

5.7 Opioid medicines dispensing, all ages

Context

This section examines opioid medicines dispensing in Australia between 2013–14 and 2016–17.

Opioid medicines are effective for managing acute pain, cancer pain, pain in a palliative care setting and opioid dependency. Growing evidence indicates that opioids are being used outside these indications, leading to potentially avoidable adverse events and harm. Of concern, opioids are being used beyond the acute pain period for chronic non-cancer pain, despite a lack of evidence of benefits, with increased risk of harm.¹

The transition from acute pain to chronic non-cancer pain includes a change in management strategies away from opioids and towards a multimodal approach of non-pharmacological and pharmacological therapy, supported by a general practitioner (GP) and multidisciplinary allied health teams. In most cases, discontinuing opioids beyond the acute pain period is not associated with an increase in pain intensity and therefore should not be viewed as withholding effective treatment.²

Assessment and management of chronic non-cancer pain require a cautious and comprehensive multidimensional approach, combining strategies to reduce pain and its impact, specifically addressing psychosocial factors that often contribute to the patient's pain.^{3,4} Currently, opioids have a limited role in the evidence-based management of chronic non-cancer pain other than as part of a multimodal approach. Evidence suggests that modest clinical benefit from opioid use declines over time and can be outweighed by harms. Pharmacological therapy should be considered for patients not responding to non-pharmacological therapy. If opioid therapy is to be considered despite a lack of evidence in a chronic non-cancer pain setting, a trial-based approach of short duration is recommended, with clearly defined management goals and frequent monitoring of patients to determine benefit.^{3,4}

Opioid medicines dispensing, all ages

The rate of opioid medicines dispensing per 100,000 people in all age groups was mapped in the first *Australian Atlas of Healthcare Variation*, published in November 2015.⁴ The first Atlas reported that, in 2013–14, almost 14 million Pharmaceutical Benefits Scheme (PBS) prescriptions for opioid medicines were dispensed in Australia. Dispensing rates tended to be higher in inner and outer regional areas than in major cities, and tended to be higher in areas with socioeconomic disadvantage.⁴

It is important to note that data captured in the PBS and reported in the first *Australian Atlas of Healthcare Variation* underestimate total opioid dispensing. This is because the data do not capture sales of over-the-counter medicines (from pharmacies) containing low-dose codeine in combination with simple analgesics, nor opioids dispensed on private prescriptions. Since 1 February 2018, medicines in Australia that contain low-dose codeine can only be obtained on a prescription, but are not captured in PBS data because they are private prescriptions (not included on the PBS).

Why is it important to monitor opioid use nationally?

Improving opioid medicines use is of national importance because of concerns about increases in inappropriate prescribing and misuse, overdose and opioid dependence.^{5,6} High doses of opioids (more than 100 mg of oral morphine or equivalent per day) are associated with an increased risk of harm.^{1,4} Between 2001 and 2014, opioids were the second most common medicine contributing to all adverse drug reaction–related hospital admissions in New South Wales.⁷ In addition, there is a lack of quality evidence for the effectiveness of chronic dosing of opioid medicines to improve chronic non-cancer pain.^{3,8} Guidelines used in primary care settings recommend variable daily dose limits in oral morphine milligram equivalents.⁹

Opioid medicine deaths in Australia exceed heroin deaths by a significant margin. Between 2011 and 2015, twice as many people died from overdose associated with an opioid medicine as from an overdose of heroin (2,145 compared with 985).^{6,10} Over the same period, deaths due to opioid overdose (including pharmaceutical opioids and heroin) increased by 1.6-fold compared with 2001–2005.¹⁰

What initiatives have taken place since 2015?

Concerns about inappropriate prescribing and misuse of opioids have prompted a number of national responses in Australia during the past three years to support harm minimisation. The first *Australian Atlas of Healthcare Variation*, published in November 2015, made five recommendations to support improved prescribing and use of opioid medicines. In response, state and territory departments of health and Primary Health Networks have collaborated to provide access to pain and addiction medicine referral pathways for GPs managing patients with chronic non-cancer pain and/or substance abuse disorder. Implementation of real-time prescription monitoring is also under way in various states and territories. Other national responses that have been implemented or proposed include:

- Updated recommendations from the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists, on the use of opioid medicines in chronic non-cancer pain¹¹
- Guidelines published by the Royal Australian College of General Practitioners to improve the prescribing of opioid medicines for acute and chronic non-cancer pain⁹
- The Faculty of Pain Medicine position statement on the use of slow-release opioids¹²
- The NPS MedicineWise Chronic Pain educational visiting program¹³, and the Faculty of Pain Medicine Better Pain Management program¹⁴
- The Therapeutic Goods Administration public consultation on a regulatory response to the use of strong opioids⁶

- Restrictions to the availability of low-dose codeine products in combination with simple analgesics, so that these products are no longer available to patients over the counter at pharmacies¹⁵
- The Chronic Pain MedsCheck Trial, as part of the 6th Community Pharmacy Agreement¹⁶
- Letters from the Australian Government Department of Health to selected GPs prompting audit of their opioid prescribing practice to identify areas for quality improvement¹⁷
- Updated guidance from the Australian Pain Society regarding the management of pain in aged care homes.¹⁸

About the data

Data are sourced from the PBS dataset. This dataset includes all prescriptions dispensed under the PBS or the Repatriation Pharmaceutical Benefits Scheme, including prescriptions that do not receive an Australian Government subsidy. Note that some dispensed medicines may not be consumed by the patient.

The dataset does not include prescriptions dispensed for patients during their hospitalisation in public hospitals, discharge prescriptions dispensed from public hospitals in New South Wales and the Australian Capital Territory, direct supply of medicines to remote Aboriginal health services, over-the-counter purchase of medicines, doctor's bag medicines and private prescriptions.

The data do not include codeine-based pain medicines that were available over the counter and became Schedule 4 prescription medicines in February 2018.

This analysis was not undertaken by Aboriginal and Torres Strait Islander status because this information was not available for PBS data at the time of publication.

Changes have been made to the data specification used in the first Atlas to improve the robustness of comparing rates over time. The main change is the addition of sex standardisation, as the data specification for the first Atlas standardised for age only. These changes have resulted in small differences in the rates reported for 2013-14 in the first Atlas and in this Atlas. The rates reported in this Atlas should be used to monitor changes over time.

What do the data show?

Magnitude of variation*

In 2016–17, the rate of dispensing of opioid medicine prescriptions in people of all ages was **5.1 times as high** in the area (Statistical Area Level 3 – SA3) with the highest rate as in the SA3 with the lowest rate. The magnitude of variation **increased** from 2013–14, when there was a 4.8-fold difference between the highest and lowest rates (Figure 5.25).

Rate of prescriptions dispensed

In 2016–17, there were 15,419,793 PBS prescriptions dispensed for opioid medicines, representing an Australian rate of **58,595** prescriptions dispensed per 100,000 people of all ages. The Australian rate **increased** from 2013–14, when 55,900 prescriptions per 100,000 people were dispensed (Figure 5.25).

* Some of the published SA3 rates were considered more volatile than others. These rates are excluded from the calculation of the difference between the highest and lowest SA3 rates in Australia.

Opioid medicines dispensing, all ages

People dispensed at least one prescription

In 2016–17, there were 12,345 people per 100,000 people nationally who had at least one prescription dispensed for an opioid medicine. The number of people nationally who had at least one prescription dispensed in a year **increased** from 2013–14, when 12,102 people per 100,000 people nationally had at least one opioid medicine prescription dispensed (Table 5.23).

Table 5.23: Number of people dispensed at least one PBS prescription for an opioid medicine per 100,000 people of all ages, age and sex standardised, 2013–14 to 2016–17

	2013–14	2014–15	2015–16	2016–17
Australian rate	12,102	12,406	12,418	12,345

Estimated proportion of population treated daily with opioid medicines

In 2016–17, there were 15.39 defined daily doses[†] (DDDs) of opioid medicines per 1,000 people dispensed on any given day – this is equivalent to 1.5% of the population receiving an opioid medicine each day in that year. The national DDD rate per 1,000 people per day **fell** during the four years from 2013–14, when it was 16.39 (Table 5.24).

Table 5.24: Number of defined daily doses of opioid medicines dispensed per 1,000 people of all ages per day, age and sex standardised, 2013–14 to 2016–17

	2013–14	2014–15	2015–16	2016–17
Australian rate	16.39	16.32	15.81	15.39

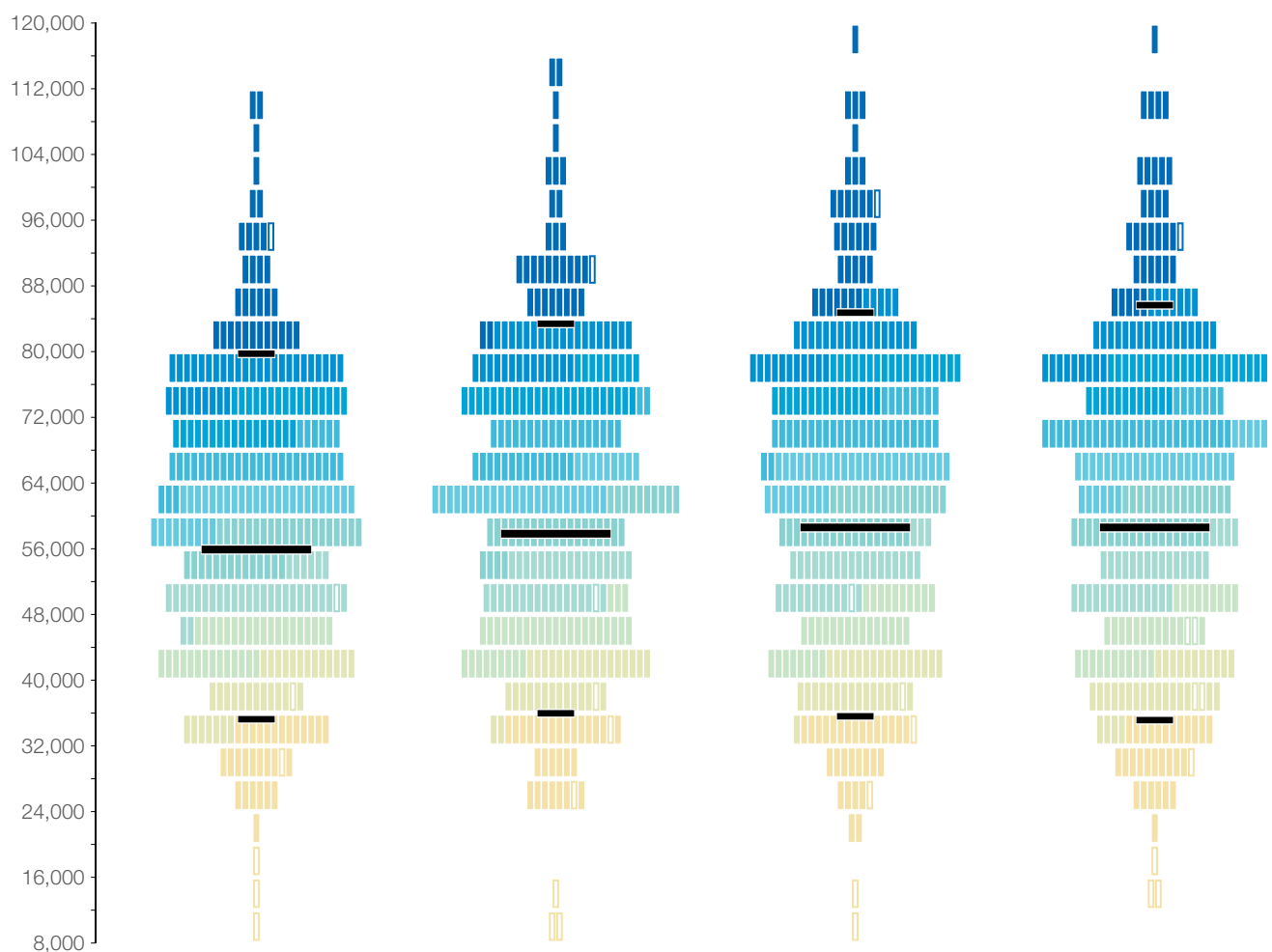
* Some of the published SA3 rates were considered more volatile than others. These rates are excluded from the calculation of the difference between the highest and lowest SA3 rates in Australia.

† A defined daily dose (DDD) is a measure of medicines use that allows comparison between different therapeutic groups, and between countries. The DDD is based on the average dose per day of the medicine when used for its main indication by adults. Refer to the Technical Supplement for more information.

Rates across years

Figure 5.25: Number of PBS prescriptions dispensed for opioid medicines per 100,000 people of all ages, age and sex standardised, by Statistical Area Level 3 (SA3) of patient residence, 2013–14 to 2016–17

	2013–14	2014–15	2015–16	2016–17
Highest rate	110,415	113,682	117,780	116,303
Australian rate	55,900	57,833	58,600	58,595
Lowest rate	11,002*	11,296*	10,644*	13,172*
Magnitude of variation	4.8	4.7	5.0	5.1
Magnitude of variation without top & bottom 10%	2.3	2.3	2.4	2.4



Highest rate without top 10%
 Australian rate
 Lowest rate without bottom 10%

Rate of dispensing
 Top 10% Bottom 10% Interpret with caution

Each rectangle represents a single SA3

Notes:

Hollow rectangles (□) and asterisks (*) indicate rates that are considered more volatile than other published rates and should be interpreted with caution. These rates are excluded from the calculation of the difference between the highest and lowest SA3 rates in Australia. For further detail about the methods used, please refer to the Technical Supplement.

Sources: AIHW analysis of Pharmaceutical Benefits Scheme data and ABS Estimated Resident Population 30 June 2013 to 2016.

Opioid medicines dispensing, all ages

Interpretation

Between 2013–14 and 2016–17, the rate of opioid medicines dispensed per 100,000 people nationally increased by 5%, during the four-year period, and the rate of people dispensed at least one prescription also increased. An increase in the magnitude of variation in dispensing rates also occurred. It is unclear whether this pattern indicates changes in medicines use in some states and territories or local areas and not others. However, the volume of opioids used in the Australian community, as indicated by the DDD per 1,000 people per day, declined slightly, indicating that the overall amount of opioid medicines supplied decreased slightly during the four-year period.

Potential reasons for this pattern include, but are not limited to changes in:

- The amount or type of surgery being performed, with associated opioid dispensing in a greater number of patients postoperatively
- The availability and accessibility of non-pharmacological treatment options
- Prescribing indications and behaviours affecting the reason for choosing an opioid, the type of opioid chosen and the dose dispensed.

To explore this, further analysis could potentially focus on:

- The amount or types of surgery being performed, and whether any increase coincides with the number of patients prescribed opioids postoperatively to manage their pain
- The use of multidisciplinary pain referral pathways or addiction medicine pathways for GPs managing patients with chronic non-cancer pain and/or substance abuse disorder
- Types of opioids, reasons for prescribing and doses being dispensed
- Quantities of opioid medicines being dispensed on authority prescriptions
- Dispensing rates based on practitioner type, to determine whether there is variation in prescribing between primary care and specialist care providers

- Weak and strong opioid use
- Use of services and other strategies to help patients self-manage their pain
- Use of other agents for chronic non-cancer pain, such as non-steroidal anti-inflammatory drugs (NSAIDs), gabapentinoids, clonidine and possibly medicinal cannabis.

Is there more to be done?

Although it is encouraging to see that the overall amount of opioid medicines supplied decreased slightly during the four years from 2013–14, dispensing rates continued to increase. It is unclear if these changes are due to changes in the number of people requiring opioids for appropriate uses, changes in doses used, or an increase in inappropriate prescribing. The magnitude of variation in dispensing rates between local areas has also increased. This is despite the number of regulatory efforts already in place to minimise harm from opioid medicines, and strategies to optimise the management of chronic non-cancer pain. It suggests that a continued focus on improving medicine use in this area is needed. Improved understanding of reasons for prescribing opioid medicines will help to identify whether these patterns are unwarranted and whether further targeted strategies are needed.

The Commission will publish a further analysis of these data in 2019, including analyses by state and territory, and local areas. This information will help identify the regional areas where dispensing of opioid medicines continues to rise.

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