

Number of PBS/RPBS prescriptions dispensed for opioid medicines per 100,000 people, all ages 2016-17 to 2020-21

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Number of PBS/RPBS prescriptions dispensed for opioid medicines per 100,000 people, all ages 2016-17 to 2020-21

Identifying and definitional attributes

Metadata item type:	Indicator
Indicator type:	Indicator
Short name:	Opioid medicines dispensing, 2016-17 to 2020-21
METEOR identifier:	754809
Registration status:	Australian Commission on Safety and Quality in Health Care , Standard 15/09/2022
Description:	Number of PBS/RPBS prescriptions dispensed for opioid medicines per 100,000 people, age-sex standardised.
Indicator set:	Australian Atlas of Healthcare Variation: Time Series Australian Commission on Safety and Quality in Health Care , Standard 15/09/2022

Collection and usage attributes

Population group age from: All ages

Computation description: Inclusion codes, description and additional requirements

PBS medicine items for this indicator were extracted according to the Anatomical Therapeutic Chemical (ATC) codes listed in column 1 and based on the indicator developed for the *First Australian Atlas of Healthcare Variation*. Column 3 lists all the PBS item codes that were listed over all or part of the reporting period (2016-17 to 2020-21), which map to the ATC codes. Column 4 provides details of new or deleted PBS codes over the reporting period and identifies those codes that are listed in the palliative care, dental or RPBS only schedules. Doctor's bag codes do not have patient details recorded and hence are excluded from the analysis.

PBS items captured under the same ATC codes may change over time as drugs are added or removed. Therefore, PBS item codes listed are indicative of the complete set of PBS/RPBS items captured in the data extract at the time of analysis.

New table:

Anatomical Therapeutic Chemical (ATC) Code	Description (Drug Name)	PBS code (Item Code)	Comments
N02A	ASPIRIN + CODEINE	04286N	Repatriation Pharmaceutical Benefits Scheme
	BUPRENORPHINE	08865N	
		08866P	
		08867Q	
		10746N	
		10755C	
		10756D	
		10770W	

10948F	Palliative care item. Listed 1 Dec 2016
10949G	Palliative care item. Listed 1 Dec 2016
10953L	Palliative care item. Listed 1 Dec 2016
10957Q	Palliative care item. Listed 1 Dec 2016
10959T	Palliative care item. Listed 1 Dec 2016
10964C	Palliative care item. Listed 1 Dec 2016
10970J	Palliative care item. Listed 1 Dec 2016
CODEINE	01214X
	05063L Dental code
	12054K Listed 1 Jun 2020
	12065B Listed 1 Jun 2020
FENTANYL	05265D
	05277R
	05278T
	05279W
	05280X
	05401G
	05402H
	05403J
	05404K
	05405L
	05406M
	05407N
	05408P
	05409Q
	05410R
	05411T
	05412W
	05437E
	05438F
	05439G
	05440H
	05441J
	08878G
	08891Y
	08892B
	08893C
	08894D
10600X	Palliative care item

10601Y	Palliative care item
10602B	Palliative care item
10603C	Palliative care item
10604D	Palliative care item
10606F	Palliative care item
10607G	Palliative care item
10608H	Palliative care item
10610K	Palliative care item
10611L	Palliative care item
10612M	Palliative care item
10613N	Palliative care item
10684H	Palliative care item
10697B	Palliative care item
10698C	Palliative care item
10713W	Palliative care item
10722H	Palliative care item
10723J	Palliative care item
10729Q	Palliative care item
10737D	Palliative care item
10738E	Palliative care item
10739F	Palliative care item
12474M	Palliative care item. Listed 1 Jun 2021
12477Q	Palliative care item. Listed 1 Jun 2021
12480W	Palliative care item. Listed 1 Jun 2021
12491K	Palliative care item. Listed 1 Jun 2021
12504D	Palliative care item. Listed 1 Jun 2021
12509J	Palliative care item. Listed 1 Jun 2021
12513N	Palliative care item. Listed 1 Jun 2021
12516R	Palliative care item. Listed 1 Jun 2021
12517T	Palliative care item. Listed 1 Jun 2021

12521B	Palliative care item. Listed 1 Jun 2021
12526G	Palliative care item. Listed 1 Jun 2021
12530L	Palliative care item. Listed 1 Jun 2021
12533P	Palliative care item. Listed 1 Jun 2021
12541C	Palliative care item. Listed 1 Jun 2021
12546H	Palliative care item. Listed 1 Jun 2021
HYDROMORPHONE	05115F
	05116G
	05117H
	05132D Delisted 1 Jun 2019
	08420E
	08421F
	08422G Delisted 01 Sep 2017
	08423H Delisted 01 Sep 2016
	08424J Delisted 1 Jun 2019
	08541M
	08542N
	08543P
	09299K
	09406C
	09407D
	09408E
	09409F
	11467M Listed 01 Nov 2018
	11479E Listed 01 Nov 2018
	12010D Listed 01 June 2020
	12016K Listed 01 Jun 2020
	12032G Listed 01 Jun 2020
	12045Y Listed 01 Jun 2020
	12046B Listed 01 Jun 2020
	12047C Listed 01 Jun 2020

12473L	Palliative care item. Listed 01 Jun 2021
12482Y	Palliative care item. Listed 01 Jun 2021
12484C	Palliative care item. Listed 01 Jun 2021
12485D	Palliative care item. Listed 01 Jun 2021
12493M	Palliative care item. Listed 01 Jun 2021
12496Q	Palliative care item. Listed 01 Jun 2021
12497R	Palliative care item. Listed 01 Jun 2021
12515Q	Palliative care item. Listed 01 Jun 2021
12531M	Palliative care item. Listed 01 Jun 2021
12535R	Palliative care item. Listed 01 Jun 2021
12543E	Palliative care item. Listed 01 Jun 2021
12559B	Palliative care item. Listed 01 Jun 2021
12565H	Palliative care item. Listed 01 Jun 2021
12582F	
METHADONE	01606M
	01609Q
	05399E
	05400F
	12481X
	12520Y
MORPHINE	01607N
	01644M
	01645N
	01646P
	01647Q

01653B	
01654C	
01655D	
01656E	
02122Q	
02123R	
02124T	
02839K	
02840L	
02841M	
04349X	RPBS
05163R	Dental item
05168B	Dental item
05169C	Dental item
05170D	Dental item
05237P	Dental item
05238Q	Dental item
05239R	Dental item
05391R	Palliative care item
05393W	Palliative care item
05394X	Palliative care item
08035X	
08146R	
08305D	
08306E	
08349K	
08453X	
08454Y	
08489T	
08490W	
08491X	
08492Y	
08493B	
08494C	
08669G	
08670H	
10858L	Dental item, Listed 1 Aug 2016
10863R	Dental item, Listed 1 Aug 2016
10864T	Listed 1 Aug 2016
10869C	Listed 1 Aug 2016
10874H	Listed 1 Aug 2016
10878M	Listed 1 Aug 2016

11760Y	Listed 1 Sep 2019
11761B	Listed 1 Sep 2019
12009C	Listed 1 Jun 2020
12053J	Listed 1 Jun 2020
12055L	Listed 1 Jun 2020
12067D	Listed 1 Jun 2020
12470H	Palliative care item. Listed 1 Jun 2021
12472K	Palliative care item. Listed 1 Jun 2021
12476P	Palliative care item. Listed 1 Jun 2021
12483B	Palliative care item. Listed 1 Jun 2021
12487F	Palliative care item, Listed 1 Jun 2021
12488G	Palliative care item. Listed 1 Jun 2021
12489H	Palliative care item. Listed 1 Jun 2021
12490J	Palliative care item, Listed 1 Jun 2021
12492L	Palliative care item, Listed 1 Jun 2021
12494N	Palliative care item. Listed 1 Jun 2021
12495P	Palliative care item. Listed 1 Jun 2021
12499W	Palliative care item. Listed 1 Jun 2021
12500X	Palliative care item. Listed 1 Jun 2021
12501Y	Palliative care item. Listed 1 Jun 2021
12502B	Palliative care item. Listed 1 Jun 2021
12503C	Palliative care item. Listed 1 Jun 2021
12505E	Palliative care item. Listed 1 Jun 2021
12512M	Palliative care item. Listed 1 Jun 2021
12514P	Palliative care item. Listed 1 Jun 2021
12528J	Palliative care item. Listed 1 Jun 2021
12529K	Palliative care item. Listed 1 Jun 2021
12536T	Palliative care item. Listed 1 Jun 2021

12537W	Palliative care item. Listed 1 Jun 2021
12539Y	Palliative care item. Listed 1 Jun 2021
12544F	Palliative care item. Listed 1 Jun 2021
12547J	Palliative care item. Listed 1 Jun 2021
12548K	Palliative care item. Listed 1 Jun 2021
12549L	Palliative care item. Listed 1 Jun 2021
OXYCODONE	02481N
	02622B
	05190E
	05191F
	05194J
	05195K
	05197M
	08385H
	08386J
	08387K
	08388L
	08464L
	08501K
	08502L
	08644Y
	09399Q
	09400R
	12023T
	Listed 1 Jun 2020
	12025X
	Listed 1 Jun 2020
	12031F
	Listed 1 Jun 2020
	12044X
	Listed 1 Jun 2020
	12048D
	Listed 1 Jun 2020
	12074L
	Listed 1 Jun 2020
	12311Y
	Listed 1 Apr 2021
	12314D
	Listed 1 Apr 2021
	12510K
	Palliative care item. Listed 1 Jun 2021
	12518W
	Palliative care item. Listed 1 Jun 2021
	12525F
	Palliative care item. Listed 1 Jun 2021
	12527H
	Palliative care item. Listed 1 Jun 2021
	12538X
	Palliative care item. Listed 1 Jun 2021

	12545G	Palliative care item. Listed 1 Jun 2021
OXYCODONE + NALOXONE	08000C	
	08934F	
	08935G	
	08936H	
	10757E	
	10758F	
	10776E	
	11102H	Listed 1 May 2017
	11111T	Listed 1 May 2017
	12471J	Palliative care item. Listed 1 Jun 2021
	12475N	Palliative care item. Listed 1 Jun 2021
	12486E	Palliative care item. Listed 1 Jun 2021
	12498T	Palliative care item. Listed 1 Jun 2021
	12511L	Palliative care item. Listed 1 Jun 2021
	12522C	Palliative care item. Listed 1 Jun 2021
	12523D	Palliative care item. Listed 1 Jun 2021
	12532N	Palliative care item. Listed 1 Jun 2021
	12540B	Listed 1 Jun 2021
PARACETAMOL + CODEINE	01215Y	
	03316M	
	04170L	RPBS, Delisted 1 Oct 2017
	04171M	RPBS, Delisted 1 Nov 2017
	04275B	RPBS
	08785J	Delisted 1 Jun 2020
	10186D	RPBS, Delisted 1 Feb 2018
	12022R	Listed 1 Jun 2020
	12066C	Listed 1 Jun 2020
TAPENTADOL	10091D	
	10092E	
	10094G	
	10096J	

	TRAMADOL	10100N	
		02527B	
		05150C	
		05231H	
		05232J	
		08455B	
		08523N	
		08524P	
		08525Q	
		08582Q	
		08611F	Delisted 1 Jun 2020
		08843K	
		12008B	Listed 1 Jun 2020
		12024W	Listed 1 Jun 2020
R05DA04	CODEINE	07530H	
		12081W	Listed 1 Jul 2020 Delisted 1 May 2021

Drugs used in opioid dependence (N07BC) are not included because these drugs are not considered consistent with the intent of the indicator.

PBS/RPBS records consistent with the intent of this indicator are identified as opioid medicines based on the listed Anatomical Therapeutic Chemical (ATC) codes, not PBS item codes. PBS items captured under the same ATC codes may change over time as drugs are added or removed. Therefore PBS item codes listed are indicative of the complete set of PBS/RPBS items captured in the data extract at the time of analysis.

Data extraction for opioid medicines dispensing was performed on 11 October 2021.

Presented as the following rates:

- (a) number of prescriptions per 100,000 people
- (b) number of patients per 100,000 people
- (c) number of defined daily doses (DDD) per 1,000 people per day

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

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

A patient's age is calculated in years as the difference between the patient's date of birth and date of supply for the prescription. Date of birth and sex are as reported on a patient's last prescription for any drug, extracted on 11 October 2021.

Prescriptions are allocated to a financial year based on the date the medicine was supplied to the patient. For example, for 2016-17, the date of supply is between 1 July 2016 and 30 June 2017.

Analysis by Statistical Area Level 3 (SA3) 2016 is based on the patient's enrolment postcode as last reported by the patient to Medicare, valid at date of supply.

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-sex standardised rates are also suppressed where the denominator for at least one of the age-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 Third Atlas](#).

Computation:

(a), (b) $[\text{Numerator} \div \text{Denominator}] \times 100,000$

(c) $[(\text{Numerator} \times 1,000) \div (\text{Denominator} \times 365)]$

Numerator:

For 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21:

- (a) Number of opioid prescriptions dispensed, all ages
- (b) Number of patients dispensed at least one opioid prescription, all ages
- (c) Number of DDD of opioid medicines dispensed [mass amount x quantity dispensed ÷ DDD amount], all ages

Numerator data elements:

Data Element / Data Set

Data Element

Pharmaceutical Benefits Scheme (PBS) prescription - Anatomical Therapeutic Chemical (ATC) code, ANN(AANN)

PBS and RPBS data 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21 extracted on 11 October 2021.

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

Data Element

Pharmaceutical Benefits Scheme (PBS) prescription - mass amount, N(14.5)

PBS and RPBS data 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21 extracted on 11 October 2021.

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

Data Element

Pharmaceutical Benefits Scheme (PBS) prescription - Anatomical Therapeutic Chemical (ATC) code, ANN(AANN)

PBS and RPBS data 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21 extracted on 11 October 2021.

Data Source

[Repatriation Pharmaceutical Benefits Scheme \(RPBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Person—date of birth, DDMMYYYY](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—PBS item prescribed, code NN\[NNN\]A](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—patient identifier, identifier N\(9\)](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—quantity of PBS item supplied, total number N\[NNN\]](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Person—sex, code A](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

Denominator:

Denominator data elements:

Disaggregation:

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—date of supply, DDMMYYYY](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

Data source type: Administrative by-product data

As at 30 June 2016, 2017, 2018, 2019, and 2020:

(a), (b), (c) Total population, all ages

Data Element / Data Set

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

Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

Guide for use

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

Data are disaggregated by individual year.

(a) SA3 2016 by:

- 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

(b) State and territory

(c) State and territory

Disaggregation data elements:

Data Element / Data Set

[Person—date of birth, DDMMYYYY](#)

Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—specialty of prescriber, subspecialty code NNNNNN](#)

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Guide for use

GPO postcodes 2001, 2124, 3001, 4001, 5001, 6843, 7001 excluded from the SA3 and PHN level analysis but included in state/territory and national level analysis.

Data source type: Administrative by-product data

Used for disaggregation by Statistical Area Level 3.

Data Element / Data Set

[Pharmaceutical Benefits Scheme \(PBS\) prescription—specialty of prescriber, subspecialty code NNNNNN](#)

Data Source

[Repatriation Pharmaceutical Benefits Scheme \(RPBS\) data](#)

Guide for use

GPO postcodes 2001, 2124, 3001, 4001, 5001, 6843, 7001 excluded from the SA3 and PHN level analysis but included in state/territory and national level analysis.

Data source type: Administrative by-product data

Used for disaggregation by Statistical Area Level 3.

Data Element / Data Set

[Address—Australian postcode, code \(Postcode datafile\) NNNN](#)

Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

Data Element / Data Set

[Address—statistical area, level 3 \(SA3\) code \(ASGS 2016\) NNNNN](#)

Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

Comments: In previous versions of the Atlas of Healthcare Variation, postcode 7001 Hobart PO Boxes has been mapped by the ABS to SA3 of either Hobart Inner or Central Highlands. Consistent with the treatment of other capital city PO Boxes, postcode 7001 has now been excluded from the SA3 and PHN level analysis but included in state/territory and national level analysis. This will result in a decrease in script volume for either Hobart Inner or Central Highlands from numbers reported in earlier versions.

Representational attributes

Representation class: Rate
Data type: Integer
Unit of measure: Service event
Format: (a) Prescription event (b) Person (c) Defined Daily Dose
NN[NNNN]

Data source attributes

Data sources:

Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

Frequency

Quarterly

Data custodian

Australian Bureau of Statistics

Data Source

[Pharmaceutical Benefits Scheme \(PBS\) data](#)

Frequency

Daily

Data custodian

Australian Government Department of Health

Data Source

[Repatriation Pharmaceutical Benefits Scheme \(RPBS\) data](#)

Frequency

Daily

Data custodian

Australian Government Department of Health

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, [1270.0.55.001 - Australian Statistical Geography Standard \(ASGS\): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016](#).

Estimates of the resident population (ERP) by SA3 reflect figures released with [Regional population by age and sex, 2020 | Australian Bureau of Statistics \(abs.gov.au\)](#). The status of annual sub-state ERPs changes over time, from preliminary to revised to final, as new component data becomes available at the state level. ERPs by SA3 are final for 30 June 2016, revised for 30 June 2017 to 30 June 2019 and preliminary for 30 June 2020. Further information about the methodology used to produce ERPs by SA3 is available at [Regional population by age and sex methodology, 2020 | Australian Bureau of Statistics \(abs.gov.au\)](#)

The Anatomical Therapeutic Chemical (ATC) code is recommended by the World Health Organization (WHO) as an internationally accepted classification for presenting and comparing drug usage data. Since 1982, the WHO Collaborating Centre for Drug Statistics Methodology (WHOC), located in Norway, has been the central body responsible for coordinating ATC use. Note that the ATC codes used in this specification are from the Australian Department of Health's version of the WHO ATC classifications, which have some minor differences from the WHO version, based upon a particular drug's usage in Australia. The Department of Health's ATC version is available at <http://www.pbs.gov.au/browse/body-system>.

Further information on DDD/1,000/day is available at https://www.whocc.no/use_of_atc_ddd/

DDD amounts are available at https://www.whocc.no/atc_ddd_index/

*The previous extraction for opioid medicines dispensed in 2016-17 reported in the Third *Australian Atlas of Healthcare Variation*, omitted prescriptions corresponding to PBS item 7530H (ATC R05DA) in error. This resulted in a 1% difference in the overall number of prescriptions dispensed during the reporting period, including 2016-17, compared with later extractions for this year.

Reporting requirements:

Australian Commission on Safety and Quality in Health Care

The Australian Atlas of Healthcare Variation Time Series: Opioid medicines dispensing, all ages, 2016–17 to 2020–21

Organisation responsible for providing data:

Australian Institute of Health and Welfare

Accountability:

Australian Commission on Safety and Quality in Health Care

Release date:

21/09/2022

Source and reference attributes**Submitting organisation:**

Australian Commission on Safety and Quality in Health Care

Steward:

[Australian Commission on Safety and Quality in Health Care](#)

Relational attributes**Related metadata references:**

See also [Australian Atlas of Healthcare Variation 2018: Number of PBS/RPBS prescriptions dispensed for opioid medicines per 100,000 people, 2013-14, 2014-15, 2015-16 and 2016-17](#)
[Australian Commission on Safety and Quality in Health Care](#), Standard 13/12/2018

