

# Potentially preventable hospitalisations in Australia by small geographic areas, 2020–21 to 2021–22

Web report | Last updated: 13 Aug 2024 | Topic: [Primary health care](#)

## About

This web report is an update to the report, [Potentially preventable hospitalisations in Australia by age groups and small geographic areas, 2017–18](#) and provides counts and rates of 22 selected potentially preventable hospitalisations by Statistical Area Level 3 and Primary Health Network, for 2020–21 and 2021–22. Potentially preventable hospitalisations are hospital separations for conditions that are potentially amenable to timely and adequate health care in the community.

Cat. no: HPF 70

### Findings from this report:

- [Around 1 in 18 hospitalisations \(5.7% or 660,000\) were for conditions classified as potentially preventable in 2021–22](#)
  - [The average length of stay of potentially preventable hospitalisations was 3.9 days in 2021–22](#)
  - [Older Australians aged 65 years and over have a higher rate of potentially preventable hospitalisations](#)
  - [Age-standardised rates of vaccine-preventable hospitalisations increased between 2020–21 and 2021–22](#)
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## Summary

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#### Summary

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Hospital separations for the selected conditions presented in this report are considered to be ‘potentially preventable hospitalisations’ as they are amenable in some circumstances to primary and community care interventions. These conditions reflect the [National Healthcare Agreement: Performance Indicator 18-Selected potentially preventable hospitalisations, 2022 - external site opens in new window](#) and are categorised as being:

- acute (conditions that usually come on suddenly, and may not be preventable, but may not result in hospitalisation if timely and adequate care had been received in the community)
- vaccine-preventable (hospitalisations due to conditions that can be prevented by vaccination)
- chronic (conditions that are persistent and long-lasting but may be preventable through lifestyle change, and can also be managed in the community to prevent worsening of symptoms or hospitalisation).

Primary and community health care – including care from a general practitioner or community health nurse – can effectively manage and treat these health conditions (for example, by administering vaccines or prescribing lifestyle changes). Primary and community health care can be an opportunity for early intervention, that can help to reduce the risk of a person developing a disease, their symptoms worsening, or complications developing, to the point that they need a hospitalisation.

### Why measure potentially preventable hospitalisations?

Potentially preventable hospitalisations (PPH) can tell us about the effectiveness of health care in the community, as higher rates may suggest a lack of timely, accessible, and adequate primary care.

However, there are many other reasons why an area or group of people may have higher rates of PPH. These may include:

- higher rates of disease
- lifestyle factors and other risks
- a genuine need for hospital services.

Some PPH may not be avoidable, such as those for patients with complex illness, or patients having procedures as follow-up to primary care.

This means that it is important not to assume that higher rates of PPH always indicate a less effective primary care system. Rather, PPH are a useful tool for identifying and investigating variation between different groups of people to better understand health inequalities. PPH can help guide research about how different groups use and respond to health services, including barriers they may face and areas of unmet demand.

### What this report examines

This report explores 22 conditions for which hospitalisation is considered potentially preventable across 3 broad categories:

- acute (conditions that usually come on suddenly, and may not be preventable, but may not result in hospitalisation if timely and adequate care was received in the community)
- vaccine-preventable (hospitalisations due to conditions that can be prevented by vaccination)
- chronic (conditions that are persistent and long-lasting but may be preventable through lifestyle change, and can also be managed in the community to prevent worsening of symptoms or hospitalisation).

For more information on the conditions included in this report, see [What are potentially preventable hospitalisations?](#)

Data in this report are based on where people lived, not the location of the hospital that they were admitted to, and are presented for 2020–21 and 2021–22, across 2 geographic areas: Statistical Area Level 3 (SA3) and Primary Health Network (PHN).

### How common are potentially preventable hospitalisations?

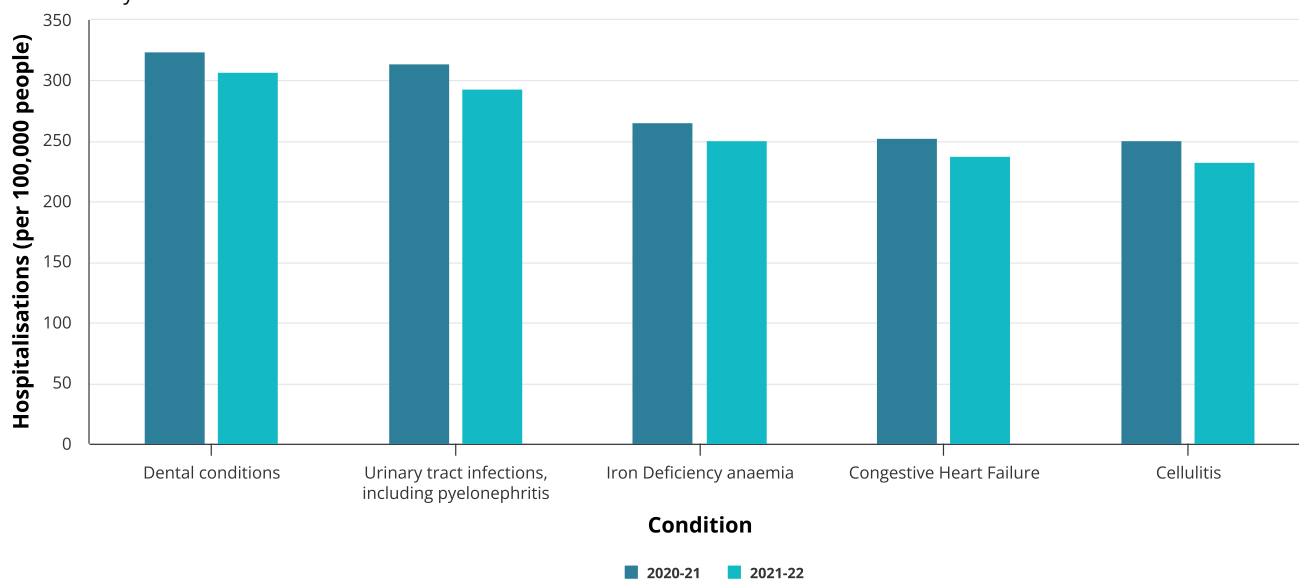
In 2021–22, there were 11.6 million hospitalisations in Australia (AIHW 2023). Of these, around 1 in 18 hospitalisations (5.7% or 660,000) were classified as PPH, a rate of 2,600 hospitalisations per 100,000 people. Of the 11.8 million hospitalisations in 2020–21 (AIHW 2023), the number and rate of PPH was steady (5.7%, or 670,000), a rate of 2,600 hospitalisations per 100,000 people. The average length of stay for a PPH admission was 3.7 days in 2020–21 and 3.9 days in 2021–22.

### The most common potentially preventable conditions

Overall, the most common condition for PPH in 2020–21 and 2021–22 was dental conditions, followed by urinary tract infections, and iron deficiency anaemia. The 5 most common PPH conditions (based on highest rates per 100,000 people) are presented in Figure 1 below.

**Figure 1: Five most common potentially preventable hospitalisations conditions, rate per 100,000 people, 2020–21 and 2021–22**

Dental conditions was the most common potentially preventable hospitalisations conditions, followed by urinary tract infections and iron deficiency anaemia.



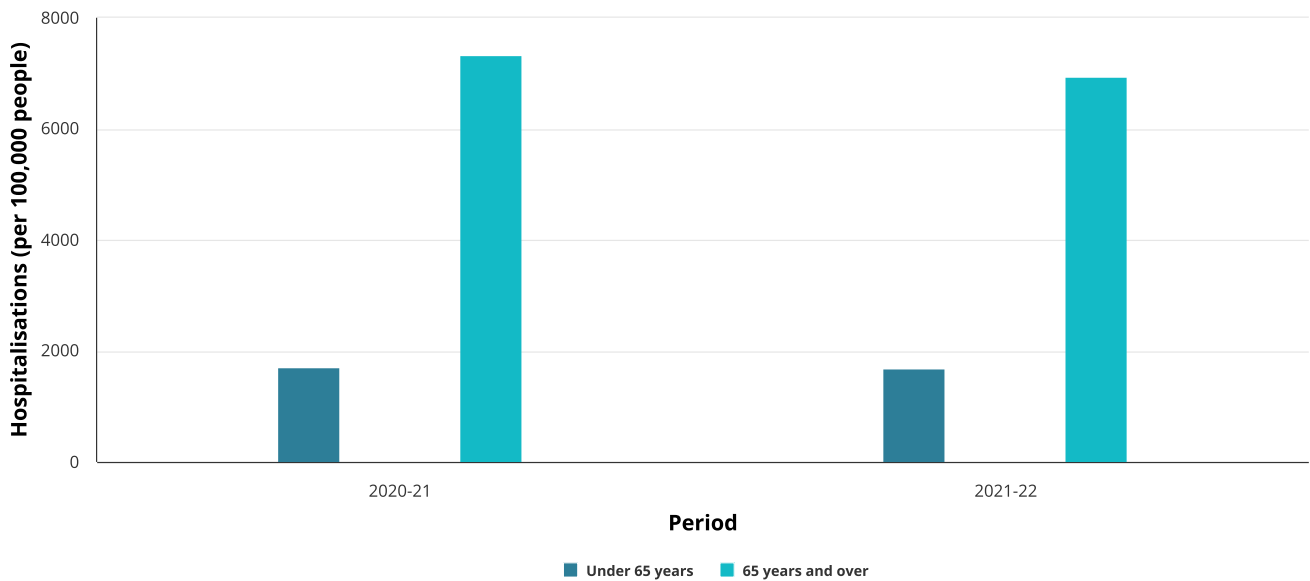
**Source:** AIHW analysis of the National Hospital Morbidity Database (NHMD) 2020–21 and 2021–22.

### Higher rates of potentially preventable hospitalisations among older Australians

Rates of PPH in 2021–22 were higher in older Australians, aged 65 years and over (about 303,000 hospitalisations or 6,900 hospitalisations per 100,000 people) compared with Australians aged under 65 years (about 357,000 hospitalisations or 1,700 hospitalisations per 100,000 people) (Figure 2). Rates of PPH were also higher in older Australians in 2020–21.

**Figure 2: Rates of total potentially preventable hospitalisations by age group, 2020–21 and 2021–22**

In 2020–21 and 2021–22, people aged 65 years and over had higher rates of potentially preventable hospitalisations than those aged under 65 years.



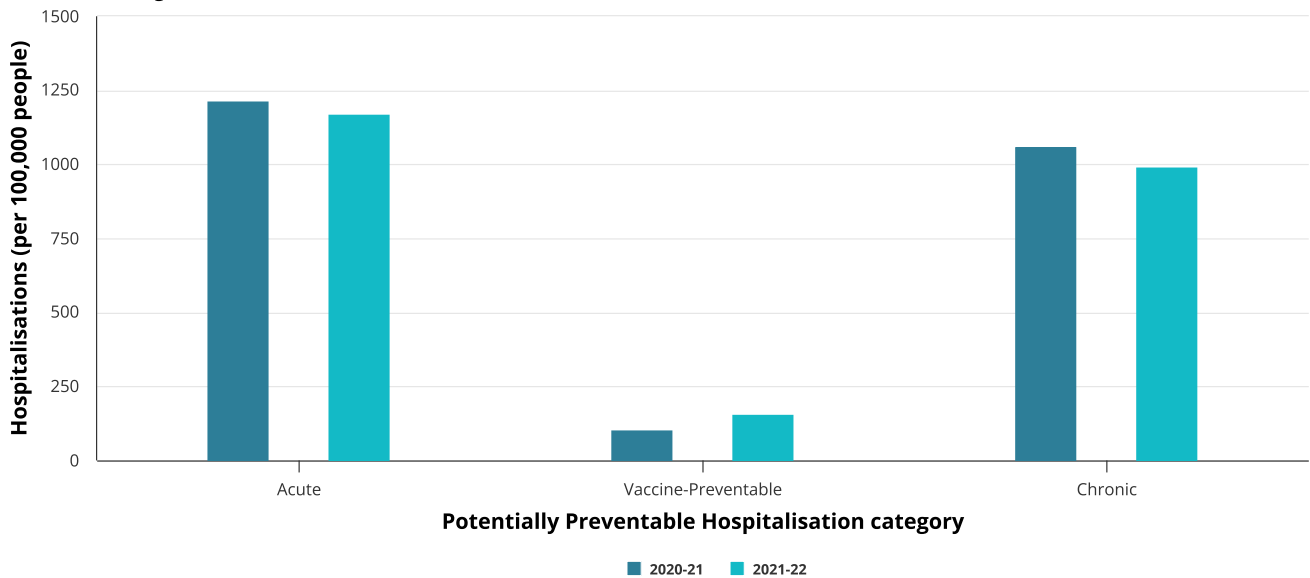
**Source:** AIHW analysis of the National Hospital Morbidity Database (NHMD) 2020-21 and 2021-22.

### Most potentially preventable hospitalisations in 2021-22 were for acute conditions

The number and age-standardised rate of acute PPH in 2021-22 (317,000 or 1,200 per 100,000 people, after adjusting for age) was higher than both chronic PPH (305,000 or 990 per 100,000 people) and vaccine-preventable PPH (43,300 or 155 per 100,000 people) (Figure 3).

**Figure 3: Age-standardised rates of potentially preventable hospitalisations by category, 2020-21 and 2021-22**

The number and age-standardised rate of acute potentially preventable hospitalisations was higher than both the chronic and vaccine-preventable categories.



**Source:** AIHW analysis of the National Hospital Morbidity Database (NHMD) 2020-21 and 2021-22.

### Age-standardised rates of vaccine-preventable hospitalisations increased between 2020-21 and 2021-22

Between the period 2020-21 and 2021-22, age-standardised rates of chronic and acute conditions declined slightly, while the age-standardised rates for vaccine-preventable conditions increased. This change was driven by an increase in pneumonia and influenza (vaccine-preventable) hospitalisations (15 per 100,000 people, after adjusting for age, in 2020-21 compared with 74 per 100,000 people in 2021-22).

Notably, the 2020–21 period coincided with continuing public health measures from the COVID-19 pandemic, which may have contributed to a reduction in the prevalence of pneumonia and influenza in the community, and a subsequent reduction in vaccine-preventable hospitalisations during this period (AIHW 2022).

For more information about admitted patient hospitalisations, including the impact of COVID-19 on admitted patient activity, see [MyHospitals: Admitted patients](#).

## References

AIHW (Australian Institute of Health and Welfare) (2022) *Australia's health 2022: data insights*, AIHW, Australian Government, accessed 09 April 2024.

AIHW (2023) *Hospital activity*, AIHW, Australian Government, accessed 09 April 2024.

## What are potentially preventable hospitalisations?

Potentially preventable hospitalisations (PPH) for this report are defined in accordance with the [National Healthcare Agreement: PI 18- Selected potentially preventable hospitalisations, 2022 - external site opens in new window](#).

The term PPH does not mean that a patient admitted for that condition did not need to be hospitalised at the time of admission. Rather, the hospitalisation could have potentially been prevented through the provision of appropriate preventative health interventions and early disease management in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals). PPH rates are indicators of the effectiveness of non-hospital care. The rate of PPH in a local area may reflect access to primary health care, as well as sociodemographic factors and health behaviours (Falster & Jorm 2017).

There are 22 conditions for which hospitalisation is considered potentially preventable across 3 broad categories.

### 1. Acute conditions

These are conditions that theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received. They include:

- cellulitis
- convulsions and epilepsy
- dental conditions
- ear, nose and throat infections
- eclampsia
- gangrene
- pelvic inflammatory disease
- perforated/bleeding ulcer
- pneumonia (not vaccine-preventable)
- urinary tract infections (including kidney infections).

### 2. Vaccine-preventable conditions

These are diseases that can be prevented by vaccination. These are grouped as pneumonia and influenza (vaccine-preventable) and other vaccine-preventable conditions. Other vaccine-preventable conditions include:

- chicken pox (varicella)
- diphtheria
- haemophilus meningitis
- hepatitis B
- German measles (rubella)
- measles
- mumps
- polio
- rotavirus
- tetanus
- whooping cough (pertussis).

### 3. Chronic conditions

These are conditions that may be preventable through behaviour modification and lifestyle change, but can also be managed effectively through timely care (usually non-hospital) to prevent deterioration and hospitalisation. They include:

- angina
- asthma
- bronchiectasis
- chronic obstructive pulmonary disease (COPD)
- congestive cardiac failure
- diabetes complications

- hypertension
- iron deficiency anaemia
- nutritional deficiencies
- rheumatic heart diseases.

Reducing hospitalisations for these conditions might involve vaccination, early diagnosis and treatment, and/or good ongoing management of risk factors and conditions in community settings.

Detailed data for 2020–21 and 2021–22 including PPH presented at the 31 Primary Health Network (PHN) areas and more than 300 smaller local areas, known as Statistical Areas Level 3 (SA3s) can be found in the [data tables](#). All information relates to where a person lived, not where they went to hospital.

This local-level information is intended to assist local health professionals to develop strategies for change where needed, in the context of their local area.

## References

Falster M & Jorm L 2017. [A guide to the potentially preventable hospitalisations indicator in Australia - external site opens in new window](#). Centre for Big Data Research in Health, University of New South Wales in consultation with Australian Commission on Safety and Quality in Health Care and Australian Institute of Health and Welfare: Sydney.



## How do potentially preventable hospitalisations vary by geographic areas?

This report describes results based on where people lived, not the location of the hospital. People can attend a hospital outside their area.

Potentially preventable hospitalisations (PPH) involve admission to hospital for a condition where the hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses, and allied health professionals).

Variation in PPH rates within a region, or between areas with similar characteristics, can be used to identify and investigate area or populations of need (Falster & Jorm 2017).

There was considerable variation across Primary Health Networks (PHNs). In 2021–22, there were approximately 2,300 total PPH per 100,000 people in Australia (age-standardised to take account of variations in age across PHNs). Across PHNs, age-standardised rates of total PPH were highest in Western Queensland (4,800 hospitalisations per 100,000 people) and the Northern Territory (4,700 per 100,000 people), and lowest in Northern Sydney (1,600 per 100,000 people) (see Figure 4).

For detailed 2020–21 and 2021–22 data at the PHN and Statistical Area Level 3 (SA3) areas, refer to the [data](#) tab. Refer to the [Technical notes](#) for details about the geographical areas and groupings included in this report.

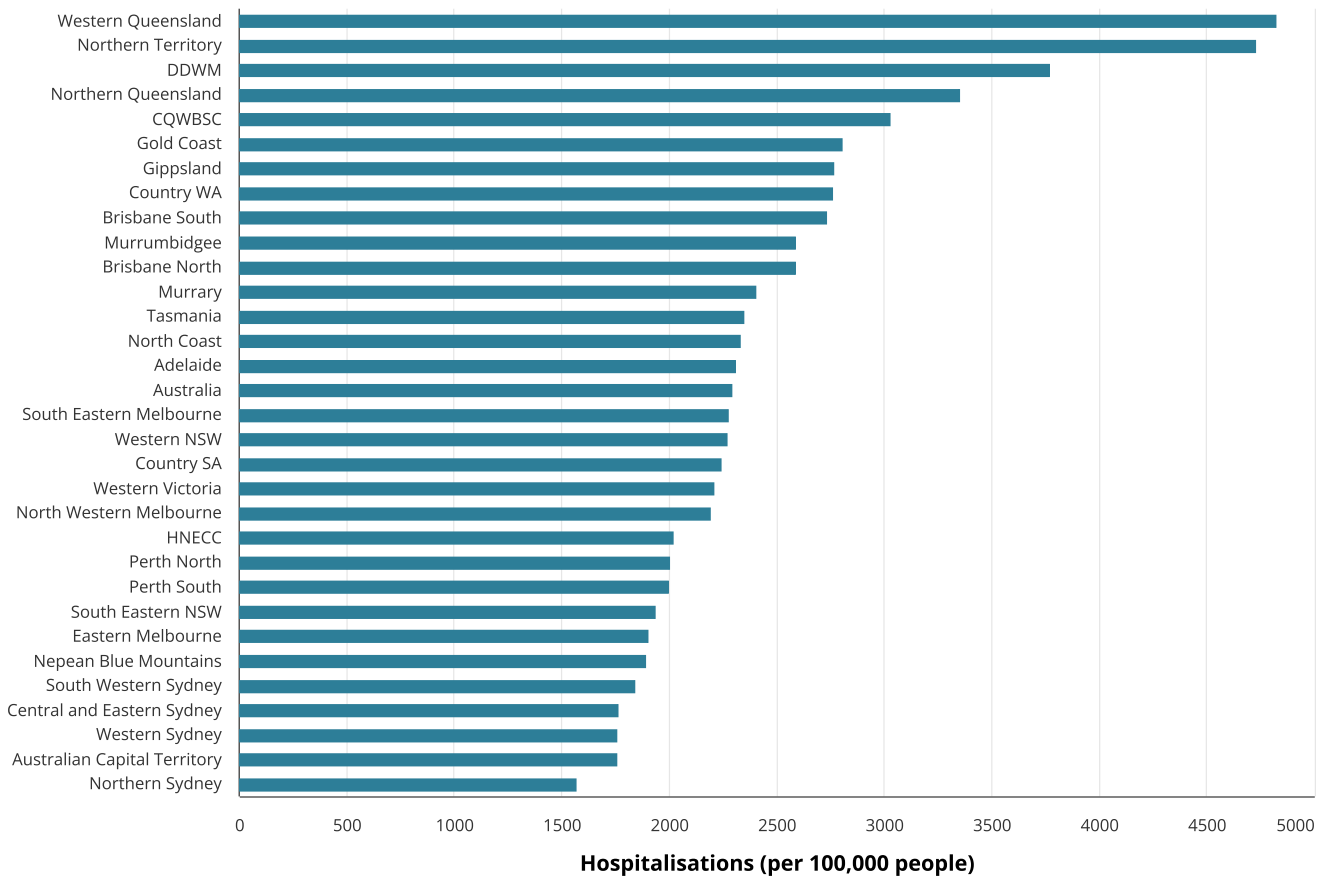
For more information about admitted patient hospitalisations, see [MyHospitals: Admitted patients](#).

For more information about PHN, including what they are, what they do and a map of their boundaries, see [Primary Health Networks - external site opens in new window](#)

### **Figure 4: Age-standardised rate of total potentially preventable hospitalisations, by Primary Health Network, 2021–22**

Across Primary Health Networks, Western Queensland and the Northern Territory had the highest age-standardised rates of total potentially preventable hospitalisations.





DDWM = Darling Downs and West Moreton. CQWBSC = Central Queensland, Wide Bay and Sunshine Coast. HNECC = Hunter New England and Central Coast.

**Source:** AIHW analysis of the National Hospital Morbidity Database (NHMD) 2021–22.

**References**

Falster M & Jorm L 2017. [A guide to the potentially preventable hospitalisations indicator in Australia - external site opens in new window](#). Centre for Big Data Research in Health, University of New South Wales in consultation with Australian Commission on Safety and Quality in Health Care and Australian Institute of Health and Welfare: Sydney.



## Technical notes

 [Technical note: Potentially preventable hospitalisations in Australia by small geographic areas, 2021-22](#)

 [Technical note: Potentially preventable hospitalisations in Australia by small geographic areas, 2020-21](#)

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## Glossary

**Acute:** A medical condition that comes on suddenly and lasts for a limited time.

**Additional diagnosis:** A condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care, episode of residential care or attendance at a health care establishment. See: [Additional diagnosis, METEOR - external site opens in new window](#), id:588981.

**Admission:** The process whereby the hospital accepts responsibility for the patient's care and/or treatment. Admission follows a clinical decision based upon specified criteria that a patient requires same-day or overnight care or treatment. See [Admission, METEOR - external site opens in new window](#), id: 327206.

**Admitted patient:** A patient who undergoes a hospital's formal admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). See: [Admitted patient, METEOR - external site opens in new window](#), id: 268957.

**Average length of stay (ALOS):** The average number of days spent in hospital for each stay (episode of care) for admitted patients who stayed at least one night.

**Bed days:** The total number of days for patients who were admitted for an episode of care and who separated during a specified reference period. A patient who is admitted and separated on the same day is allocated one bed day.

**Chronic:** Persistent and long-lasting.

**Hospitalisation:** A hospitalisation is an episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (e.g. from acute care to rehabilitation).

**Length of stay:** The length of stay of an overnight patient is calculated by subtracting the date the patient is admitted from the date of separation and deducting days the patient was on leave. A same-day patient is allocated a length of stay of 1 day. See: [Length of stay, METEOR - external site opens in new window](#), id: 269982.

**Potentially preventable hospitalisation (PPH) (selected):** Admission to hospital for a condition where hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals). The PPH conditions are classified as vaccine-preventable, chronic, and acute. See: [Potentially preventable hospitalisation, METEOR - external site opens in new window](#), id: 740851.

**Same day admission:** A hospital stay in which the patient is discharged on the same date as they were admitted.

**Same-day patient:** An admitted patient who is admitted and separated on the same date.

**Separations:** The total number of episodes of care (also hospitalisations) for admitted patients, which can be total hospital stays (from admission to discharge, transfer or death) or portions of hospital stays beginning or ending in a change of type of care (for example, from acute to rehabilitation) that cease during a reference period. See: [Separations, METEOR - external site opens in new window](#), id: 270407.



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## Notes

### Data quality statement

[AIHW National Hospital Morbidity Database \(NHMD\)](#)

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## Data

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### Data tables: Potentially preventable hospitalisations in Australia: 2021–22

**Resource**

XLSX 870Kb

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### Data tables: Potentially preventable hospitalisations in Australia: 2020–21

**Resource**

XLSX 896Kb

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## Report editions

### This release

Potentially preventable hospitalisations in Australia by small geographic areas, 2020–21 to 2021–22 | 13 Aug 2024

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### Previous releases

- Potentially preventable hospitalisations in Australia by age groups and small geographic areas, 2017–18 | **Web report** | 14 Nov 2019
- Potentially preventable hospitalisations 2015–16 | **Web report** | 14 Jul 2017





## Related material

### Resources

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#### Admitted patients

##### Resource

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#### Disparities in potentially preventable hospitalisations across Australia, 2012-13 to 2017-18

##### Resource

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#### Related topics

- [Health care quality & performance](#)
  - [Hospitals](#)
  - [Primary health care](#)
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