

# Number of potentially preventable hospitalisations - heart failure per 100,000 people, of all ages, 2014-15 to 2017-18

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# Number of potentially preventable hospitalisations - heart failure per 100,000 people, of all ages, 2014-15 to 2017-18

## Identifying and definitional attributes

<b>Metadata item type:</b>	Indicator
<b>Indicator type:</b>	Indicator
<b>Short name:</b>	Heart failure hospitalisations, 2014-15 to 2017-18
<b>METEOR identifier:</b>	724516
<b>Registration status:</b>	<a href="#">Australian Commission on Safety and Quality in Health Care</a> , Standard 27/04/2021
<b>Description:</b>	Number of potentially preventable heart failure hospitalisations per 100,000 people, all ages, age and sex standardised.
<b>Indicator set:</b>	<a href="#">Australian Atlas of Healthcare Variation 2021</a> <a href="#">Australian Commission on Safety and Quality in Health Care</a> , Standard 27/04/2021
<b>Data quality statement:</b>	<a href="#">National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2018 QS</a> <a href="#">HealthI</a> , Standard 30/01/2018

## Collection and usage attributes

<b>Population group age from:</b>	All ages
<b>Computation description:</b>	<b>Inclusion codes, description and additional requirements</b>

ICD-10-AM (8th to 10th editions) diagnosis code	Description	Additional requirements
I50	Heart failure	As principal diagnosis  Include all codes from the three-character level
I11.0	Hypertensive heart disease with (congestive) heart failure	As principal diagnosis
J81	Pulmonary oedema	As principal diagnosis

### Exclusion codes, description and additional requirements

ACHI (8th to 10th editions) procedure block/code	Description	Additional requirement
[572] (10th edition only)	Extracorporeal ventilatory support	Any procedure
[600]-[606]	Heart - Atrium procedures	Any procedure

[608]-[650]	Heart - Ventricle, septum, aortic valve, mitral valve, tricuspid valve, pulmonary valve, myocardium, pericardium, other sites procedures	Any procedure
[653]-[656]	Insertion, adjustment, replacement or removal of cardiac pacemaker or defibrillator	Any procedure
[657]	Other application, insertion or removal procedures on other sites of heart	Any procedure
[660]-[664], [666]	Transplantation of heart or lung, other repair, reconstruction, revision or reoperation procedures on other sites of the heart	Any procedure
[669]-[681]	Excision, angioplasty, bypass or reoperation procedures on coronary arteries	Any procedure
[682]	Application, insertion or removal procedures on aorta	Any procedure
[684]-[691], [693]	Repair procedures on aorta	Any procedure
[705]-[707]	Resection of lesion of carotid artery and patch graft of artery	Any procedure
[717]	Repair procedures on pulmonary artery for congenital heart disease	Any procedure
33172-00 [715]	Replacement of other major artery aneurysm with graft	Any procedure
33827-01 [733]	Repair of jugular vein by direct anastomosis	Any procedure
34800-00 [726]	Interruption of vena cava	Any procedure
35412-00 [11]	Endovascular occlusion of cerebral aneurysm or arteriovenous malformation	Any procedure
38721-01 [733]	Repair of vena cava by direct anastomosis	Any procedure
90217-02 [734]	Repair of vena cava by interposition graft	Any procedure
90215-02 [732]	Direct closure of vena cava	Any procedure

### Exclusion codes and description

Care type	Description
7.3	Newborn—unqualified days only
9.0	Organ procurement—posthumous
10.0	Hospital boarder

Presented as a number of hospitalisations per 100,000 people.

Rates are directly age- and sex- standardised, to the 30 June 2001 Australian population, using 5-year age groups: 0-4, 5-9, ... , 80-84, 85 and over.

Indigenous and other Australian rates are directly age and sex standardised, to the 30 June 2001 Australian population, using 5-year age groups: 0-4, 5-9, ... , 60-64, 65 and over.

Population estimates at 31 December are calculated as an average of the 30 June

population estimates before and after the relevant December to derive a midpoint (31 December) population estimate.

For more information about age-standardisation in general see glossary item [Age-standardised rate](#).

Analysis by Statistical Area Level 3 (SA3) 2016 is based on:

- Statistical Area Level 2 (SA2) 2011 of usual residence of the patient for 2014-15 to 2016-17, converted to SA3 (ASGS 2016) equivalents through an ABS concordance file
- SA2 2016 of usual residence of the patient for 2017-18.

Suppress data (number and rate) if at least one of the following conditions are met:

- the total denominator is less than 1,000
- the total numerator is less than 20

Age and sex standardised rates are also suppressed where the denominator for at least one of the age and sex groups used to calculate the rate is below 30 and results of sensitivity analysis indicate that the rates are volatile. However, for SA3 data, if the volatility of the rate is not found to have a material impact on its decile, the rate is published with caution. For more information about the sensitivity analysis, see the [Technical supplement of the Fourth Atlas](#).

Consequential suppression may be applied to preserve confidentialised data.

**Computation:**

$100,000 \times (\text{Numerator} \div \text{Denominator})$

**Numerator:**

Number of heart failure hospitalisations, 2014-15 to 2017-18

**Numerator data elements:**

**Data Element / Data Set**

[Episode of admitted patient care—admission date, DDMMYYYY](#)

**Data Source**

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

**Guide for use**

Admitted patient care NMDS 2014-15 to 2017-18

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 10th edn\) ANN{.N\[N\]}](#)

**Data Source**

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

**NMDS / DSS**

[Admitted patient care NMDS 2017-18](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of admitted patient care—procedure, code \(ACHI 10th edn\) NNNNN-NN](#)

**Data Source**

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

**NMDS / DSS**

[Admitted patient care NMDS 2017-18](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Hospital service—care type, code N\[N\]](#)

**Data Source**

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

**Guide for use**

Admitted patient care NMDS 2014-15 to 2017-18

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—date of birth, DDMMYYYY](#)

**Data Source**

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

**Guide for use**

Admitted patient care NMDS 2014-15 to 2017-18

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of admitted patient care—procedure, code \(ACHI 8th edn\) NNNNN-NN](#)

**Data Source**

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

**NMDS / DSS**

[Admitted patient care NMDS 2014-15](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 8th edn\) ANN{N\[N\]}](#)

**Data Source**

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

NMDS / DSS

[Admitted patient care NMDS 2014-15](#)

Guide for use

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 9th edn\) ANN{.N\[N\]}](#)

Data Source

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

NMDS / DSS

[Admitted patient care NMDS 2015-16](#)

Guide for use

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 9th edn\) ANN{.N\[N\]}](#)

Data Source

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

NMDS / DSS

[Admitted patient care NMDS 2016-17](#)

Guide for use

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of admitted patient care—procedure, code \(ACHI 9th edn\) NNNNN-NN](#)

Data Source

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

NMDS / DSS

[Admitted patient care NMDS 2015-16](#)

Guide for use

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of admitted patient care—procedure, code \(ACHI 9th edn\) NNNNN-NN](#)

**Data Source**

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

**NMDS / DSS**

[Admitted patient care NMDS 2016-17](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—sex, code A](#)

**Data Source**

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

**Guide for use**

Admitted patient care NMDS 2014-15 to 2017-18

Data source type: Administrative by-product data

**Denominator:**

Total population as at 31 December 2014, 31 December 2015, 31 December 2016 and 31 December 2017.

**Denominator data elements:**

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Australian Demographic Statistics](#)

**Guide for use**

Data source type: Census-based plus administrative by-product data

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Indigenous estimates and projections \(2016 Census-based\)](#)

**Guide for use**

Data source type: Census-based plus administrative by-product data

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Regional Population by Age and Sex, Australia](#)

**Guide for use**

Data source type: Census-based plus administrative by-product data

**Disaggregation:**

SA3 2016

Remoteness (ASGS Remoteness structure 2016)

Socio-Economic Indexes for Areas (SEIFA 2016) Index of Relative Socioeconomic Disadvantage (IRSD 2016)

Primary Health Network (PHN) 2017

State and territory by Aboriginal and Torres Strait Islander status



**Disaggregation data elements:**

**Data Element / Data Set**

[Person—area of usual residence, statistical area level 2 \(SA2\) code \(ASGS 2016\) N\(9\)](#)

**Data Source**

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

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—Indigenous status, code N](#)

**Data Source**

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

**Guide for use**

Data source type: Administrative by-product data

## Representational attributes

<b>Representation class:</b>	Rate
<b>Data type:</b>	Integer
<b>Unit of measure:</b>	Episode
<b>Format:</b>	N[NNNN]

## Data source attributes

**Data sources:**

**Data Source**

[ABS Australian Demographic Statistics](#)

**Frequency**

Quarterly

**Data custodian**

Australian Bureau of Statistics

**Data Source**

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

**Frequency**

Annual

**Data custodian**

Australian Institute of Health and Welfare

**Data Source**

[ABS Indigenous estimates and projections \(2016 Census-based\)](#)

**Frequency**

Periodic

**Data custodian**

Australian Bureau of Statistics

**Data Source**

[ABS Regional Population by Age and Sex, Australia](#)

**Frequency**

Annually

**Data custodian**

Australian Bureau of Statistics

**Accountability attributes**

**Methodology:** Statistical Area Level 3 (SA3s) are geographic areas defined in the ABS Australian Statistical Geography Standard (ASGS). The aim of SA3s is to create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. There are 340 spatial SA3s covering the whole of Australia without gaps or overlaps. They are designed to provide a regional breakdown of Australia. SA3s generally have a population of between 30,000 and 130,000 people. There are approximately 78 with fewer than 30,000 people and 46 with more than 130,000 as at 30 June 2016. The Other Territories of Jervis Bay, Cocos (Keeling) Islands, Christmas Island and Norfolk Island are each represented by a SA3 in the 2016 ASGS. For further information see the [ABS publication, Population by Age and Sex, Regions of Australia, 2016](#).

The scope of the NHMD is episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free-standing day hospital facilities and alcohol and drug treatment centres in Australia. Hospitals operated by the Australian Defence Force, corrections authorities and in Australia's off-shore territories are not in scope, but some are included.

**Reporting requirements:** Australian Commission on Safety and Quality in Health Care  
*Australian Atlas of Healthcare Variation 2021*

**Organisation responsible for providing data:** Australian Institute of Health and Welfare

**Accountability:** Australian Commission on Safety and Quality in Health Care

**Release date:** 28/04/2021

## Source and reference attributes

**Submitting organisation:** Australian Commission on Safety and Quality in Health Care

**Reference documents:** For more information about potentially preventable hospitalisations see:  
National Healthcare Agreement: [PI 18—Selected potentially preventable hospitalisations, 2019](#)  
[Australian Atlas of Healthcare Variation, 2017: Technical Supplement](#)

## Relational attributes

**Related metadata references:** See also [ABS Estimated resident population \(total population\), QS Health!](#), Standard 08/06/2011  
See also [ABS Indigenous experimental estimates and projections, QS Health!](#), Standard 08/06/2011  
[Indigenous](#), Standard 11/09/2012  
See also [Australian Atlas of Healthcare Variation: Number of potentially preventable hospitalisations - heart failure, per 100,000 people, 2014-15](#)  
[Australian Commission on Safety and Quality in Health Care](#), Standard 07/06/2017  
See also [Data quality statement: Admitted Patient Care 2015-16](#)  
[AIHW Data Quality Statements](#), Standard 27/11/2019  
See also [Data quality statement: Admitted Patient Care 2016-17](#)  
[AIHW Data Quality Statements](#), Standard 27/11/2019  
See also [Data quality statement: Admitted Patient Care 2017-18](#)  
[AIHW Data Quality Statements](#), Standard 27/11/2019  
See also [Data quality statement: National Hospital Morbidity Database 2014-15](#)  
[AIHW Data Quality Statements](#), Standard 31/08/2016