Mental health services provided in emergency departments

Hospital emergency departments (EDs) play a role in treating mental illness. People seek mental health-related services in EDs for a variety of reasons, often as an initial point of contact or for after-hours 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).

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*. More details about NNAPEDCD and identifying mental health presentations are available in the data source section.

Data downloads

Excel: Mental health services provided in emergency departments tables 2018–19

PDF: Mental health services provided in emergency department section 2018–19

Link: Mental health services provided in emergency department interactive figures.

Link: Data source and key concepts related to this section.

Data coverage includes the time period 2006–07 to 2018–19. This section was last updated in November 2020.

Key points

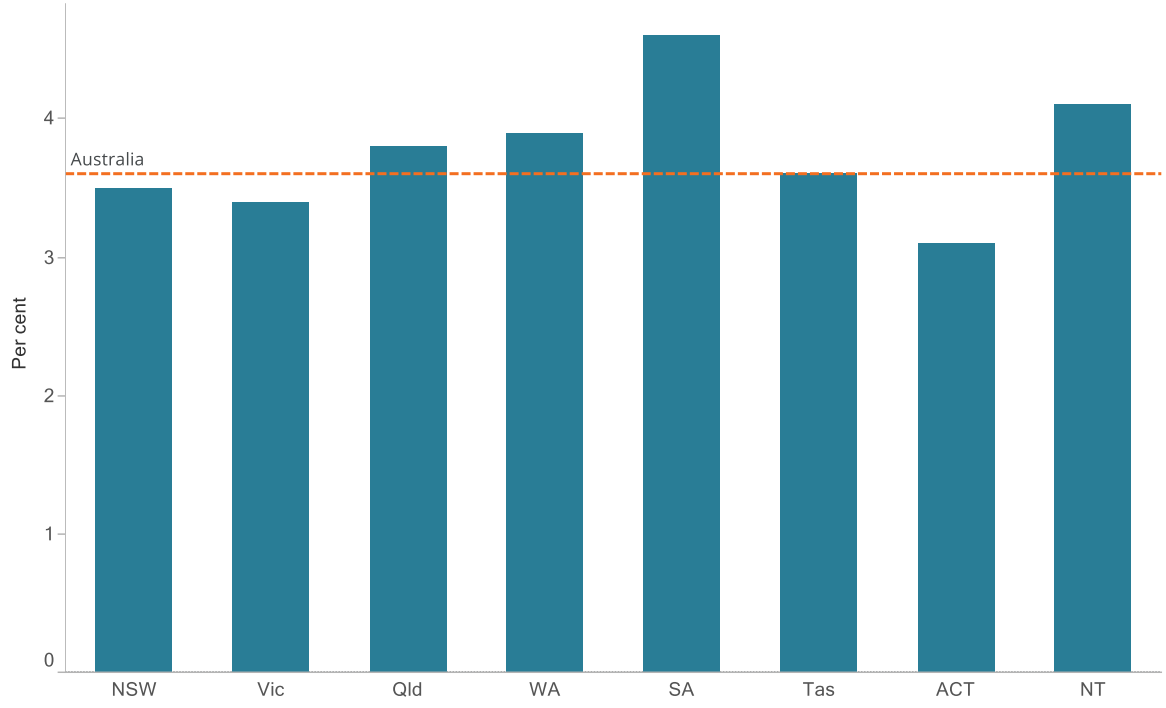
- **303,340** presentations to public Australian EDs were mental health-related in 2018–19, which was 3.6% of all presentations.
- **77.3%** of these mental health-related ED presentations were classified with a triage status of either *urgent* (patient should be seen within 30 minutes) or *semi-urgent* (within 60 minutes).
- **65.6%** of mental health-related ED presentations were seen on time (based on triage status) compared with 71% of all ED presentations.
- **53.8%** of mental health-related ED presentations had a principal diagnosis of either Mental and behavioural disorders due to psychoactive substance use or Neurotic, stress-related and somatoform disorders.

Service provision

States and territories

In 2018–19, there were 303,340 public hospital ED presentations with a mental health-related principal diagnosis recorded, representing 3.6% of all ED presentations. South Australia had the highest mental health-related proportion of ED presentations (4.6%) and the Australian Capital Territory had the lowest proportion (3.1%) (Figure ED.1). Nationally, the rate of mental health-related ED presentations was 120.5 per 10,000 population. The Northern Territory had the highest rate (272.0) and Victoria the lowest (96.6).

Figure ED.1: Per cent of mental health-related presentations of all emergency department presentations in public hospitals, by states and territories, 2018-19



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.1.

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Patient characteristics

Patient demographics

In 2018–19, there was a higher proportion of mental health-related presentations among patients aged 18–54 (70.6%) compared with all emergency department presentations (44.6%). By contrast, there was a lower proportion of mental health-related presentations among patients aged less than 18 (10.3%) compared with all emergency department presentations (24.2%). Of all patient age groups, those aged 25–

34 represented the highest proportion of both mental health-related (20.7%) and all (13.6%) ED presentations. The highest population rate of all ED presentations occurred among patients aged 85 years and over (8,033.5 per 10,000 population), whereas the highest rate of mental health-related presentations occurred among patients aged 18–24 (205.1 per 10,000 population). This is likely to be influenced by the typical age of onset of many mental disorders (WHO 2019).

Males had a higher number of mental-health related ED presentations than females in 2018–19 (representing 52.3% and 47.7% respectively), but were more equally represented in all ED presentations (49.9% and 50.1% respectively). The population-rate of mental health-related ED presentations for males was higher than the rate for females (127.1 and 113.9 per 10,000 population respectively).

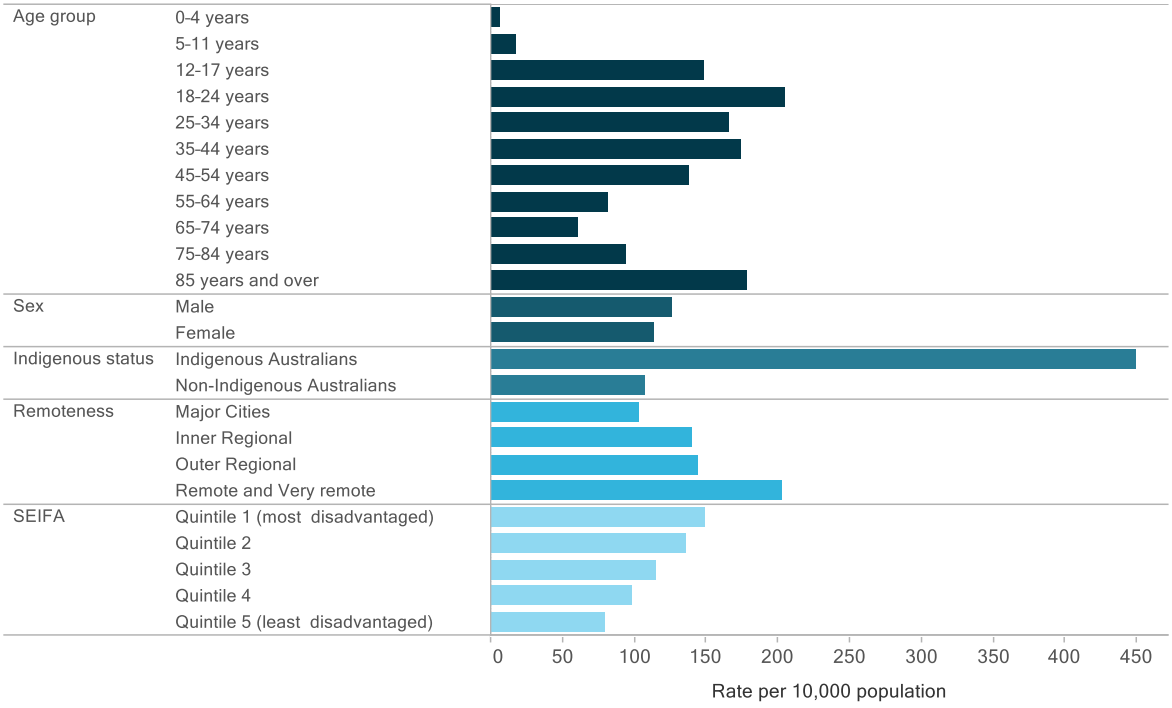
Aboriginal and Torres Strait Islander people, who represent about 3.3% of the Australian population (ABS 2018), accounted for 11.2% of mental health-related ED presentations, compared with 7.1% of all ED presentations. The rate of mental health-related ED presentations for Indigenous Australians was more than 4 times that of non-Indigenous Australians (449.4 and 108.0 per 10,000 population respectively).

People living in areas classified as having the lowest socioeconomic status (SEIFA Quintile 1) had the highest population-rate of mental health-related ED presentations (149.6 per 10,000 population), with the rate decreasing with increasing socioeconomic status, to 79.8 per 10,000 population for people in the least disadvantaged area (Quintile 5) (Figure ED.2).

People living in *Major cities* accounted for almost two-thirds (64.7%) of mental health-related ED presentations, and those in *Remote* and *Very remote* areas accounted for 3.4% of presentations in 2018–19. The rate per 10,000 population of mental health-related ED presentations for patients living in *Major cities* was the lowest (104.1) while that for patients in *Remote* and *Very remote* areas was the highest (202.6).

Detailed ED data for mental health-related presentations by Primary Health Network (PHN) show variation in the number and rate of presentations within PHN groups at the Statistical Area 3 (SA3) region level. In 2018–19, the highest mental health-related ED presentation rate occurred among patients living in the Tumut-Tumbarumba SA3 region (1,520.8 per 10,000 population) in New South Wales, followed by Barkly (585.4) and Alice Springs (540.5) in the Northern Territory. Note that some areas do not have EDs in scope for provision to the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD). Further information on NNAPEDCD coverage is available in the data source section. The observed variability in emergency department presentation rates between geographical areas may be due to a range of factors including the proportion of the population in an area with a diagnosable mental illness who present to the emergency department, availability of community-based services and variability in approaches to planning and delivering mental health support services across and within states and territories

Figure ED.2: Mental health-related emergency department presentations, by patient demographic characteristics, 2018-19



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.7.

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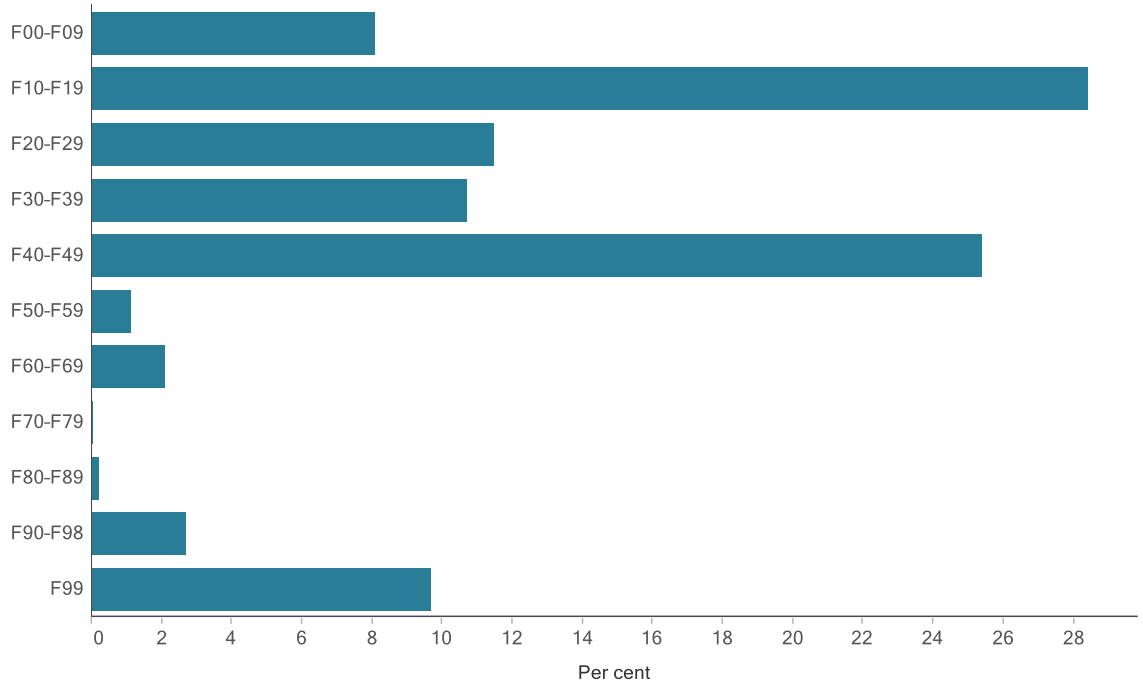
Principal diagnosis

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). More details on diagnosis codes can be found in the data source.

More than three quarters (76.0%) of mental health-related ED presentations in Australian EDs were classified by 4 principal diagnosis groupings in 2018–19 (Figure ED.3):

- *Mental and behavioural disorders due to psychoactive substance use (F10–F19);* (28.4%)
- *Neurotic, stress-related and somatoform disorders (F40–F49);* (25.4%)
- *Schizophrenia, schizotypal and delusional disorders (F20–F29);* (11.5%)
- *Mood (affective) disorders (F30–F39);* (10.7%).

Figure ED.3: Per cent of mental health-related emergency department presentations, by principal diagnosis, 2018–19



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: Mental disorder, not otherwise specified

Source: National Non-admitted Patient Emergency Department Care Database; Table ED.10.

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Service characteristics

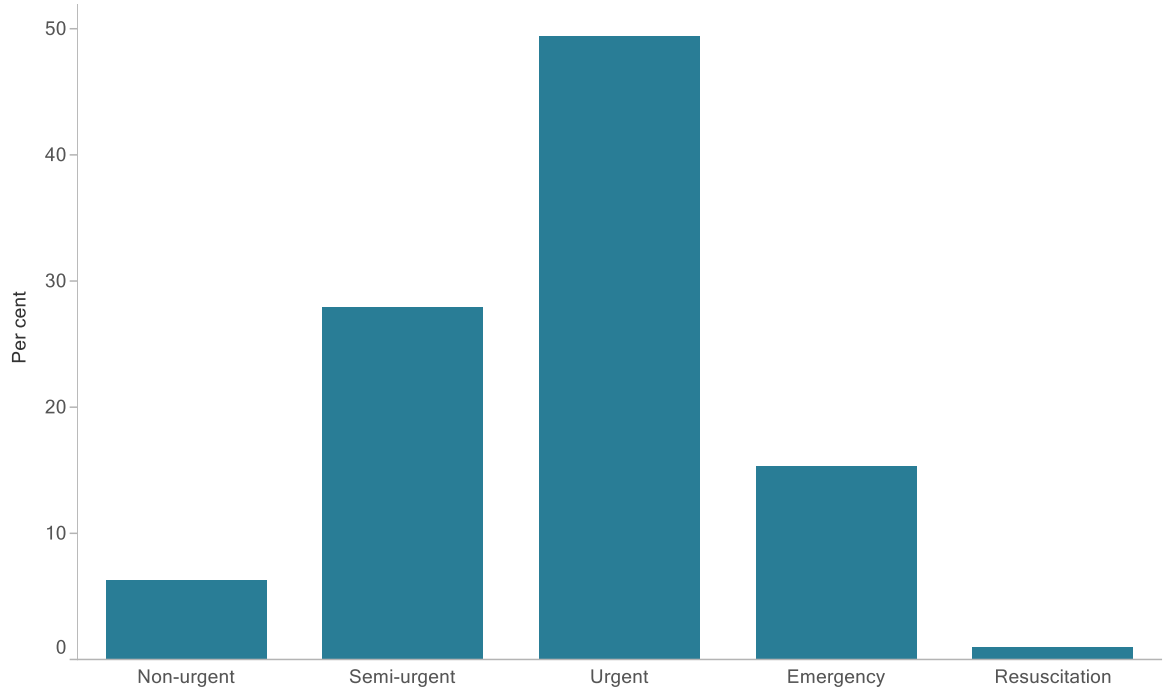
Arrival Mode

The arrival mode records the transport mode of arrival to the emergency department. Almost half of mental health-related ED presentations in 2018–19 arrived via ambulance, air ambulance or helicopter rescue service (48.1%). This was almost double the proportion of all ED presentations that arrived by ambulance, air ambulance or helicopter rescue (25.9%). A smaller proportion of mental-health related ED presentations arrived by police or correctional service vehicles (6.4%); however, this was almost 10 times higher than the proportion of all ED presentations with this arrival mode (0.7%).

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 (ACEM 2013). However, due to a range of factors, care may or may not be received within the designated time-frames. The majority (77.3%) of mental health-related ED presentations in 2018–19 were classified as either *Urgent* or *Semi-urgent*, and 15.3% were classified as *Emergency*. These figures are similar to all ED presentations (77.2% and 13.6% respectively) (AIHW 2020a) (Figure ED.4).

Figure ED.4: Per cent of mental health-related emergency department presentations in public hospitals, by triage category, 2018–19



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.5.

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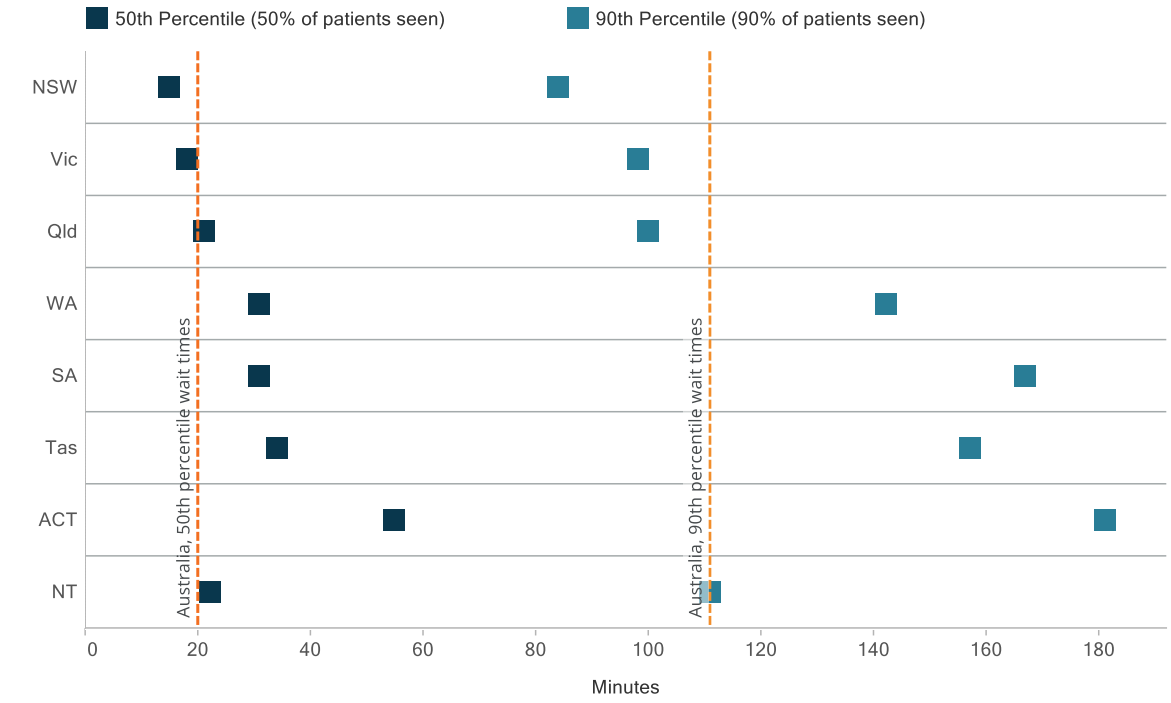
Type of visit

The most common type of visit among mental health-related ED presentations in 2018–19 was an emergency presentation (96.4%).A small portion of presentations was for a planned return visit (3.5%). A similar pattern was observed for all ED presentations with emergency presentation and planned return visit accounting for 98.3% and 1.5% respectively (AIHW 2020a).

Waiting time

The median waiting time for mental health-related ED presentations was 20 minutes, with approximately two thirds (65.6%) of presentations seen on time according to their assessed triage status, compared to 71% for all ED presentations (AIHW 2020a). For mental health-related ED presentations, the Australian Capital Territory had the lowest proportion of presentations seen on time (38.4%) and New South Wales had the highest (75.0%). New South Wales also had the lowest median waiting time (15 minutes), and the Australian Capital Territory had the highest (55 minutes) (Figure ED.5).

Figure ED.5: Mental health-related emergency department presentation wait times, by states and territories, 2018-19



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

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Episode end status

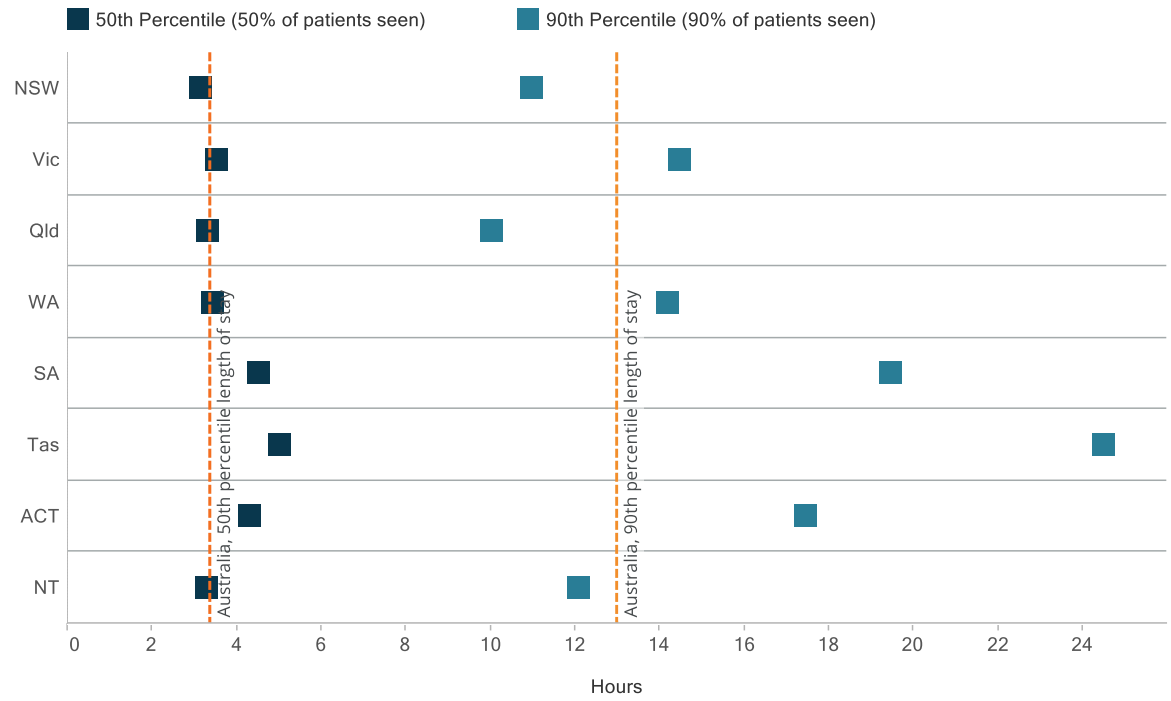
The most frequently recorded mode for ending a mental health-related ED presentation was for the episode to have been completed with the patient departing without being admitted or referred to another hospital (58.3%). Just over one-third (33.7%) of presentations resulted in the patient being admitted to the hospital where the emergency service was provided, with a further 3.8% referred to another hospital for admission. This is higher than the result for all ED presentations in 2018–19, with 32.9% being admitted to hospital, either where the service was provided or referred to another hospital (AIHW 2020a).

A small proportion of mental health-related ED presentations ended when the patient left before the service was completed, either leaving at their own risk (2.8%) 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 in 2018–19 was 3 hours and 39 minutes (Figure ED.6). For mental health-related ED presentations ending in admission, the median length of stay was 5 hours and 5 minutes whereas the median length of stay for presentations not ending in admission was 3 hours and 7 minutes. Nationally, 90% of mental health-related ED presentations completed their stay within 13 hours, which is longer than the same measure for all ED presentations (up to 7 hours 29 minutes) (AIHW 2020a).

Figure ED.6: Length of stay in emergency departments for mental health-related presentations, by states and territories, 2018-19



Source: National Non-admitted Patient Emergency Department Care Database; Table ED.13.

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Changes over time

Overall, the proportion of ED presentations which are mental health-related has increased by 1.2% from 2014–15 and 2018–19. However, Queensland, Tasmania and the Northern Territory have seen reductions in the proportion of mental health-related ED presentations by -1.1%, -0.7% and -1.3%, respectively.

Between 2014–15 and 2018–19, the proportion of mental health-related ED presentations assigned a triage category of Emergency increased by an annual average of 5.6%, with reductions in the categories of Semi-urgent (-3.6%) and Non-urgent (-3.8%).

Over this same period, more mental health-related ED presentations were assigned an epidose end status of Referred to another hospital for admission, increasing at an average annual rate of 9.1%.

Data source

National Non-Admitted Patient Emergency Department Care Database

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 this data annually to form the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD). In 2018–19, 294 of Australia's public hospital emergency departments reported emergency department presentations to the NNAPEDCD (AIHW 2020a).

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 to 2018–19 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. It does not include codes for self-harm or poisoning.

For 2018–19, principal diagnoses information is reported for the NNAPEDCD using ICD-10-AM (10th Ed) Principal Diagnosis Short List, developed by the Independent Hospital Pricing Authority (IHPA) from the full version of ICD-10-AM. Further information is available in Emergency department care 2018–19 Appendixes (AIHW 2020b).

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.

Presentation of regional data

Please refer to the technical notes for information on how data at regional levels are reported.

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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 can be found in the Non-admitted patient emergency department care NMDS 2018–19.
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 from the AIHW the Metadata Online Registry (METeOR).
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). 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.
Primary Health Network (PHN)	A **Primary Health Network** is an administrative health region established to deliver access to primary care services for patients, as well as co-ordinate with local hospitals in order to improve the overall operational efficiency of the network. Further details on episode end status codes are available from the Australian Government Department of Health.
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.
Socio-Economic Indexes for Areas (SEIFA)	**SEIFA** is a product developed by the Australian Bureau of Statistics (ABS) that ranks areas in Australia according to relative socio-economic advantage and disadvantage. It consists of 4 indexes based on information from the five-yearly Census, each being a summary of a different subset of Census variables and focuses on a different aspect of socio-economic advantage and disadvantage. Further details are available from the ABS.
Statistical Area 3 (SA3)	**SA3s** create a standard framework for the analysis of ABS data at the regional level through clustering larger geographic groups that have

	similar regional characteristics, administrative boundaries or labour markets. SA3s generally have populations between 30,000 and 130,000 persons. They are often the functional areas of regional towns and cities with a population in excess of 20,000, or clusters of related suburbs around urban commercial and transport hubs within the major urban areas.
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.