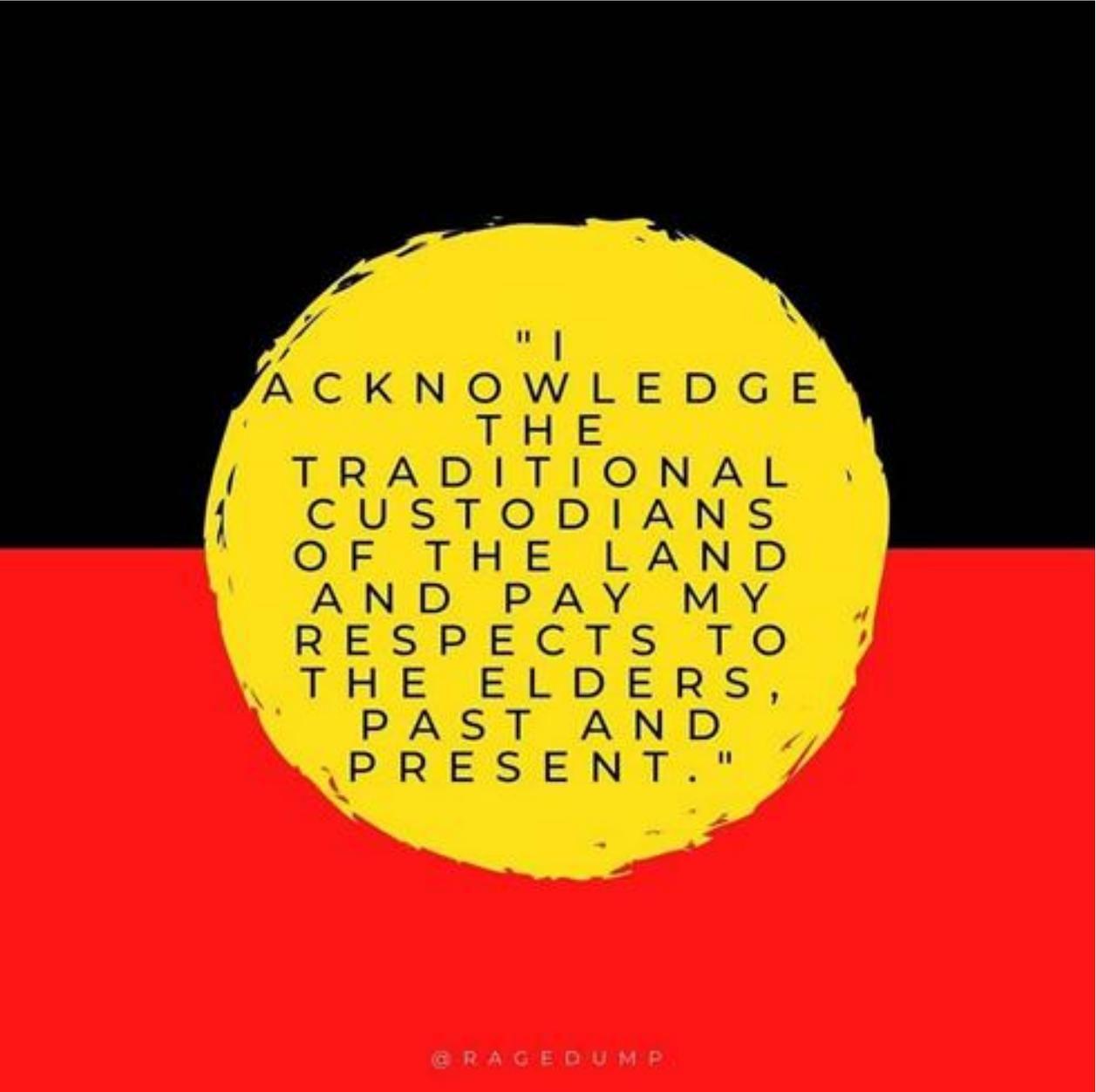


Did prescription monitoring influence people seeing multiple prescribers in primary care in Victoria?

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APSAD Conference 2025 (Session 1C, Nov 10, 11:00 AM - 12:00PM)



"I
ACKNOWLEDGE
THE
TRADITIONAL
CUSTODIANS
OF THE LAND
AND PAY MY
RESPECTS TO
THE ELDERS,
PAST AND
PRESENT."

@RAGEDUMP

Real-time prescription monitoring in Australia



- Victoria: Voluntary from April 1, 2019 and mandatory from 2020
- Now implemented (voluntary or mandatory) in all states
- Alerts algorithm linked risk-factors (e.g., Red notifications with >100 mg oral morphine equivalents), high-risk drug combinations (e.g. opioid and benzodiazepine), or 4+ prescribers in past 90 days)

Background

- Seeing multiple prescribers (~~‘doctor shopping’~~) for controlled medicines is associated with negative health outcomes including dependence, overdose and mortality (e.g. Martyres et al, MJA 2004, Kaboré et al Pain Rep. 2021, Biernikiewicz et al. Journal of Market Access & Health Policy. 2019)
- Prescription drug monitoring programs (aka ‘Real Time Prescription Monitoring’) allows prescribers to identify when this is occurring.

Aim

To examine changes in frequency and characteristics of primary care patients seeing multiple prescribers for monitored medicines (e.g. opioids, benzodiazepines), following the introduction of Victoria’s PDMP

Methods

Data source: Data from 562 general practices from three Primary Health Networks (PHNs) Victoria, Australia between 1 April 2017 and 30 June 2023.

Outcomes: Seeing four or more prescribers for monitored medicines within a given 90-day period.

Analysis

- 1) Controlled interrupted time series analysis examined the changes in the monthly rate of people seeing multiple prescribers following PDMP implementation for monitored medicines with non-monitored medicines (e.g. antidepressants, antipsychotics) used as a control [Controlling for baseline levels and underlying secular trends]
- 2) Logistic regression investigated characteristics of people who ceased seeing multiple prescribers for monitored medications following PDMP implementation.

Results

- 6,796,173 prescriptions for monitored medicines and 3,113,184 prescriptions for non-monitored medicines analysed between 1 April 2017 and 30 June 2023.
- During this period, 18,474 people engaged in seeing multiple prescribers for monitored medicines. Approximately one-third of these people were aged 45–64 years (34.2%) and nearly two-thirds were female (61.7%).

SAFE SCRIPT VICTORIA State Government

Search Permits Correspondence Welcome Practitioner

Dashboard / Patient Search / Patient Details

Alan Patient has obtained prescription medicines from at least 4 different prescribers and/or 4 different pharmacies within the last 90 days. Take action to coordinate treatment to ensure patient safety.

Alan Patient is receiving fentanyl and a benzodiazepine. There is a substantial risk of combined toxicity and harm with this combination. Reassess the need for this combination.

Alan Patient is receiving fentanyl and another long-acting opioid. There is a substantial risk of combined toxicity and harm with this combination. Reassess the need for this combination.

Alan Patient

View Alert History Permits View Access History

Preferred Name Alan Patient IHI 1231 2321 3213 222

Date of Birth 11 August 1993 (25 years, 0 month) Address 10 The Rise, Melbourne, VIC 3000

Gender Male

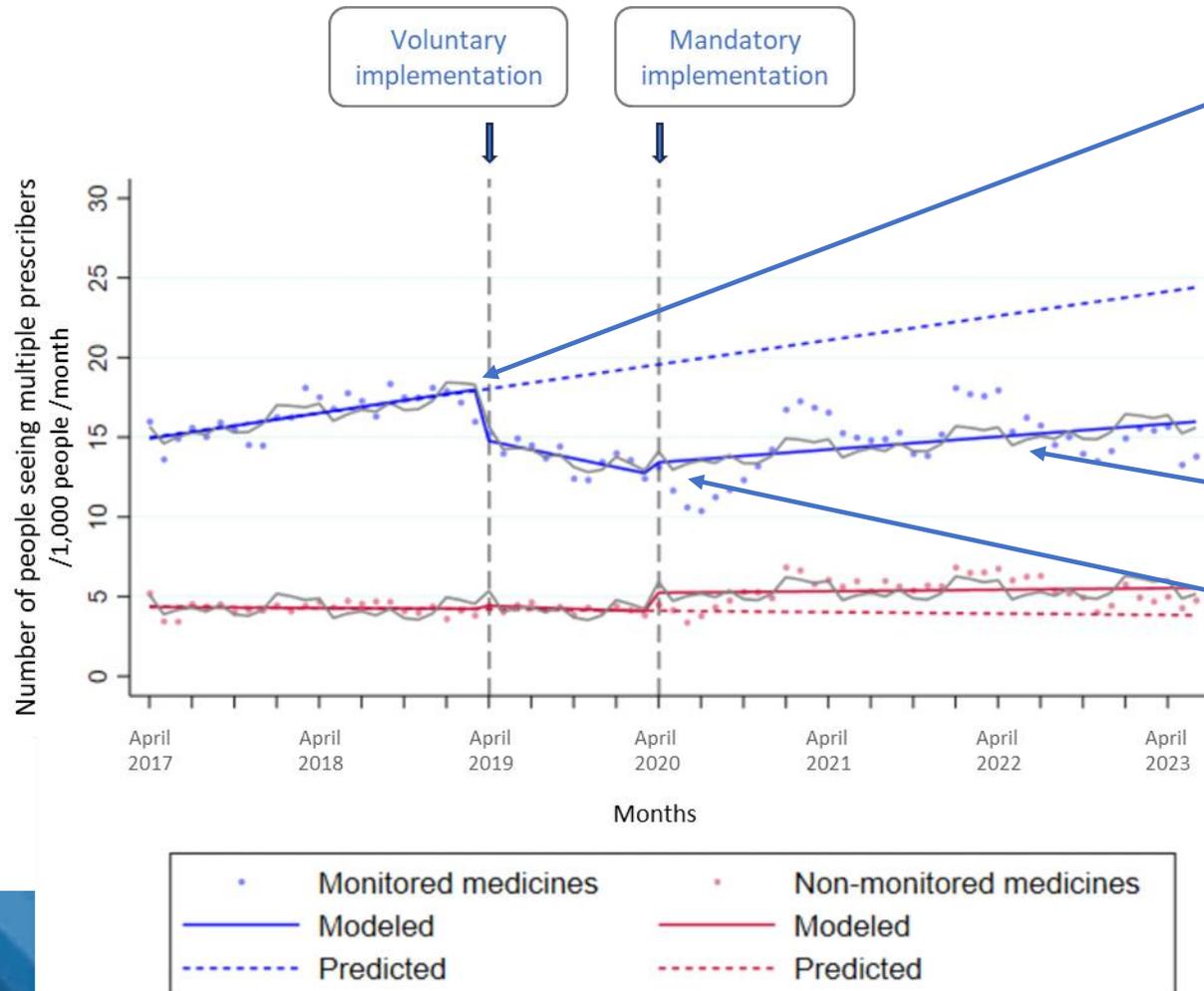
Clear Filter Drug Search Event Type All Events Date Range 08/08/2018 - 31/08/2018

Alert	Date	Drug Details	Practitioner Details	Supply	Type
	20/08/2018	Morphine sulfate pentahydrate 10 mg modified release tablet, 20 - MORPHINE SULFATE PENTAHYDRATE 10 MG MODIFIED RELEASE TABLET, 20 - 10MG - TAB - 5	John Pharmacist Our Pharmacy	1/1	Dispensed

*Screenshot from Victorian DoH Website

Results

Monthly rate of people receiving prescriptions from four or more prescribers in a given 90 days, per 1,000 people.



- Voluntary PDMP: **reduction** in the step and trend in rates of seeing multiple prescribers (Differential step change: β , -3.55; 95% CI: -5.08 to -2.03. Differential trend change: β , -0.29; 95% CI: -0.46 to -0.12).
- After mandatory PDMP: Increase rate of seeing multiple prescribers between those prescribed monitored and non-monitored medicines (Differential trend change: β , 0.21; 95% CI: 0.05 to 0.37; P=0.009).
- Following mandatory PDMP no step change difference observed.

Correlates of seeing multiple prescribers only prior to PDMP implementation

- Age 45-64 (OR 1.18, 95%CI 1.08 to 1.29) and ≥ 85 yrs (OR 1.56, 95% CI 1.39 to 1.75) compared to youngest age group (20-44 yo)
- Male (OR 1.17, 95%CI 1.09 to 1.25) or unspecified gender (OR 4.80, 95%CI 3.53, 6.52) compared to female
- Living in metro area (OR 1.13, 95% 1.04, 1.23) compared to rural/remote
- **Reduced** odds with living in postcode with middle quintile socioeconomic status compared to most disadvantaged
- Comorbidities:
 - Substance use disorder **increased** odds (OR 1.17, 95%CI 1.07, 1.28)
 - **Reduced** odds with comorbidities of migraine/headache (OR 0.91, 95%CI 0.84, 0.99) or chronic pain (OR 0.91, 95%CI 0.84, 0.99)

Discussion

- Largest effect seen after voluntary PDMP implementation, reducing rate of seeking multiple prescribers
- PDMP implementation had greater effect on people who were older, male, living in metropolitan areas, and who had a substance use disorder diagnosis, who had significantly higher odds of seeing multiple prescribers for monitored medicines prior to PDMP implementation.
- Seeing multiple prescribers may lead to reduced fragmentation of care but we cannot say if seeing multiple prescribers was clinically appropriate (note specialists not included in count here) or understand why (could reflect access issues)
- Possibility of impacts from COVID-19 on healthcare utilization (use of control group lessens this concern)

Conclusions

Prior research shows PDMP associated with:

- reduced only low (but not high) dose opioid prescribing, increased prescribing of pregabalin and tricyclics
- reduced opioid ED attendances (short term rise in ED attendances from other drugs)
- This study adds that PDMP supports reducing accessing medications from multiple prescribers (which may reduce harm)
- In Victoria, PDMP appeared to achieve intended outcomes (with some unintended effects)
- What is next? → Are outcomes seen in other states with different system features?



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Research Paper

Changes in opioid and other analgesic prescribing following voluntary and mandatory prescription drug monitoring program implementation: A time series analysis of early outcomes



Suzanne Nielsen^{a,*}, Louisa Picco^a, Grant Russell^b, Christopher Pearce^c, Nadine E Andrew^{d,e}, Dan I. Lubman^{a,f}, J. Simon Bell^{g,h}, Rachele Buchbinder^h, Ting Xia^a

Research

Prescription opioid supply-restricting policies and hospital use by people prescribed opioid medications, Victoria, 2018–22: a controlled interrupted time series analysis

Suzanne Nielsen¹, Louisa Picco¹, Bosco Rowland^{1,2}, Nadine E Andrew^{1,3}, Taya A Collyer^{1,3}, Samanta Lalic^{1,4}, Rachele Buchbinder¹, Christopher Pearce⁵, J Simon Bell¹, Dan I Lubman^{1,2}, Ting Xia¹



The known: Pharmaceutical opioids contribute to considerable harm in Australia. Many policies have been implemented in recent years to reduce high rates of opioid prescribing and related harm.

Abstract

Objectives: To investigate the combined effect of two policies for reducing prescription opioid supply in Australia on hospital use by people prescribed opioids in primary care.

Acknowledgements

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NHMRC L2 IG (#2025894 me!)



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