5.1 Opioid medicines dispensing

Context
This data item examines dispensing rates for opioid medicines. The data are sourced from the PBS and relate to the number of prescriptions filled per 100,000 people.

Opioids are medicines that relieve moderate to severe pain. According to available evidence, opioid therapy is particularly useful in managing acute pain, cancer pain and pain in the palliative care setting.

Opioids are also used for chronic non-cancer pain. However, evidence does not support the long-term efficacy and safety of opioid therapy for this purpose. In addition, evidence is growing that the use of opioids can lead to adverse events and harm. Despite this, a number of studies indicate increasing levels of opioid prescribing for chronic non-cancer pain, particularly by general practitioners. The adverse long-term effects of opioids include hormonal suppression and, paradoxically, increased pain sensitivity.

For management of chronic non-cancer pain, a cautious approach is indicated, with opioid use having little or no role other than as part of a multimodal approach. The preferred multimodal approach includes patient education and self-management, supported by a general practitioner and multidisciplinary, allied health and nursing teams offering non-pharmacological treatments. For a small subset of individuals, cautious use of short-duration, low-dose, opioid treatments is often recommended in guidelines.

While adverse events and the risk of mortality rise proportionally with the opioid dose, analgesic and functional benefits do not. The mortality risk rises without increased benefit from a daily opioid dose of more than 100mg of oral morphine or the equivalent.
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Magnitude of variation

In 2013–14, there were 13,905,258 PBS prescriptions dispensed for opioid medicines, representing 55,126 prescriptions per 100,000 people (the Australian rate).

The number of PBS prescriptions dispensed for opioid medicines across 325* local areas (SA3s) ranged from 10,945 to 110,172 per 100,000 people. The number of prescriptions was 10.1 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 39,127 per 100,000 people in the Northern Territory, to 73,641 in Tasmania.

After excluding the highest and lowest results, the opioid medicine prescription rate across the 301 remaining local areas was 2.9 times higher in one local area compared to another.

Dispensing rates were highest in areas of low socioeconomic status and decreased with areas of increasing socioeconomic status. Dispensing rates tended to be higher in inner and outer regional areas than in major cities or remote areas.

Interpretation

Potential reasons for the variation include differences in:

- prescribing practices, training, knowledge and attitudes of general practitioners
- the understanding of individuals about the appropriate use of opioids to treat pain, the risks associated with high-dose and/or long-term opioid use, and the importance and efficacy of alternative non-pharmacological treatments
- the type of opioid dispensed and the number of authority or regulation 24 prescriptions supplied in each region
- access to pain specialists
- availability and accessibility of appropriate non-pharmacological treatment options, particularly in rural and remote locations
- access to alternate management, such as opioid dependency treatments.

It is important to note that the PBS data used in this item could potentially underestimate the use of opioid medicines as it does not capture over-the-counter medicines from pharmacies. The only opioids available over the counter are codeine in combination with simple analgesics.

To explore this variation, further analysis could focus on:

- understanding the considerable variation in opioid dispensing rates among states and territories, particularly the reason for very high rates in some jurisdictions and very low rates in others
- analysis by volume provided (in oral morphine equivalents)
- analysis of the ratio of simple analgesic use to opioid use
- analysis of weak and strong opioid use
- distinguishing between low-dose and high-dose prescribing of opioids, to assess the extent of inappropriate prescribing practices.

*There are 333 SA3s. For this item, data were suppressed for 8 SA3s. This is because of confidentiality requirements given the small numbers of prescriptions dispensed in these areas.
Figure 103: Number of PBS prescriptions dispensed for opioid medicines per 100,000 people, 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 48,610 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.

Figure 104: Number of PBS prescriptions dispensed for opioid medicines per 100,000 people, age standardised, by local area, 2013–14

The number of PBS prescriptions dispensed for opioid medicines across 325 local areas (SA3s) ranged from 10,945 to 110,172 per 100,000 people. The number of prescriptions was 10.1 times higher in the area with the highest rate compared to the area with the lowest rate.

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**Figure 105: Number of PBS prescriptions dispensed for opioid medicines per 100,000 people, age standardised, by local area, state and territory, 2013–14**

<table>
<thead>
<tr>
<th>State/territory</th>
<th>Highest rate</th>
<th>Lowest rate</th>
<th>No. prescriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>94,170</td>
<td>22,376</td>
<td>4,100,081</td>
</tr>
<tr>
<td>Vic</td>
<td>101,728</td>
<td>30,272</td>
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<tr>
<td>Qld</td>
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<td>32,318</td>
<td>2,953,710</td>
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<tr>
<td>SA</td>
<td>109,191</td>
<td>34,245</td>
<td>1,226,901</td>
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<tr>
<td>WA</td>
<td>78,866</td>
<td>26,653</td>
<td>1,325,226</td>
</tr>
<tr>
<td>Tas</td>
<td>110,172</td>
<td>46,911</td>
<td>436,257</td>
</tr>
<tr>
<td>NT</td>
<td>60,962</td>
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<td>ACT</td>
<td>53,620</td>
<td>36,222</td>
<td>168,155</td>
</tr>
</tbody>
</table>

**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:**

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.
Figure 106: Number of PBS prescriptions dispensed for opioid medicines per 100,000 people, 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:
Opioid medicines dispensing

Resources


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