

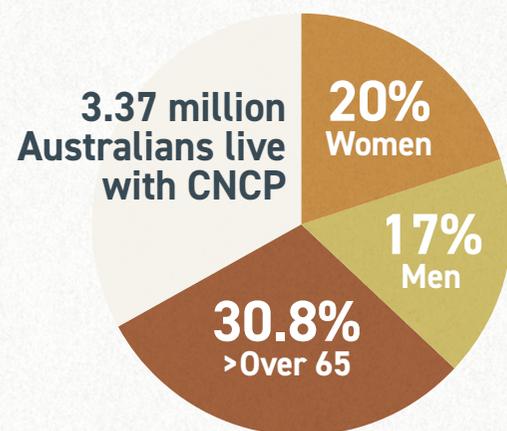
Tapering of long-term opioid therapy (LOT) in chronic non-cancer pain (CNCP): The Australian rural context.

Re chronic non-cancer pain, prevalence, cost access to evidence based care:

- 3.37 million Australians live with CNCP. Prevalence rates are higher for women (20%) than men (17%), and for older (>65yrs [30.8%]) Australians.^[1]
- In 2020 the total financial cost of CNCP in Australia was \$144 billion dollars.^[1]
- CNCP is the third most costly health burden in Australia, and cost the health system \$12.64 billion dollars in 2020.^[1]

- Prevalence rates of chronic back pain and arthritis are higher in Australian regional and remote areas than in cities (23% and 21% versus 20% and 17% respectively).^[2]
- The majority of Australia's specialist pain clinics are concentrated in metropolitan centres, leaving rural and remote citizens severely disadvantaged.^[4]
- >10% of Australians with CNCP will receive best practice multidisciplinary pain care.^[1]

- GP consultations related to chronic pain have increased by 67% in past 10 years.^[3]
- Lack of access to specialist pain services in rural and remote Australia is driving an overreliance on pharmaceutical management of CNCP in these sites.^[4]



Prevalence rates of chronic back pain:

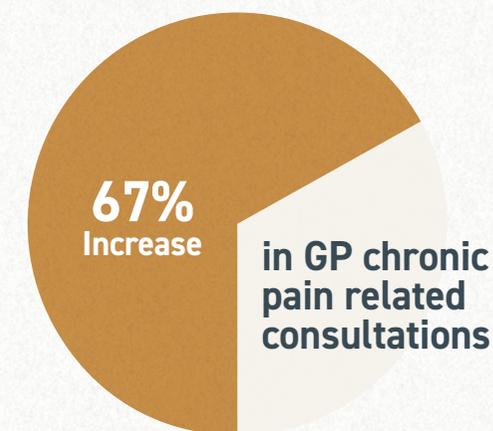
Regional/Remote 23%

Cities 21%

Prevalence rates of arthritis:

Regional/Remote 20%

Cities



AUTHORS: Gena Lieschke¹, Vicki Parker², Angela Smith³, Christopher Hayes¹, Adrian J Dunlop^{4,5}, Hema Rajappa¹, Ruth White¹, Patrick Oakley^{6,7}, Simon Holliday^{4,8}

Supporting rural health and medical research for a stronger and healthier rural Australia | spinifexnetwork.com.au

Re LOT and CNCP:

- In Australia 60% of all opioids prescribed are for the treatment of CNCP.^[5]
- There is limited evidence to support the efficacy and safety of LOT in the treatment of CNCP^[6], despite this opioid dispensing rates in Australia have risen dramatically over past two decades.^[7]
- Australia ranks 8th internationally on the number of DDD of prescription opioids per million population (about 40% level of the USA).^[8]
- Between 2010-2015 there was a 23% rise in opioid dispensing rates.^[7]
- Between 2013-2015, 17 million opioid prescriptions were filled by Australians.^[9]
- Codeine, oxycodone and tramadol are main opioids dispensed.^[9]
- Considerable variation of opioid prescribing rates exist across Australia, with up to 10 x higher rates of prescribing reported in areas with the highest rates, compared to those with the lowest rates.^[10]
- In 2013-2015, opioid dispensing in (DDDs) consistently higher in rural than urban areas. During this time 300% difference in the doses prescribed and dispensed to rural versus urban Australian citizens. Doses dispensed per person increase with increasing disadvantage.^[11]
- Aboriginal Australians are three times more likely to be prescribed opioids.^[7,9,11]
- Age, sex, rurality, socioeconomic disadvantage positively correlated to higher prescription opioid doses and dispensing rates.^[11]

Why taper patients currently taking LOT for CNCP:

- The efficacy of opioids in treating acute and cancer related pain has been well documented. However, the efficacy and safety of LOT in chronic non-cancer pain and function remains incomplete. No study assessing opioid therapy versus no opioids therapy with long term data (> 1 year) related to pain, quality of life, function opioid abuse or addiction has been published to date.^[6]
- There is evolving evidence submitting that the risks associated with long term opioid therapy (LOT) outweigh benefit.^[17]

In Australia
60%
of all opioids
prescribed
are for the treatment of
CNCP



Re LOT and associated harms and unintentional opioid-related deaths:

- 80% people with CNCP who take LOT will experience at least one side effect.^[12]
- All opioids carry a risk of dependence, accidental overdose, hospitalisation and death.^[8]
- Opioid related harms are dose related, with risk of accidental death doubling >50mg OMED (oral morphine equivalents/day), and increases 5 fold at doses >100 mg MED.^[13]
- Higher opioid doses are associated with significant risk, including overdose, opioid use disorder, depression, suicide, motor vehicle accidents and fractures.^[14]
- The increase of prescription opioids has been associated with an increase in aberrant drug behaviour (abuse and diversion [between 21% & 29%] and addiction [between 8% & 12%]).^[15]
- As rates of opioid dispensing has increased in Australia, a concomitant rise in associated harms and accidental overdose has also been documented.^[7]
- Every day in Australia 150 hospitalisations, 14 ED presentations, and 3 deaths involve opioids.^[16]
- Oxycodone, morphine and codeine are the main contributors to accidental deaths involving opioids.^[9]
- In Australia the number of unintentional drug-induced deaths involving opioids has trebled in the 12 years from 2006-2018 (from 338 in 2006 to 900 in 2018).^[9]
- In 2018 there were 2,070 drug-induced deaths in Australia, 1,556 were unintentional, 900 involved opioids, 457 were pharmaceutical opioids.^[9]
- Unintentional opioid related deaths in Australia now exceed deaths from heroin and MVAs and based on trend data from 2011-2018 will continue increasing by 3%/ year. In contrast the road toll has decreased by 2.2% per year.^[9]
- Rates of unintentional drug-induced deaths in rural and regional Australia has increased by 15.9% since 2011, while capital cities have seen a 3.6% rise.
- In 2018, 7.3 per 100,000 people in rural and regional Australians compared to 5.8 per 100,000 in capital cities died from an unintentional drug related death.^[11]
- Unintentional deaths most common in Australians 40-49 years (accounting for 23% of all unintentional drug-induced deaths in 2018), are more prevalent in males than females (71.5%), and in Aboriginal Australians than non-Aboriginal Australians (17.3 versus 6.0 deaths per 100,000 population).^[11]

In Australia the number of unintentional drug-induced deaths involving opioids has trebled.

338 in 2006

900 in 2018

Barriers to tapering LOT in patients with CNCP in rural contexts

Documented barriers to tapering LOT coalesce around three issues; those related to structural issues, and those specific to patient and clinician challenges.

1 Structural barriers:

- Inadequate time, resources and remuneration

- Lack of explicit guidelines about who, when and how to taper

- Variable prescribing approaches between GP's and within and across practices

- Negligible access to specialist multidisciplinary pain and addiction expertise

- Limited access to alternative non-pharmacological treatment/management approaches

2 Clinician barriers:

- Socio-cultural factors related to perceived professional, moral and ethical obligation to "relieve all pain"

- **Fears associated with:**
 - disrupting the patient-GP therapeutic relationship
 - overriding specialist prescribing recommendations
 - the risk of unintended consequences eg illicit drug use, lost to follow up

- Emotional burden eg having difficult conversations

- Knowledge deficits eg motivational interviewing

3 Patient barriers:

- Low perceived individual risk
 - fear of pain in present TRUMPS risks associated with LoT

- **Fear of:**
 - increased pain and reduced function
 - withdrawal, stigma and addiction
 - impact on mood, ability to attend to responsibilities and relationships, impact on quality of life
 - abandonment of GP

- Pessimism about non-opioid options

Facilitators to support LOT tapering in rural context

Documented barriers to tapering LOT coalesce around three issues; those related to structural issues, and those specific to patient and clinician challenges.

1 Infrastructural and GP supports:

- Allocated and proportionate funding comparable to complex chronic diseases model to appropriately remunerate time and resources invested
- Telehealth to enable timely consultations with specialist pain and addiction services
- Telementoring to build clinician capacity and capability via case conferencing
- Established professional networks and relationships between primary and tertiary healthcare providers
- Education and Information supports eg how to taper, managing adverse effects and withdrawal, motivational interviewing
- Explicit guidelines that detail who, when and how to taper LOT in CNCP contexts
- Tracking systems eg real time prescription monitoring
- Embed chronic pain management programs that are contextually and culturally responsive, that meet the needs of rural and remote communities and that seek to build capacity locally.

2 Patient supports:

- Education (patient/community/population based) and preparation for taper
- Empathy and patient-centred language
- Long term, trusting therapeutic relationships
- Co-produced (prescriber[s]and patient) individualised slow (eg10-25% OMED/per month)^[14] tapering plans that are flexible, reviewed regularly and are adaptable to changing needs
- Ongoing access to clinician support for the duration of the taper
- Reassurance they will not be abandoned if tapering fails
- Monitoring of mood, sleep and motivation with appropriate management strategies
- Provision of concurrent non-pharmacological strategies/support to support taper

References

1. Painaustralia(2019). The cost of Pain in Australia Pain. Pain Australia, Viewed in February at, www.painaustralia.org.au. Accessed on 7 Feb 2021.
2. AIHW (Australia Institute of Health and Welfare) 2019. Rural and remote health. Cat. no. PHE 255. Canberra: AIHW. Viewed February 2021, www.aihw.gov.au/reports/rural-remote-australians/rural-remote-health
3. SANDabstractNo.150fromtheBEACHprogram2009–10.Chronicpainin generalpracticepatients. Sydney:AGPSCCUniversityofSydney,2010. http://sydney.edu.au/medicine/fmrc/publications/sand-abstracts/150-Chronic_Pain.pdf (accessed Feb 2021).
4. Bennett C. The impact of pain on rural and regional Australia: problems and solutions[blog]. www.painaustralia.org.au/media/blog-1/blog-2019/the-impact-of-pain-on-rural-and-regional-australia-problems-and-solutions#:~:text=The%20impact%20of%20pain%20on%20rural%20and%20regional,services%2and%20are%20exposed%20to%20increased%20health%20risks. (viewed Jun 2020).
5. AIHW.2020 Chronic Pain in Australia. 16 April 2020. Canberra AIHW. Viewed February 2021, www.aihw.gov.au/reports/chronic-pain-in-australia
6. Busse J, Wanf L, Kamaleldin M et al. Opioids for chronic non-cancer pain: A systematic review and meta-analysis. (2018) JAMA;320 (23): 2448-2460.
7. Blanch B, Pearson SA, Haber PS. An overview of the patterns of prescription opioid use, costs and related harms in Australia. Br J Clin Pharmacology 2014; 78: 1159–1166.
8. Therapeutic Goods Administration, Australian Government, Department of Health. Addressing prescription opioid use and misuse in Australia.V1.0 November 2019, Viewed February 2021; www.tga.gov.au
9. Pennington Institute (2020). *Australia's Annual Overdose Report 2020*. Melbourne: Pennington Institute. Available at www.pennington.org.au. Accessed on 11 Feb 2021
10. Australian Commission on Safety and Quality in Health Care. Australian atlas of healthcare variation series. Sydney: ACSQHC, 2015. www.safetyandquality.gov.au/atlas (viewed Jun 2020).
11. Islam M, McRae I, Mazumdar S, Simpson P, Wollersheim, Fatema K, Butler T. Prescription opioid dispensing in New South Wales, Australia: spatial and temporal variation. BMC Pharmacology and Toxicology 2018; 19:30
12. AIHW. (Australian Institute of Health and Welfare). Opioid harm in Australia and comparisons between Australia and Canada. Canberra: AIHW; 2018.
13. Gomes T, Mamdani MM, Dhalla IA, Paterson JM, Juurlink DN. Opioid dose and drug-related mortality in patients with nonmalignant pain. Arch Intern Med 2011; 171: 686–91.
14. Chou R, Turner JA, Devine EB. The effectiveness and risks of long-term opioid therapy for chronic pain: a systematic review for the National Institutes of Health Pathways to Prevention Workshop. Ann Intern Med. 2015; 162(4):276-86.
15. Vowles KE, McEntee ML, Julnes PS, Frohe T et al, Rates of opioid misuse, abuse and addiction in chronic pain: A systematic review and data synthesis. Pain 2015;156: 569-576. <http://doi.org/10.1097/01.j.pain.0000460357.01998.fl>
16. AIHW (Australian Institute of Health and Welfare). Opioid harm in Australia and comparisons between Australia and Canada. Canberra: AIHW; 2018.
17. Chou, R., Turner, J. A., Devine, E. B., Hansen, R. N., Sullivan, S. D., Blazina, I., Deyo, R. A. (2015). The effectiveness and risks of long-term opioid therapy for chronic pain: A systematic review for a National Institutes of Health Pathways to Prevention Workshop. *Annals of Internal Medicine*, 162, 276–286. <https://doi.org/10.7326/ M14-2559>

AFFILIATIONS: **1)** Surgical Service, John Hunter Hospital, Newcastle, NSW. **2)** School of Medicine and Health Sciences, University of New England, Armidale, NSW. **3)** Hunter New England Health Libraries, Newcastle, NSW. **4)** Drug and Alcohol Clinical Services, Hunter New England Local Health District, Newcastle And Taree, NSW. **5)** School of Medicine and Public Health, University of Newcastle, Newcastle, NSW. **6)** General Medicine, Hunter New England Health, Newcastle, NSW. **7)** Aboriginal Health Unit, Hunter New England Health, Newcastle, NSW. **8)** HealthHub, Taree, NSW.