

Background

Why is this important?

- Rates of both fatal and non-fatal opioid-related overdoses vary considerably by province in Canada, with rates being highest in British Columbia (BC). While these increasing rates have been thought historically to result from an overprescribing of opioids, the recent emergence of illicit fentanyl along with changing access to prescribed opioids has created a complex environment.
- However, little is known about the relative contributions of different drug sources to opioid overdoses and how this varies across the country.

What were we investigating?

- The contributions of prescribed opioids to opioid-related hospitalizations in 3 provinces in Canada: BC, Manitoba, and Ontario.

Key Points

- A large proportion of opioid overdoses requiring hospitalization involved a non-prescribed opioid, particularly among men, youth, and young adults. This varied between the 3 provinces studied.
- Only 1 in 3 people hospitalized for an opioid overdose in BC in the 2015/16 fiscal year had an active opioid prescription at time of hospitalization compared to slightly more than half of those hospitalized in Manitoba and Ontario.
- There was significant geographic variation in the prevalence of benzodiazepine prescriptions prior to opioid overdose.

Study Details

How was the study conducted?

- We conducted population-based cross-sectional studies of all individuals who were admitted to hospital for an opioid overdose between April 1, 2015 and March 31, 2016 in BC and Ontario; and between July 1, 2015 and March 31, 2016 in Manitoba.
- We defined prescription opioid exposure at time of overdose as those with an “active” opioid prescription that overlapped the date of hospital admission.
- We determined the type of opioid dispensed, the number of days between the last opioid dispensing and the hospital admission date, as well as the prevalence of individuals with a co-prescription of opioids and benzodiazepines.
- In a secondary analysis, we defined recent opioid prescriptions as those dispensed in the i) 30 days and ii) 180 days prior to and including the date of hospital admission. We explored trends over time beginning April 1, 2013 in BC and Ontario, where earlier data was available.



What did we find?

- In the 2015/16 fiscal year, we identified a total of 2,599 inpatient hospitalizations related to an opioid overdose, of which 37.9% (N=985) occurred in BC, 58.6% (N=1,524) occurred in Ontario, and 3.5% (N=90) occurred in Manitoba.
- On average across all 3 provinces, subjects were 47.5 years of age and 51.5% were male. Younger individuals were much less likely to have an active opioid prescription at time of overdose compared to older adults. In general, opioid-related hospitalizations were concentrated among lower income individuals and those living in urban locations.
- Overall, the prevalence of active opioid prescribing prior to an opioid-related hospitalization was lower in BC (34.1%) compared to both Manitoba (52.2%) and Ontario (52.8%).
- The most commonly prescribed opioids were hydromorphone, codeine, oxycodone, and methadone. The prevalence of co-prescribed opioids and benzodiazepines varied considerably across provinces, ranging from 35.6% in Manitoba to 17.1% in BC.
- In BC, we observed a significant trend towards a lower prevalence of active opioid prescriptions at the time of hospitalization between 2013/14 and 2015/16 ($p < 0.001$). No similar trend was observed in Ontario ($p = 0.22$).

Recommendations

- Future policy responses to the current opioid crisis should be multi-faceted to address the different drivers of overdose between jurisdictions and demographic groups.
- Policies must also consider the strong inter-relationship between the prescribed and illicit opioid markets across Canada.
- It is likely that the trends towards less involvement of prescription opioids have continued since FY 2015/16. Future work should continue to monitor these patterns across Canada.

For more information

Gomes, T et al. [Comparing the contribution of prescribed opioids to opioid-related hospitalizations across Canada: A multi-jurisdictional cross-sectional study. Drug and Alcohol Dependence, 2018.](#)