

# Emergency department care 2017-18

Web report | Last updated: 01 Mar 2019 | Topic: Hospitals

## **About**

The Emergency department care 2017-18: Australian hospital statistics web report presents information on care provided in public hospital emergency departments (EDs) between 1 July 2017 and 30 June 2018. It includes information on overall activity, nationally agreed performance indicators on waiting times for care, time spent in the ED, and other waiting times statistics. It also includes comparative information for the previous 4 reporting periods.

A PDF version of this report was first published on 6 December 2018. Additional material was added on 1 March 2019:

- · web report
- · excel data tables
- interactive data visualisations.

Cat. no: HSE 223

#### Findings from this report:

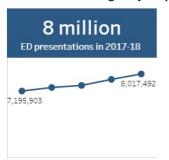
- 8 million patients presented to Australian public hospital emergency departments
- On average, 22,000 patients presented to an ED every day
- 25% of emergency department presentations had a diagnosis related to injury and poisoning
- 71% of presentations were completed within 4 hours

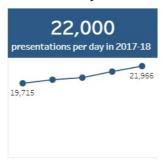


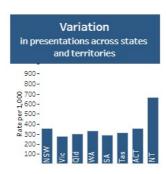


# **Summary**

How much emergency department activity was there?





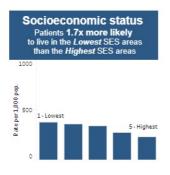


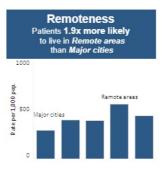
More activity data.

### Who used emergency department services?



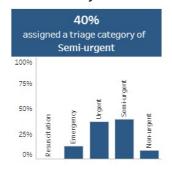


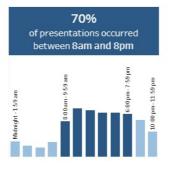


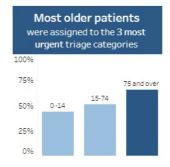


More data on use of services.

### How and why were services accessed

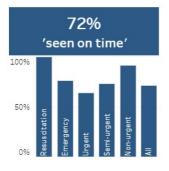


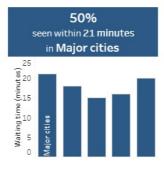




More data on access to services.

## How long did people wait for emergency department care?

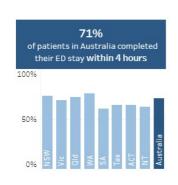


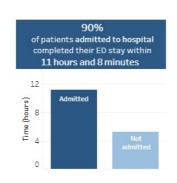


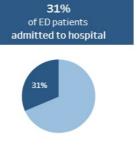


More data on waiting times.

How long did people stay in the emergency department?







More data on length of stay.





## Introduction

Emergency departments (EDs) are an essential 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.

This report presents information on care provided in public hospital EDs between 1 July 2017 and 30 June 2018. It includes information on overall activity, nationally agreed performance indicators on waiting times for care, time spent in the ED, and other waiting times statistics. It also includes comparative information for the previous 4 reporting periods.

Emergency department care 2017-18: Australian hospital statistics 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.

#### Emergency department activity increasing

In 2017-18, more than 8 million patients presented to Australian public hospital EDs—an average of about 22,000 patients per day. This was 3.4% higher than the previous year (compared with 2.7% growth per year over the past 4 years).

Principal diagnoses in the ICD-10-AM chapter Injury, poisoning and certain other consequences of external causes accounted for about one in four presentations (almost 2 million). These include fractures, burns, toxic effects of medicinal and non-medicinal substances, and other complications.

Patients aged 4 years and under (who make up less than 7% of the population (ABS 2018) accounted for 11% of presentations, and patients aged 65 years and over (who make up about 15% of the population) accounted for 22% of presentations.

Older patients were more likely to be assigned a triage category of Resuscitation, Emergency or Urgent than younger patients. Older patients were also more likely to be subsequently admitted to the hospital.

#### Around three-quarters of patients received care on time

In 2017-18, 72% of patients were 'seen on time', including almost all of those requiring immediate care and 76% of those requiring care within 10 minutes. This proportion has declined since 2013-14 (75%).

Of all emergency presentations:

- 90% of patients were seen within 1 hour and 39 minutes. This measure was fairly consistent over the previous four years, varying from 1 hour 33 and minutes to 1 hour and 35 minutes.
- 50% of patients were seen within 19 minutes, consistent with waiting times for the previous year, and similar to waiting times in 2013-14 (18 minutes).

#### Fewer ED visits were completed within 4 hours

In 2017-18:

- overall, 71% of ED visits were completed within 4 hours—ranging from 61% in South Australia to 76% in Western Australia
- 90% of ED visits were completed within 7 hours and 13 minutes.

### References

ABS (Australian Bureau of Statistics) 2018. Australian Demographic Statistics, Mar 2018. ABS. Viewed 20 September 2018. View this report on the ABS web site.





# Activity

In 2017-18, there were 8 million presentations to public hospital EDs, an average of approximately 22,000 presentations each day.

Between 2013-14 and 2017-18, the number of presentations to public hospital emergency departments increased by 11% overall—or by 2.7% on average each year. This was greater than the average growth in population over the same period, with an increase of 1.1% in the number of presentations per 1,000 people.

The number of hospitals that reported ED presentations to the NNAPEDCD was relatively stable for most states and territories.

Hospitals are classified into peer groups based on the types of services and facilities they provide. About 35% (2.8 million) of presentations to public hospital EDs occurred in Principal referral and Women's and children's hospitals, 37% (3.0 million) in Public acute group A hospitals, and 18% (1.4 million) in Public acute group B hospitals. See Appendix C for more information on peer group classifications.

Visualisation not available for printing

See Tables 2.1, 2.2 and 2.3 for caveat information on these data. Available to download in the data section.

#### 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, 2017-18'. Available to download in the data section.





This section presents infomration on the patients who received care in public hospital EDs. It includes information on the patient's

- age group and sex
- Indigenous status
- remoteness area
- socioeconomic status.





In 2017-18, ED presentations were evenly split between males and females. Overall, the crude rate of presentations per 1,000 population were similar for both sexes at 334.7 for males and 327.5 for females.

For those aged 0-14, substantially more boys (56%) than girls (44%) presented to EDs.

Patients aged 4 and under (who make up less than 7% of the population), accounted for about 11% of all ED presentations in 2017-18. There were 620.7 presentations per 1,000 population for males (crude rate) and 510.1 presentations per 1,000 population for females (crude rate) in this age group.

Patients aged 65 and over (who make up about 15% of the population) accounted for about 22% of all ED presentations in 2017-18. For patients aged 85 and over, there were 922.7 presentations per 1,000 population for males (crude rate) and 750.3 presentations per 1,000 population for females (crude rate).

Visualisation not available for printing

See Table 3.1 and S3.1 for caveat information on these data. Available to download in the data section.





In 2017-18, about 6.7% of ED presentations (535,000) were for Aboriginal and Torres Strait Islander people, who represent about 3.5% of the Australian population.

In all jurisdictions, the presentation rate per 1,000 population was greater for Indigenous Australians compared to Other Australians. In people aged 20-64, the rate of presentations per 1,000 population was greater in Indigenous Australians compared to Other Australians (crude rate).

Visualisation not available for printing

See Table S3.2 for caveat information on this data. Available to download in the data section.

#### Limitations of data provided for Indigenous status

The quality of the data reported for Indigenous status in EDs has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution. See Appendix A for more information.





In 2017-18, 63% of ED presentations were reported for people living in Major cities—who make up about 71% of the Australian population, about 289 ED presentations per 1,000 people.

People living in Remote and Very remote areas (who make up about 2% of the population) accounted for more than 3% of presentations, about 554 and 435 ED presentations per 1,000 people, respectively.

For people living in Major cities, 54% of presentations were assigned to the 3 most urgent triage categories (Resuscitation, Emergency, and Urgent), compared with about 37% of presentations reported for people living in Remote areas.

Visualisation not available for printing

See Table 3.3 for caveat information on these data. Available to download in the data section.

### Where to go for more information

Information on waiting times for ED presentations by remoteness of area of usual residence is presented in the 'Waiting times' section of this report, and 'Chapter 5-How long did people wait for ED care?' . Available to download in the pdf version of this report.





The socioeconomic areas of usual residence are presented as quintiles (fifths). The lowest group represents the areas containing the 20% of the population with the most disadvantage and the highest group represents the areas containing the 20% of the population with the least disadvantage.

In 2017-18, close to 24% of ED presentations were reported for patients living in the lowest socioeconomic (most disadvantaged) areas, about 382 ED presentations per 1,000 people. The smallest number of ED presentations was reported for patients living in the highest (least disadvantaged) socioeconomic areas (14% of the total), with about 234 ED presentations per 1,000 people. Patients living in areas classified as being in the lowest two SES groups made up more than half of all non-urgent triage category presentations in EDs.

#### Visualisation not available for printing

See Table 3.4 for caveat information on these data. Available to download in the data section.

### Where to go for more information

See Appendix A for more information on remoteness area and socioeconomic status, and for an explanation of the triage categories.





## Access to services

Of the 8.0 million presentations in public hospitals in 2017-18, the vast majority (98.2%) were Emergency presentations. A small proportion (1.5%) were Return visit, planned and the remaining types of visit accounted for about 0.3% of presentations.

The most common of the 5 triage categories for ED presentations was Semi-urgent (40% of all presentations), while 0.8% were assigned to Resuscitation (needing immediate treatment). About 51% of all patients were assigned to one of the 3 most urgent triage categories. This proportion ranged from less than 40% for patients aged 5 to 14 years to more than 67% for patients aged 95 and over.

#### Visualisation not available for printing

See Tables 4.1, 4.2, 4.12 and 4.13 for caveat information on these data. Available to download in the data section.

Since 2013-14, the proportion of patients assigned a triage category of Urgent has increased, and the proportion assigned a triage category of Semi-urgent or Non-urgent has decreased.

In 2017-18, 3 in 4 (74%) presentations to EDs began with the patient either walking into the ED, or arriving by private transport, public transport, community transport, or taxi. About 25% arrived by Ambulance, air ambulance or helicopter rescue service.

The proportion of patients Admitted to this hospital was 31%. This was lower for less urgent triage categories—ranging from 75% for Resuscitation patients to 5% for Non-urgent patients. About 61% of all presentations reported an episode end status of Departed without being admitted or referred, and this proportion was higher for less urgent triage categories.

#### Where to go for more information

Information on admission status for ED presentations is presented in the 'Length of stay' section of this report, and 'Chapter 6-How long did people stay in the emergency department?'. Available to download in the pdf version of this report.





## Access to services

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

In 2017-18, there were more presentations on Mondays than on other days.

ED resources are used unevenly throughout the average day, with more than two-thirds (70%) of ED presentations occurring between 8 am and 8 pm.

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.

Visualisation not available for printing

See Figures 4.1 and 4.2 for caveat information on these data. Available to download in the data section.





## Access to services

The principal diagnosis is the main reason the patient presented to the ED and is recorded at the conclusion of the patient's visit.

The most common diagnoses of ED presentations vary by state, triage category, admission status and age group.

Data on principal diagnosis by age and sex, triage category, and admission end status can be explored further in the data visualisations below.

In 2017-18, Injury, poisoning and certain other consequences of external causes was the most common ICD-10-AM principal diagnosis chapter reported (accounting for 25% of presentations). This chapter includes fractures, burns, toxic effects of medicinal and nonmedicinal substances, and other complications. The second most common ICD-10-AM principal diagnosis chapter reported was Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (21% of presentations), which includes abdominal and pelvic pain, pain in the throat and chest, syncope and collapse, headache, and nausea.

About 31% of ED presentations were subsequently admitted to hospital, and older patients were more likely to be Admitted to this hospital than younger patients. The most common ICD 10 AM principal diagnosis chapter for patients admitted to hospital was Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (28%).

#### Visualisation not available for printing

See Tables 4.5, 4.6, 4.7, 4.9 and 4.10 for caveat information on these data. Available to download in the data section.

Diagnoses are presented here using the International Statistical Classification of Disease and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM). Diagnoses are reported by a 3-character diagnosis code and by diagnosis chapter.

#### Where to go for more information

Information on the principal diagnoses provided for ED presentations is available in Appendix A and Appendix B. Information for principal diagnosis by age group is available in Table 4.11, which is available for download in the data section of this report.

Information on major diagnostic block (which uses principal diagnosis information) is available in tables S4.1-S4.3 for:

- major diagnostic block and states and territories
- major diagnostic block and triage category
- major diagnostic block and admission status

Available to download in the data section.





The data in this section relates to the waiting times of people who presented to the ED with a type of visit of Emergency presentation.

The progress of the patient through the ED is recorded using 5 different time points: presentation time, triage time, clinical care commencement, episode end time and physical departure time as depicted in Figure 1.

These can be used to calculate the waiting times for 50% and 90% of patients, as well as the proportion of patients seen on time.

The waiting time is calculated as the time between arrival at the ED and commencement of clinical care.



Figure 1: Measurement of time patients spend in emergency departments

Visualisation not available for printing

See Tables 5.1, 5.2 and 5.3 for caveat information on these data. Available to download in the data section.

#### Waiting time for 50% of patients (median)

In 2017-18, 50% of patients were seen within 15 minutes in New South Wales and within 46 minutes in the Australian Capital Territory.

Between 2013-14 and 2014-15, 50% of patients were seen within 18 minutes. Between 2014-15 and 2017-18, 50% of patients were seen within 19 minutes.

### Waiting time for 90% of patients

In 2017-18, 90% of patients were seen within 78 minutes in New South Wales and within 159 minutes in the Australian Capital Territory.

Overall, the time within which 90% of patients were seen increased from 93 minutes in 2013-14 to 99 minutes in 2017-18.

For more information about the performance indicator Waiting time for emergency hospital care—proportion seen on time, see Waiting times: Proportion seen on time.





The proportion of presentations '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:

• Resuscitation: Immediate (within seconds)

• Emergency: within 10 minutes • Urgent: within 30 minutes • Semi-urgent: within 60 minutes • Non-urgent: within 120 minutes.

For further information on triage category, see the Glossary.

Between 2013-14 and 2017-18, the proportion of Emergency presentations that were seen on time decreased from 75% to 72%. The proportion seen on time varied across states and territories.

Visualisations of the performance indicator data are available in Waiting times.

#### Performance indicator: Waiting times for emergency department care-proportion seen on time

The National Healthcare Agreement performance indicator Waiting time for emergency hospital care-proportion seen on time can be related to the Australian 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'. Information on individual hospital performance for this indicator is also available on the MyHospitals website.

In 2017-18, 72% of Emergency presentations were seen on time. Principal referral and women's and children's hospitals had the lowest overall proportion of presentations seen on time (67%), and Other hospitals had the highest proportion (89%).

From 2014-15 onwards, there were some changes to the way data were reported for this indicator. Therefore information presented from 2014-15 onwards are not comparable to previous years.

See Appendix A for information on the quality of data provided for the National Healthcare Agreement performance indicator.





Almost 522,000 Emergency presentations (6.6%) were reported for patients who identified as being of Aboriginal and/or Torres Strait Islander origin. The waiting time for 50% of Indigenous Australians (within 19 minutes) was similar to that for other Australians (within 19 minutes).

For Urgent, Semi-urgent, and Non-urgent patients, the national waiting times for 50% of Indigenous Australians were shorter than those for other Australians.

The proportion of presentations seen on time for Indigenous Australians (73%) was similar to that for other Australians (72%).

Visualisation not available for printing

See Tables 5.5 and 5.6 for caveat information on these data. Available to download in the data section.

#### Limitations of data provided for Indigenous status

The quality of the data reported for Indigenous status in EDs has not been formally assessed. Therefore, the information on Indigenous status presented in this report should be interpreted with caution. See  $\underline{\mathsf{Appendix}}\,\underline{\mathsf{A}}$  for more information.





In 2017-18, overall, the time within which 50% of presentations were seen was longest for people living in Major cities (21 minutes), and lowest for those living in Outer regional areas (15 minutes).

For Emergency and Urgent triage categories, the shortest time within which 50% of patients waited was for patients living in Remote areas. Those living in Major cities had the longest time within which 50% of patients waited for Urgent and Non-urgent categories.

### Visualisation not available for printing

See Tables 5.4 and S5.2 for caveat information on these data. Available to download in the data section.

### Where to go for more information

More information on ED waiting times is available in tables S5.1-S5.3. for:

- triage category and hospital peer group
- triage category and remoteness of usual residence
- triage category and socioeconomic status of usual residence.

Available to download in the data section.





The progress of the patient through the ED is recorded using 5 different time points: presentation time, triage time, clinical care commencement, episode end time and physical departure time as depicted in Figure 1.

These can be used to calculate the length of stay for 50% and 90% of patients, as well as the proportion of patients whose ED stay was completed in 4 hours.

The length of stay is calculated as the time spent in the ED, from arrival to physical departure. Comparisons of length of stay statistics by state and territory are provided in the sub sections below.



Figure 1: Measurement of time patients spend in emergency departments

Visualisation not available for printing

See Tables 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, S6.1 and S6.2 for caveat information on these data. Available to download in the data section.





### Time spent in the ED for 50% of patients

Between 2013-14 and 2016-17, the time within which 50% of patients completed their ED stay increased from 2 hours and 40 minutes to 2 hours and 48 minutes. It remained stable at 2 hours and 48 minutes in 2017-18.

For patients who were admitted to hospital, the time within which 50% of patients completed their ED stay decreased from 4 hours and 27 minutes to 4 hours and 6 minutes between 2013-14 and 2017-18.

The overall length of stay for 50% of patients varied across states and territories. For patients who were not admitted to hospital, the length of stay for 50% of patients was generally shorter for the less urgent triage categories.

### Visualisation not available for printing

See Tables S6.1 and S6.2 for caveat information on these data. Available to download in the data section.

#### Time spent in the ED for 90% of patients

Between 2013-14 and 2017-18, the time within which 90% of patients completed their ED stay increased from 7 hours and 5 minutes to 7 hours and 14 minutes in 2017-18, falling slightly between 2014-15 and 2016-17.

For patients admitted to hospital, the time within which 90% of patients completed their ED stay fell significantly from 11 hours and 49 minutes in 2013-14 to 10 hours and 43 minutes in 2015-16, before rising steadily to 11 hours and 8 minutes in 2017-18.

Nationally, 90% of patients completed their ED stay within 7 hours and 13 minutes in 2017-18.

For patients who were subsequently admitted to the same hospital, the time within which 90% of patients completed their ED stay varied by triage category, ranging from 8 hours and 5 minutes for Non-urgent patients to 11 hours and 39 minutes for Emergency patients.

For patients not subsequently admitted, the time within which 90% of patients completed their ED stay was 5 hours and 18 minutes. The length of stay was generally longer for patients in the more urgent triage categories.





#### How many visits were completed within 4 hours?

Between 2013-14 and 2015-16, the proportion of presentations completed within 4 hours increased from 72.7% to 73.2%. It decreased to 71% between 2015-16 and 2017-18 (excludes data for the Australian Capital Territory in 2015-16).

For patients admitted to hospital, the proportion of presentations completed within 4 hours increased from 45% in 2013-14 to 49% in 2017-18, and this proportion was higher for the less urgent triage categories.

For patients not admitted to hospital, 81% of presentations were completed within 4 hours, including 94% of Non-urgent presentations.

#### Visualisation not available for printing

See Tables 6.3, 6.4, 6.5 and 6.6 for caveat information on these data. Available to download in the data section.

Proportion of patients whose emergency department stay is less than or equal to 4 hours (proportion completed within 4 hours)

The National Healthcare Agreement 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 Australian 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.

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, 55% of Resuscitation and 58% of Emergency visits were completed within 4 hours, compared with 79% of Semi-urgent visits and 92% of Non-urgent visits.

Public acute group B hospitals generally achieved a higher proportion of visits completed within 4 hours (76%) than Principal referral and women's and children's hospitals and Public acute group A hospitals (67% and 68%, respectively).

Complementary hospital-level data for this indicator is released on the MyHospitals website.

See Appendix A for information on the quality of National Healthcare Agreement data.





The duration of clinical care 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 ED. It is measured as the time from the commencement of clinical care to the conclusion of the non-admitted component of care (episode end). The measures relate to Emergency presentations, rather than other types of visits.

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

### Visualisation not available for printing

See Table 6.7 for caveat information on these data. Available to download in the data section.

For patients subsequently admitted to the same hospital:

- 35% had a duration of clinical care of 4 hours or more
- patients with an *Urgent* triage category were most likely to spend more than 4 hours in ED (37%).

For patients not subsequently admitted:

- 12% had a duration of clinical care of 4 hours or more
- patients with a Resuscitation triage category (38%) were most likely to spend more than 4 hours in the ED.





## **Appendixes**

### Data quality statement

### 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 ED.

The NNAPEDCD provides information on the care provided (including waiting times for care) for non-admitted patients registered for care in public hospital EDs 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 ED nursing staff 24 hours per day 7 days per week, and a designated ED nursing unit manager.

Patients who were dead on arrival are in scope if an ED clinician certified the death of the patient. Patients who leave the ED after being registered/triaged to receive care and then advised of alternative treatment options are also in scope.

The scope includes only physical presentations to ED. 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 ED. Also excluded from the scope of the NMDS is care provided to patients in general practitioner co-located units or urgent care centres.

Since 2003-04, data for the NNAPEDCD have been reported annually. The most recent reference period for this data set includes records for Non-admitted patient ED service episodes between 1 July 2017 and 30 June 2018.

Since 2015-16, 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

Overall, the quality of the data in the NNAPEDCD is sufficient to be published in this report. However, the following limitations of the data 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 this appendix. The AIHW takes active steps to improve the consistency of these data over time.

- The NNAPEDCD may not include emergency presentations to hospitals that have EDs that are not in scope for the NAPEDC NMDS/NBEDS.
- The following jurisdictions have provided data to the NNAPEDCD using the NAPEDC NBEDS specification: Queensland (from 2015-16); Victoria and Western Australia (from 2016-17). All other states and territories used the NAPEDC NMDS. The data provided using the NAPEDC NBEDS may not be entirely comparable with data provided using the NAPEDC NMDS
- For 2017-18, waiting times information could not be calculated for about 20,000 emergency presentations (for which waiting times are applicable).
- Changes in definitions for *Episode end status* in the NMDS and NBEDS between 2015-16 and 2016-17 may affect the comparability of the 2017-18 *Episode end status* data with that for reporting periods prior to 2016-17.
- For 2015-16, Australian Capital Territory ED care data were not available at the time of publication. Therefore, comparisons over time should be interpreted with caution. The 2015-16 data for Australian Capital Territory may be available for inclusion in future reports.
- Although there are national standards for data on non-admitted patient ED 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.
- For Western Australia, the date and time of commencement of clinical care was missing for about 23,000 ED 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.

#### 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 20,000 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* (298,000 records), *Dead on arrival* (251 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 55,000 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 ED stay could not be calculated for about 5,000 records due to missing, or invalid values (such as for time of presentation, or time of physical departure).

#### 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 EDs as described in 'National Non admitted Patient Emergency Department Care Database'.

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, any comparisons of time series data should take into consideration changes in the scope of the collection from 2013-14 onwards.

#### How has data coverage changed over time?

Because the scope of the NAPEDC NMDS is restricted to formal EDs, the number of ED presentations reported to the NNAPEDCD does 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 ED 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 ED, or other arrangements for providing emergency care. This provided an estimate but not an exact measure of the coverage.

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 2015).

However, 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.

Estimates of coverage from 2015-16 onwards have not been calculated.

## Variation in reporting

#### Variation in hospitals reporting

Between 2013-14 and 2017-18, the number of hospitals that reported ED presentations to the NNAPEDCD was relatively stable for most states and territories and included the major public hospitals in all states and territories.

A summary of the key changes in hospital reporting between 2013-14 and 2017-18 is provided below:

- 1. In New South Wales, Byron Central Hospital commenced providing ED care in 2015-16, replacing care previously provided by Mullumbimby Hospital and Byron Bay Hospital.
- 2. In Queensland, the Sunshine Coast University Hospital opened in March 2017, but this did not constitute a change in coverage, as the ED services were previously provided by a number of smaller hospitals in the region, which reported data for the NNAPEDCD.
- 3. Data for the Royal Children's Hospital and the Mater Children's Hospital were included in reporting from 2012-13 to 2014-15. During 2014-15, they were replaced by the Lady Cilento Children's Hospital. All 3 hospitals reported ED care data in 2014-15.
- 4. In Western Australia:
  - Perth's Children's Hospital opened in June 2018 and Princess Margaret Hospital closed. The data for these hospitals are reported separately.
  - the St John of God Midland Public Hospital opened, and the Swan District Hospital closed in November 2015. Both hospitals were reported in 2015-16.
  - in 2014-15, Busselton Health Campus began reporting ED care data, after the Busselton hospital was redeveloped to include a larger ED. This constituted a change in coverage as the activity was previously not reported for the NNAPEDCD.
  - also in 2014-15, the Fremantle Hospital's ED was replaced by the Fiona Stanley Hospital ED. Both hospitals were reported for 2014-15.

Change in coverage due to the opening or closing of hospitals should be taken into account when interpreting changes over time. There was no change in the coverage of the NNAPEDCD between 2016-17 and 2017-18 (assessed by comparing the hospitals included for the two years).

In 2017-18, 286 public hospital EDs reported ED presentations. These included most 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.

### Possible variation in triage categorisation

Of the 8.0 million presentations reported to the NNAPEDCD for 2017-18, 98.2% were *Emergency presentations*, and 1.5% were *Return visit*, planned. The remaining types of visit accounted for about 0.3%. 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* (10.3%), and South Australia had the highest proportions of presentations that were *Resuscitation* (1.4%). Queensland had the highest proportions of presentations that were *Emergency* (15.8%) and *Urgent* (46.0%). 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 EDs triage patients. 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. For example, nationally, about 31% of *Emergency presentations* had an episode end status of *Admitted to this hospital*. Victoria, Queensland and the Northern Territory had the highest proportion (36%), and New South Wales had the lowest (26%). 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 87% in the Northern Territory.

#### Variation in reporting diagnosis information

For the 2017-18 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, 9th edition, or 10th edition.

Most states and territories reported patients' diagnoses using a single type of classification. The majority of records (68%) were reported using various editions of ICD-10-AM.A principal diagnosis was not reported for about 283,000 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 <u>Appendix B</u>.

#### Quality of Indigenous status data

The quality of the data reported for Indigenous status in EDs 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.

All states and territories consider the Indigenous status data used in this report to be of a quality appropriate for publication. Indigenous status was not reported for fewer than 1% of ED presentations in 2017-18.

## 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.

#### Remoteness area of usual residence

In 2017-18, jurisdictions provided area of usual residence using either the 2016 Statistical Area Level 2 or Statistical Area Level 1.

The AIHW mapped the 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 2016. 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.

The remoteness area information for 2017-18 are based on the ABS's ASGS 2016 classification, whereas the remoteness area information reported for 2013-14 to 2016-17 were based on the ABS's ASGS 2011 classification. Therefore, the remoteness (and socioeconomic status) data presented for 2017-18 are not comparable with similar information presented in earlier reports.

#### Type of visit

For 2017-18, 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 NBEDS specification, patients in transit are included as *Emergency presentation*.

#### Episode end status

For the purposes of reporting, the NAPEDC NBEDS episode end status category *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 *Admitted to this hospital* (either short-stay unit, hospital-in-the-home, or non-emergency department hospital ward).

For the NAPEDC NMDS, patients who are admitted to the hospital, and subsequently die before leaving the ED 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 2017-18 data for the NNAPEDCD using the NAPEDC NBEDS specifications, for which patients who died or otherwise left the ED 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.

Caution should be used when interpreting changes over time for episode end status because:

- Between 2015-16 and 2016-17, a change in the episode end status data element resulted in a new category—Registered, advised of another health care service, and left the emergency department without being attended by a health care professional (METEOR identifier 616654). As a result, the 2016-17 and 2017-18 data presented for episode end status are not comparable with previous years.
- 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.

There is a difference between the number of presentations with a type of visit of *Dead on arrival* (3,402; Table 4.1) and the number of presentations with an episode end status of *Dead on arrival* (3,510; Table 4.10). 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 (2,846 with a type of visit of *Dead on arrival* and 2,938 with an episode end status of *Dead on arrival*).

### Quality of waiting times and length of stay data

#### Waiting time

For 2017-18, about 20,000 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.

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.

#### Emergency department length of stay

For about 5,000 records, the ED 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 800 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 67,000 records, the duration of clinical care could not be calculated. For about 32,000 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. About 73% 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.

For 2017-18, a duration of clinical care was reported for about 155,000 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 the emergency department without being attended by a health care professional—for which a time of episode end is not applicable. These records were distributed across multiple hospitals, mainly from Queensland.

#### NHA Performance indicators

In 2016-17, there was a change in the definition of the indicator Waiting times for emergency department care—proportion seen on time 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. Therefore, the 2016-17 and 2017-18 data presented for proportion seen on time are not comparable with previous years.

For 2017-18, 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 of these records were in New South Wales.

#### References

AIHW 2015. Emergency department care 2014-15: Australian hospital statistics. Health services series no. 72. Cat. no. HSE 182. Canberra: AIHW.





## **Appendixes**

#### **Definitions**

If not otherwise indicated, data elements were defined according to the 2017-18 definitions in the National health data dictionary, versions 16, 16.1 and 16.2 (AIHW 2012, 2015a, 2015b).

#### 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 2019.

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 the AIHW publication Australian hospital peer groups (AIHW 2015c) for more information.

### 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.

### Changes over time

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

## 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<sup>th</sup> and (i+1)<sup>th</sup> observations.

If  $n \times p$  is not an integer, the percentile value will correspond to the value for the (i+1)<sup>th</sup> 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 2017-18, 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, 7th, 8th, 9th or 10<sup>th</sup> editions.

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 10th 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

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

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.

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 that contained concepts that did not have equivalent codes in ICD-10-AM (for example, dressing of wound, preparation of medical certificate, and patient left against medical advice).

The principal diagnoses for the remaining presentations were mapped to 2,749 unique ICD-10-AM 6th edition codes. Following the mapping, a relatively small number of ICD-10-AM 6th edition diagnosis codes were mapped to ICD-10-AM 10th edition.

#### 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, and were subsequently mapped to ICD-10-AM 10th edition.

#### Step 3: assigning ICD-10-AM 10th edition codes for 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, 9th and 10th editions.

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

Step 4: assessment of completeness of mapping

Following mapping, about 96% of principal diagnoses were mapped to valid ICD-10-AM 10th edition diagnosis codes.

## Waiting times

#### Waiting time to commencement of clinical care

The waiting times are determined as the time elapsed between presentation to the ED 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 data quality statement 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

#### 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 ED 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 EDs (for patients who were subsequently admitted) is calculated using the ED 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 is determined as the time elapsed between commencement of clinical care and the end of the non-admitted patient ED episode (the end of clinical care).

See the data quality statement 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 317 records, the age of the patient could not be calculated, as date of birth was missing. For 567 records, the sex of the patient was reported as either *Intersex or indeterminate* or *Not stated/inadequately described*.

#### Age-standardised rates

Unless noted otherwise, population rates (presentation rates) presented in this report are age-standardised, calculated using the direct standardisation method and 5 year age groups.

The ABS' population estimates for 30 June at the beginning of the reporting period were used for the observed rates.

For time series tables in this report, the age-standardised presentation rates (per 1,000 population) have been calculated using estimated resident populations relevant to the reporting period.

The total Australian population for 30 June 2001 was used as the standard population against which expected rates were calculated.

There was some variation in the age group used for age-standardising. For example:

- presentation rates by hospital state, remoteness areas and by quintiles of socioeconomic advantage/disadvantage (SES) were directly age-standardised, using the estimated resident populations as at 30 June 2017. The estimated resident populations had a highest age group of 85 and over
- presentation rates by Indigenous status were directly age-standardised, using the projected Indigenous population (low series) as at 30 June 2017. The population for other Australians was based on the estimated resident populations as at 30 June 2017. As the projected Indigenous population estimates had a highest age group of 65 and over, standardised rates calculated for analyses by Indigenous status are not directly comparable with other standardised rates presented in this report which used a highest age group of 85 and over.

#### Presentation rate ratios

For some tables reporting comparative presentation rates, presentation rate ratios are presented. These ratios are calculated by dividing the age-standardised presentation rate for a population of interest (an observed rate) by the age-standardised presentation rate for a comparison population (the expected rate). The calculation is as follows:

Presentation rate ratio = observed rate/expected rate

A rate ratio of 1.0 indicates that the population of interest (for example, Indigenous Australians) had a presentation rate similar to that of the comparison group (for example, other Australians). A rate ratio of 1.2 indicates that the population of interest had a rate that was 20% greater than that of the comparison population and a rate ratio of 0.8 indicates a rate 20% smaller.

The populations used for the observed and expected rates vary in this report. For example for:

- Indigenous status, the rate ratio is equal to the presentation rate for Indigenous Australians divided by the presentation rate for other Australians (other Australians includes Indigenous status not reported)
- analyses by state or territory of residence, remoteness areas and SES of area of residence, the rate ratio is equal to the presentation rate for the state or territory of residence, remoteness area, or SES group, divided by the presentation rate for Australia.

#### References

AIHW (Australian Institute of Health and Welfare) 2012. National health data dictionary 2012 version 16. Cat. no. HWI 119. Canberra: AIHW.

AIHW 2015a. National health data dictionary: version 16.1. National health data dictionary no. 17. Cat. no. HWI 130. Canberra: AIHW. Viewed 20 September 2018.

AIHW 2015b. National health data dictionary: version 16.2. National health data dictionary no. 18. Cat. no. HWI 131. Canberra: AIHW. Viewed 20 September 2018.

AIHW 2015c. Australian hospital peer groups. Health services series no.66. Cat. no. HSE 170. Canberra: AIHW.





# **Appendixes**

## Public hospital peer groups

This report uses the AIHW's public hospital peer group classification, which was published in Australian hospital peer groups (AIHW 2015). A summary of the peer group classification is available in Table C1: Public hospital peer groups, available to view in the pdf version of this report.

#### References

AIHW 2015. Australian hospital peer groups. Health services series no. 66. Cat. no. HSE 170. Canberra: AIHW.





## **Committees**

The Australian Institute of Health and Welfare (AIHW) currently provides secretariat support for the following national committees that are relevant to hospital statistics:

- The Strategic Committee for National Health Information (SCHNI)
- The National Health Data and Information Standards Committee (NHDISC)
- The Australian Hospital Statistics Advisory Committee (AHSAC).





# 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. Visit <u>METEOR</u>.

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 to hospital 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: 651975.

**duration of clinical care:** The period between when clinical care commences and the end of the non-admitted patient emergency department episode (physical departure from the emergency department).

**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. <u>METEOR id: 472757</u>.

**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. <u>METEOR id: 621840</u>.

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. <u>METEOR id:</u> 616654 for the NAPEDC NMDS and <u>METEOR id:</u> 645857 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. <u>METEOR id: 547612</u>.

**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). <u>METEOR id: 268973</u>.

**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. <u>METEOR id: 474114</u>.

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. <u>METEOR id: 471889</u>.

**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: 651874.

private hospital: A privately (non-government) 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 (2016). 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 are triaged into 1 of 5 categories on the Australasian Triage Scale.

- Resuscitation (triage category 1) is the most urgent category. It is for conditions that are immediately life threatening-such as heart attack, severe burns or injuries resulting from a motor vehicle accident. Patients in this category should be seen within 2 minutes of presenting to the emergency department.
- Emergency (triage category 2) is for conditions that could be life threatening and require prompt attention such as chest pain or possible stroke. Patients in this category should be seen within 10 minutes of presenting to the emergency department.
- Urgent (triage category 3) is for serious but stable conditions, such as wounds or abdominal pain. Patients in this category should be seen within 30 minutes of presenting to the emergency department.
- Semi-urgent (triage category 4) is for conditions such as broken arms or legs. Patients in this category should be seen within 60 minutes of presenting to the emergency department.
- Non-urgent (triage category 5) is the least urgent category. It is for problems or illnesses such as cough or cold. Patients in this category should be seen within 160 minutes of presenting to the emergency department.

The triage category is allocated by an experienced registered nurse or medical practitioner. METEOR id: 646659.

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

#### References

ACEM (Australasian College for Emergency Medicine) 2016: Guidelines on the implementation of the Australasian triage scale in emergency departments. Melbourne: ACEM. Viewed September 2018.





## Data





## **Notes**

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