

4.2 Antidepressant medicines dispensing 17 years and under

Context

This data item examines dispensing rates of antidepressant medicines for people 17 years and under. These data are sourced from the PBS and relate to the number of prescriptions dispensed per 100,000 people.

Antidepressant medicines are primarily prescribed for anxiety, rather than depression, in children.

Anxiety- and depression-related disorders are increasingly being recognised in young people.¹ Children with an anxiety disorder may experience persistent and excessive worry; feel restless or on edge; be easily fatigued or irritable; have difficulty concentrating; or experience muscle tension, sleep disturbance² or recurrent headaches and stomach aches.³ The anxiety, worry or physical symptoms cause clinically significant distress or impairment in social or other important day-to-day functioning.²

Depression tends to be diagnosed more often in adolescents than in younger children. As well as a depressed mood or loss of interest or pleasure, children may experience two or more weeks of emotional, behavioural and cognitive symptoms such as irritability or social withdrawal; tiredness; change in appetite or weight; vague or unexplained physical problems; sleeping problems; and difficulty concentrating, making decisions or remembering information.² Depressive disorders are thought to affect up to four per cent of Australian children.⁴

Left untreated, anxiety and depressive disorders can be especially serious for young people; they can have long-term consequences for adolescents' mental health, school engagement and development. Psychological therapy is the optimal choice for less severe depression⁵ and anxiety, but for more severe anxiety- and depression-related disorders, antidepressant or anxiolytic medicines may be considered in conjunction with psychological therapies.

Within the reported dispensing data, it is not possible to determine whether these medicines were prescribed for depression or anxiety, or for other mental health conditions such as obsessive-compulsive disorder.

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Magnitude of variation

In 2013–14, there were 404,276 PBS prescriptions dispensed for antidepressant medicines, representing 7,989 prescriptions per 100,000 people aged 17 years and under (the Australian rate).

The number of PBS prescriptions dispensed for antidepressant medicines across 324* local areas (SA3s) ranged from 386 to 16,844 per 100,000 people aged 17 years and under. The number of prescriptions was **43.6 times higher** in the area with the highest rate compared to the area with the lowest rate. The average number of prescriptions dispensed varied across states and territories, from 3,589 per 100,000 people aged 17 years and under in the Northern Territory, to 10,613 in the Australian Capital Territory.

After excluding the highest and lowest results, the antidepressant medicine prescription rate across the 300 remaining local areas was **4.1 times higher** in one local area compared to another.

Dispensing rates were highest in inner regional areas and lowest in remote communities.

The prescription rate was influenced by socioeconomic status and geographical remoteness. In major cities, areas of higher socioeconomic status had higher prescription rates. The reverse was seen in inner regional areas, where prescription rates were highest in areas of low socioeconomic status, and declined as the socioeconomic status increased. Socioeconomic trends were less clear in the other geographical areas.

Interpretation

Potential reasons for the variation include differences in:

- the proportion of children who are at risk of depression and anxiety
- cost and supply barriers to accessing optimal treatment pathways, including psychosocial interventions⁶
- prescribing practices, training, knowledge and attitudes of clinicians
- decision-making criteria of patients and clinicians about the need for antidepressant medicines
- the affordability and accessibility of mental health services suitable for young people, including psychosocial interventions in regional locations
- location of youth correction centres in areas of higher dispensing.

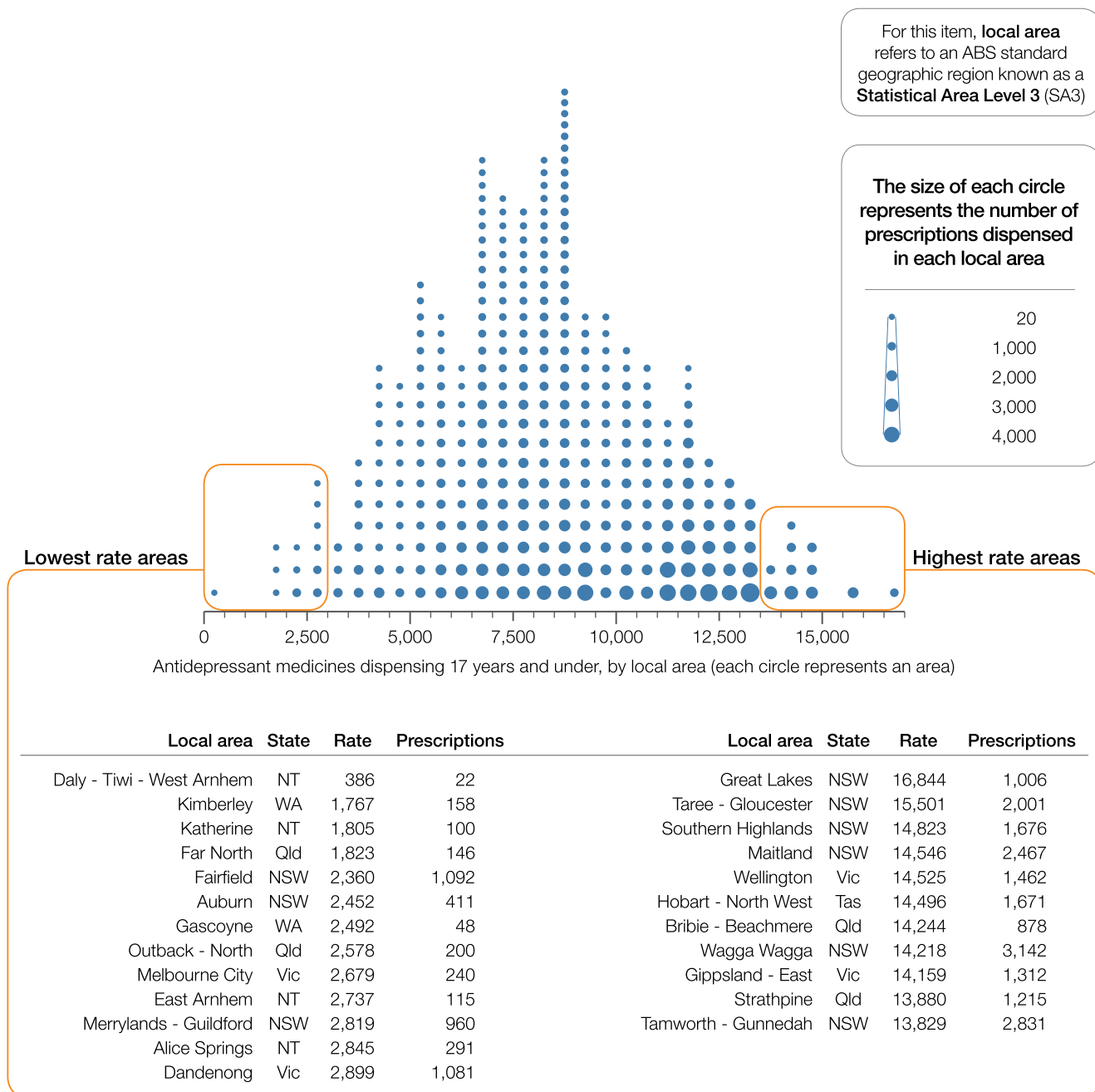
It is also important to note that the dispensing of antidepressant medicines in remote areas by some Aboriginal Health Services is not captured in the PBS.

To explore this variation, further analysis could focus on:

- the variation in different socioeconomic groups and geographical locations for antidepressant and anxiolytic medicine dispensing rates for people under the age of 18
- the variation in dispensing rates between primary and specialist care providers
- determining how limited access to mental health services in regional locations influences the dispensing rate
- exploring differences between pre- and post-puberty age groups to determine whether variations in dispensing rates are seen throughout childhood and adolescence
- excluding tricyclic antidepressants from this analysis, as tricyclic antidepressants, notably amitriptyline, are commonly used in young children for bed-wetting.

*There are 333 SA3s. For this item, data were suppressed for 9 SA3s. This is because of confidentiality requirements given the small numbers of prescriptions dispensed in these areas.

Figure 67: Number of PBS prescriptions dispensed for antidepressant medicines per 100,000 people aged 17 years and under, age standardised, by local area, 2013–14



Notes:

Rates are standardised based on the age structure of the Australian population in 2001.

State/territory and national rates are based on the total number of prescriptions and people in the geographic area.

The term local area refers to an ABS standard geographic region known as a Statistical Area Level 3 (SA3).

PBS prescriptions include all medicines dispensed under the PBS or RPBS, including medicines that do not receive a Commonwealth subsidy. They exclude a large proportion of public hospital drug usage, direct supply to remote Aboriginal Health Services, over-the-counter purchases and private prescriptions.

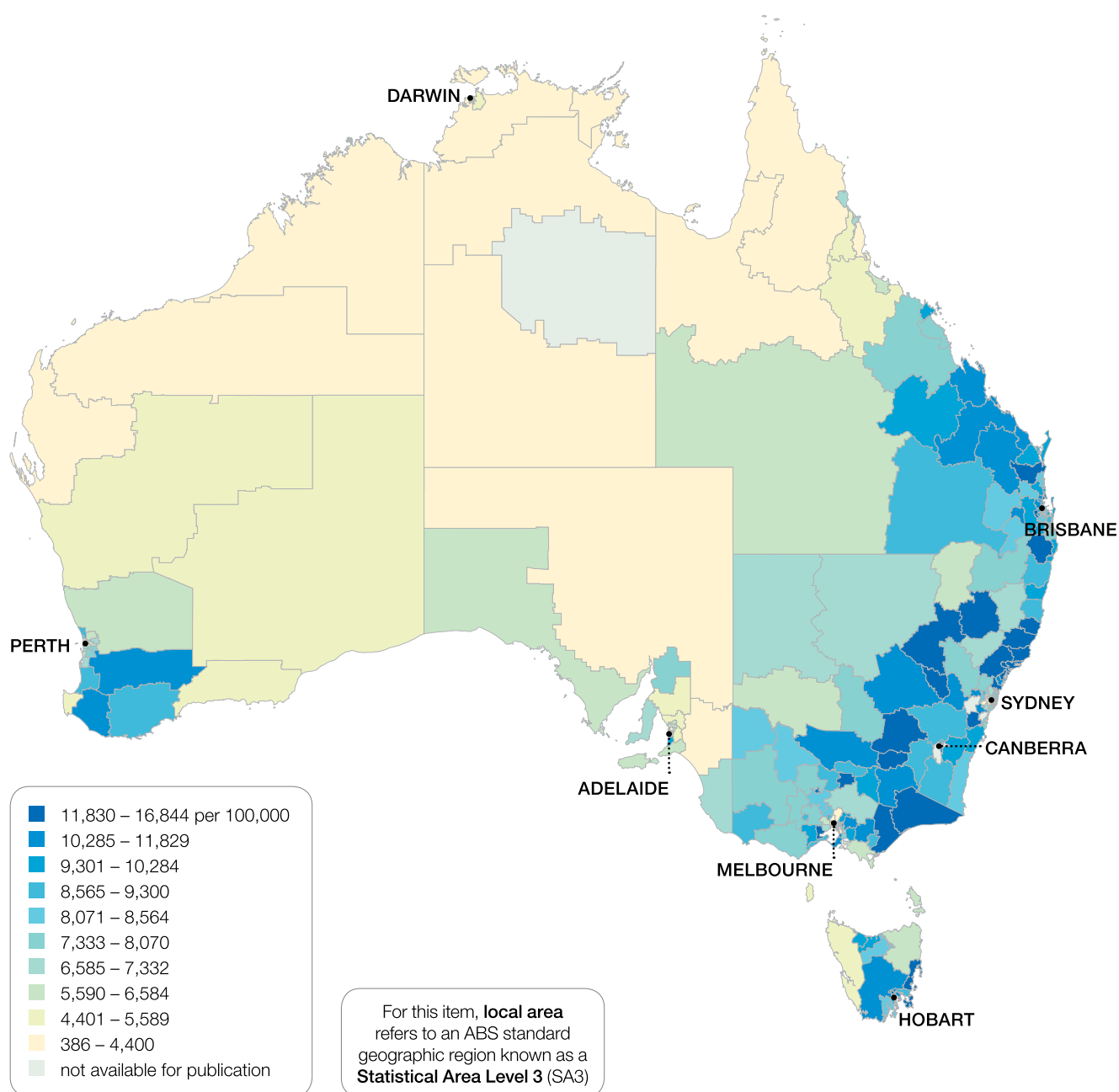
SA3 analysis excludes approximately 180 prescriptions from GPO postcodes 2001, 2124, 3001, 4001, 5001, 6843 but these data are included in state/territory and national level analysis.

For more technical information please refer to the Technical Supplement.

Sources: National Health Performance Authority analysis of Pharmaceutical Benefits Scheme (PBS) statistics 2013–14 (data supplied 15/04/2015) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

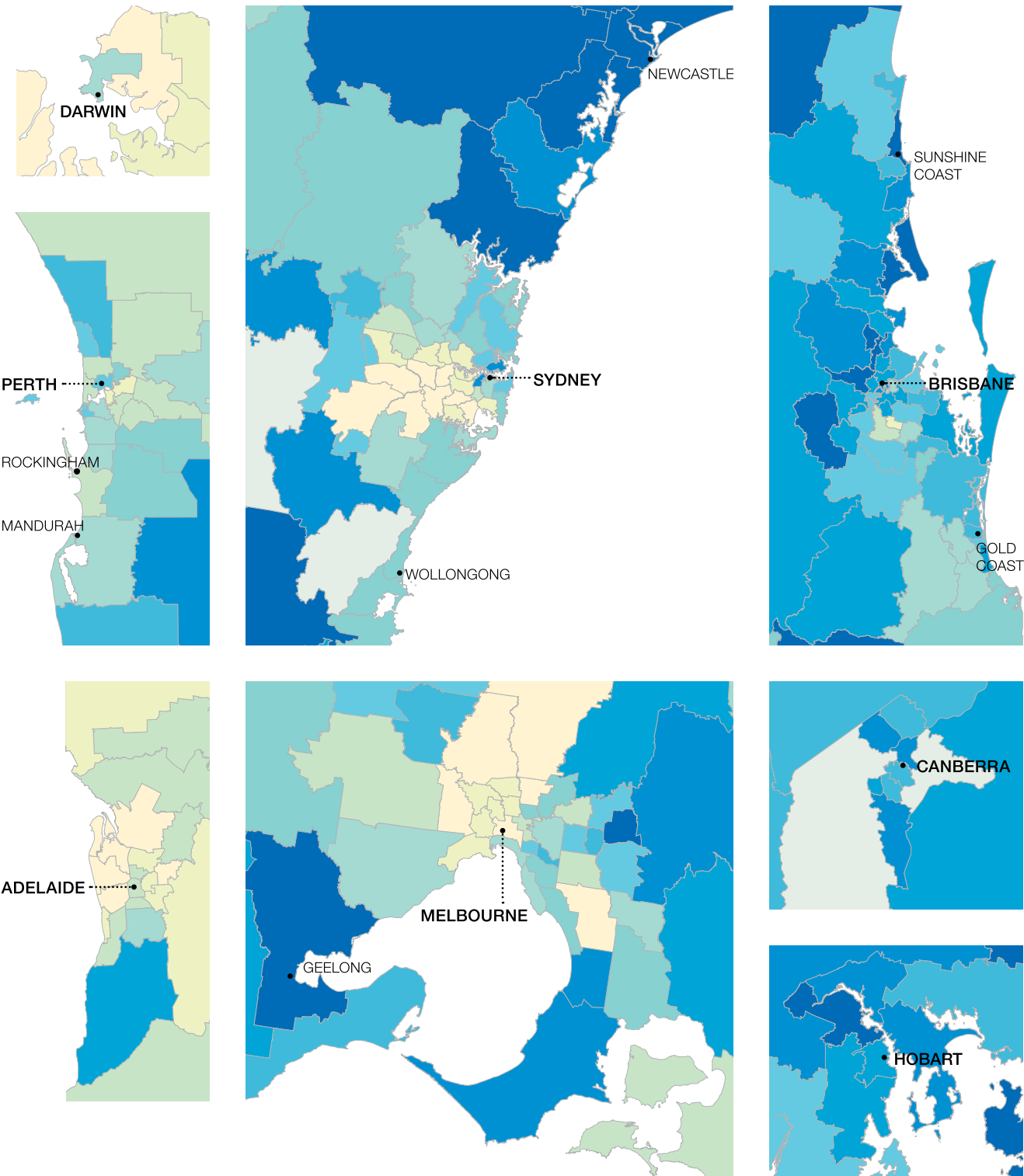
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Figure 68: Number of PBS prescriptions dispensed for antidepressant medicines per 100,000 people aged 17 years and under, age standardised, by local area, 2013–14



Sources: National Health Performance Authority analysis of Pharmaceutical Benefits Scheme (PBS) statistics 2013–14 (data supplied 15/04/2015) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

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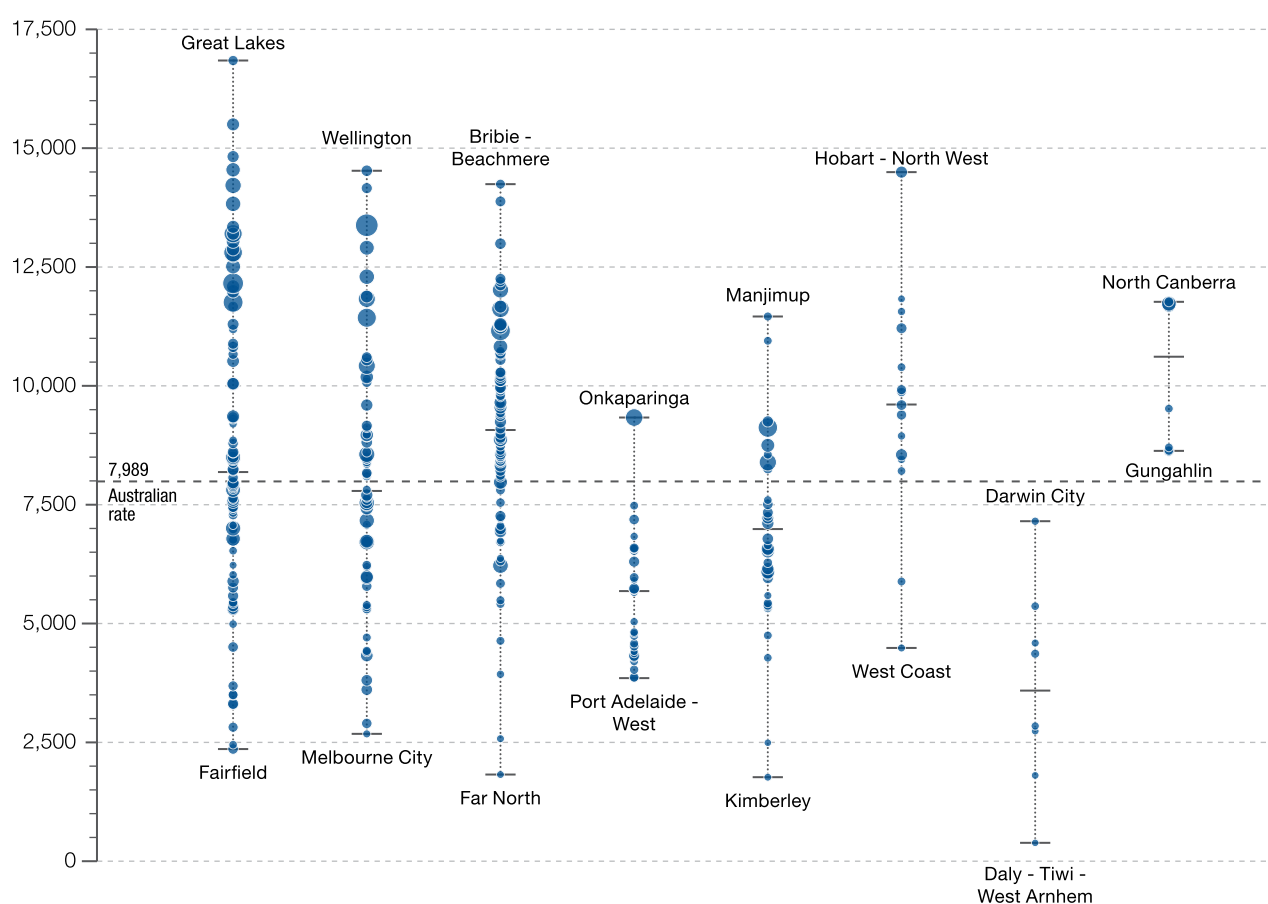


Sources: National Health Performance Authority analysis of Pharmaceutical Benefits Scheme (PBS) statistics 2013–14 (data supplied 15/04/2015) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

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Figure 69: Number of PBS prescriptions dispensed for antidepressant medicines per 100,000 people aged 17 years and under, age standardised, by local area, state and territory, 2013–14

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Highest rate	16,844	14,525	14,244	9,334	11,459	14,496	7,152	11,768
State/territory	8,187	7,789	9,072	5,682	6,987	9,608	3,589	10,613
Lowest rate	2,360	2,679	1,823	3,852	1,767	4,486	386	8,632
No. prescriptions	131,754	94,391	97,501	20,338	38,714	11,212	2,094	8,230



For this item, **local area** refers to an ABS standard geographic region known as a **Statistical Area Level 3 (SA3)**

The size of each circle represents the number of prescriptions dispensed in each local area

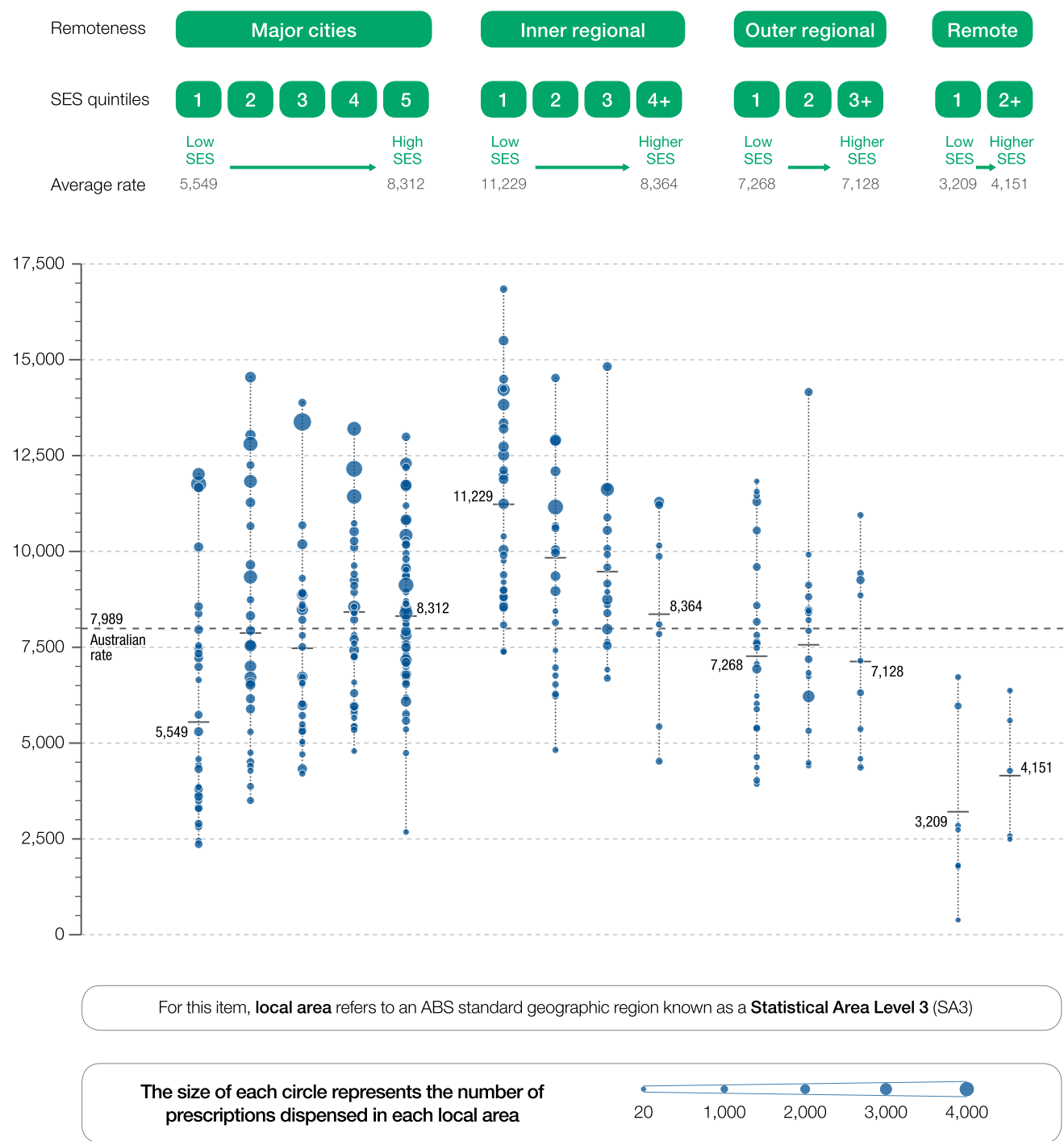


Notes:

Rates are standardised based on the age structure of the Australian population in 2001. State/territory and national rates are based on the total number of prescriptions and people in the geographic area.

Sources: National Health Performance Authority analysis of Pharmaceutical Benefits Scheme (PBS) statistics 2013–14 (data supplied 15/04/2015) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

Figure 70: Number of PBS prescriptions dispensed for antidepressant medicines per 100,000 people aged 17 years and under, age standardised, by local area, remoteness and socioeconomic status (SES), 2013–14



Notes:
Rates are standardised based on the age structure of the Australian population in 2001.
The national rate is based on the total number of prescriptions and people in Australia.
Average rates are based on the total number of prescriptions and people in the local areas within each group.

Sources: National Health Performance Authority analysis of Pharmaceutical Benefits Scheme (PBS) statistics 2013–14 (data supplied 15/04/2015) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

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Resources

- Beyondblue. *Clinical practice guidelines: Depression in adolescents and young adults*. 2010. Available at: www.nhmrc.gov.au/_files_nhmrc/publications/attachments/ext0007_cp_guideline_depression_adolescents_young_beyondblue.pdf.
- American Academy of Child and Adolescent Psychiatry. *Practice Parameter for the Assessment and Treatment of Children and Adolescents with Anxiety Disorders*. 2007. Available at: [www.jaacap.com/article/S0890-8567\(09\)61838-4/pdf](http://www.jaacap.com/article/S0890-8567(09)61838-4/pdf).

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- 1 Lawrence D, Johnson S, Hafekost J, Boterhoven de Haan K, Sawyer M, Ainley J et al. The mental health of children and adolescents. Report on the second Australian child and adolescent survey of mental health and wellbeing. Canberra: Department of Health, 2015.
 - 2 American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-5. Washington, D.C: APA; 2013.
 - 3 Raising Children Network. Pre-teen and teenage depression. 2014. (Accessed 31 August 2015 at: http://raisingchildren.net.au/articles/depression_teenagers.html/context/1068).
 - 4 Sawyer MG, Arney FM, Baghurst PA, Clark JJ, Graetz BW, Kosky RJ et al. The mental health of young people in Australia. Canberra: Mental Health and Special Programs Branch, Commonwealth Department of Health and Aged Care, 2000.
 - 5 Beyondblue. Clinical practice guidelines: depression in adolescents and young adults. Melbourne: beyondblue: the national depression initiative, 2010.
 - 6 Spence R, Roberts A, Ariti C, Bardsley M. QualityWatch. Focus on: antidepressant prescribing. Trends in the prescribing of antidepressants in primary care. Health Foundation and Nuffield Trust 2014.