Mental health services provided in emergency departments

Hospital emergency departments (EDs) play a role in treating mental illness. For a range of reasons, an ED may be an initial point of care for people seeking mental health-related services for the first time, as well as an alternative point of care for people seeking after-hours mental health care (Morphet et al. 2012).

State and territory health authorities collect a core set of nationally comparable information on most public hospital ED presentations in their jurisdiction, which is compiled annually into the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD). The data reported for 2014–15 to 2016–17 is sourced from the NNAPEDCD. Information about mental health-related services provided in EDs prior to 2014–15 was supplied directly to the AIHW by states and territories. As such, any time series including earlier data comparisons should be made with caution (see data source for more information).

Mental health-related ED presentations in this section are defined as presentations to public hospital EDs that have a principal diagnosis of *Mental and behavioural disorders*. This definition has a number of limitations. For example, the definition does not fully capture all potentially mental health-related presentations to EDs such as intentional self-harm, as intent can be difficult to identify in an ED environment and can also be difficult to code. Therefore, the data presented in this section are likely to under-report the actual number of mental health-related ED presentations. More details about identifying mental health presentations in the NNAPEDCD are available in the data source section.

Key points

- 276,954 presentations to Australian EDs in 2016–17 were mental health-related, which was 3.6% of all presentations.
- 79.2% of these mental health-related ED presentations were classified with a triage status of either *semi-urgent* (patient should be seen within 60 minutes) or *urgent* (seen within 30 minutes).
- 68.0% of mental health-related ED presentations were seen on time (based on triage status) compared with 73.0% of all ED presentations.
- More than half (53.5%) of mental health-related ED presentations had a principal diagnosis of either *Neurotic, stress-related and somatoform disorders* or *Mental and behavioural disorders due to psychoactive substance use*.

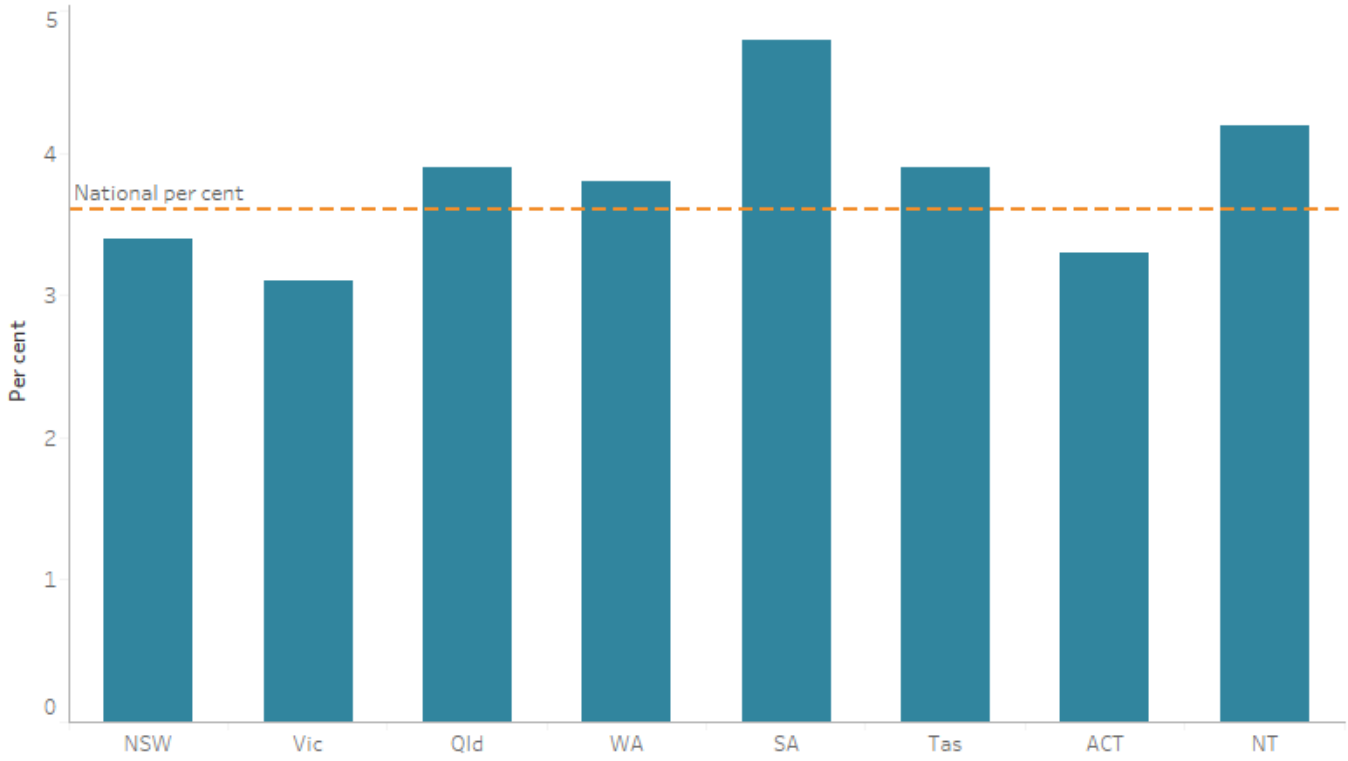
Data in this section were last updated in April 2018.

Service provision

States and territories

There were 276,954 public hospital ED presentations with a mental health-related principal diagnosis recorded in 2016–17, representing 3.6% of all ED presentations. South Australia had the highest mental health-related proportion of ED presentations (4.8%) and Victoria the lowest (3.1%) (Figure ED.1). Nationally, the rate of mental health-related ED presentations was 113.6 per 10,000 population. The Northern Territory had the highest rate (266.9) and Victoria the lowest (86.7). These differences are likely to be due to varying population characteristics, health-care systems and service delivery practices between states and territories.

Figure ED.1: Per cent of mental health-related presentations of all emergency department presentations in public hospitals, by states and territories, 2016–17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.4.

Patient characteristics

Patient demographics

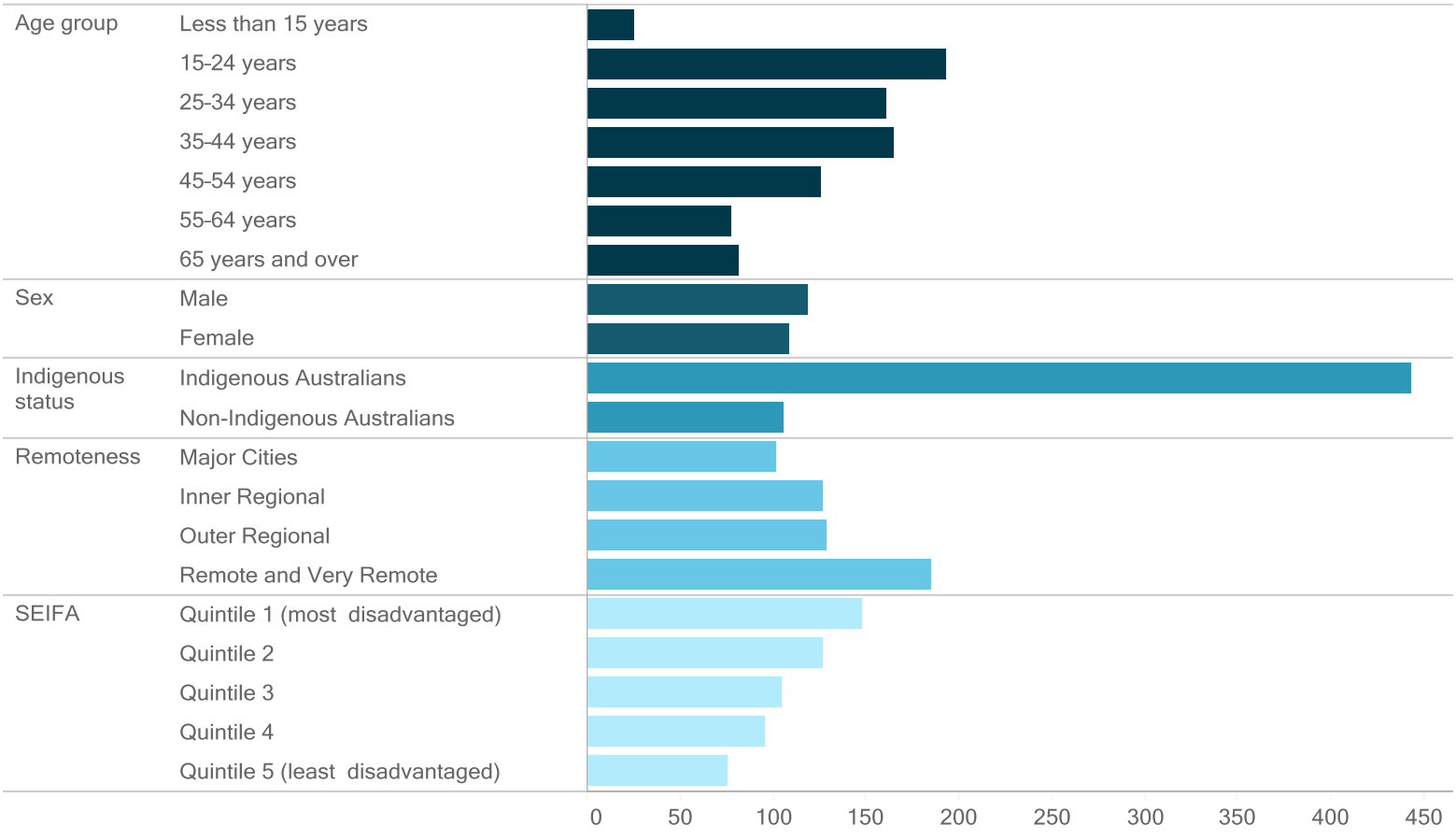
Mental health-related ED presentations had a higher proportion of patients aged 15–54 (77.0%) compared with all emergency department presentations (48.4%) in 2016–17. By contrast, there was a lower proportion of patients aged less than 15 (4.1%) compared with all emergency department presentations (21.3%). Patients less than 15 had the lowest rate per 10,000 population of mental health-related presentations (25.0), whereas those aged 15–24 years had the highest (192.6). This is likely to be influenced by the typical age of onset of many mental disorders.

Males had a higher proportion of mental-health related ED presentations than females (52.0% and 48.0% respectively) in 2016–17 but were more equally represented in all ED presentations (50.3% and 49.7% respectively). The rate of mental health-related ED presentations for males was higher than the rate for females (119.0 and 108.2 per 10,000 population respectively).

Aboriginal and Torres Strait Islander people, who represent about 3.3% of the Australian population (ABS 2017), accounted for 10.7% of mental health-related ED presentations, compared with 6.5% of all ED presentations. The rate of mental health-related ED presentations for Indigenous Australians was more than 4 times that for other Australians (443.0 and 105.0 per 10,000 population respectively).

People living in areas classified as having the lowest socioeconomic status (quintile 1) had the highest rate of mental health-related ED presentations (26.8%), with the rate decreasing with increasing socioeconomic status to 13.8% for people in the least disadvantaged area (quintile 5) (Figure ED.2). A similar result was seen with rate per population. People living in *Major cities* accounted for almost two-thirds (65.6%) of mental health-related ED presentations, compared to those in *Remote* and *Very remote* areas which accounted for only 3.5% of presentations. The rate per 10,000 population of mental health-related ED presentations for patients living in in *Major cities* was the lowest (101.2) while that for patients in *Remote* and *Very remote* areas was the highest (185.3).

Figure ED.2: Mental health-related emergency department presentations, by patient demographic characteristics, 2016-17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.6.

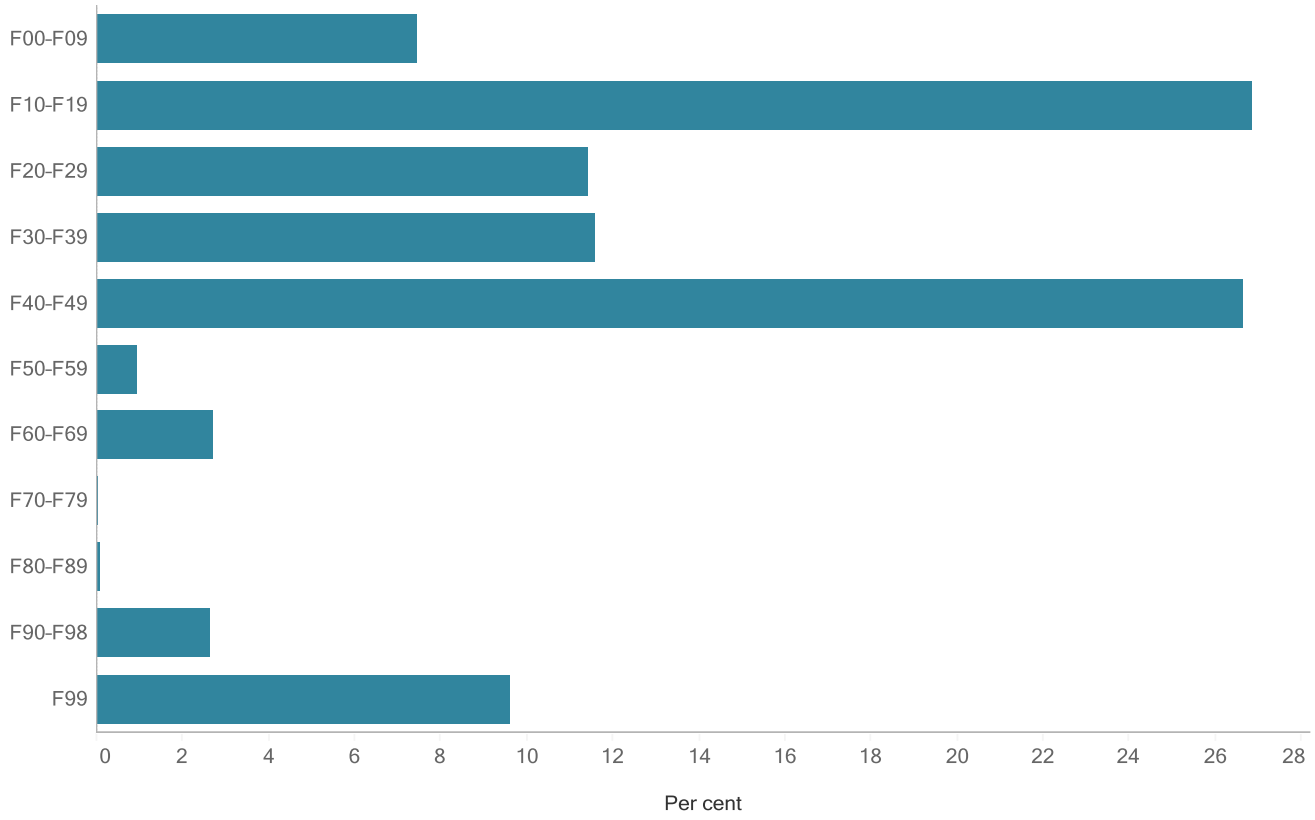
Principal diagnosis

Data on mental health-related presentations by principal diagnosis is based on the broad categories within the Mental and behavioural disorders chapter of the ICD-10-AM (Chapter 5). See data source for more details on diagnosis codes.

More than three quarters (76.5%) of mental health-related ED presentations in Australian EDs were classified by four principal diagnosis groupings in 2015–16 (Figure ED.3):

- *Mental and behavioural disorders due to psychoactive substance use (F10–F19; 26.9%)*
- *Neurotic, stress-related and somatoform disorders (F40–F49; 26.7%)*
- *Mood (affective) disorders (F30–F39; 11.6%)*
- *Schizophrenia, schizotypal and delusional disorders (F20–F29; 11.4%).*

Figure ED.3: Per cent of mental health-related emergency department presentations by principal diagnosis, 2016-17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.9.

Key

F00–09:	Organic, including symptomatic, mental disorders
F10–19:	Mental and behavioural disorders due to psychoactive substance use
F20–29:	Schizophrenia, schizotypal and delusional disorders
F30–39:	Mood (affective) disorders
F40–49:	Neurotic, stress-related and somatoform disorders
F50–59:	Behavioural syndromes associated with physiological disturbances and physical factors
F60–69:	Disorders of adult personality and behaviour
F70–79:	Mental retardation

F80–89: Disorders of psychological development
F90–98: Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
F99: Unspecified mental disorder

Service characteristics

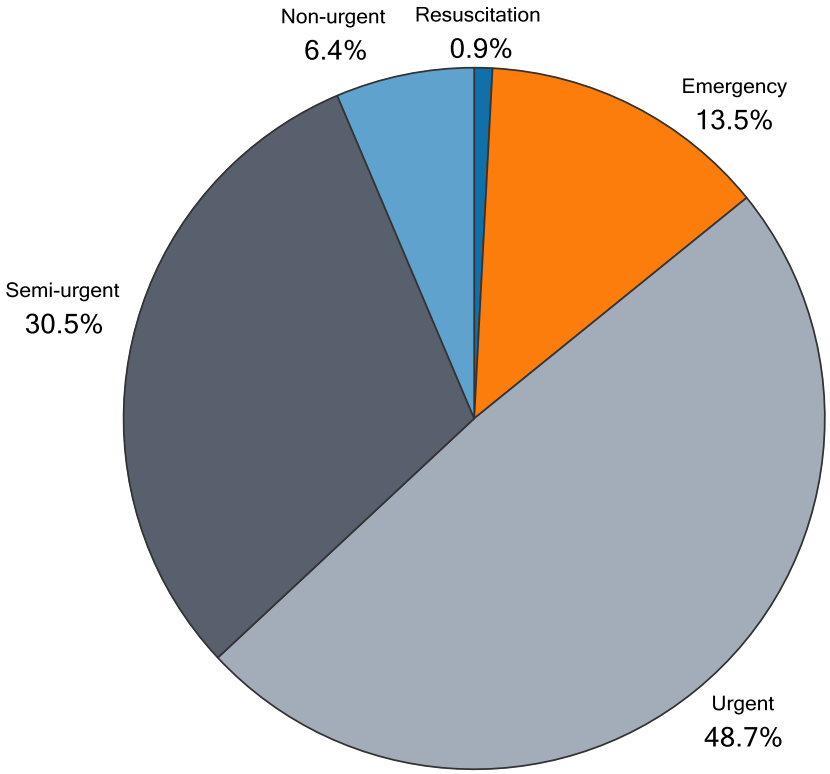
Arrival Mode

The arrival mode records the transport mode of arrival to the emergency department. Almost half of mental health-related ED presentations arrived via ambulance, air ambulance or helicopter rescue service (44.8%). This was almost double the proportion of all ED presentations that arrived by ambulance, air ambulance or helicopter rescue (24.5%) (AIHW 2017). A small proportion of mental-health related ED presentations arrived by police or correctional service vehicles (7.7%); however, this was higher than the proportion of all ED presentations with this arrival mode (0.7%) (AIHW 2017).

Triage category

When presenting to an emergency department, patients are assessed to determine their need for care (i.e. triaged) and an appropriate triage category is assigned to reflect priority for care. For example, patients triaged as the 'emergency' category require care within 10 minutes. However, due to a range of factors, care may or may not be received within the designated time-frames. The majority (79.2%) of mental health-related ED presentations in 2016–17 were classified as either *Urgent* or *Semi-urgent*. This figure is similar to all ED presentations (77.5%) (AIHW 2017) (Figure ED.4).

Figure ED.4: Per cent of mental health-related emergency department presentations in public hospitals by triage category, 2016-17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.3.

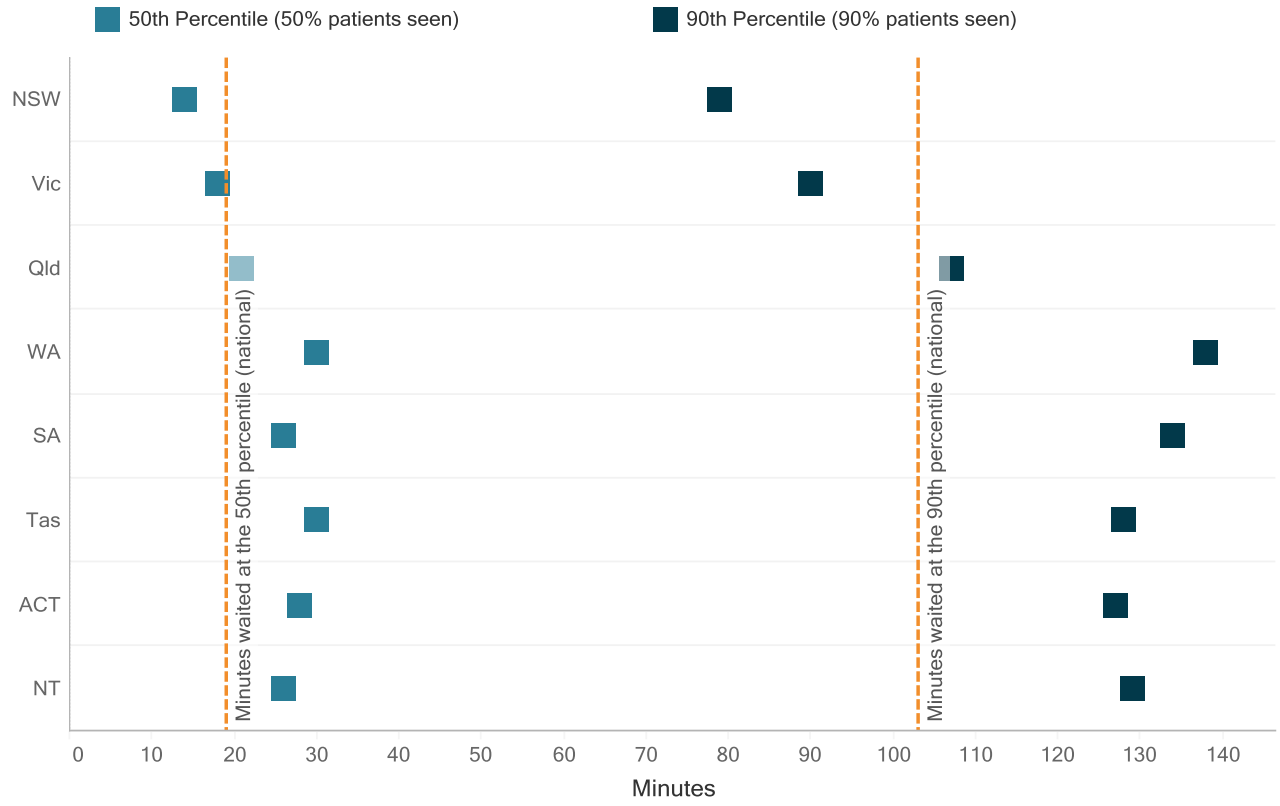
Type of visit

The most common type of visit among mental health-related ED presentations was an emergency presentation (97.1%) with a small portion of these presentations being for a planned return visit (2.5%). This finding is similar to the pattern in all ED presentations (AIHW 2017).

Waiting time

The median waiting time for mental health-related ED presentations was 19 minutes, with more than two thirds (68.0%) seen on time according to their assessed triage status. New South Wales had the lowest median waiting time of 14 minutes, and Tasmania and Western Australia had the highest of 30 minutes (Figure ED.5). South Australia had the lowest proportion seen on time (55.8%) whereas New South Wales had the highest (76.5%).

Figure ED.5: Mental health-related emergency department presentation wait times, by states and territories, 2016–17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.8.

Episode end status

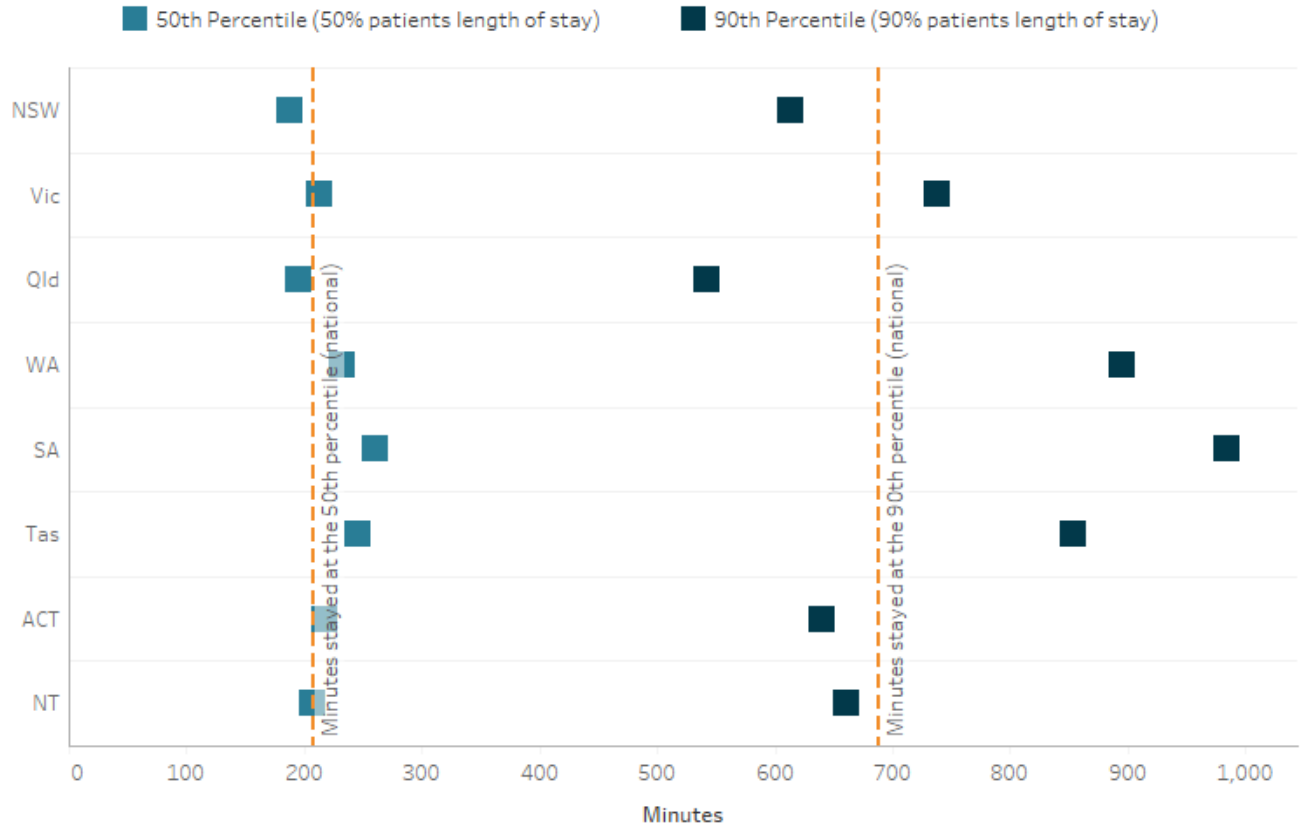
The most frequently recorded mode for ending a mental health-related ED presentation was for the episode to have been completed without the patient being admitted or referred to another hospital for admission (58.0%). More than a third (39.1%) of presentations resulted in the patient being admitted to hospital, either where the emergency service was provided (34.8%) or referral to another hospital for admission (4.2%). This is higher than the result for all ED presentations in 2016–17, with 32.5% being admitted to hospital (either where the service was provided or referred to another hospital) (AIHW 2017).

A small proportion of mental health-related ED presentations ended when the patient left before the service was completed, either after care had commenced but before it was complete (2.5%) or because the patient did not wait to be attended by a health care professional (0.5%).

Length of stay

The median length of stay for all mental health-related ED presentations was 207 minutes (about 3.5 hrs), which is longer than the median length of stay for all ED presentations (2.8 hrs) (AIHW 2017). New South Wales had the shortest median length of stay (188 minutes) and South Australia had the highest (260 minutes) for mental health-related ED presentations (Figure ED.6).

Figure ED.6: Length of stay in emergency departments for mental health-related presentations by states and territories, 2016–17



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.12.

Data source

Mental health-related emergency department data

All state and territory health authorities collect a core set of nationally comparable information on emergency department (ED) presentations (including mental health-related emergency department presentations) in public hospitals within their jurisdiction. The AIHW compiles these data annually to form the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD). In 2016–17, 287 of Australia's public hospital emergency departments reported emergency department presentations to the NNAPEDCD (AIHW 2017).

Previously, diagnosis-related information was not included in the NNAPEDCD, therefore, states and territories provided the AIHW with a bespoke analysis of mental health-related emergency department presentations. Data on principal diagnosis—that is, the diagnosis chiefly responsible for occasioning the presentation to the emergency department—has subsequently been included in the NNAPEDCD. In this report, data from 2014–15 and 2016–17 are sourced from the NNAPEDCD. Data from previous years was sourced directly from jurisdictions through an annual ad-hoc data request.

Definition of mental health-related emergency department presentations

Mental health-related ED presentations in this report are defined as presentations in public hospital EDs that have a principal diagnosis of Mental and behavioural disorders (that is, codes F00–F99) in ICD-10-AM or the equivalent codes in ICD-9-CM.

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

- 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 AIHW undertook to map all diagnosis information to a single classification. Further information on the mapping is available in Appendix B of the AIHW's Emergency Department Care 2016–17: Australian hospital statistics (AIHW 2017).

The *Mental and behavioural disorders* principal diagnosis codes may not fully capture all mental health-related presentations to EDs, such as presentations for self-harm. Diagnosis codes for intentional self-harm sit outside the *Mental and behavioural disorders* chapter (X60-X84). Additionally, a presentation for self-harm may have a principal diagnosis relating to the injury, for example *Open wound to wrist and hand*. These presentations cannot be identified as mental health-related presentations in the NNAPEDCD and are not included in this report.

Further information on the NNAPEDCD is available on METeOR, the AIHW's Metadata Online Registry.

Coverage

In 2016–17, 287 of Australia's public hospital emergency departments reported emergency department presentations to the NNAPEDCD (AIHW 2017).

References

ABS 2017. Australian Bureau of Statistics. Australian demographic statistics. Mar 2017. Cat. No. 3101.0. Canberra: ABS

Australian Institute of Health and Welfare (AIHW) 2017. Emergency department care 2016–17: Australian hospital statistics. Health services series no. 80. Cat. no. HSE 194. Canberra: AIHW.

AIHW 2016. Emergency department care 2015–16: Australian hospital statistics. Health services series no. 72. Cat. no. HSE 182. Canberra: AIHW.

Morphet J, Innes K, Munro I, O'Brien A, Gaskin CJ, Reed F et al. 2012. Managing people with mental health presentations in emergency departments—A service exploration of the issues surrounding responsiveness from a mental health care consumer and carer perspective. Australasian Emergency Nursing Journal 15:148-55.

Key concepts

Mental health services provided in emergency departments

Key Concept	Description
Emergency department (ED) presentation	**Emergency department (ED) presentation** refers to the period of treatment or care between when a patient presents at an emergency department and when that person is recorded as having physically departed the emergency department. It includes presentations for patients who do not wait for treatment once registered or triaged in the emergency department, those who are dead on arrival, and those who are subsequently admitted to hospital or to beds or units in the emergency department. An individual may have multiple presentations in a year. For further information, see the Non-admitted emergency department care NMDS 2015–16.
Episode end status	The **episode end status** indicates the status of the patient at the end of the non-admitted patient emergency department service episode. Further details on episode end status codes are available here.
Mental health-related emergency department (ED) presentation	**Mental health-related emergency department (ED) presentation** refers to an emergency department presentation that has a principal diagnosis that falls within the Mental and behavioural disorders chapter (Chapter 5) of ICD-10-AM (codes F00–F99) or the equivalent ICD-9-CM or SNOMED codes. It should be noted that this definition does not encompass all mental health-related presentations to emergency departments, as detailed above. Additional information about this and applicable caveats can be found in the Data source section.
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.
Triage	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 that incorporate the time by which the patient should receive care:

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