

# Mental health services provided in emergency departments

Hospital emergency departments (EDs) play a role in treating mental illness. For a range of reasons, EDs are often used as an initial point of care by those 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 occasions of service](#) in their jurisdiction, which is compiled annually into the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD). The mental health-related ED data reported here, however, are currently supplied outside of this process by jurisdictions directly to AIHW, as the NNAPEDCD has only recently included information on the principal diagnosis for each occasion of service (see [data source](#) for more information).

[Mental health-related ED occasions of service](#) in this section are defined as occasions of service in 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 a consequence, the data presented in this section are likely to under-report the actual number of mental health-related ED occasions of service. A number of caveats relating to the quality of these data are listed in the [data source](#) section.

Data for the ACT were not available for the 2013-14 and 2014-15 reporting periods. See the footnotes in each of the tables for details about the calculation of national rates.

## Key points

- There were an estimated 256,178 ED occasions of service with a mental health-related principal diagnosis in 2014–15, that is 3.4% of all ED occasions of service reported in public hospitals.
- More than half (53.1%) of mental health-related ED occasions of service had a principal diagnosis of either Neurotic, stress-related and somatoform disorders or Mental and behavioural disorders due to psychoactive substance use.
- About 4 in 5 (79.3%) mental health-related ED occasions of service were classified as either semi-urgent (patient should be seen within 60 minutes) or urgent (patient should be seen within 30 minutes).
- Three in five (60.7%) mental health-related ED occasions of service were recorded as being resolved without the need for admission or referral. Most of the remaining mental health-related occasions of service (31.7%) were admitted to hospital.

Data in this section were last updated in October 2016

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## Reference

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.

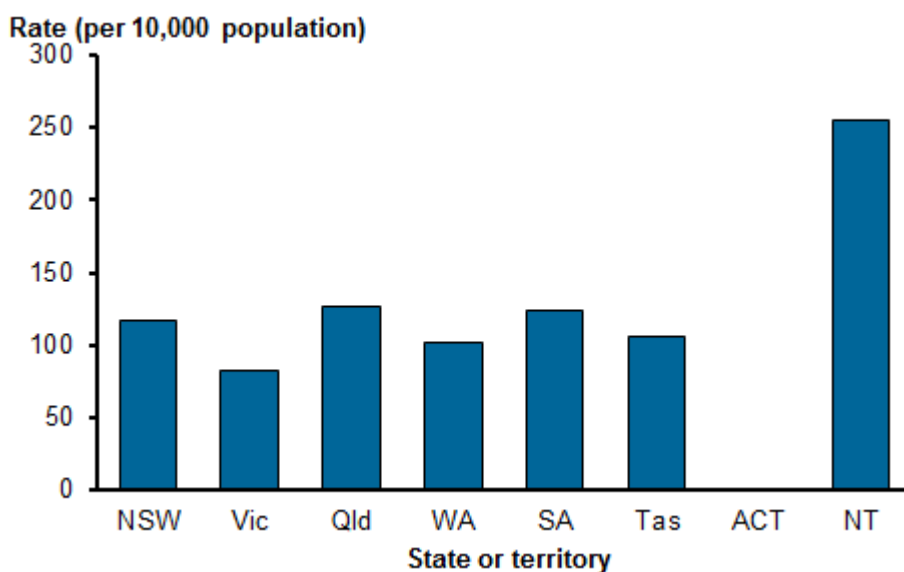
# Service provision

## States and territories

A total of 256,178 public hospital ED occasions of service with a mental health-related principal diagnosis were reported by states and territories in 2014–15, representing 3.4% of all ED occasions of service (Table ED.3).

Nationally, the rate of mental health-related ED occasions of service was 110.3 per 10,000 population. The Northern Territory had the highest rate (255.5) and Victoria the lowest (82.7) (Figure ED.1). The observed jurisdictional differences are likely to be due to varying population characteristics, health-care systems and service delivery practices.

**Figure ED.1: Mental health-related emergency department occasions of service in public hospitals, states and territories, 2014–15**



Source: Unpublished data provided by state and territory health authorities.

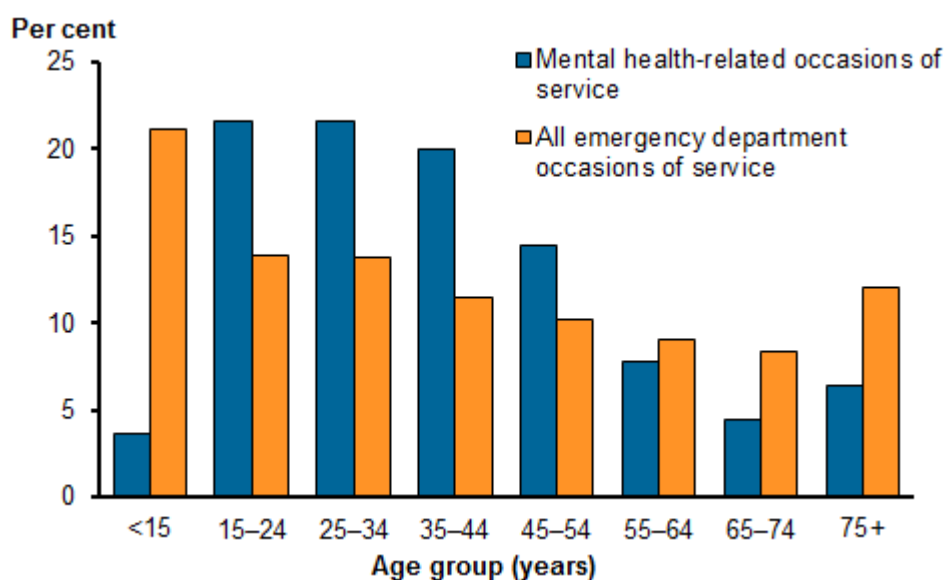
Source data: Mental health-related emergency department occasions of service Table ED.1 (443 KB XLS).

# Patient characteristics

## Patient demographics

There is a difference in the age profile for mental health-related ED occasions of service compared with all ED occasions of service. Mental health-related ED occasions of service had a higher proportion of patients aged 15–54 (77.7%) compared with all emergency department occasions of service (49.4%). In contrast, there was and a much lower proportion of patients aged less than 15 (3.7%) compared with all emergency department occasions of service (21.2%) (Figure ED.2).

**Figure ED.2: Emergency department occasions of service in public hospitals, by age group, 2014–15**



Source: Unpublished data provided by state and territory health authorities.

Source data: Mental health-related emergency department occasions of service Table ED.3 (443KB XLS).

Males and females were similarly represented in mental health-related ED occasions of service (51.8% and 48.2% respectively) in 2014–15.

Aboriginal and Torres Strait Islander people accounted for 9.3% of mental health-related ED occasions of service, compared with 6.3% of all ED occasions of service.

Mental health-related occasions of service made up a higher proportion of all ED occasions of service for Indigenous Australians than for other Australians (5.1% and 3.3% respectively)(Table ED.3).

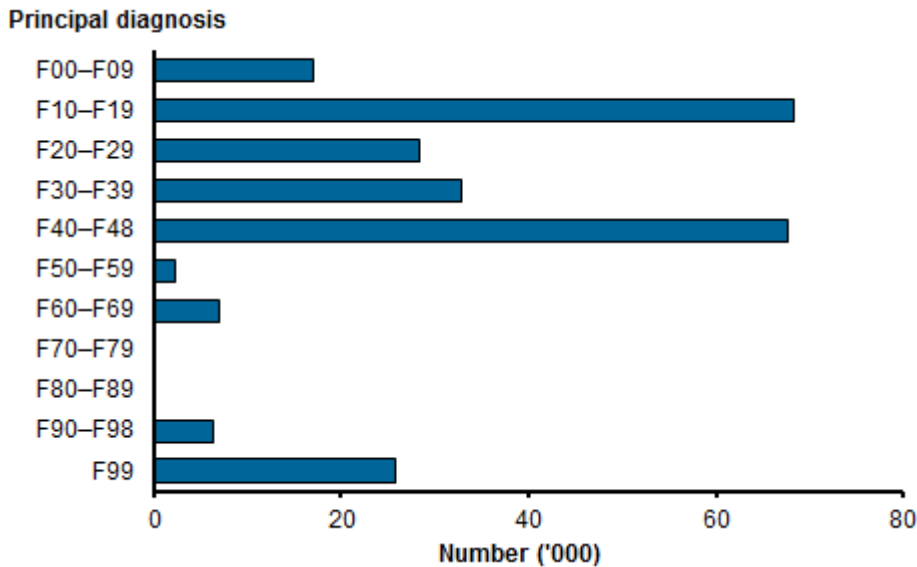
## Principal diagnosis

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

More than three quarters (77.0%) of mental health-related ED occasions of service were classified by 4 principal diagnosis codes in 2014–15 (Figure ED.3). These were:

- mental and behavioural disorders due to psychoactive substance use (F10–F19; 26.6%)
- neurotic, stress-related and somatoform disorders (F40–F48; 26.5%)
- mood (affective) disorders (F30–F39; 12.8%)
- schizophrenia, schizotypal and delusional disorders (F20–F29; 11.1%).

**Figure ED.3: Mental health-related emergency department occasions of service in public hospitals, by principal diagnosis, 2014–15**



**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
- F40–48: 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

Source: Unpublished data provided by state and territory health authorities.  
 Source data: Mental health-related emergency department occasions of service Table ED.4 (443 KB XLS).

## Service characteristics

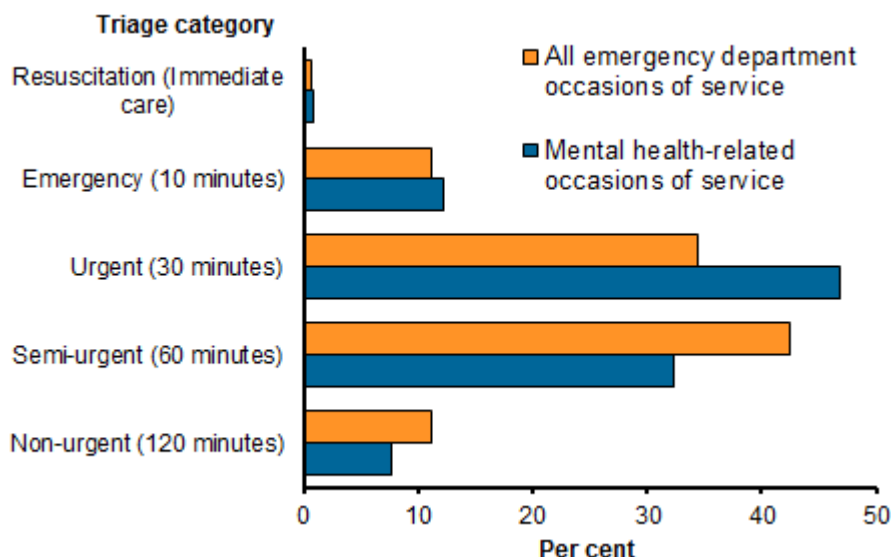
### Triage category

When presenting to an emergency department, patients are triaged to assess their need for care and an appropriate triage category is assigned to reflect priority for care. For example, patients triaged to the

'emergency' category are assessed as requiring care within 10 minutes. Care may or may not, however, be received within the designated time frames.

The majority of mental health-related ED occasions of service in 2014–15 (79.3%) were classified as either urgent or semi-urgent (Figure ED.4). This figure is similar to all ED occasions of service (77.5%) (AIHW 2015).

**Figure ED.4: Emergency department occasions of service in public hospitals, by triage category, 2014–15**



Source: Unpublished data provided by state and territory health authorities.

Source data: Mental health-related emergency department occasions of service Table ED.5 (443 KB XLS) and AIHW unpublished analyses.

### Episode end status

The episode end status for 3 in 5 (60.7%) mental health-related ED occasions of service in 2014–15 was recorded as completed, indicating service resolution within the ED without admission or referral to another hospital. Admission to the presenting hospital occurred in almost one-third (31.7%) of mental health-related occasions of service, which was a higher rate than that recorded for all ED occasions of service (27%) (AIHW 2015). A small proportion of mental health-related ED occasions of service led to referrals to other hospitals for admission (2.7%) or the patient leaving the ED before episode completion (2.9%).

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### Reference

Australian Institute of Health and Welfare (AIHW) 2015. Emergency department care 2014–15: Australian hospital statistics. Health services series no. 65. Cat. no. HSE 168. Canberra: AIHW.

## Data source

### Mental health-related emergency department data

All state and territory health authorities collect a core set of nationally comparable information on most of the ED occasions of service (including mental health-related emergency department occasions of service) in public hospitals within their jurisdiction. The AIHW compiles these data annually to form the National Non-Admitted Patient Emergency Department Care Database (NNAPEDCD).

Previously, diagnosis-related information was not included in the NNAPEDCD and so states and territories provided the AIHW with a bespoke analysis of mental health-related emergency department occasions of service for inclusion in this report. However, from 1 July 2013, the NNAPEDCD does include information on the patient's diagnosis. Preliminary analysis of the newly available diagnosis data items—in relation to their usefulness for reporting on mental health-related emergency department activity—has commenced, with the expectation that future versions of this report will be based on the NNAPEDCD.

This report includes data provided by states and territories specifically for the purpose of this report. The AIHW acknowledges the strong support provided by states and territories in undertaking the analysis included in this report over several years.

### Definition of mental health-related emergency department occasions of service

Data on mental health-related ED occasions of service in this report provided by the state and territory health authorities are defined as occasions of service 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. These codes are listed below (see Table Data Source ED1).

Most jurisdictions coded the principal diagnosis of ED occasions of service in 2014–15 using ICD-10-AM; except NSW which uses Systematised Nomenclature of Medicine – Clinical Terms – Australian versions, Emergency Department Reference Set (SNOMED). However, for those using ICD-9-CM or SNOMED, mapping of the relevant ICD-10-AM codes to ICD-9-CM or SNOMED codes was undertaken by the relevant state or territory.

Aggregate data on the demographic characteristics of the patients, the triage category, episode end status and the diagnosis category were provided by all states and territories to AIHW for occasions of service that met the definition of a mental health-related occasion of service.

## Data Source ED1: Mental health-related emergency department occasions of service, principal diagnosis codes included, ICD-10-AM and ICD-9-CM

ICD-10-AM <sup>(a)</sup> codes	ICD-9-CM <sup>(b)</sup> codes
F00–F09 Organic, including symptomatic, mental disorders	290, 293, 294, 310
F10–F19 Mental and behavioural disorders due to psychoactive substance use	291, 292, 303, 304, 305 (excluding 305.8 and 305.9)
F20–F29 Schizophrenia, schizotypal and delusional disorders	295, 297, 298 (excluding 298.0, 298.1, 298.2), 301.22
F30–F39 Mood (affective) disorders	296, 298.0, 298.1, 300.4, 301.1, 311
F40–F48 Neurotic, stress-related and somatoform disorders	298.2, 300 (excluding 300.4, 300.19), 306 (excluding 306.3, 306.51, 306.6), 307.53, 307.80, 307.89, 308, 309 (excluding 309.21, 309.22)
F50–F59 Behavioural syndromes associated with physiological disturbances and physical factors	302.7, 305.8, 305.9, 306.3, 306.51, 306.6, 307.1, 307.4, 307.5 (excluding 307.53), 316, 648.44
F60–F69 Disorders of adult personality and behaviour	300.19, 301 (excluding 301.1, 301.22), 302 (excluding 302.7), 312.3
F70–F79 Mental retardation	317, 318, 319
F80–F89 Disorders of psychological development	299, 315, 330.8
F90–F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	307.0, 307.2, 307.3, 307.6, 307.7, 307.9, 309.21, 309.22, 312 (excluding 312.3), 313, 314
F99 Unspecified mental disorder	. .

. . Not applicable.

(a) International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification.

(b) International Classification of Diseases and Related Health Problems, 9th revision, Clinical Modification.

The ICD-10-AM codes presented above do not fully capture all mental health-related presentations to EDs, and as such, the caveats listed below should be taken into consideration when interpreting the data presented on mental health-related ED occasions of service.

### Limitations of ED data presented in this section

The ED occasions of service data collected from jurisdictions presented in this section have the following limitations:

- Data were not available for ACT in 2013–14 and 2014–15. As a result, this section excludes ACT for these years.
- There is no nationally agreed upon method of identifying mental health-related occasions of service in emergency departments.
- There is no standard diagnosis classification in use across states and territories for emergency department data.
- There is no standard way to disaggregate those occasions of service identified as mental health-related into subcategories of mental health conditions.
- The definition is based on the principal diagnosis only. As a result, if a mental health-related condition was reported as a second or other diagnosis and not as the principal diagnosis, the occasion of service will not be included as mental health-related.

- The data refer to occasions of service and not to individuals. An individual may have had multiple occasions of service within the same year.
- Not all potential mental health-related ED occasions of service are represented in the data, for the following reasons:
  - Not all ED occasions of service are collected by state and territory authorities at the episode level.
    - Nationally, in 2014–15, an estimated 12% of the 7.4 million public hospital ED occasions of service were not reported with episode-level data and thus not included in the NNAPEDCD (AIHW 2015).
    - Non-admitted patient occasions of service provided by EDs in private acute and psychiatric hospitals are not included.
  - Not all occasions of service episode-level data collected by state and territory authorities include diagnosis information.
  - The principal diagnosis codes included in the definition do not cover all mental health-related conditions. For example, ED occasions of service for which the principal diagnosis did not fall within the Mental and behavioural disorders chapter (codes F00–F99) but for which an external cause of morbidity or mortality was identified as intentional self-harm are not included.
  - The mental health-related condition or illness may not have been coded as the diagnosis, if it was either not diagnosed by the emergency department or was not recognised (and thus not recorded) as a reason for presentation at an ED.

## Coverage

As noted above, episode-level data were available for 88% of public hospital ED occasions of service in 2014–15, and these data are mainly from the larger metropolitan hospitals (AIHW 2015). Of the data available on ED occasions of service, it is estimated that 95% had a diagnosis code.

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## Reference

Australian Institute of Health and Welfare (AIHW) 2015. Emergency department care 2014–15: Australian hospital statistics. Health services series no. 65. Cat. no. HSE 168. Canberra: AIHW.

## Key concepts

### Mental health-related care in emergency departments

Key Concept	Description
<b>Emergency department occasion of service</b>	<b>Emergency department occasion of service</b> refers to the period of treatment or care between when a patient presents at an emergency department and when the non-admitted emergency department treatment ends. It includes presentations of 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 occasions of service in a year. For further information, see the definition of <i>Non-admitted patient emergency department service episode</i> in the <i>National health data dictionary, Version 14</i> (HDSC 2008).



<b>Mental health-related emergency department occasion of service</b>	<b>Mental health-related emergency department occasion of service</b> refers to an emergency department occasion of service 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 <a href="#">Data source</a> section.
<b>Principal diagnosis</b>	Currently, there is no national standard definition of <b>principal diagnosis</b> for emergency department data. Thus, for the purposes of the data presented in this section, states and territories provided data on principal diagnosis based on local definitions used within their jurisdiction or emergency departments.
<b>Triage</b>	<p><b>Triage</b> is the process by which a patient is briefly assessed upon arrival in the emergency department to determine the urgency of their need for medical and nursing care. The triage categories include:</p> <ul style="list-style-type: none"> <li>• Non-urgent (requiring care within 120 minutes)</li> <li>• Semi-urgent (requiring care within 60 minutes)</li> <li>• Urgent (requiring care within 30 minutes)</li> <li>• Emergency (requiring care within 10 minutes)</li> <li>• Resuscitation (requiring immediate care).</li> </ul>

## Reference

Health Data Standards Committee (HDSC) 2008. National health data dictionary. Version 14. AIHW Cat. no. HWI 101. Canberra: AIHW.