous status data in the NNAPEDCD has not been formally assessed, these data should be interpreted with caution. See Box 3.1 and Appendix A for information on the quality of Indigenous status data.

Table 5.3: Median waiting time^(a) (minutes) for *Emergency presentations*, by Indigenous status and triage category, states and territories, 2016–17

	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total	Emergency presentations ^(c)
Indigenous										
Resuscitation	0	0	0	0	0	0	0	0	0	3,411
Emergency	5	7	7	5	5	7	6	7	6	53,972
Urgent	15	20	20	20	23	27	33	23	19	165,704
Semi-urgent	18	31	28	32	21	41	46	45	27	213,409
Non-urgent	13	28	26	28	18	33	38	31	20	52,651
Total^(d)	14	21	19	22	18	29	34	26	18	489,503
Other Australians^(e)										
Resuscitation	0	0	0	0	0	0	0	0	0	53,019
Emergency	6	6	7	5	7	7	6	8	6	914,156
Urgent	15	19	23	32	29	26	31	31	20	2,672,593
Semi-urgent	20	29	29	43	31	41	43	50	28	2,899,837
Non-urgent	16	30	25	32	21	36	35	37	23	577,766
Total^(d)	14	20	21	29	22	28	30	33	19	7,120,068

(a) Records were excluded from the calculation of waiting time if the patient *Did not wait to be attended to by a health care professional, was Dead on arrival, was Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*, or if the waiting time could not be calculated, or the triage category was unknown.

(b) Waiting times information could not be calculated for about 23,000 emergency department presentations for a *Public acute group B hospital* in Western Australia.

(c) The total number of emergency presentations includes records for which waiting times could not be calculated.

(d) The total number of emergency presentations includes records for which the triage category was unknown.

(e) The other Australians category includes records for which Indigenous status was not reported.

Note: See boxes 1.1 and 3.1 and appendixes A and B for more information on terminology, data limitations and methods.

How did waiting times vary by remoteness of area of usual residence?

In 2016–17, median waiting times varied by remoteness area (Table 5.4). Overall, median waiting times were highest for people living in *Major cities* (20 minutes), and lowest for those living in *Remote* areas (15 minutes).

Remote areas had the shortest median waiting times for *Emergency* and *Urgent* patients, while *Major cities* had the longest median waiting times for *Urgent*, *Semi-urgent*, and *Non-urgent* patients.

The information presented in Table 5.4 is based on the remoteness of the patient's area of usual residence, and this may differ from the remoteness of the hospital location. Therefore, the information presented should be interpreted with caution.

Table 5.4: Median waiting time^(a) for *Emergency presentations*, by remoteness of area of usual residence and triage category, 2016–17

Triage category	Remoteness of area of usual residence					Total ^(b)
	Major cities	Inner regional	Outer regional	Remote	Very remote	
Resuscitation	0	0	0	0	0	0
Emergency	6	6	6	5	6	6
Urgent	22	18	16	14	16	20
Semi-urgent	30	26	22	23	29	28
Non-urgent	27	21	15	16	20	23
Total	20	18	16	15	18	19

(a) Records were excluded from the calculation of waiting time if the patient *Did not wait to be attended to by a health care professional*, was *Dead on arrival*, was *Registered*, *advised of another health care service*, and *left the emergency department without being attended by a health care professional*, or if the waiting time could not be calculated, or the triage category was unknown.

(b) Includes presentations for which the remoteness of the area of residence was unknown.

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

5.3 Performance indicator: waiting times for emergency department care—proportion seen on time

The NHA performance indicator *Waiting time for emergency hospital care—proportion seen on time* can be related to the National Health Performance Framework dimension *Accessibility* within the domain *Health system performance*. Under the NHA, it relates to the outcome area of *Australians receive appropriate high-quality and affordable hospital and hospital-related care*.

Before 2014–15, this information was presented using the AIHW's previous peer group classification, and was limited to hospitals in the peer groups *Principal referral and specialist women's and children's hospitals* and *Large hospitals*.

From 2014–15, the scope of this indicator changed to include all public hospitals reporting to the NAPEDC NMDS. For 2015–16 and 2016–17, this includes hospitals reporting to the NAPEDC NBEDS/DSS. Therefore, the 2015–16 and 2016–17 indicators include information for hospitals that were excluded from the calculation before 2014–15.

In addition, the change from the previous AIHW peer group classification to the current classification has resulted in a 'break in series' for data disaggregated by peer group. As a result, the information presented in this section by public hospital peer group is not directly comparable with those presented in AIHW reports before 2014–15.

In 2016–17, the definition of the indicator changed to exclude records for which the episode end status was *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*. This resulted in about 49,200 records being excluded from the calculation of this indicator that, in previous years, may have been included.

About 48,000 records in New South Wales (97% of total) had a type of visit of *Emergency presentation*, and an episode end status of *Registered, advised of another health care service and left without being attended by a health care professional*. The New South Wales Ministry of Health advised that records with this episode end status would previously have been reported with an episode end status of *Departed without being admitted or referred*, so would have been included in the indicator calculation.

In 2016–17, 73% of *Emergency presentations* were seen on time (Table 5.5). The proportion of presentations seen on time ranged from 61% in the Northern Territory to 81% in New South Wales.

In general, more urgent presentations were generally more likely to be seen on time. Overall, almost all *Resuscitation* patients, and 77% of *Emergency* patients were seen on time. For *Non-urgent* patients, the proportion seen on time (within 2 hours) was 92% or over for all states and territories.

Principal referral and women's and children's hospitals had the lowest overall proportion of presentations seen on time (69%), and *Other hospitals* had the highest proportion (84%).

Table 5.5: Proportion^(a) (%) of *Emergency presentations* seen on time, by triage category, states and territories, 2016–17

Peer group and triage category	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals									
Resuscitation	100	100	100	100	100	100	99	100	100
Emergency	74	72	69	77	66	78	77	59	72
Urgent	72	66	61	46	50	46	44	34	62
Semi-urgent	77	70	77	60	63	57	58	47	70
Non-urgent	92	88	96	89	90	88	91	79	91
<i>Total</i>	<i>76</i>	<i>70</i>	<i>70</i>	<i>60</i>	<i>60</i>	<i>60</i>	<i>59</i>	<i>48</i>	<i>69</i>
Public acute group A hospitals									
Resuscitation	100	100	99	100	100	100	98	100	100
Emergency	84	78	73	81	64	72	77	82	78
Urgent	75	71	60	40	43	63	57	72	64
Semi-urgent	80	76	72	59	54	69	72	60	73
Non-urgent	93	91	91	90	84	91	93	88	92
<i>Total</i>	<i>80</i>	<i>75</i>	<i>68</i>	<i>56</i>	<i>53</i>	<i>69</i>	<i>68</i>	<i>69</i>	<i>72</i>
Public acute group B hospitals									
Resuscitation	100	100	99	100	100	99	..	..	100
Emergency	84	79	77	87	71	73	..	..	80
Urgent	77	67	61	68	62	63	..	..	68
Semi-urgent	80	70	75	71	79	71	..	..	75
Non-urgent	93	87	95	93	97	94	..	..	92
<i>Total</i>	<i>81</i>	<i>71</i>	<i>70</i>	<i>73</i>	<i>74</i>	<i>70</i>	<i>..</i>	<i>..</i>	<i>75</i>
Other hospitals									
Resuscitation	100	100	..	100	100	..	..	100	100
Emergency	87	87	..	85	96	..	..	71	86
Urgent	86	83	..	56	96	..	..	76	78
Semi-urgent	88	77	..	72	95	..	..	77	83
Non-urgent	97	88	..	94	99	..	..	92	95
<i>Total</i>	<i>89</i>	<i>81</i>	<i>..</i>	<i>71</i>	<i>96</i>	<i>..</i>	<i>..</i>	<i>79</i>	<i>84</i>
Total									
Resuscitation	100	100	100	100	100	100	99	100	100
Emergency	81	77	72	80	67	75	77	66	77
Urgent	76	70	60	50	52	57	50	55	66
Semi-urgent	81	73	74	65	69	65	63	58	74
Non-urgent	94	89	94	92	92	89	91	88	92
Total	81	73	69	64	64	65	62	61	73

(a) Records were excluded from the calculation of waiting time if the patient *Did not wait to be attended to by a health care professional, was Dead on arrival, was Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*, or if the waiting time could not be calculated, or the triage category was unknown.

(b) Waiting times information could not be calculated for about 23,000 emergency department presentations for a *Public acute group B hospital* in Western Australia.

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

How did the proportion seen on time vary by Indigenous status?

The proportion of presentations seen on time for Indigenous Australians (74%) was higher than for other Australians (73%) (Table 5.6).

There was some variation among the states and territories, with New South Wales, Queensland, Western Australia, South Australia, and the Northern Territory all reporting a higher proportion of Indigenous Australians seen on time compared with other Australians.

Because the quality of the Indigenous status data in the NNAPEDCD has not been formally assessed, these data should be interpreted with caution.

Table 5.6: Proportion^(a) (%) of *Emergency presentations* seen on time, by triage category and Indigenous status, states and territories, 2016–17

	NSW	Vic	Qld	WA ^(b)	SA	Tas	ACT	NT	Total
Indigenous Australians									
Resuscitation	100	100	99	100	100	100	100	100	100
Emergency	82	76	75	82	70	74	75	67	77
Urgent	76	68	66	64	58	54	47	61	68
Semi-urgent	82	72	76	73	76	63	61	60	75
Non-urgent	95	90	94	94	93	88	91	87	93
Total^(c)	82	73	73	73	71	64	60	64	74
Other Australians^(d)									
Resuscitation	100	100	100	100	100	100	99	100	100
Emergency	81	77	72	80	66	75	77	65	77
Urgent	76	70	60	49	52	57	50	50	65
Semi-urgent	81	73	74	64	69	65	64	57	74
Non-urgent	94	89	94	92	91	89	91	88	92
Total^(c)	81	73	68	63	63	65	62	59	73

(a) Records were excluded from the calculation of waiting time if the patient *Did not wait to be attended to by a health care professional, was Dead on arrival, was Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*, or if the waiting time could not be calculated, or the triage category was unknown.

(b) Waiting times information could not be calculated for about 23,000 emergency department presentations for a *Public acute group B hospital* in Western Australia.

(c) Does not include records for which the triage category was unknown.

(d) *Other Australians* includes records for which Indigenous status was Not reported.

Note: See boxes 1.1 and 3.1 and appendixes A and B for more information on terminology, data limitations, and methods.

Where to go for more information

More information on emergency department waiting times is available in tables S5.1–S5.3 which accompany this report online for:

- triage category and remoteness of usual residence
- triage category and socioeconomic status of usual residence.

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

6 How long did people stay in the emergency department?

This chapter presents information on the amount of time patients spent in the emergency department including:

- length of stay—measured from the time of presentation (of the patient) to the emergency department to the time of physical departure, including any time spent as an admitted patient in the emergency department, but not in ‘short-stay units’ (see Figure 1.1)
- duration of clinical care—measured as the time from the commencement of clinical care to the conclusion of the non-admitted component of care (episode end); this is a measure of the amount of time during which the patient receives clinical care (is treated and/or observed), excluding any time spent as an admitted patient in the emergency department (see Figure 1.1).
- the NHA performance indicator *Waiting times for emergency department care—proportion of patients whose length of emergency department stay is less than or equal to 4 hours*.

Because there is interest in how long patients wait in the emergency department before being admitted to hospital, these measures are presented separately for patients who were subsequently admitted to the hospital, and those who were not.

Key findings

How long did patients stay?

In 2016–17, 72% of emergency department visits were completed in 4 hours or less, compared with 67% in 2012–13, and 73% in 2015–16.

New South Wales had the highest proportion of presentations completed in 4 hours or less (75%), and South Australia and the Northern Territory had the lowest (64%).

Between 2012–13 and 2013–14, the median length of stay in emergency departments decreased from 2 hours and 53 minutes to 2 hours and 40 minutes. It increased to 2 hours and 48 minutes between 2013–14 and 2016–17.

About 31% of emergency department patients were admitted to hospital after their emergency department care. For these patients, 49% were admitted in 4 hours or less, and 90% were admitted within 10 hours and 44 minutes.

Victoria and Queensland had the highest proportion of emergency department patients admitted in 4 hours or less (55%), and Tasmania had the lowest (26%).

How long did clinical care take?

Generally, the duration of clinical care was longer for patients who were subsequently admitted to the hospital than for other patients.

In 2016–17, 30% of *Emergency presentations* for patients who were not subsequently admitted to the same hospital had a duration of clinical care of less than 1 hour, compared with 9% for patients who were subsequently admitted to the same hospital.

6.1 How long did patients stay?

The length of emergency department stay can be different for patients who were subsequently admitted to the same hospital compared with those who were not subsequently admitted to the same hospital.

As a result, summary length of stay statistics are presented separately for patients with an episode end status of *Admitted to this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*, and for patients who were not subsequently admitted to the same hospital (including those who were *Referred to another hospital*).

For Victoria, Queensland, and Western Australia, the NAPEDC NBEDS *Episode end status* category *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or other admitted patient care unit)* has been mapped to the category *Admitted to this hospital* in tables 6.1–6.5, 6.7 and 6.9.

The length of stay measures (tables 6.1–6.8) include all emergency department *Type of visit* categories (*Emergency presentations; Return visit, planned; Pre-arranged admission; Patient in transit; and Dead on arrival*).

The length of emergency department stay could not be calculated for about 7,000 records due to missing or invalid values (for example, for the time of presentation or physical departure).

Median length of stay

The median length of stay represents the amount of time spent in the emergency department at the 50th percentile. Half of the patients had a shorter length of stay, and half had a longer stay.

How has the median length of stay changed over time?

Between 2012–13 and 2013–14, the median length of stay in emergency departments decreased from 2 hours and 53 minutes to 2 hours and 40 minutes. It increased to 2 hours and 48 minutes between 2013–14 and 2016–17 (Table 6.1). Between 2015–16 and 2016–17, the median length of stay increased in most states and territories.

For patients who were subsequently admitted, the median length of stay decreased from 5 hours and 15 minutes to 4 hours and 5 minutes between 2012–13 and 2016–17.

What was the median length of stay in 2016–17?

The overall median length of stay varied across states and territories—from 2 hours and 35 minutes in New South Wales to 3 hours and 8 minutes in South Australia (Table 6.2).

For patients who were subsequently admitted to hospital, the median length of stay in emergency departments ranged from 3 hours and 52 minutes in Queensland to 6 hours and 17 minutes in Tasmania.

For patients who were not subsequently admitted, the median lengths of stay were generally shorter for the less urgent triage categories (Table 6.2).

Table 6.1: Median length of emergency department stay^{(a)(b)} by admission status, states and territories, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(c)	2016–17 ^(c)
Presentations ending in admission (hours: minutes)					
New South Wales	5:48	4:45	4:43	4:37	4:34
Victoria ^(c)	5:08	4:23	4:05	3:56	3:54
Queensland ^(c)	4:47	3:56	3:50	3:50	3:52
Western Australia ^(c)	4:15	3:55	3:53	3:58	4:05
South Australia	4:55	5:05	5:12	4:28	4:35
Tasmania	6:13	6:02	6:05	5:59	6:17
Australian Capital Territory	6:03	5:28	5:21	n.a.	3:58
Northern Territory	6:43	7:06	7:08	6:17	5:47
Total	5:15	4:27	4:16	4:06	4:05
Presentations not ending in admission (hours: minutes)					
New South Wales	2:19	1:52	1:53	2:01	2:03
Victoria	2:29	2:24	2:23	2:25	2:26
Queensland	2:17	2:10	2:13	2:17	2:23
Western Australia	2:02	1:59	2:03	2:10	2:17
South Australia	2:21	2:28	2:29	2:30	2:38
Tasmania	2:11	2:08	2:15	2:14	2:20
Australian Capital Territory	2:55	2:41	2:41	n.a.	2:21
Northern Territory	2:21	2:23	2:17	2:12	2:16
Total	2:19	2:07	2:08	2:13	2:16
All presentations (hours: minutes)					
New South Wales	3:04	2:30	2:30	2:33	2:35
Victoria	3:02	2:56	2:54	2:56	2:57
Queensland	2:43	2:38	2:42	2:47	2:52
Western Australia	2:27	2:23	2:28	2:36	2:43
South Australia	2:52	2:59	3:02	3:00	3:08
Tasmania	2:41	2:41	2:49	2:50	2:58
Australian Capital Territory	3:28	3:11	3:10	n.a.	2:49
Northern Territory	2:59	3:06	3:02	2:59	2:59
Total	2:53	2:40	2:41	2:44	2:48

(a) Includes presentations for all types of visit.

(b) Length of stay is calculated as the length of time between presentation to the emergency department and physical departure.

(c) Includes presentations for which the NAPEDC NBEDS/DSS *Episode end status* category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)*.

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

Table 6.2: Emergency department presentations^(a) median length of stay^(b), by triage category and admission status, states and territories, 2016–17

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Presentations ending in admission (hours: minutes)^(c)									
Resuscitation	3:59	3:38	3:39	3:12	3:18	3:54	3:14	4:12	3:42
Emergency	4:36	3:53	3:50	3:47	4:25	5:51	3:38	5:55	4:01
Urgent	4:48	3:56	3:55	4:22	4:55	6:41	4:14	5:56	4:17
Semi-urgent	4:16	3:50	3:48	4:10	4:22	6:10	3:51	5:36	3:58
Non-urgent	3:14	3:25	3:24	3:43	2:07	4:46	3:42	5:44	3:24
<i>Total^(d)</i>	<i>4:34</i>	<i>3:54</i>	<i>3:52</i>	<i>4:05</i>	<i>4:35</i>	<i>6:17</i>	<i>3:58</i>	<i>5:47</i>	<i>4:05</i>
Presentations not ending in admission (hours: minutes)									
Resuscitation	3:15	4:22	3:46	3:48	3:28	3:40	3:24	3:06	3:35
Emergency	3:07	3:10	3:01	3:01	3:16	3:18	3:12	2:59	3:06
Urgent	2:42	2:53	2:48	2:50	3:16	2:56	2:49	2:41	2:49
Semi-urgent	1:54	2:19	2:05	2:04	2:19	2:11	2:13	2:13	2:05
Non-urgent	0:58	1:37	1:27	1:26	1:25	1:29	1:41	1:34	1:15
<i>Total^(d)</i>	<i>2:03</i>	<i>2:26</i>	<i>2:23</i>	<i>2:17</i>	<i>2:38</i>	<i>2:20</i>	<i>2:21</i>	<i>2:16</i>	<i>2:16</i>
All presentations (hours: minutes)									
Resuscitation	3:49	3:46	3:41	3:21	3:20	3:49	3:16	3:55	3:40
Emergency	3:47	3:40	3:31	3:26	3:52	4:35	3:28	4:22	3:41
Urgent	3:22	3:26	3:17	3:22	3:47	3:54	3:23	3:50	3:24
Semi-urgent	2:09	2:38	2:18	2:17	2:33	2:28	2:28	2:34	2:21
Non-urgent	1:01	1:41	1:30	1:28	1:27	1:33	1:45	1:47	1:19
Total^(d)	2:35	2:57	2:52	2:43	3:08	2:58	2:49	2:59	2:48

(a) Includes presentations for all types of visit.

(b) Length of stay is calculated as the length of time between presentation to the emergency department and physical departure.

(c) For Victoria, Queensland, and Western Australia, includes presentations for which the NAPEDC NBEDS *Episode end status* category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)*.

(d) The total includes presentations for which the triage category was not reported.

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

90th percentile length of stay

The 90th percentile length of stay represents the amount of time spent in the emergency department for 90% of patients. For the remaining 10% of patients, the length of stay was longer.

How has the 90th percentile length of stay changed over time?

Between 2012–13 and 2015–16, the 90th percentile length of stay for emergency department presentations decreased from 7 hours and 55 minutes to 6 hours and 53 minutes. It increased between 2015–16 and 2016–17 to 7 hours (see Table 6.3).

The Australian Capital Territory had the largest reduction in the 90th percentile emergency department length of stay (from 9 hours and 40 minutes in 2012–13 to 6 hours and 33 minutes in 2016–17). For Tasmania, the 90th percentile length of stay increased from 8 hours and 23 minutes in 2012–13 to 9 hours and 1 minute in 2016–17.

Between 2015–16 and 2016–17, Queensland and Western Australia had the largest increase in the 90th percentile length of stay overall (both increasing by 22 minutes).

For patients who were subsequently admitted, Tasmania had the largest reduction in the 90th percentile length of stay between 2015–16 and 2016–17 (decreasing by 1 hour and 25 minutes).

Table 6.3: Emergency department presentations^(a) 90th percentile length of emergency department stay^(b) by admission status, states and territories, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(c)	2016–17
Presentations ending in admission (hours: minutes)					
New South Wales	14:30	12:28	12:34	11:50	11:37
Victoria ^(d)	14:07	11:54	11:58	11:00	10:37
Queensland ^(d)	11:40	9:19	8:47	8:50	9:15
Western Australia ^(d)	9:42	8:55	8:19	8:17	9:07
South Australia	13:37	14:01	14:34	10:53	11:05
Tasmania	20:47	19:33	21:34	19:24	17:59
Australian Capital Territory	16:55	15:12	15:28	n.a.	9:14
Northern Territory	17:53	19:44	19:33	15:56	16:10
Total	13:41	11:49	11:41	10:43	10:44
Presentations not ending in admission (hours: minutes)					
New South Wales	5:45	4:43	4:29	4:53	4:50
Victoria	5:53	5:35	5:29	5:22	5:23
Queensland	5:11	4:36	4:36	4:45	5:01
Western Australia	4:30	4:23	4:29	4:49	5:07
South Australia	5:46	5:52	5:48	5:38	5:59
Tasmania	5:44	5:23	5:30	5:21	5:19
Australian Capital Territory	7:05	6:18	6:01	n.a.	4:52
Northern Territory	5:41	5:51	5:35	5:04	5:10
Total	5:34	5:01	4:54	5:01	5:07
All presentations (hours: minutes)					
New South Wales	8:32	7:03	6:55	6:52	6:50
Victoria	8:10	7:34	7:36	7:19	7:16
Queensland	7:04	6:16	6:10	6:18	6:40
Western Australia	6:00	5:45	5:48	6:03	6:25
South Australia	8:12	8:25	8:38	7:31	7:50
Tasmania	8:23	8:28	8:52	8:41	9:01
Australian Capital Territory	9:40	8:45	8:32	n.a.	6:33
Northern Territory	9:13	10:05	10:26	9:27	9:20
Total	7:55	7:05	7:02	6:53	7:00

(a) Includes presentations for all types of visit.

(b) Length of stay is calculated as the length of time between presentation to the emergency department and physical departure.

(c) Excludes data for the Australian Capital Territory for 2015–16, which were not available at the time of publication.

(d) Includes presentations for which the NAPEDC NBEDS/DSS *Episode end status* category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

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

What was the 90th percentile length of stay in 2016–17?

Nationally, 90% of emergency department presentations were completed within 7 hours, ranging from 6 hours and 25 minutes in Western Australia to 9 hours and 20 minutes in the Northern Territory (Table 6.4).

For patients who were subsequently admitted, 90% of presentations were completed within 10 hours and 44 minutes, ranging from 9 hours and 7 minutes in Western Australia to 17 hours 59 minutes in Tasmania—90th percentile lengths of stay were shortest for *Non-urgent* (8 hours and 3 minutes) and *Resuscitation* patients (9 hours and 55 minutes).

For patients who were not subsequently admitted, 90% of presentations were completed within 5 hours and 7 minutes, ranging from 4 hours and 50 minutes in New South Wales to 5 hours and 59 minutes in South Australia—90th percentile lengths of stay were generally longer for patients in the more urgent triage categories.

Table 6.4: Emergency department presentations^(a) 90th percentile length of stay^(b), by triage category and admission status, states and territories, 2016–17

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Presentations ending in admission (hours: minutes)^(c)									
Resuscitation	11:13	10:27	9:08	7:47	9:22	14:21	7:30	12:52	9:55
Emergency	12:37	11:25	9:48	8:41	11:18	17:20	8:35	17:15	11:17
Urgent	12:03	10:56	9:16	9:29	11:28	18:42	9:50	16:53	11:00
Semi-urgent	10:15	9:44	8:28	8:57	10:27	17:28	8:37	14:47	9:56
Non-urgent	7:33	7:37	7:45	7:40	7:17	12:38	7:16	10:22	8:03
Admission to hospital from emergency departments— emergency department length of stay at the 90th percentile									
<i>Total^(d)</i>	<i>11:37</i>	<i>10:37</i>	<i>9:15</i>	<i>9:07</i>	<i>11:05</i>	<i>17:59</i>	<i>9:14</i>	<i>16:10</i>	<i>10:44</i>
Presentations not ending in admission (hours: minutes)									
Resuscitation	8:20	10:26	8:44	10:01	8:40	8:09	8:15	6:40	9:04
Emergency	6:57	7:54	6:43	7:08	7:14	7:04	6:36	6:05	7:04
Urgent	5:50	6:12	5:38	6:03	6:55	6:14	5:39	5:49	5:58
Semi-urgent	4:18	4:59	4:16	4:23	5:19	4:48	4:24	4:56	4:34
Non-urgent	3:07	3:52	3:27	3:17	3:53	3:37	3:35	4:08	3:26
<i>Total^(d)</i>	<i>4:50</i>	<i>5:23</i>	<i>5:01</i>	<i>5:07</i>	<i>5:59</i>	<i>5:19</i>	<i>4:52</i>	<i>5:10</i>	<i>5:07</i>
All presentations (hours: minutes)									
Resuscitation	10:20	10:27	9:03	8:22	9:15	12:46	7:38	11:55	9:42
Emergency	9:58	10:12	8:46	8:01	9:48	13:30	7:57	13:55	9:36
Urgent	8:20	8:31	7:20	7:31	8:57	11:33	7:46	12:02	8:11
Semi-urgent	5:23	6:04	5:02	5:16	6:19	6:42	5:20	7:11	5:36
Non-urgent	3:20	4:01	3:40	3:29	4:08	4:00	3:47	5:47	3:40
Total^(d)	6:50	7:16	6:40	6:25	7:50	9:01	6:33	9:20	7:00

(a) Includes presentations for all types of visit.

(b) Length of stay is calculated as the length of time between presentation to the emergency department and physical departure.

(c) For Victoria, Queensland, and Western Australia, includes presentations for which the NAPEDC NBEDS *Episode end status* category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)*.

(d) The total includes presentations for which the triage category was not reported.

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

6.2 How many visits were completed within 4 hours?

The calculation of the proportion of emergency department presentations completed within 4 hours includes all types of visits (not just *Emergency presentations*), and all episode end types. Patients are considered to have completed their visit to the emergency department when they physically leave (regardless of whether they were admitted to the hospital, were referred to another hospital, were discharged, or left at their own risk), not when the non-admitted component of care ends.

About 7,000 records were excluded from the calculation of proportion completed within 4 hours, because the length of emergency department stay could not be calculated due to missing or invalid values (for example, for the time of presentation or physical departure).

How has the proportion of presentations completed within 4 hours changed over time?

Between 2012–13 and 2015–16, the proportion of presentations completed within 4 hours increased from 67% to 73%. It decreased between 2015–16 and 2016–17 to 72% (Table 6.5) (excludes data for the Australian Capital Territory in 2015–16).

Between 2012–13 and 2016–17, the Australian Capital Territory had the largest increase in the proportion of presentations completed within 4 hours (from 57% to 73%). The proportion of presentations completed within 4 hours in Western Australia decreased (from 80% in 2013–14 to 74% in 2016–17).

For patients who were subsequently admitted, the proportion of presentations that were completed within 4 hours increased from 36% in 2012–13 to 49% in 2016–17 (Table 6.5).

Over that period, the proportion increased in New South Wales, Victoria, and the Australian Capital Territory, and fluctuated in Queensland, Western Australia, South Australia, Tasmania, and the Northern Territory.

Between 2015–16 and 2016–17, the proportion increased in New South Wales, Victoria, and the Northern Territory, while it decreased in Queensland, Western Australia, South Australia, and Tasmania.

Performance indicator: Waiting times for emergency department care—proportion of patients whose length of emergency department stay is less than or equal to 4 hours

The proportion of emergency department presentations completed within 4 hours is an NHA performance indicator.

The NHA performance indicator: 'Waiting time for emergency hospital care: proportion of patients whose length of emergency department stay is less than or equal to 4 hours' (proportion completed within 4 hours) can be related to the National Health Performance Framework dimensions 'Accessibility' and 'Effectiveness' within the domain 'Health system performance'. Under the NHA, it relates to the outcome area of *Australians receive appropriate high quality and affordable hospital and hospital-related care*.

The scope of this indicator is all public hospitals reporting to the NAPEDC NMDS. For 2016–17, it also includes all public hospitals reporting to the NAPEDC NBEDS.

In 2016–17, New South Wales had the highest proportion (75%) of emergency department visits completed within 4 hours while South Australia and the Northern Territory had the lowest (both 64%) (Table 6.5).

In general, presentations for patients who required more urgent treatment (reflected by the triage category) were not as likely to be completed within 4 hours. For example, 57% of *Resuscitation* and 58% of *Emergency* visits were completed within 4 hours, compared with 80% of *Semi-urgent* visits and 93% of *Non-urgent* visits (Table 6.6).

Public acute group B hospitals generally achieved a higher proportion of visits completed within 4 hours (77%) than *Principal referral and women's and children's hospitals* and *Public acute group A hospitals* (68% and 70%, respectively) (Table 6.6).

Table 6.5: Proportion (%) of presentations^(a) to emergency departments with a length of stay of 4 hours or less, for all patients and patients subsequently admitted^(b), states and territories, 2012–13 to 2016–17

	2012–13	2013–14	2014–15	2015–16 ^(c)	2016–17
Waiting times for emergency department care—proportion (%) completed within 4 hours^(d)					
New South Wales	63.6	74.0	75.0	74.9	74.8
Victoria ^(e)	65.6	69.0	69.9	71.2	71.3
Queensland ^(e)	71.8	76.3	76.7	75.2	72.7
Western Australia ^(e)	77.2	79.5	78.7	76.0	73.8
South Australia	65.9	64.5	63.8	66.0	63.7
Tasmania	67.3	67.7	66.6	66.3	64.7
Australian Capital Territory	57.3	61.8	63.1	n.a.	73.0
Northern Territory	63.6	61.6	62.1	63.6	64.2
Total	67.3	72.7	73.3	73.3	72.4
Admission to hospital from emergency departments^(f)— percentage of presentations where length of stay is less than or equal to 4 hours					
New South Wales	30.1	42.5	42.9	43.8	44.2
Victoria ^(e)	37.8	46.0	49.3	52.7	54.9
Queensland ^(e)	40.8	52.9	56.6	56.2	54.6
Western Australia ^(e)	46.3	53.0	54.6	51.5	48.9
South Australia	40.0	38.2	37.2	43.8	42.6
Tasmania	25.3	28.4	29.0	28.2	26.2
Australian Capital Territory	29.4	34.3	35.7	n.a.	51.2
Northern Territory	24.3	21.9	22.7	26.8	32.3
Total	35.9	45.2	47.2	48.9	49.1

(a) Includes presentations for all types of visit.

(b) For patients with an episode end status of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(c) Excludes 2015–16 data for the Australian Capital Territory, which were not available at the time of publication.

(d) The measure *Waiting times for emergency department care—proportion (%) completed within 4 hours* is the NHA performance indicator 21b.

(e) Includes presentations for which the NAPEDC NBEDS/DSS Episode end status category was *Transferred for admitted patient care in this hospital (either short stay unit, hospital-in-the-home or non-emergency department hospital ward)*.

(f) The measure *Admission to hospital from emergency departments—percentage of presentations where length of stay is less than or equal to 4 hours* is not part of the NHA performance indicator 21b.

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

Table 6.6: Proportion (%) of presentations^(a) to emergency departments with a length of stay of 4 hours or less, by triage category and public hospital peer group, states and territories, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals									
Resuscitation	52	60	64	66	59	53	63	50	59
Emergency	48	56	62	65	50	44	59	46	55
Urgent	55	64	67	63	53	51	60	48	60
Semi-urgent	75	76	82	81	68	69	78	68	76
Non-urgent	88	90	91	92	86	88	92	80	89
<i>Total^(b)</i>	<i>64</i>	<i>70</i>	<i>72</i>	<i>73</i>	<i>59</i>	<i>63</i>	<i>71</i>	<i>59</i>	<i>68</i>
Public acute group A hospitals									
Resuscitation	53	50	48	58	54	52	66	53	52
Emergency	58	58	58	60	50	39	64	40	57
Urgent	64	61	65	60	45	47	68	50	62
Semi-urgent	81	76	83	78	62	74	85	72	78
Non-urgent	93	90	93	92	81	91	93	70	91
<i>Total^(b)</i>	<i>73</i>	<i>69</i>	<i>71</i>	<i>69</i>	<i>54</i>	<i>62</i>	<i>76</i>	<i>62</i>	<i>70</i>
Public acute group B hospitals									
Resuscitation	59	58	56	56	83	52	..	..	58
Emergency	60	66	67	63	63	53	..	..	63
Urgent	69	69	69	68	64	65	..	..	68
Semi-urgent	85	78	86	83	83	87	..	..	83
Non-urgent	95	89	96	94	97	96	..	..	94
<i>Total^(b)</i>	<i>79</i>	<i>75</i>	<i>77</i>	<i>77</i>	<i>77</i>	<i>76</i>	<i>..</i>	<i>..</i>	<i>77</i>
Public acute group C hospitals									
Resuscitation	67	60	..	49	96	..	..	54	65
Emergency	69	65	..	60	90	..	..	58	67
Urgent	80	71	..	77	90	..	..	67	79
Semi-urgent	93	87	..	93	95	..	..	81	92
Non-urgent	97	95	..	98	98	..	..	90	97
<i>Total^(b)</i>	<i>88</i>	<i>82</i>	<i>..</i>	<i>88</i>	<i>94</i>	<i>..</i>	<i>..</i>	<i>78</i>	<i>87</i>
All hospitals^(c)									
Resuscitation	54	56	57	62	59	52	64	51	57
Emergency	56	59	61	63	52	43	61	46	58
Urgent	64	64	67	64	54	51	63	52	64
Semi-urgent	82	77	83	82	74	74	81	72	80
Non-urgent	95	90	93	94	89	90	92	82	93
Waiting times for emergency department care—proportion (%) completed within 4 hours									
Total^(b)	75	71	73	74	64	65	73	64	72

(a) Includes presentations for all types of visit.

(b) The total includes presentations for which the triage category was not reported.

(c) Includes *Principal referral and women's and children's hospitals*, *Public acute group A hospitals*, *Public acute group B hospitals*, and hospitals in other peer groups that reported to the NNAPEDCD.

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

How did the proportion completed within 4 hours vary for patients subsequently admitted?

For patients who were subsequently admitted, the length of stay indicates the amount of time spent in the emergency department before being moved to another ward in the hospital. The proportion of presentations for patients who were subsequently admitted where the length of the emergency department stay is less than, or equal to 4 hours, can be used to assess 'Access block'—or how long patients wait for an admitted patient bed to become available.

Nationally, about 49% of emergency department visits for patients who were subsequently admitted were completed within 4 hours. The proportion ranged from 26% in Tasmania to 55% in Victoria and Queensland (Table 6.7).

The proportion of emergency department stays completed within 4 hours varied by triage category. For patients who were subsequently admitted, *Resuscitation* and *Non-urgent* patients were more likely to have their emergency department stays completed within 4 hours than other triage categories.

For patients who were subsequently admitted, *Public acute group C hospitals* generally achieved a higher proportion of visits completed within 4 hours (63%) than *Principal referral and women's and children's hospitals*, *Public acute group A hospitals* (both 47%), and *Public acute group B hospitals* (57%).

How did the proportion completed within 4 hours vary for patients not subsequently admitted?

In 2016–17, about 83% of presentations for patients who were not subsequently admitted were completed within 4 hours. The highest proportion completed within 4 hours was for *Non-urgent* patients (94%) (Table 6.8).

The proportion of emergency department stays completed within 4 hours for patients who were not subsequently admitted ranged from 74% in South Australia to 85% in New South Wales.

For patients who were not subsequently admitted, *Public acute group C hospitals* generally achieved a higher proportion of visits completed within 4 hours (91%) than *Principal referral and women's and children's hospitals* (80%), *Public acute group A hospitals* (81%) and *Public acute group B hospitals* (83%).

Table 6.7: Proportion (%) of presentations^(a) to emergency departments with a length of stay of 4 hours or less, for patients subsequently admitted to the hospital^(b), by triage category and public hospital peer group, states and territories, 2016–17

	NSW	Vic ^(c)	Qld ^(c)	WA ^(c)	SA	Tas	ACT	NT	Total
Presentations ending in admission (%)									
Principal referral and women's and children's hospitals									
Resuscitation	50	63	64	68	60	50	64	47	59
Emergency	38	52	55	59	43	33	55	33	47
Urgent	36	54	54	49	37	24	43	31	45
Semi-urgent	43	58	56	52	42	27	53	34	50
Non-urgent	60	68	65	56	73	36	59	36	62
<i>Total^(e)</i>	39	55	55	53	41	27	49	33	47
Public acute group A hospitals									
Resuscitation	50	52	47	58	53	54	67	51	51
Emergency	44	53	52	51	38	25	65	28	48
Urgent	40	49	53	34	24	18	52	27	44
Semi-urgent	45	54	57	38	22	24	60	25	48
Non-urgent	65	67	67	49	42	49	68	29	60
<i>Total^(e)</i>	43	51	53	40	29	22	56	27	47
Public acute group B hospitals									
Resuscitation	56	62	56	60	92	40	..	..	59
Emergency	51	64	62	61	67	40	..	..	59
Urgent	47	62	56	51	57	34	..	..	55
Semi-urgent	51	63	59	49	61	43	..	..	57
Non-urgent	71	64	73	63	81	81	..	..	69
<i>Total^(e)</i>	50	63	58	53	60	37	..	..	57
Public acute group C hospitals									
Resuscitation	55	62	..	50	99	..	..	50	63
Emergency	63	63	..	47	93	..	..	44	61
Urgent	62	52	..	50	92	..	..	45	61
Semi-urgent	65	53	..	60	93	..	..	46	65
Non-urgent	78	78	..	70	96	..	..	61	78
<i>Total^(e)</i>	64	55	..	53	93	..	..	46	63
All hospitals^(e)									
Resuscitation	50	59	57	65	59	51	65	48	56
Emergency	44	55	55	56	44	31	57	33	50
Urgent	41	53	54	45	38	22	46	31	47
Semi-urgent	48	57	57	48	46	26	55	32	51
Non-urgent	67	68	67	58	70	41	61	33	64
Admission to hospital from emergency departments—proportion (%) of presentations where the length of stay is less than or equal to 4 hours									
Total	44	55	55	49	43	26	51	32	49

(a) Includes presentations for all types of visit.

(b) For patients with an episode end status of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(c) Includes presentations for which the NAPEDC NBEDS episode end status category was *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(d) The total includes presentations for which the triage category was not reported.

(e) Includes *Principal referral and women's and children's hospitals, Public acute group A hospitals, Public acute group B hospitals, and hospitals in other peer groups that reported to the NNAPEDCD*.

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

Table 6.8: Proportion (%) of presentations^(a) to emergency departments with a length of stay of 4 hours or less for patients not subsequently admitted to the hospital^(b), by triage category and public hospital peer group, states and territories, 2016–17

	NSW	Vic ^(c)	Qld ^(c)	WA ^(c)	SA	Tas	ACT	NT	Total
Principal referral and women's and children's hospitals									
Resuscitation	62	44	60	52	54	74	56	69	57
Emergency	66	67	77	74	69	78	71	67	70
Urgent	71	76	79	74	67	76	77	67	74
Semi-urgent	82	83	88	88	76	82	86	79	84
Non-urgent	91	91	93	94	89	92	94	86	92
<i>Total^(d)</i>	<i>78</i>	<i>81</i>	<i>84</i>	<i>83</i>	<i>73</i>	<i>82</i>	<i>84</i>	<i>76</i>	<i>80</i>
Public acute group A hospitals									
Resuscitation	60	45	51	58	58	43	62	68	55
Emergency	75	67	68	68	62	54	63	78	69
Urgent	80	73	76	71	57	64	75	81	74
Semi-urgent	89	83	88	85	69	82	88	86	85
Non-urgent	95	92	94	94	83	93	93	89	93
<i>Total^(d)</i>	<i>86</i>	<i>79</i>	<i>81</i>	<i>78</i>	<i>65</i>	<i>76</i>	<i>83</i>	<i>85</i>	<i>81</i>
Public acute group B hospitals									
Resuscitation	62	50	57	53	69	66	..	..	57
Emergency	65	69	72	65	61	66	..	..	67
Urgent	77	74	76	76	67	77	..	..	75
Semi-urgent	89	82	90	87	86	90	..	..	87
Non-urgent	96	91	97	95	97	97	..	..	95
<i>Total^(d)</i>	<i>85</i>	<i>80</i>	<i>84</i>	<i>84</i>	<i>80</i>	<i>84</i>	<i>..</i>	<i>..</i>	<i>83</i>
Public acute group C hospitals									
Resuscitation	70	57	..	48	89	..	..	70	66
Emergency	71	67	..	67	82	..	..	78	71
Urgent	85	80	..	85	89	..	..	80	84
Semi-urgent	95	92	..	95	95	..	..	86	94
Non-urgent	98	96	..	98	98	..	..	91	97
<i>Total^(d)</i>	<i>91</i>	<i>89</i>	<i>..</i>	<i>92</i>	<i>94</i>	<i>..</i>	<i>..</i>	<i>86</i>	<i>91</i>
All hospitals^(e)									
Resuscitation	63	46	55	54	58	55	59	69	57
Emergency	70	68	72	69	65	62	67	71	69
Urgent	78	74	77	74	64	70	76	75	75
Semi-urgent	88	83	88	88	79	83	87	83	86
Non-urgent	96	91	95	95	91	93	94	89	94
Total^(d)	85	81	83	83	74	80	83	81	83

(a) Includes presentations for all types of visit.

(b) For patients whose episode end status was other than *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(c) Includes presentations for which the NAPERDC NBEDS/DSS episode end status category was other than *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

(d) The total includes presentations for which the triage category was not reported.

(e) Includes *Principal referral and women's and children's hospitals, Public acute group A hospitals, Public acute group B hospitals*, and hospitals in other peer groups that reported to the NNAPEDCD.

Note: See Box 1.1 and appendixes A, B, and C for more information on terminology, data limitations, and methods.

6.3 How long did clinical care take?

The duration of clinical care is calculated as the time between when a patient commences clinical care and the end of the non-admitted patient emergency department episode (the end of clinical care) (see Figure 1.1).

The duration of clinical care can be different for patients who were subsequently admitted to the same hospital compared with patients who were not. As a result, duration of clinical care statistics are presented separately for those 2 groups of patients.

The duration of clinical care measures presented in tables 6.9 and 6.10 are for *Emergency presentations* only. The calculations exclude presentations for which the measures of time could not be calculated due to missing or invalid values (for example, if the time of episode end was recorded as occurring before the time of commencement of clinical care).

For about 347,000 records, the duration of clinical care could not be calculated. Of these:

- 259,000 had an episode end status of *Did not wait to be attended to by a health care professional, Dead on arrival, or Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*—for which a time of episode end is not applicable
- 65,000 could not be calculated, because the date and time of episode end were missing
- 23,000 could not be calculated, because the date and time of commencement of clinical care was missing.

Duration of clinical care for patients who were subsequently admitted to the same hospital

For patients who were subsequently admitted to the same hospital:

- about 9% of *Emergency presentations* had a duration of clinical care of less than 1 hour
- 55% had a duration of clinical care of 1 hour to less than 4 hours
- 35% had a duration of clinical care of 4 hours or more (Table 6.9).

Patients with an *Emergency* triage category were most likely to spend more than 4 hours in the emergency department (37%), while *Non-urgent* patients the least likely (20%).

Generally, the duration of clinical care was greater for patients who were subsequently admitted to the same hospital than for other patients (see Table 6.10).

Duration of clinical care for patients who were not subsequently admitted to the same hospital

For patients who were not subsequently admitted to the same hospital:

- about 30% of presentations had a duration of clinical care of less than 1 hour
- 52% had a duration of clinical care ranging from 1 hour to less than 4 hours
- 11% had a duration of clinical care of 4 hours or more (Table 6.10).

About 37% of *Resuscitation* patients had a duration of clinical care of 4 hours or more, while 54% of *Non-urgent* patients had a duration of clinical care of less than 1 hour.

The duration of clinical care could not be calculated for about 6% of records for patients who were not subsequently admitted to the same hospital, because either the time of commencement of clinical care or the time of episode end was not reported. About 69% of these records had an episode end status of *Did not wait to be attended to by a health care professional*, indicating that the patient had not received care.

Table 6.9: Duration of clinical care statistics for *Emergency presentations*^(a) for patients subsequently admitted to this hospital^(b) by triage category, 2016–17

	Triage category					Total ^(c)
	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	
Number of presentations						
Less than 1 hour	5,683	34,833	98,829	63,109	8,984	211,451
1 hour to <2 hours	7,534	88,366	182,194	95,008	6,925	380,035
2 hours to <3 hours	7,901	120,100	236,768	109,441	6,278	480,495
3 hours to <4 hours	7,268	115,694	225,466	95,330	4,829	448,589
4 hours or more	13,936	208,945	426,873	168,091	6,756	824,608
Total^(d)	42,382	569,643	1,174,595	534,448	34,411	2,355,551
Proportion of presentations (%)						
Less than 1 hour	13	6	8	12	26	9
1 hour to <2 hours	18	16	16	18	20	16
2 hours to <3 hours	19	21	20	20	18	20
3 hours to <4 hours	17	20	19	18	14	19
4 hours or more	33	37	36	31	20	35
Total^(d)	100	100	100	100	100	100

(a) Includes presentations for which type of visit was *Emergency presentation* only.

(b) For patients with an episode end status of *Admitted to this hospital* (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward).

(c) Includes records for which triage category was unknown.

(d) Total includes about 10,000 records (less than 1%) for which the duration of clinical care could not be calculated.

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

Table 6.10: Duration of clinical care statistics for *Emergency presentations*^(a) for patients not subsequently admitted to this hospital^(b), by triage category, 2016–17

	Triage category					Total ^(c)
	Resuscitation	Emergency	Urgent	Semi-urgent	Non-urgent	
Number of presentations						
Less than 1 hour	1,730	32,238	296,696	927,506	320,627	1,579,110
1 hour to <2 hours	2,034	78,246	406,996	695,428	123,520	1,306,271
2 hours to <3 hours	2,378	95,711	367,757	394,799	49,017	909,682
3 hours to <4 hours	2,432	78,307	243,938	200,644	19,692	545,021
4 hours or more	5,213	105,782	275,100	177,811	13,814	577,731
Total^(d)	14,048	398,485	1,663,702	2,578,798	596,006	5,254,020
Proportion of presentations (%)						
Less than 1 hour	12	8	18	36	54	30
1 hour to <2 hours	14	20	24	27	21	25
2 hours to <3 hours	17	24	22	15	8	17
3 hours to <4 hours	17	20	15	8	3	10
4 hours or more	37	27	17	7	2	11
Total^(d)	100	100	100	100	100	100

(a) Includes presentations for which type of visit was *Emergency presentation* only.

(b) For patients with an episode end status other than *Admitted to this hospital* (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward).

(c) Includes records for which triage category was unknown.

(d) Includes about 349,000 records (6%) for which the duration of clinical care could not be calculated.

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

Appendix A: Data quality information

This appendix includes a data quality statement and additional detailed information relevant to the interpretation of the National Non-admitted Patient Emergency Department Care Database (NNAPEDCD).

Included is information on changes to the NAPEDC NMDS specifications, and information on variations in hospital reporting that may affect interpretation of the data presented in this report.

The data quality statement for the NNAPEDCD is also available online at www.aihw.gov.au/about-our-data/our-data-collections/national-hospitals-data-collection.

Data quality statement: National Non-admitted Patient Emergency Department Care Database 2016–17

The NNAPEDCD provides information on the care provided (including waiting times for care) for non-admitted patients registered for care in public hospital emergency departments that have:

- purposely designed and equipped area with designated assessment, treatment, and resuscitation areas
- the ability to provide resuscitation, stabilisation, and initial management of all emergencies
- availability of medical staff in the hospital 24 hours a day
- designated emergency department nursing staff 24 hours per day 7 days per week, and a designated emergency department nursing unit manager.

Patients who were dead on arrival are in scope if an emergency department clinician certified the death of the patient. Patients who leave the emergency department after being triaged, and then advised of alternative treatment options are also in scope.

The scope includes only physical presentations to emergency departments. Advice provided by telephone or video conferencing is not in scope, although it is recognised that advice received by telehealth may form part of the care provided to patients physically receiving care in the emergency department. Also excluded from the scope of the NMDS is care provided to patients in general practitioner co-located units.

The NNAPEDCD includes data for each year from 2003–04 to 2016–17.

Data for the NNAPEDCD are reported annually. The most recent reference period for this data set includes records for Non-admitted patient emergency department service episodes between 1 July 2016 and 30 June 2017.

For 2015–16 and 2016–17, jurisdictions were able to provide data for the NNAPEDCD using the NAPEDC NMDS or the NAPEDC NBEDS/DSS. Episodes are included in the NAPEDC NMDS, but excluded for the NAPEDC NBEDS/DSS, where:

- only a clerical service is provided to people supporting a pre-arranged admission
- people are awaiting transit to another facility, and receive no clinical care.

Summary of key data quality issues

- The NNAPEDCD is a compilation of episode-level data for emergency department presentations in public hospitals.
- For 2016–17, Victoria, Queensland, and Western Australia provided data to the NNAPEDCD using the NAPEDC NBEDS specification, while the other states and territories used the NAPEDC NMDS. Therefore, the data for Victoria, Queensland, and Western Australia may not be comparable with data provided for other states and territories.
- For 2016–17, waiting times information could not be calculated for about 43,000 emergency presentations (for which waiting times are applicable).
- For 2016–17, the length of emergency department stay could not be calculated for about 7,000 emergency department presentations.
- Changes in definitions for *Episode end status* in the NMDS and NBEDS between 2015–16 and 2016–17 may affect the comparability of the 2016–17 *Episode end status* data with that for other reporting periods.
- In 2013–14, New South Wales began reporting data to the NNAPEDCD for an additional 85 hospitals, rising from 95 hospitals in 2012–13 (88% coverage for New South Wales) to 180 hospitals in 2013–14 (99% coverage)
- For 2015–16, Australian Capital Territory emergency department care data were not available at the time of publication.
- The scope of the NAPEDC NMDS changed between 2012–13 and 2013–14.
- Changes in data set specifications in the second half of 2012–13 may affect the comparability of that year's data with data for other reporting periods.
- Although there are national standards for data on non-admitted patient emergency department services, the way those services are defined and counted varies across states and territories, and over time.
- The quality of the data reported for Indigenous status has not been formally assessed; therefore, caution should be used when interpreting these data.
- A principal diagnosis was not reported for about 308,000 records.

Variation in reporting

Possible variation in triage categorisation

The proportion of presentations by triage category varied by state or territory.

New South Wales had the highest proportion of emergency presentations that were *Non-urgent* (10.8%), and South Australia had the highest proportions of presentations that were *Resuscitation* (1.4%). Queensland had the highest proportions of presentations that were *Emergency* (14.9%) (Table A1). This may reflect different triage categorisation, differing mixes of patients, or both.

Variation in the proportion of patients admitted to the hospital by triage category may indicate variation in the way emergency departments triage patients.

For example, nationally, about 31% of *Emergency presentations* had an episode end status of *Admitted to this hospital*. Victoria had the highest proportion (36%), and New South Wales had the lowest (26%) (Table 4.14). For *Resuscitation* patients, about 75% had an episode

end status of *Admitted to this hospital* nationally, with the proportion ranging from 69% in New South Wales to 85% in the Australian Capital Territory and the Northern Territory.

Table A1: Proportion (%) of Emergency presentations by triage category, states and territories, 2016–17

Triage category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(a)
Resuscitation	0.7	0.5	0.9	0.8	1.4	0.6	0.4	0.7	0.7
Emergency	12.3	11.3	14.9	13.1	14.5	10.2	10.3	12.8	12.7
Urgent	34.2	36.9	45.1	34.8	39.7	35.7	38.7	29.1	37.3
Semi-urgent	42.0	42.8	34.6	44.6	37.8	43.8	40.7	47.7	40.9
Non-urgent	10.8	8.5	4.5	6.6	6.7	9.8	9.8	9.6	8.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes emergency presentations for which the triage category was not reported.

Note: See Box 1.1 for more information on terminology.

Variation in reporting diagnosis information

For the 2016–17 NAPEDC NMDS/NBEDS, diagnosis information was not reported using a uniform classification. The classifications that were reported were:

- Systematized Nomenclature of Medicine—Clinical Terms—Australian version, Emergency Department Reference Set (SNOMED CT-AU EDRS)
- International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), 2nd edition
- International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) 6th edition, 7th edition, 8th edition, or 9th edition.

The majority of records (67%) were reported using various editions of ICD-10-AM.

Table A2 presents information on the numbers of presentations for which diagnosis information was reported, by the type of classification used.

Most states and territories reported patients' diagnoses using a single type of classification. A principal diagnosis was not reported for about 308,000 records. In addition, about 8,000 records had an ICD-9-CM or a SNOMED CT-AU diagnosis that did not map to a valid ICD-10-AM diagnosis using the methodology outlined in Appendix B.

Table A2: Provision of diagnosis information for emergency presentations by diagnosis classification type, states and territories, 2016–17

Classification	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SNOMED-CT-AU EDRS	2,190,805	0	0	0	0	0	0	0	2,190,805
ICD-9-CM, 2nd edition	0	34,397	0	0	0	0	0	0	34,397
ICD-10-AM, 6th edition	0	0	0	553,556	0	0	0	0	553,556
ICD-10-AM, 7th edition	0	0	0	0	0	154,736	0	143,138	297,874
ICD-10-AM, 8th edition	0	0	1,397,330	206,978	0	0	143,500	0	1,747,808
ICD-10-AM, 9th edition	532,849	1,612,713	0	0	477,260	0	0	0	2,622,822
Principal diagnosis not reported	60,891	83,930	59,753	75,017	16,008	1,587	360	10,798	308,344
Total	2,784,545	1,731,040	1,457,083	835,551	493,268	156,323	143,860	153,936	7,755,606

Quality of Indigenous status data

The quality of the data reported for Indigenous status in emergency departments has not been formally assessed. In addition, the scope of the NNAPEDCD may not include some emergency services provided in areas where the proportion of Indigenous people (compared with other Australians) is higher than average. Therefore, the information on Indigenous status presented in this report should be used with caution.

Indigenous status was not reported for fewer than 1% of emergency department presentations in 2016–17 (Table 3.2).

The following information has been provided by the states and territories to provide some insight into the quality of Indigenous status data in the NNAPEDCD.

New South Wales

Indigenous status is a mandatory data item collected by all facilities that provide data to the New South Wales Ministry of Health's Emergency Department Data Collection. In 2016–17, Indigenous status was not reported for about 1% of emergency department records, a decrease from the 2% not reported for 2015–16. New South Wales considers that Indigenous status identification in its emergency department data is acceptable.

Victoria

The Victorian Department of Health reports that, despite data quality improvement in recent years, the Indigenous status in admitted patient data for 2016–17 should still be considered to under-count the number of Aboriginal and Torres Strait Islander patients. The quality of Indigenous status data in emergency department data is improving, but is less accurate than data for admitted patients in public hospitals.

Queensland

Queensland Health notes that the quality of reporting of Indigenous status has improved compared to previous years. However, the available evidence continues to suggest that the number of Indigenous patients is understated in the Queensland hospital data, due to non-reporting and misreporting of Indigenous status. Despite this, Queensland Health considers the Indigenous status data used in this report to be of a quality appropriate for publication.

Western Australia

The Western Australian Department of Health considers the recording of Indigenous status for non-admitted patient emergency department data as being substantially complete, with 99.6% of data identified by Indigenous status in 2016–17. A recent sample survey of Western Australian admitted patient records concluded that Western Australia was collecting Indigenous status with a high degree of accuracy, and the data element is well recorded in emergency departments.

South Australia

The South Australian Department for Health and Ageing reports that the Indigenous status data in its emergency department collection is of sufficient quality, and appropriate for publication. Although the number of records where Indigenous status was not stated has improved over recent years, it is still considered too high, and work continues on improving the recording and quality of Indigenous status data in the emergency department setting.

Tasmania

The Tasmanian Department of Health and Human Services reports that the quality and the level of Indigenous status identification across public hospital information collections are of a high standard. However, as with all data collections, there is constant and continued work to be done in maintaining and improving, where needed, the collection of this data element.

Australian Capital Territory

The Australian Capital Territory Health Directorate is continuing to undertake a number of initiatives aligned with local and national developments to improve the quality of collection and reporting of Aboriginal and Torres Strait Islander data.

Northern Territory

The Northern Territory Department of Health reported that the quality of its Indigenous status data for emergency department patients is considered to be acceptable. The department retains historical reporting of Indigenous status. All management and statistical reporting, however, is based on a person's most recently reported Indigenous status.

Other factors affecting interpretation of the NNAPEDCD data

This section presents other information about the quality of the data provided for the NNAPEDCD, and factors that may affect the interpretation of the information presented in this report.

Geographic detail

The NAPEDC NMDS for the 2016–17 period specified that states and territories should provide the Statistical Area level 2 of usual residence of patient. This is a geographical unit under the Australian Statistical Geography Standard, which was introduced in 2011 by the Australian Bureau of Statistics (ABS), and was designed to be useful and relevant for data dissemination.

In 2016–17, New South Wales provided all records with the area of usual residence of the patient as a Statistical Local Area 2011, which is a geographical unit under the previous ABS Australian Standard Geographical Classification.

Remoteness area of usual residence

The AIHW mapped the supplied Statistical Area Level 2 area of usual residence information for each presentation to remoteness area categories based on the ABS Australian Statistical Geography Standard Remoteness Structure for 2011. This mapping was done on a probabilistic basis. About 1.5% of records could not be mapped to a remoteness of area of usual residence.

Before 2012–13, remoteness area was based on the ABS's Australian Standard Geographical Classification. As a result, comparisons of the data over time should be interpreted with caution.

For New South Wales, the AIHW mapped the supplied Statistical Local Area of usual residence data for each presentation to the 2011 Statistical Area Level 2.

This mapping was done on a probabilistic basis, and as a result, the derived Statistical Area Level 2 and remoteness of usual residence data for individual records may not be accurate; however, the overall distribution of records by geographical area is considered useful.

Type of visit

For 2016–17, Victoria, Queensland, and Western Australia provided data for the NNAPEDCD using the NAPEDC NBEDS specifications, for which *Patient in transit* is not a valid type of visit category. Under the NAPEDC DSS specification, patients in transit are included as *Emergency presentation*.

Episode end status

For the NAPEDC NMDS, patients who are admitted to the hospital, and subsequently die before leaving the emergency department are included in the NAPEDC NMDS *Episode end status* category of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

Victoria, Queensland and Western Australia provided 2016–17 data for the NNAPEDCD using the NAPEDC NBEDS specifications, for which patients who died or otherwise left the emergency department are not included in the NAPEDC NBEDS category of *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*. As a result, Victoria, Queensland, and Western Australia data may not be entirely comparable with data provided for other states and territories.

The NAPEDC NBEDS episode end status category of *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)* was mapped to the NAPEDC NMDS episode end status category of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)*.

Between 2015–16 and 2016–17, a change in the episode end status data element resulted in a new category for *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*. As a result, the 2016–17 data presented for episode end status are not comparable with previous years.

For 2016–17, New South Wales reported about 97% of all records with this episode end status. The New South Wales Ministry of Health advised that, before 2016–17, these records would have been reported as *Departed without being admitted or referred*.

Between 2014–15 and 2015–16, a change in practice in the certification of death in Victoria resulted in a decrease in the number of presentations with an episode end status of *Dead on arrival*—from 1,313 in 2015–16 to 111 in 2016–17. As a result, caution should be used when making comparisons over time.

Before 2012–13, New South Wales did not report against the episode end status of *Died in emergency department*. As a result, caution should be used when making comparisons over time.

Quality of waiting times and length of stay data

Waiting time

For 2016–17, about 43,000 records that should have been included in the calculation of waiting times statistics were excluded, as they did not have a valid commencement of clinical care time recorded. These included about 23,000 emergency department presentations for a *Public acute group B hospital* in Western Australia, which also reported 43,000 without a valid commencement of clinical care time in 2015–16.

Emergency department length of stay

For about 7,000 records, the emergency department length of stay could not be calculated, as the date and time of physical departure were missing. These records were distributed across multiple hospitals, mainly from New South Wales. Of those, about 1,000 had an episode end status of *Did not wait to be attended by a health care professional*, *Dead on arrival*, or *Registered, advised of another health care service, and left the emergency department without being attended by a health care professional*

Emergency department duration of clinical care

For about 88,000 records, the duration of clinical care could not be calculated. For about 65,000 of those it was because the date and time of episode end were missing. For about 23,000 it was because the date and time of commencement of clinical care was missing.

Appendix B: Technical notes

Definitions

If not otherwise indicated, data elements were defined according to the 2016–17 definitions in the *National health data dictionary, version 16* (AIHW 2012) (summarised in the Glossary) and on METeOR <www.meteor.aihw.gov.au>.

Data presentation

Data are presented by the state or territory of the hospital, not by the state or territory of usual residence of the patient.

Except as noted in this section, the totals in tables include data only for those states and territories for which data were available, as indicated in the tables. Throughout the report, percentages may not add up to 100.0 because of rounding. Percentages and rates shown as 0.0 or 0 indicate a zero. The symbol '<0.1' has been used to denote less than 0.05, but greater than 0.

Data on waiting times (50th and 90th percentiles) and the proportion seen on time have been suppressed if there were fewer than 100 presentations in the category being presented. The abbreviation 'n.p.' has been used to denote these suppressions. For these tables, the totals include the suppressed information.

Methods

Median and 90th percentiles

The 50th percentile (the median, or the middle value in a group of data arranged from lowest to highest value for minutes waited) represents the number of minutes within which 50% of patients commenced clinical care (or completed their episode, or were admitted)—half the waiting times will have been shorter, and half longer than the median.

The 90th percentile data represent the number of minutes (or hours and minutes) within which 90% of patients commenced clinical care (or completed their episode, or were admitted).

The 50th percentile and 90th percentile waiting times are calculated using an empirical distribution function with averaging. Using this method, observations are sorted in ascending order.

The calculation is where:

n is the number of observations, and

p is the percentile value divided by 100,

then $n \times p = i + f$ (where i is an integer and f is the fractional part of $n \times p$).

If $n \times p$ is an integer, the percentile value will correspond to the average of the values for the i^{th} and $(i+1)^{\text{th}}$ observations.

If $n \times p$ is not an integer, the percentile value will correspond to the value for the $(i+1)^{\text{th}}$ observation.

For example, if there were 100 observations, the median waiting time will correspond to the average waiting time for the 50th and 51st observations (ordered according to waiting time). Similarly, the 90th percentile will correspond to the average waiting time for the 90th and 91st observations if there are 100 observations.

If there were 101 observations, the median waiting time will correspond to the waiting time for the 51st observation, and the 90th percentile waiting time will correspond to the waiting time for the 91st observation.

The 50th and 90th percentiles have been rounded to the nearest whole number of minutes.

Principal diagnosis reporting

For the 2016–17, diagnosis information was reported for the NNAPEDCD using the following classifications:

- Systematized Nomenclature of Medicine—Clinical Terms—Australian version, Emergency Department Reference Set.
- International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), 2nd edition.
- International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) 6th edition, 7th edition, 8th edition, or 9th edition.

See Table A2 for information on the numbers of presentations for which diagnosis information was reported, by the type of classification used.

The AIHW mapped all diagnosis information to a single classification.

Method of mapping provided diagnosis codes to a single classification

The AIHW used mapping files to assign diagnosis information provided in the different classifications to a single classification (to 3-character categories in ICD-10-AM 8th edition). This mapping involved the use of:

- ICD-9-CM to ICD-10-AM historical mapping files
- ICD-10-AM to ICD-10-AM edition mapping files
- SNOMED CT-AU (EDRS) to ICD-10-AM 6th edition mapping file.

Step 1: mapping SNOMED-CT-AU EDRS to ICD-10-AM 6th edition

The principal diagnosis data coded in SNOMED-CT-AU EDRS were mapped to ICD-10-AM 6th edition codes using a mapping file provided by the Independent Hospital Pricing Authority.

Establishments that used SNOMED-CT-AU EDRS provided 2.2 million presentations.

About 3,000 presentations with valid SNOMED-CT-AU EDRS codes did not map to an ICD-10-AM 6th edition diagnosis code. These corresponded to about 850 unique SNOMED-CT-AU EDRS codes, and for about 1,400 records the code translated as *Left against medical advice*.

The principal diagnoses for the remaining presentations were mapped to 2,749 unique ICD-10-AM 6th edition codes.

Step 2: assigning ICD-10-AM codes to diagnosis data provided in ICD-9-CM

About 34,400 presentations provided by establishments reported coding diagnoses using ICD-9-CM. Of these, about 4,900 records did not have a valid ICD-9-CM code—the majority

had truncated ICD-9-CM codes (for example, an invalid 3-digit code was provided for a condition that required a 4-digit code). The principal diagnoses for the remaining 29,500 presentations were mapped to ICD-10-AM codes.

Step 3: assigning ICD-10-AM 9th edition codes

Records provided using ICD-10-AM

More than 5.2 million presentations provided by establishments reported coding diagnoses using ICD-10-AM 6th, 7th, 8th, and 9th editions.

The majority of diagnosis codes in the 6th, 7th, and 8th editions were the same as the corresponding diagnosis codes in ICD-10-AM 9th edition. A small number of diagnosis codes were subsequently mapped to the 9th edition.

Records provided using ICD-9-CM or SNOMED-CT-AU EDRS

Following the mapping done in steps 1 and 2, a relatively small number of ICD-10-AM 6th edition diagnosis codes were subsequently mapped to ICD-10-AM 9th edition.

Some records could not be assigned an ICD-10-AM 9th edition diagnosis code. For example, a small percentage of records provided in SNOMED CT-AU EDRS contained concepts that did not have equivalent codes in ICD-10-AM (for example, for dressing of wound, preparation of medical certificate, and the patient leaving against medical advice). In addition, invalid codes were reported for a small percentage of records provided in either ICD-9-CM or ICD-10-AM, and these could not be mapped to an ICD-10-AM 9th edition diagnosis code.

Following mapping, about 96% of principal diagnoses were mapped to 3-character categories in ICD-10-AM 9th edition.

Waiting times (Chapter 5)

Waiting time to commencement of clinical care

The waiting times are determined as the time elapsed between presentation to the emergency department and the commencement of clinical care. The calculation is restricted to presentations with a type of visit of *Emergency presentation*, and presentations were excluded if the waiting time was missing or invalid, or if the patient *Did not wait to be attended by a health care professional*, or was *Dead on arrival*.

See Appendix A for information on the completeness of the data provided for waiting times calculations.

Proportion of presentations seen on time

The proportion of presentations seen on time was determined as the proportion of presentations in each triage category with a waiting time less than or equal to the maximum waiting time stated in the Australasian Triage Scale definition.

For this report, a patient with a triage category of *Resuscitation* was considered to be seen on time if the waiting time to commencement of clinical care was less than or equal to 2 minutes.

The calculation is restricted to presentations with a type of visit of *Emergency presentation*, and presentations were excluded if the waiting time was missing or invalid, if the patient *Did not wait to be attended by a health care professional*, or was *Dead on arrival*, or if the triage category was not reported.

Proportion of presentations ending in admission

The proportion of presentations ending in admission is determined as the proportion of all emergency presentations with an episode end status of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)* (for the NAPEDC NMDS), or *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)* (for the NAPEDC NBEDS). The calculation is restricted to presentations with a type of visit of *Emergency presentation*.

Emergency department length of stay (Chapter 6)

Emergency department length of stay

The length of stay is determined as the time elapsed between presentation and the physical departure of the patient. Length of stay statistics are calculated for all emergency department type of visit categories.

Proportion of presentations completed in 4 hours or less

The proportion of presentations completed in 4 hours or less is determined as the proportion of all emergency presentations for which the time elapsed between the presentation and the physical departure of the patient was less than or equal to 240 minutes.

Presentations were excluded if either (or both) of the presentation date/time or physical departure date/time were missing or invalid, or if the calculation resulted in an invalid length of stay (that is, missing or a negative number of minutes).

Admission to hospital from emergency departments

Admission to hospital from emergency departments (for patients who were subsequently admitted) is calculated using the emergency department length of stay for presentations with an episode end status of *Admitted to this hospital (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward)* (for the NAPEDC NMDS), or *Transferred for admitted patient care in this hospital (either short-stay unit, hospital-in-the-home or non-emergency department hospital ward)* (for the NAPEDC NBEDS).

Duration of clinical care

The duration of clinical care (previously reported as ‘treatment time’) is determined as the time elapsed between commencement of clinical care and the end of the non-admitted patient emergency department episode (the end of clinical care).

See Appendix A for information on the completeness of the data used to calculate the duration of clinical care. Duration of clinical care statistics are calculated for presentations with a type of visit of *Emergency presentation*.

Age and sex of patient

All states and territories supplied the date of birth of the patient, from which the age of the patient at the date of presentation was calculated.

For 577 records, the age of the patient could not be calculated, as date of birth was missing. For 450 records, the sex of the patient was reported as either *Intersex or indeterminate* or *Not stated/inadequately described*.

Appendix C: Public hospital peer groups

This report uses the AIHW's public hospital peer group classification, which was published in *Australian hospital peer groups* (AIHW 2015a). A summary of the peer group classification is presented in Table C1.

Table C1: Public hospital peer groups

Group	Description
Acute public hospitals	Are identified according to the hospital's service profile:
Principal referral hospitals	Provide a very broad range of services, including some very sophisticated services, and have very large patient volumes. Most include an intensive care unit, a cardiac surgery unit, a neurosurgery unit, an Infectious diseases unit and a 24-hour emergency department.
Public acute group A hospitals	Provide a wide range of services to a large number of patients and are usually situated in metropolitan centres or inner regional areas. Most have an intensive care unit and a 24-hour emergency department. They are among the largest hospitals, but provide a narrower range of services than the <i>Principal referral</i> group. They have a range of specialist units, potentially including bone marrow transplant, coronary care and oncology units.
Public acute group B hospitals	Most have a 24-hour emergency department and perform elective surgery. They provide a narrower range of services than the <i>Principal referral</i> and <i>Public acute group A hospitals</i> . They have a range of specialist units, potentially including obstetrics, paediatrics, psychiatric and oncology units.
Public acute group C hospitals	These hospitals usually provide an obstetric unit, surgical services and some form of emergency facility. They are generally smaller than the <i>Public acute group B hospitals</i> .
Public acute group D hospitals	Often situated in regional and remote areas and offer a smaller range of services relative to the other public acute hospitals (groups A–C). Hospitals in this group tend to have a greater proportion of non-acute separations compared with the larger acute public hospitals.
Very small hospitals	Generally have less than 200 admitted patient separations each year.
Specialist hospital groups	Perform a readily identified role within the health system
Women's and children's hospitals	
Children's hospitals	Specialise in the treatment and care of children.
Women's hospitals	Specialise in treatment of women.
Women's and children's hospitals	Specialise in the treatment of both women and children.
Early parenting centres	Specialise in care and assistance for mothers and their very young children.
Drug and alcohol hospitals	Specialise in the treatment of disorders relating to drug or alcohol use.

(continued)

Table C1 (continued): Public hospital peer groups

Group	Description
Psychiatric hospitals	Specialise in providing psychiatric care and/or treatment for people with a mental disorder or psychiatric disability.
Psychogeriatric hospitals	Specialise in the psychiatric treatment of older people.
Child, adolescent, and young adult psychiatric hospitals	Specialise in the psychiatric treatment of children and young people.
General acute psychiatric hospitals	Provide acute psychiatric treatment.
General non-acute psychiatric hospitals	Provide non-acute psychiatric treatment—mainly to the general adult population.
Forensic psychiatric hospitals	Provide assessment and treatment of people with a mental disorder and a history of criminal offending, or those who are at risk of offending.
Same-day hospitals	Treat patients on a same-day basis. The hospitals in the same-day hospital peer groups tend to be highly specialised.
Other day procedure hospitals	Provide a variety of specialised services on a same-day basis.
Other acute specialised hospitals	Specialise in a particular form of acute care, not grouped elsewhere. This group is too diverse to be considered a peer group for comparison purposes. It includes hospitals that specialise in the treatment of cancer, rheumatology, eye, ear, and dental disorders.
Subacute and non-acute hospitals	
Rehabilitation and geriatric evaluation and management hospitals	Primarily provide rehabilitation and/or geriatric evaluation and management in which the clinical purpose or treatment goal is improvement in the functioning of a patient.
Mixed subacute and non-acute hospitals	Primarily provide a mixture of subacute (rehabilitation, palliative care, geriatric evaluation and management, psychogeriatric care) and non-acute (maintenance) care that is not covered by the hospitals in the rehabilitation and geriatric evaluation and management hospital peer group.
Outpatient hospitals	Provide a range of non-admitted patient services. They generally do not admit patients.
Unpeered hospitals	Could not be placed in one of the other peer groups.

Glossary

Most definitions in this 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 topics related to health and community services, and specifications for related national minimum data sets. METeOR can be viewed at <www.meteor.aihw.gov.au>.

For more information on the terms used in this report, see the definitions in the *National health data dictionary version 16* (AIHW 2012).

access block: The situation where patients who have been admitted and need a hospital bed are delayed from leaving the Emergency Department (ED) because of lack of inpatient (admitted patient) bed capacity (ACEM 2014).

admitted patient: A patient who undergoes a hospital's formal admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time, and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). METeOR id: 268957.

diagnosis classification type: The type of classification used for recording emergency department diagnoses. METeOR id: 590662.

duration of clinical care: The period between when clinical care commences and the end of the non-admitted patient emergency department episode.

emergency department stay: The period between when a patient presents at an emergency department, and when that person is recorded as having physically departed the emergency department. METeOR id: 472757.

emergency department waiting time to admission: Time elapsed for each patient from presentation to the emergency department to admission to hospital. This is calculated from physical departure date and time minus presentation date and time for those emergency department patients who are admitted.

emergency department waiting time to clinical care: Time elapsed in minutes for each patient from presentation in the emergency department to the commencement of the emergency department non-admitted clinical care. METeOR id: 621840.

episode: See **emergency department stay**.

episode end status: The status of the patient at the end of the non-admitted patient emergency department service episode. METeOR id: 616654 for the NAPEDC NMDS and METeOR id: 551305 for the NAPEDC NBEDS.

hospital: A health care facility established under Commonwealth, state, or territory legislation as a hospital or a free-standing day procedure unit, and authorised to provide treatment and/or care to patients. METeOR id: 404245.

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 Australian Government definition:

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 id: 602543.

major diagnostic block: The urgency related group major diagnostic block category into which the patient's emergency department diagnosis is grouped. METeOR id: 547612.

non-admitted patient: A patient who does not undergo a hospital's formal admission process. There are 3 categories of non-admitted patient: emergency department patient, outpatient, and other non-admitted patient (treated by hospital employees of the hospital site—includes community/outreach services). METeOR id: 268973.

non-admitted patient emergency department service episode: The treatment or care between when a patient presents at an emergency department, and when the non-admitted patient emergency department clinical care ends. METeOR id: 474114.

patient presentation at emergency department: The presentation of a patient at an emergency department occurs following the arrival of the patient at the emergency department. It is the earliest occasion of being registered clerically, or triaged. METeOR id: 471889.

peer group: A classification of hospitals into broadly similar groups in terms of characteristics. METeOR id: 584661.

performance indicator: A statistic or other unit of information that reflects, directly or indirectly, the extent to which an expected outcome is achieved, or the quality of processes leading to that outcome.

presentation: See **patient presentation at emergency department**. Also used as the counting unit for emergency department care.

principal diagnosis: The diagnosis established at the conclusion of the patient's attendance in an emergency department to be mainly responsible for occasioning the attendance following consideration of clinical assessment. METeOR id: 590664.

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.

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.

remoteness area: A classification of the remoteness of a location using the Australian Statistical Geography Standard Remoteness Structure (2011). The Australian Statistical Geography Standard-Remoteness Area is a geographical classification that defines locations in terms of remoteness, that is, the physical distance of a location from the nearest urban centre. METeOR id: 531713.

triage category: A category used in the emergency departments of hospitals to indicate the urgency of the patient's need for medical and nursing care. Patients will be triaged into 1 of 5 categories on the Australasian Triage Scale. The triage category is allocated by an experienced registered nurse or medical practitioner. METeOR id: 474185.

type of visit: The reason the patient presents to an emergency department. METeOR id: 495958 (NAPEDC NMDS); METeOR id: 550725 (NAPEDC NBEDS).

References

- ABS (Australian Bureau of Statistics) 2016. Patient experiences in Australia: Summary of findings 2015–16. ABS cat. no. 4839.0. Canberra: ABS.
- ABS 2017. Private hospitals, Australia, 2015–16. ABS cat. no. 4390.0. Canberra: ABS.
- ACEM (Australasian College for Emergency Medicine) 2014. Statement on access block. Melbourne: ACEM. Viewed 16 November 2017, <<https://acem.org.au/getattachment/8c29d36e-27e2-40e7-9a1e-dfe73c5298ba/S127-Statement-on-Access-Block.aspx>>.
- ACEM 2016. Guidelines on the implementation of the Australasian Triage Scale in emergency departments. Melbourne: ACEM. Viewed 20 September 2017, <<https://acem.org.au/getattachment/4320524e-ad60-4e7c-a96d-bdf90cd7966c/G24-Implementation-of-the-Australasian-Triage-Scal.aspx>>.
- AIHW (Australian Institute of Health and Welfare) 2012. National health data dictionary 2012 version 16. Cat. no. HWI 119. Canberra: AIHW.
- AIHW 2015a. Australian hospital peer groups. Health services series no. 66. Cat. no. HSE 170. Canberra: AIHW.
- AIHW 2015b. Non-admitted patient emergency department care 2014–15: Australian hospital statistics. Health services series no. 65. Cat. no. HSE 168. Canberra: AIHW.
- AIHW 2016a. Australia's health 2016. Australia's health series no. 15. Cat. no. AUS 199. Canberra: AIHW.
- AIHW 2016b. Elective surgery waiting times 2015–16: Australian hospital statistics. Health services series no. 73. Cat. no. HSE 183. Canberra: AIHW.
- AIHW 2017a. Admitted patient care 2015–16: Australian hospital statistics. Health services series no. 75. Cat. no. HSE 185. Canberra: AIHW.
- AIHW 2017b. Australia's hospitals 2015–16: at a glance. Health services series no. 77. Cat. no. HSE 189. Canberra: AIHW.
- AIHW 2017c. Hospital resources 2015–16: Australian hospital statistics. Health services series no. 78. Cat. no. HSE 190. Canberra: AIHW.
- AIHW 2017d. Non-admitted patient care 2015–16: Australian hospital statistics. Health services series no. 76. Cat. no. HSE 188. Canberra: AIHW.
- AIHW 2017e. *Staphylococcus aureus* bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics. Health services series no. 74. Cat. no. HSE 184. Canberra: AIHW.
- IHPA (Independent Hospital Pricing Authority) 2014. Urgency related groups (URGs) and urgency disposition groups (UDGs). Sydney: IHPA. Viewed 1 August 2017, <<https://www.ihoa.gov.au/what-we-do/urgency-related-groups-and-urgency-disposition-groups>>.
- NHPC (National Health Performance Committee) 2001. National report on health sector performance indicators 2001—a report to the Australian Health Ministers' Conference. Sydney: NSW Health Department.
- NSW Health 2002. Guide to the role delineation of health services, 3rd edition. Sydney: NSW Health Department.

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- AIHW 2017. Hospital resources 2015–16: Australian hospital statistics. Health services series no. 78. Cat. no. HSE 190. Canberra: AIHW.
- AIHW 2017. Non-admitted patient care 2015–16: Australian hospital statistics. Health services series no. 76. Cat. no. HSE 188. Canberra: AIHW.
- AIHW 2017. *Staphylococcus aureus* bacteraemia in Australian public hospitals 2015–16: Australian hospital statistics. Health services series no. 74. Cat. no. HSE 184. Canberra: AIHW.

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Emergency department care 2016–17: Australian hospital statistics provides information on people who present at emergency departments in Australia, including who used services, why they used them, and how long they had to wait for care.

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