

Impact of policy changes on the provision of naloxone by pharmacies in Ontario, Canada

An evaluation of the Ontario Naloxone Program for Pharmacies

Background

- Fatal opioid overdose continues to be a leading cause of accidental death in North America.
- Naloxone, an opioid antagonist, is able to reverse the effects of opioids and prevent fatal opioid overdoses.
- Recent evidence suggests substantial disparities in access to naloxone persist between regions across Ontario and demonstrates inconsistent uptake among key target populations, such as those with high-dose opioid prescriptions and a history of opioid-related harm.



In June 2016, the Ontario government introduced the **Ontario Naloxone Program for Pharmacies (ONPP)**. Through this program, community pharmacies can distribute naloxone kits to all Ontarians, free of charge. In an effort to remove barriers to naloxone access, the ONPP was modified in March 2018 to: 1) allow pharmacies to distribute intranasal naloxone, and 2) remove the requirement for individuals to present a valid government health card in order to receive a naloxone kit.

What did we investigate?

Whether changes implemented to the program in March 2018 impacted the distribution of naloxone through the ONPP in Ontario.

How was the study conducted?

- We conducted a population-based time series analysis of all Ontario residents between July 1, 2016 and March 31, 2020.
- Interventional autoregressive integrated moving average models were used to examine the impact of the March 2018 program changes on rates of pharmacy naloxone dispensing in the province.
- The rate of naloxone dispensing per 100,000 residents by Ontario pharmacies was reported for each month during the study period overall and among several subgroups of naloxone recipients. These included those receiving opioid agonist therapy (OAT), individuals receiving other prescription opioids, those with past opioid prescription exposure, and individuals with no history of opioid exposure.

Key points

Policy changes made to the ONPP, including the introduction of intranasal naloxone and removal of the requirement for individuals to present a valid government health card resulted in an immediate increase in the rate of pharmacy-based naloxone dispensing overall, and among target populations with current and prior opioid exposure.

What did we find?

- Between July 2016 and March 2020, 199,484 individuals were dispensed a naloxone kit through the ONPP and the monthly rate of pharmacy naloxone dispensing increased from 2 to 112 kits per 100,000 population.
- During the study period, of those who received a naloxone kit, 35,909 (18%) were OAT recipients, 38,294 (19%) were prescription opioid recipients, 16,835 (8%) had past opioid exposure, and 113,808 (57%) had no or unknown opioid exposure.
- The average rate of pharmacy dispensing increased 65% immediately following the ONPP policy changes (from 56 kits to 92 kits per 100,000 population between February 2018 and May 2018).
- During this period, increases were seen among OAT recipients (115% increase; 3,375 to 7,264 kits per 100,000), prescription opioid recipients (98% increase; 193 to 382 kits per 100,000 population), and individuals with prior opioid exposure (53% increase; 135 to 206 kits per 100,000 population). In contrast, no significant change was observed among individuals with no or unknown opioid exposure history during this time.
- By March 2020, the intranasal formulation represented 73% of all naloxone kits dispensed through the ONPP, and the proportion of naloxone kits dispensed without presenting a government health card increased from 0% in July 2016 to 37% in March 2020.

For more information

Corresponding author: Tara Gomes (tara.gomes@unityhealth.to)

Antoniou, T., Martins, D., Campbell, T., Tadrous, M., Munro, C., & Leece, P. et al. (2020). Impact of policy changes on the provision of naloxone by pharmacies in Ontario, Canada: A population-based time series analysis. *Addiction*.