

Number of lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations per 100,000 people, aged 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18

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Number of lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations per 100,000 people, aged 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18

Identifying and definitional attributes

Metadata item type:	Indicator
Indicator type:	Indicator
Short name:	Lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations, 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18
METEOR identifier:	724443
Registration status:	Australian Commission on Safety and Quality in Health Care, Standard 27/04/2021
Description:	Number of lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations per 100,000 people aged 18 years and over, age and sex standardised.
Indicator set:	Australian Atlas of Healthcare Variation 2021 Australian Commission on Safety and Quality in Health Care, Standard 27/04/2021
Data quality statement:	Data quality statement: National Hospital Morbidity Database 2014–15 AIHW Data Quality Statements, Standard 31/08/2016

Collection and usage attributes

Population group age from:	18 years and over
Computation description:	Inclusion codes, description and additional requirement

ICD-10-AM (7th to 10th editions) code	Description	Additional requirement
M43.16	Spondylolisthesis Lumbar region	Principal diagnosis
M43.17	Spondylolisthesis Lumbosacral region	Principal diagnosis
M48.06	Spinal stenosis Lumbar region	Principal diagnosis
M48.07	Spinal stenosis Lumbosacral region	Principal diagnosis
M51.0	Lumbar and other intervertebral disc disorders with myelopathy	Principal diagnosis
M51.1	Lumbar and other intervertebral disc disorders with radiculopathy	Principal diagnosis
M51.2	Other specified intervertebral disc displacement	Principal diagnosis
M54.16	Radiculopathy Lumbar region	Principal diagnosis
M54.17	Radiculopathy Lumbosacral region	Principal diagnosis
M54.4	Lumbago with sciatica	Principal diagnosis

M54.5	Low back pain	Principal diagnosis
M54.86	Other dorsalgia Lumbar region	Principal diagnosis
M54.87	Other dorsalgia Lumbosacral region	Principal diagnosis
M54.96	Dorsalgia, unspecified Lumbar region	Principal diagnosis
M54.97	Dorsalgia, unspecified Lumbosacral region	Principal diagnosis

Inclusion codes, description and additional requirement

ACHI (7th to 10th editions) code	Description	Additional requirement
40351-00 [47]	Anterior decompression of thoracolumbar spinal cord	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48660-00 [1389]	Anterior spinal fusion, 1 level	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48669-00 [1389]	Anterior spinal fusion, >=2 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48642-00 [1389]	Posterior spinal fusion, 1 or 2 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48645-00 [1389]	Posterior spinal fusion, >=3 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48648-00 [1389]	Posterolateral spinal fusion, 1 or 2 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48651-00 [1389]	Posterolateral spinal fusion, >=3 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48654-00 [1389]	Posterior spinal fusion with laminectomy, 1 level	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48657-00 [1389]	Posterior spinal fusion with laminectomy, >=2 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48654-01 [1389]	Posterolateral spinal fusion with laminectomy, 1 level	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.
48657-01 [1389]	Posterolateral spinal fusion with laminectomy, >=2 levels	Include records with at least one of the listed procedures. A record with more than one of the listed procedures is only counted once.

Exclusion codes, description and additional requirement

ACHI (7th to 10th editions) code	Description	Additional requirement
A00 - B99	Certain infections and parasitic diseases	Value of the condition onset flag is 2 (Condition not noted as arising during the episode of admitted patient care)
C00 - D48	Neoplasms	Value of the condition onset flag is 2 (Condition not noted as arising during the episode of admitted patient care)
M40	Kyphosis and lordosis	Value of the condition onset flag is 2 (Condition not noted as arising during the episode of admitted patient care)
M41	Scoliosis	Value of the condition onset flag is 2 (Condition not noted as arising during the episode of admitted patient care)
V00 - Y89	External causes of morbidity and mortality	Value of the condition onset flag is 2 (Condition not noted as arising during the episode of admitted patient care)

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 aged 18 years and over, using 5-year age groups: 18-24, 25-29, ... , 80-84, 85 and over. Indigenous and other Australian rates are directly age and sex standardised, to the 30 June 2001 Australian population aged 18 years and over, using 5-year age groups: 18-24, 25-29, ... , 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 2012-13 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 10

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 lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations aged 18 years and over, 2012-13 to 2014-15 and 2015-16 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

NMDS/DSS

Admitted patient care NMDS 2012-13 to 2017-18

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

NMDS/DSS

Admitted patient care NMDS 2012-13 to 2017-18

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

[Episode of admitted patient care—condition onset flag, code N](#)

Data Source

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

Guide for use

NMDS/DSS

Admitted patient care NMDS 2012-13 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

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

Data Source

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

Guide for use

NMDS/DSS

Admitted patient care NMDS 2012-13 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

NMDS/DSS

Admitted patient care NMDS 2012-13 to 2017-18

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of care—principal diagnosis, code \(ICD-10-AM 7th edn\) ANN{.N\[N\]}](#)

Data Source

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

NMDS / DSS

[Admitted patient care NMDS 2012-13](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of admitted patient care—procedure, code \(ACHI 7th edn\) NNNNN-NN](#)

Data Source

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

NMDS / DSS

[Admitted patient care NMDS 2012-13](#)

Guide for use

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 2013-14](#)

Guide for use

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 2013-14](#)

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

Denominator:

Sum of population aged 18 years and over as at:

- 31 December 2012, 31 December 2013 and 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) and 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
- Patient funding status
- Age group (18-64 years, 65-74 years, 75-84 years, 85 years and over)

Disaggregation data elements:

Data Element / Data Set

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

Data Source

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

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Establishment—sector, code N](#)

Data Source

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

Guide for use

For more information about the patient funding status, see the [Technical Supplement of the Fourth Atlas](#)

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

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of admitted patient care—patient election status, code N](#)

Data Source

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

Guide for use

Data source type: Administrative by-product data

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

[Episode of care—source of funding, patient funding source code NN](#)

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

Representation class: Rate
Data type: Integer
Unit of measure: Episode
Format: 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

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 lumbar spinal fusion hospitalisations per 100,000 people, aged 18 years and over, 2012-13 to 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 2013-14](#)
[AIHW Data Quality Statements](#), Standard 03/06/2015

See also [Data quality statement: National Hospital Morbidity Database 2014-15](#)
[AIHW Data Quality Statements](#), Standard 31/08/2016