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.

From February 2020, a range of restrictions on travel, business, social interaction and border control have been introduced to prevent and reduce the spread of SARS-CoV-2, the virus that causes COVID-19. This impacted the overall number of presentations to the ED, with a decrease of 1.4% between 2018–19 and 2019–20, compared to a 4.2% increase between 2017–18 and 2018–19 (AIHW 2021a). In contrast, the number of mental health presentations increased in 2019–20 compared with the previous year. Within this section, we have introduced some new data tables to explore the impact of COVID-19 on mental health-related presentations to the ED.

The AIHW's Suicide and self-harm monitoring website has information relating to self-harm hospitalisations; and there is a section of Mental health services in Australia dedicated to the mental health impacts of COVID-19. Information on all ED presentations are available on the MyHospitals website.

Data downloads

Excel: Mental health services provided in emergency departments tables 2019–20.

PDF: Mental health services provided in emergency department section 2019–20.

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

Data coverage includes the time period 2004–05 to 2019–20. This section was last updated in May 2021.

Key points

- **310,471** presentations to public Australian EDs were mental health-related in 2019–20, which was 3.8% of all presentations. This is a slightly higher proportion than in 2018-2019 where mental health-related ED presentations comprised 3.6% of all presentations.
- **77.1%** 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).
- **68.0%** of mental health-related ED presentations were seen on time (based on triage status) compared with 74% of all ED presentations.
- **55.1%** 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 2019–20, there were 310,471 public hospital ED presentations with a mental health-related principal diagnosis recorded, representing 3.8% of all ED presentations. This proportion is slightly higher than in previous years as a result of the overall number of ED presentations decreasing due to COVID-19 restrictions and the number of mental health presentations increasing from 2018–19 levels. South Australia had the highest mental health-related proportion of ED presentations (5.0%) and New South Wales had the lowest proportion (3.3%) (Figure ED.1).

Nationally, the rate of mental health-related ED presentations was 121.6 per 10,000 population. The Northern Territory had the highest rate (285.5) and Victoria the lowest (97.7).

Figure ED.1: Mental health-related presentations to public emergency departments, by states and territories, 2019–20

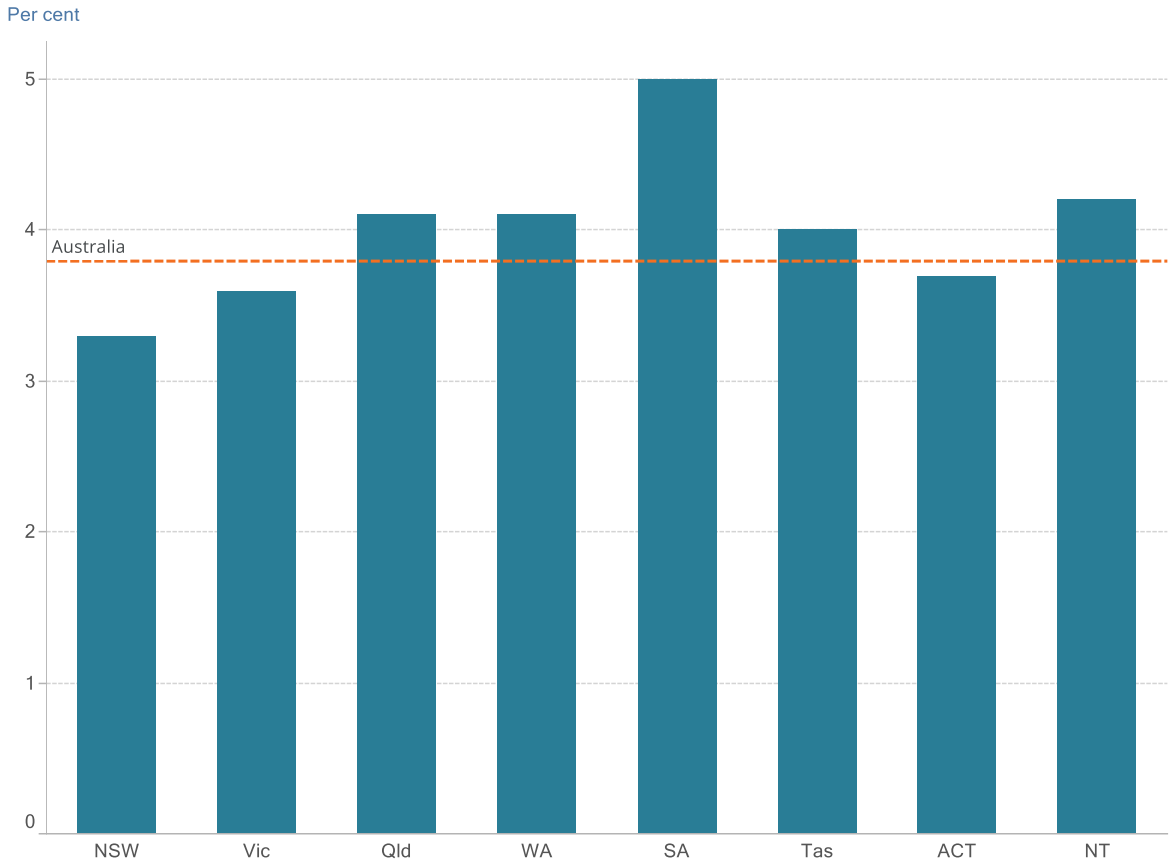

Figure ED.1: Mental health-related presentations to public emergency department by states and territories, 2019-20

http://www.aihw.gov.au/mhsa

Patient characteristics

Patient demographics

In 2019–20, women aged 18–24 had the highest rate of mental health-related ED presentations (226.8 per 10,000 population) followed by men aged 35–44 years (202.0 per 10,000 population). The rate of mental health-related ED presentations was higher for males than for females (127.9 and 115.4 per 10,000 population respectively) (Figure ED.2).

Overall, those aged 18–24 years had the highest rate of mental health-related presentations(209.3 per 10,000 population); by contrast, people aged 85 years and older had the highest rate for all ED presentations (7850.9 per 10,000 population). This difference is likely to be influenced by the typical age of onset of many mental disorders (WHO 2019).

Aboriginal and Torres Strait Islander people, who represent about 3.3% of the Australian population (ABS 2018), accounted for 12.0% of mental health-related ED presentations, compared with 7.5% 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 (480.9 and 107.9 per 10,000 population respectively).

Figure ED.2: Mental health-related emergency departments presentations, by patient demographic characteristics, 2019–20

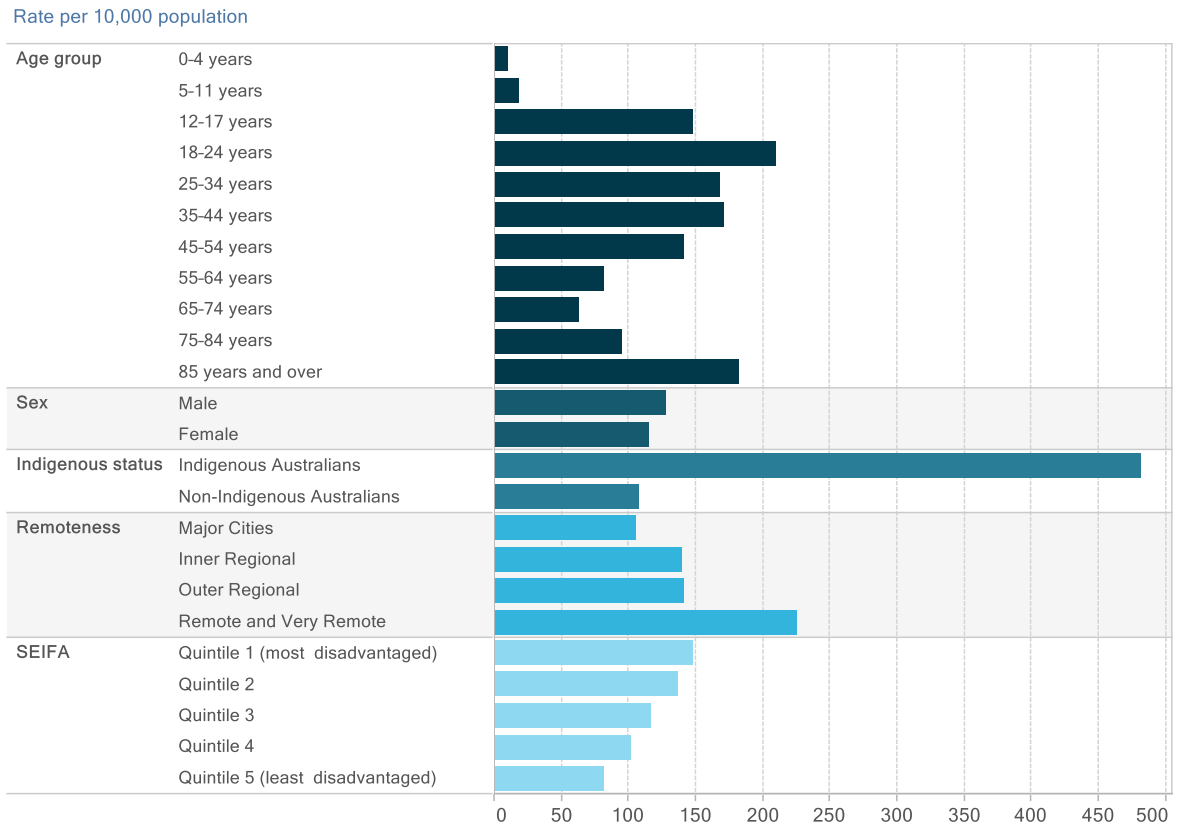

Figure ED.2: Mental health-related emergency department presentations, by patient demographic characteristics, 2019-20
http://www.aihw.gov.au/mhsa

Patient area of usual residence

Detailed data for mental health-related presentations by local area — Primary Health Network (PHN) and Australian Statistical Geography Standard Statistical Area Level 3 (SA3)— show variation in the number and rate of presentations by geographical area across Australia. In 2019–20, the highest rate of mental health-related ED presentations was in the Barkly SA3 region (770.0 per 10,000 population) in the Northern Territory, followed by Alice Springs (541.5) in the Northern Territory and Young – Yass (534.1) in New South Wales.

Further information on NNAPEDCD coverage is available in the data source section. The observed variability in ED presentation rates between geographical areas may be due to a range of factors such as the proportion of the population in an area with a diagnosable mental illness who present to the emergency department, and the accessibility of EDs to people in remote and rural areas. Other factors include the

availability of community-based services, and variability in approaches to planning and delivering mental health support services across and within states and territories.

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 section.

More than three quarters (76.6%) of mental health-related ED presentations in Australian public EDs were classified by 4 principal diagnosis groupings in 2019–20 (Figure ED.3, ED.3.1):

- *Mental and behavioural disorders due to psychoactive substance use (F10–F19);* (28.1%)
- *Neurotic, stress-related and somatoform disorders (F40–F49);* (27.0%)
- *Schizophrenia, schizotypal and delusional disorders (F20–F29);* (11.9%)
- *Mood (affective) disorders (F30–F39);* (9.7%).

Figure ED.3: Mental health-related emergency departments presentations, by principal diagnosis, 2019–20

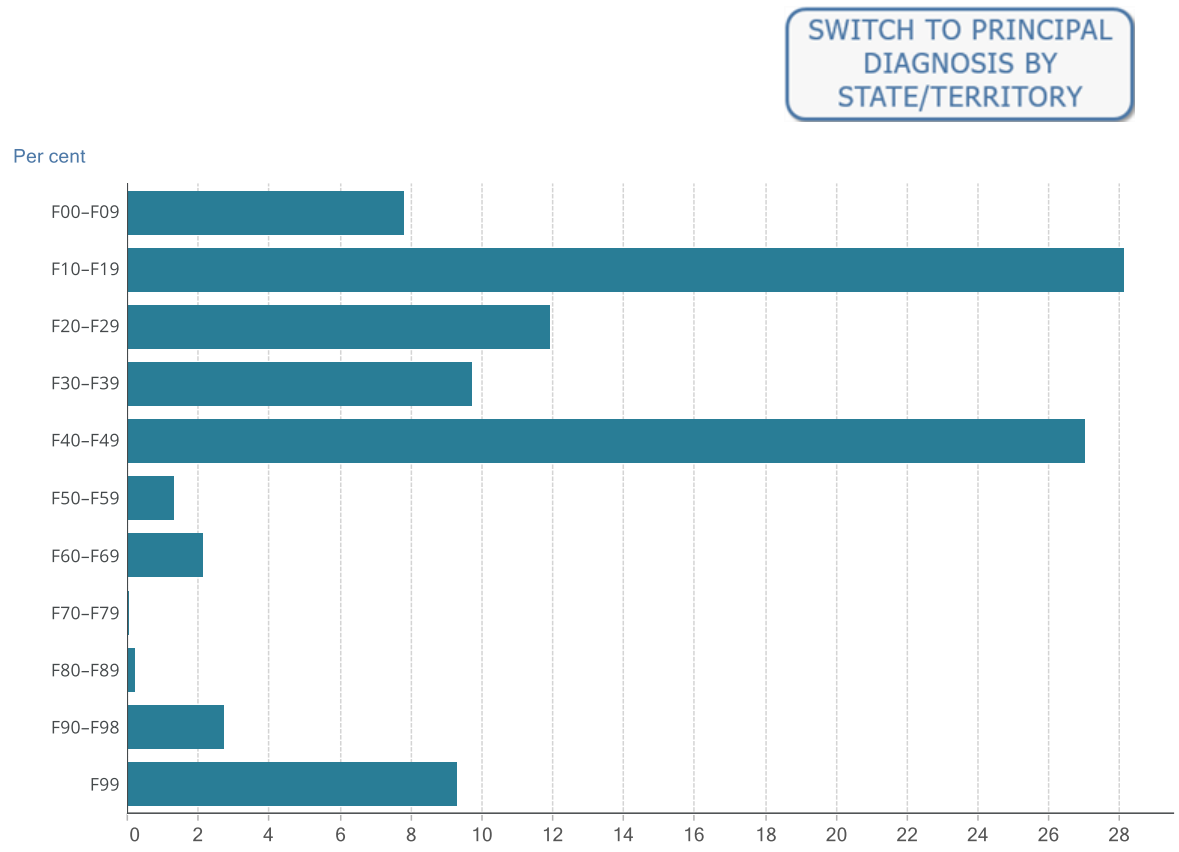

Figure ED.3: Mental health-related presentations to emergency departments, by principal diagnosis, 2019-20

http://www.aihw.gov.au/mhsa

Arrival mode

The arrival mode records the mode of transport by which the person arrives at the emergency department. Half of mental health-related ED presentations in 2019–20 arrived via ambulance, air ambulance or helicopter rescue service (50.5%). This was almost double the proportion of all ED presentations that arrived by ambulance, air ambulance or helicopter rescue (26.9%). A smaller proportion of mental health-related ED presentations arrived by police or correctional service vehicles (6.0%); however, this was 10 times higher than the proportion of all ED presentations with this arrival mode (0.6%).

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. Mental health-related ED

presentations in 2019–20 had a higher proportion of presentations classified as *Urgent* (50.3%) than the proportion for all ED presentations (38.2%). (Figure ED.4, 4.1 and 4.2)

Figure ED.4: Mental health-related presentations to public emergency departments, by triage category, 2019–20

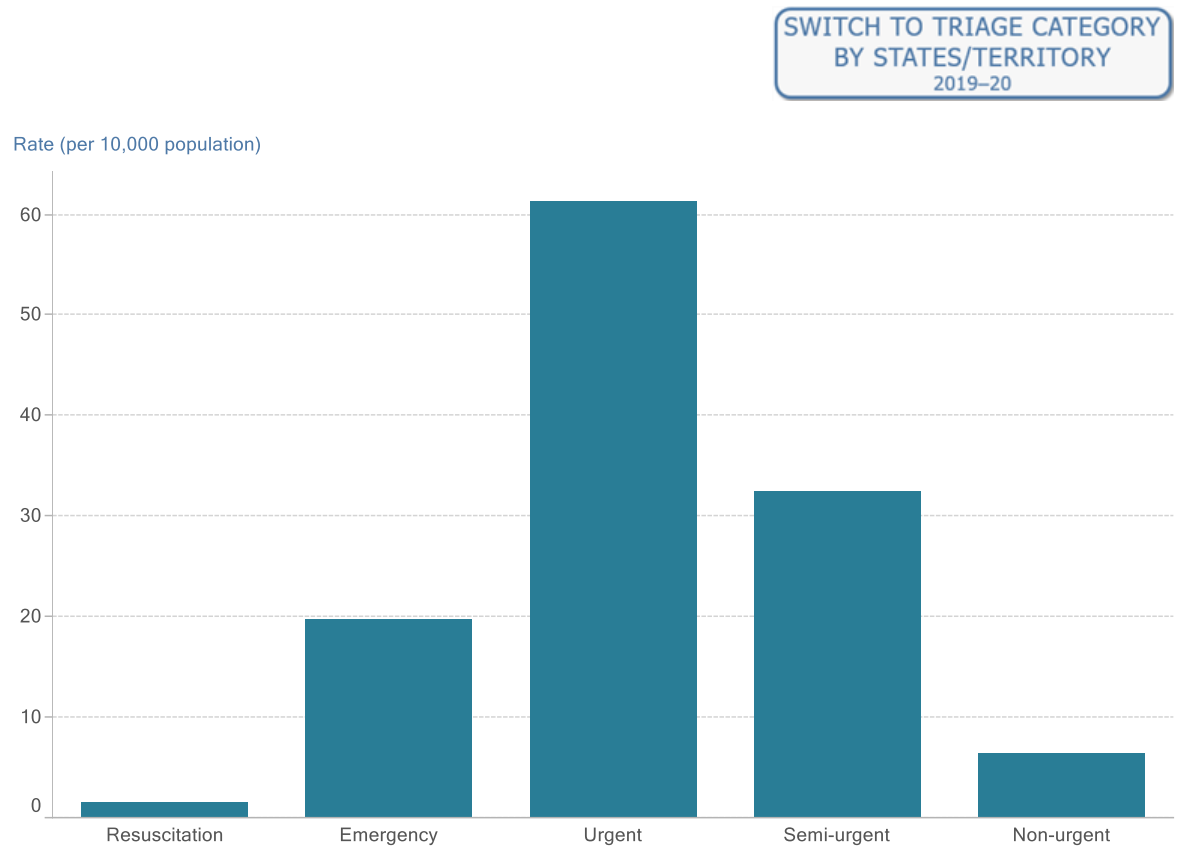

Figure ED.4: Mental health-related presentations to public emergency departments, by triage category, 2019-20

http://www.aihw.gov.au/mhsa

Service characteristics

Waiting time

The median waiting time to be seen for mental health-related ED presentations was 18 minutes, with 68.0% of presentations seen on time according to their assessed triage status, compared to 74% of all ED presentations (AIHW 2021a). For mental health-related ED presentations, the Australian Capital Territory had the lowest proportion of presentations seen on time (41.9%) and New South Wales had the highest (76.5%). New South Wales also had the lowest median waiting time (14 minutes), and the Australian Capital Territory had the highest (47 minutes) (Figure ED.6).

Episode end status

The most frequently recorded mode for ending a mental health-related ED presentation was for the episode end status to have been completed with the patient departing without being admitted or referred to another hospital (58.1%). Just over one-third (34.0%) of presentations resulted in the patient being admitted to the hospital where the emergency service was provided, with a further 3.7% referred to another hospital for admission. This is higher than the result for all ED presentations in 2019–20, with 32.5% being admitted to hospital, either where the service was provided or referred to another hospital (AIHW 2021a). (Figure ED.5)

Figure ED.5: Mental health-related emergency department presentations, by episode end status and states and territories, 2019–20

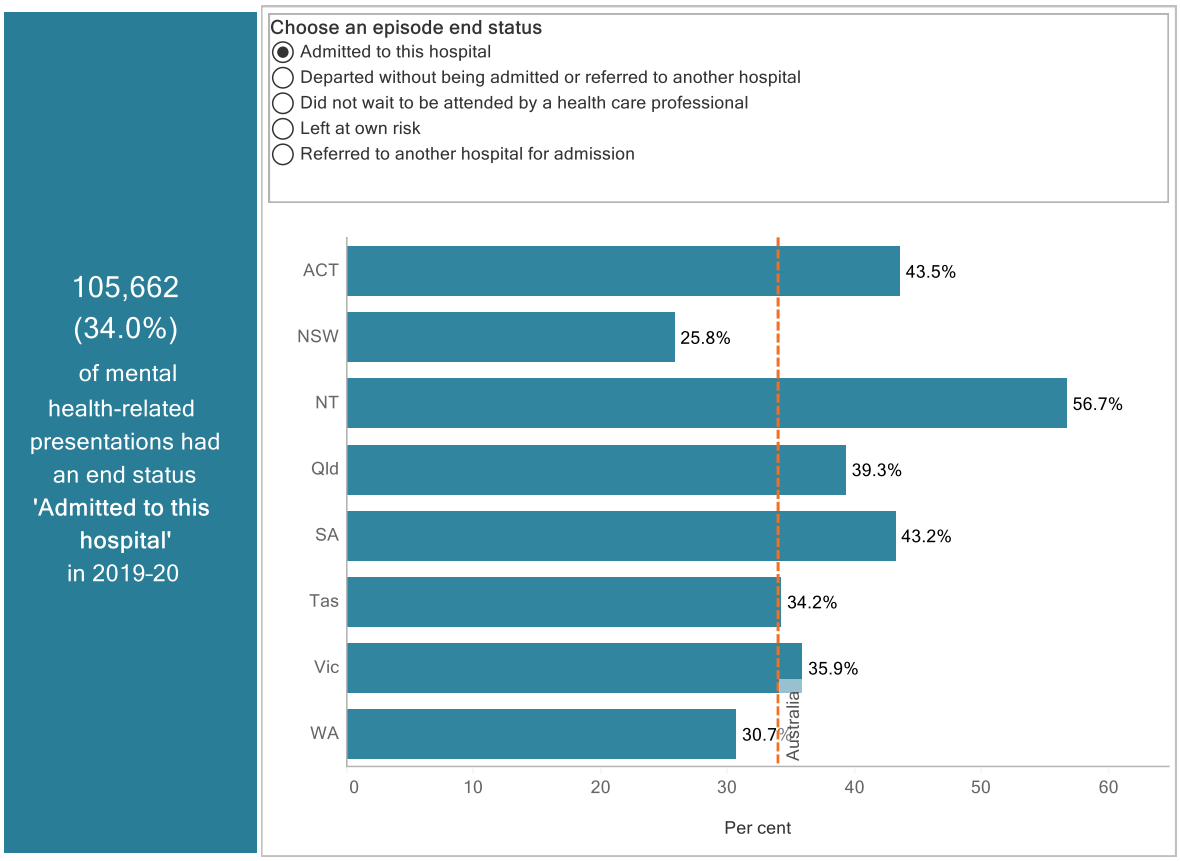

Figure ED.5: Mental health-related emergency department presentations, by episode end status and states and territories, 2019-20
http://www.aihw.gov.au/mhsa

Length of stay

The median length of stay for all mental health-related ED presentations in 2019–20 was 3 hours and 41 minutes (Figure ED.6). For mental health-related ED presentations ending in admission, the median length of stay in the EDs was 5 hours and 2 minutes whereas the median length of stay for presentations not ending in admission was 3 hours and 11 minutes. Nationally, 90% of mental health-related ED presentations were

completed within 13 hours and 22 minutes, which is longer than the same measure for all ED presentations (up to 7 hours 30 minutes) (AIHW 2021a).

Figure ED.6: Mental health-related emergency department presentations, by service characteristics, by states and territories, 2019–20

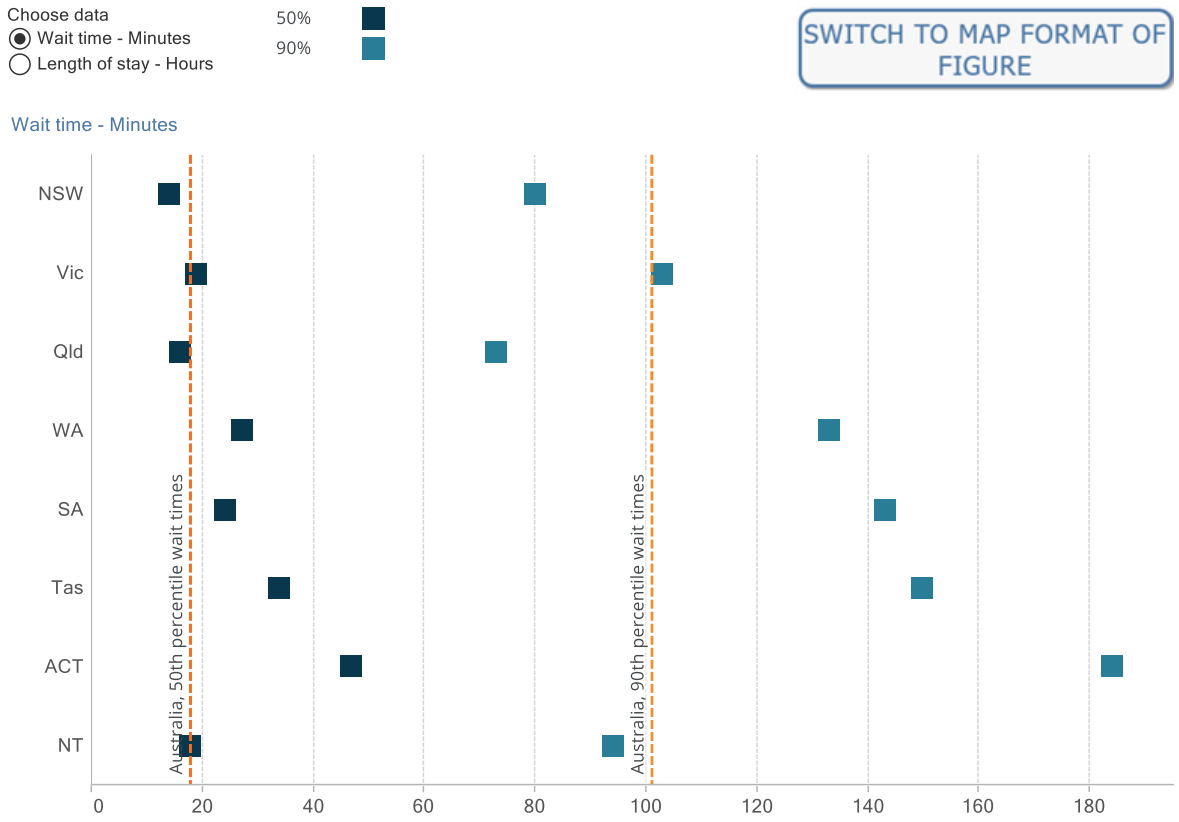

Figure ED.6: Mental health-related emergency department presentation wait times and length of stay, by states and territories, 2019-20
http://www.aihw.gov.au/mhsa

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 ED 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 2019–20, 292 of Australia's public hospital emergency departments reported emergency department presentations to the NNAPEDCD (AIHW 2021b).

Prior to 2014–15, 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 2019–20 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 2019–20, 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 2019–20 Appendixes* (AIHW 2021b).

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.

References

ABS (Australian Bureau of Statistics) 2018. Estimates of Aboriginal and Torres Strait Islander Australians, June 2016. Cat. No. 3238.0.55.001. Canberra: ABS

ACEM (Australasian College for Emergency Medicine) 2013. Policy on the Australasian Triage Scale (P06). Melbourne: Australasian College for Emergency Medicine. Viewed 17 July 2020, https://acem.org.au/getmedia/484b39f1-7c99-427b-b46e-005b0cd6ac64/P06-Policy-on-the-ATS-Jul-13-v04.aspx

AIHW (Australian Institute of Health and Welfare) 2021a. Emergency department care 2019-20. Canberra: AIHW. Viewed 9 March 2021. https://www.aihw.gov.au/reports-data/myhospitals/sectors/emergency-department-care

AIWH 2021b. Hospitals info & downloads: About the data. Canberra: AIHW. Viewed 9 March 2021. https://www.aihw.gov.au/reports-data/myhospitals/content/about-the-data

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.

World Health Organization (WHO) 2019. Adolescent mental health. Geneva: WHO. Viewed 15 July 2020. https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health

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 2019-20.
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 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 PHNs 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. In regional areas, SA3s represent the area serviced by regional cities that have a population over 20,000 people. In the major cities, SA3s represent the area serviced by a major transport and commercial hub.
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.