# Mental health services provided in emergency departments

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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.

#### Response to COVID-19

From February 2020, Australian governments introduced a range of restrictions on travel, business, social interaction and border control in response to the COVID-19 pandemic. This may have impacted the overall number of presentations as in 2019–20 a decrease of 1.4% was observed from the 2018–19 data (AIHW 2022a). From October 2020, Australia was at the end of the second wave of the pandemic, leading to relaxation of those restrictions. ED presentations in 2020–21 increased by 6.9% from 2019–20 (AIHW 2022a). In contrast, the number of mental health-related ED presentations increased in 2019–20 but decreased in 2020–21 compared with their respective previous year. New data tables have been produced that explore the impact of the pandemic on mental health-related presentations to the ED.

#### Data downloads

Excel: Mental health services provided in emergency departments tables 2020–21.

PDF: Mental health services provided in emergency department section 2020-21.

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

Data coverage includes the time period 2004–05 to 2020–21. This section was last updated in July 2022.

You may also be interested in

- Suicide and self-harm monitoring website
- Mental health impacts of COVID-19
- MyHospitals website.

### **Key points**

- **309,657** presentations to public Australian EDs were mental health-related in 2020–21, which was 3.5% of all presentations. This is a slightly lower proportion than in 2019-20 (3.8%).
- **78.1%** 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).
- **63.8%** of mental health-related ED presentations were seen on time (based on triage status) compared with 71% of all ED presentations.
- **53.6%** 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

In 2020–21, there were 309,657 public hospital ED presentations with a mental healthrelated principal diagnosis recorded, representing 3.5% of all ED presentations. South Australia had the highest mental health-related proportion of ED presentations (4.7%) and New South Wales had the lowest proportion (3.0%) (Figure ED.1).

Nationally, the rate of mental health-related ED presentations was 120.6 per 10,000 population, with an average annual change of 1.5% between 2016–17 and 2020–21. The Northern Territory had the highest rate (306.6) and Victoria the lowest (99.4).

## Figure ED.1: Mental health-related presentations to public emergency departments, by states and territories, 2020–21

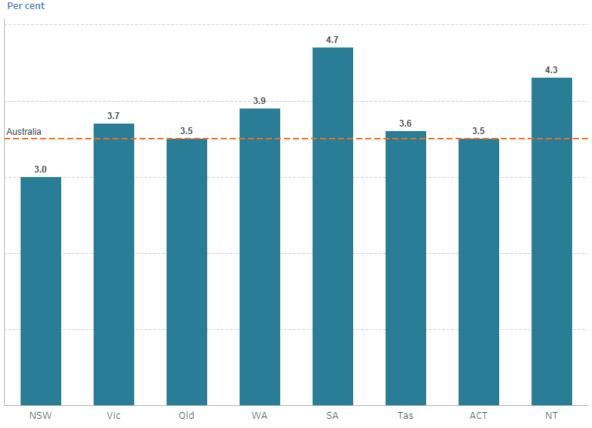


Figure ED.1: Mental health-related presentations to public emergency department by states and territories, 2020–21. Source: National Non-admitted Patient Emergency Department Care Database; Table ED.1.

## **Patient characteristics**

The rate of mental health-related ED presentations from young women had the fastest growth; with the highest average annual change (9.5%) being from women aged 12–17 between 2016–17 to 2020–21. Women aged 12–17 had the highest rate of mental health-related ED presentation in 2020–21 (251.8 per 10,000 population) followed by women aged 18–24 years (248.4 per 10,000 population). However, the rate of mental health-related ED presentations was still higher for males than for females overall (121.5 and 119.4 per 10,000 population respectively) (Figure ED.2). This is due to the higher proportion of those presentations from men aged 25–54 years. Overall, those aged 18–24 years had the highest rate of mental health-related presentations (219.8 per 10,000 population); by contrast, people aged 85 years and older had the highest rate for all ED presentations (7691.3 per 10,000 population). This difference is likely to be influenced by the typically young age of onset of many mental disorders (WHO 2019).

Aboriginal and Torres Strait Islander people represent about 3.3% of the Australian population (ABS 2018) but account for 12.3% of mental health-related ED presentations

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and 7.5% of all presentations. The rate of mental health-related ED presentations for Indigenous Australians was 4.5 times that of non-Indigenous Australians (478.3 and 106.4 per 10,000 population respectively).

## Figure ED.2: Mental health-related emergency departments presentations, by patient demographic characteristics, 2020–21

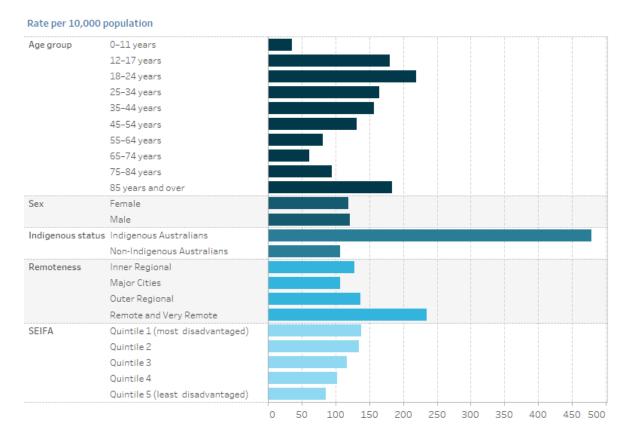


Figure ED.2: Mental health-related emergency department presentations, by patient demographic characteristics, 2020-21. Source: National Non-admitted Patient Emergency Department Care Database; Table ED.8.

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#### Patient area of usual residence

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 across Australia. In 2020–21, the highest rate of mental health-related ED presentations was in the Barkly SA3 region (1006.2 per 10,000 population) in the Northern Territory, followed by Alice Springs (635.9) in the Northern Territory and Kimberly (496.2) in Western Australia.

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.

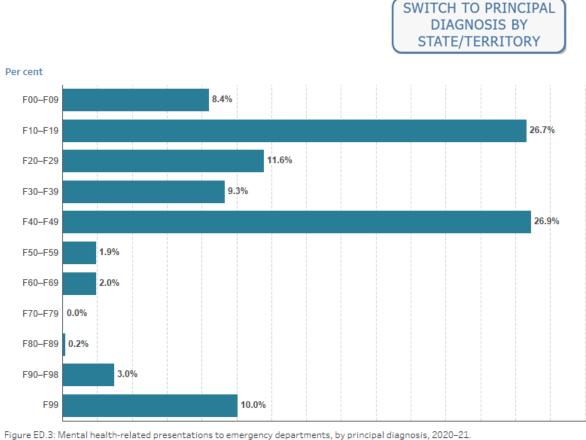
### Principal diagnosis

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.

About three quarters (74.5%) of mental health-related ED presentations in Australian public EDs were classified by 4 principal diagnosis groupings in 2020–21 (Figure ED.3, ED.3.1):

- Mental and behavioural disorders due to psychoactive substance use (F10–F19); (26.7%)
- *Neurotic, stress-related and somatoform disorders (F40–F49);* (26.9%)
- Schizophrenia, schizotypal and delusional disorders (F20–F29); (11.6%)
- Mood (affective) disorders (F30–F39); (9.3%).

## Figure ED.3: Mental health-related emergency departments presentations, by principal diagnosis, 2020–21



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

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### **Arrival mode**

The arrival mode records the way in which a person arrives at the emergency department. Just over half of mental health-related ED presentations in 2020–21 arrived via ambulance, air ambulance or helicopter rescue service (52.2%). This was almost double the proportion of all ED presentations that arrived by the same means (26.2%). A smaller proportion of mental health-related ED presentations arrived by police or correctional service vehicles (6.1%); 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 2020–21 had a higher

## Figure ED.4: Mental health-related presentations to public emergency departments, by triage category, 2020–21

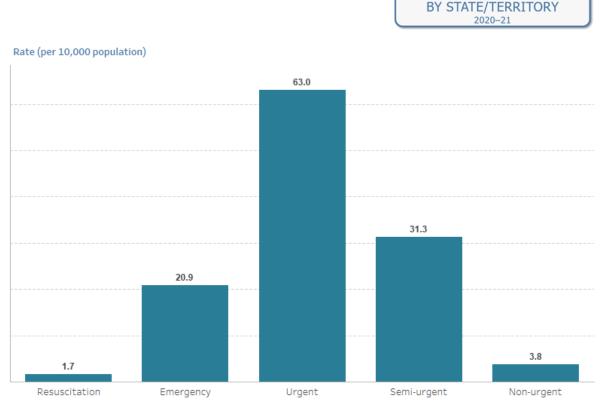


Figure ED.4: Mental health-related presentations to public emergency departments, by triage category, 2020-21. *Source*: National Non-admitted Patient Emergency Department Care Database; Table ED.6.

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SWITCH TO TRIAGE CATEGORY

## Service characteristics

The median waiting time to be seen for mental health-related ED presentations was 20 minutes, with 63.8% of presentations seen on time according to their assessed triage status, compared to 71% of all ED presentations (AIHW 2022a). For mental health-related ED presentations, the Australian Capital Territory had the lowest proportion of presentations seen on time (38.2%) and New South Wales had the highest (74.1%). New South Wales also had the lowest median waiting time (15 minutes), and the Australian Capital Territory had the highest (74.1%).

### **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 (56.7%). Over one-third (35.9%) of presentations resulted in the patient being admitted to the hospital where the emergency service was provided, with a further 3.5% referred to another hospital for admission. This is higher than the result for all ED presentations in 2020–21, with 30.9% being admitted to hospital, either where the service was provided or referred to another hospital (AIHW 2022a). (Figure ED.5)

## Figure ED.5: Mental health-related emergency department presentations, by episode end status and states and territories, 2020–21

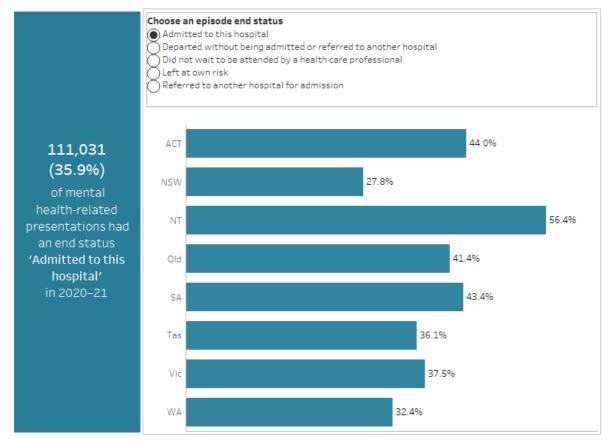
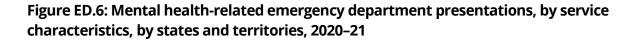


Figure ED.5: Mental health-related emergency department presentations, by episode end status and states and territories, 2020–21. Source: National Non-admitted Patient Emergency Department Care Database; Table ED.15.

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### Length of stay

The median length of stay for all mental health-related ED presentations in 2020–21 was 3 hours and 57 minutes (Figure ED.6). For mental health-related ED presentations ending in admission, the median length of stay in the EDs was 5h:26m whereas the median length of stay for presentations not ending in admission was 3h:29m. Nationally, 90% of mental health-related ED presentations were completed within 13h:57m, which is longer than the same measure for all ED presentations (up to 8 hours) (AIHW 2022a).



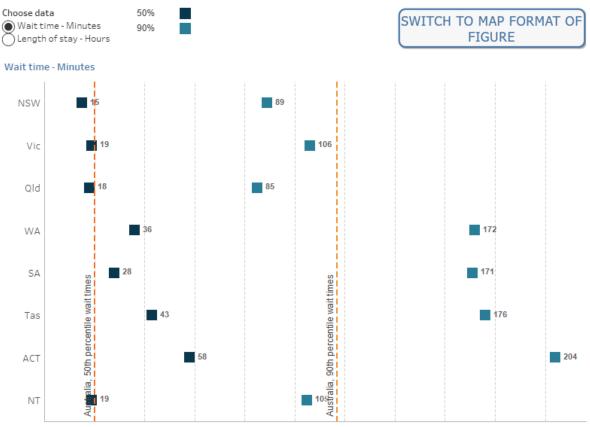


Figure ED.6: Mental health-related emergency department presentation wait times and length of stay, by states and territories, 2020–21.

Source: National Non-admitted Patient Emergency Department Care Database; Table ED.12 (Wait time), Table ED.17 (Length of stay).
<u>http://www.aihw.gov.au/mhsa</u>

### 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 healthrelated 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 2020–21, 291 of Australia's public hospital emergency departments reported emergency department presentations to the NNAPEDCD (AIHW 2022b). Prior to 2014–15, diagnosis-related information was not included in the NNAPEDCDand states and territories provided the AIHW with a bespoke analysis of mental health-related emergency department presentations. Diagnosis-related datahas subsequently been included in the NNAPEDCD. In this report, data from 2014–15 to 2020–21 are sourced from the NNAPEDCD.

## 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 other coding schemas. It does not include codes for self-harm or poisoning.

For 2020–21, 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 2020–21 Appendixes* (AIHW 2022b).

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 6 May 2022, 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) 2022a. Emergency department care 2020-21. Canberra: AIHW. Viewed 6 May 2022. https://www.aihw.gov.au/reports-data/myhospitals/sectors/emergency-department-care

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World Health Organization (WHO) 2019. Adolescent mental health. Geneva: WHO. Viewed 6 May 2022. 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	<b>Emergency department (ED) presentation</b> refers to the period of treatment or care between when a patient presents at an ED and when that person is recorded as having physically departed the ED. It includes presentations for patients who do not wait for treatment once registered or triaged in the ED, those who are dead on arrival, and those who are subsequently admitted to hospital or to beds or units in the ED. An individual may have multiple presentations in a year. For further information can be found in the Non-admitted patient emergency department care NMDS 2020-21.
Episode end status	The <b>episode end status</b> 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	Mental health-related emergency department (ED) presentation
emergency department (ED) presentation	refers to an ED presentation that has a principal diagnosis that falls within the <i>Mental and behavioural disorders</i> 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 EDs, as detailed above. Additional information about this and applicable caveats can be found in the Data source section.
Primary Health Network	A <b>Primary Health Network</b> is an administrative health region
(PHN)	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 <b>principal diagnosis</b> 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)	<b>SEIFA</b> 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 of Population and Housing, 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)	<b>SA3s</b> 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 <b>triage</b> 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:
	<ul> <li>Resuscitation: immediate (within seconds)</li> <li>Emergency: within 10 minutes</li> <li>Urgent: within 30 minutes</li> <li>Semi-urgent: within 60 minutes</li> <li>Non-urgent: within 120 minutes.</li> </ul>