

The status of naloxone in community pharmacies across Canada

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Introduction

Opioids are responsible for approximately 12 deaths per day in Canada.¹ Virtually all (94%) of these deaths could be prevented, as they are caused by accidental opioid use.^{1,2} The burden of the “Opioid Crisis” goes beyond the immediate impact on the individual, their families and their community to affect the health care system as a whole. Indeed, opioid-related harms cost the health care system \$3.5 billion per year, or approximately \$100 for every Canadian regardless of age.³

Harm reduction strategies have been implemented in order to tackle this crisis.⁴ The distribution of the opioid antagonist, naloxone, as a take-home kit is a prime example of these strategies. Naloxone has shown great success in treating and reversing opioid-induced respiratory depression (OIRD), the main cause of opioid-related premature morbidity and mortality.⁵⁻⁷ Take-home naloxone (THN) kits allow non-health care providers to administer the opioid antagonist to anyone experiencing OIRD.⁸

In Canada, all provinces and territories provide free THN kits.⁸ However, distribution varies markedly between provinces and territories, as these programs are managed at the provincial level.⁸ For example, an individual can receive a free THN kit at over 1000 distribution sites in Alberta, but they can only access free THN kits at 4 distribution sites in New Brunswick.⁸ Such variations create disparities in naloxone access throughout Canada, which in turn creates barriers to obtaining this crucial tool. Indeed, it has been reported that more than 98% of individuals who are at high risk (patients with a history of OIRD, opioid-related substance use disorder, high-dosage opioid prescription or prescribed a benzodiazepine concurrently

with an opioid) cannot readily access free THN kits.^{8,9} Thus, there is a need for an innovative way to address this disparity.

Community pharmacists are extremely accessible primary health care providers who are located in the heart of Canadian communities (urban, rural and remote) and see patients who use opioids frequently. As such, they are well positioned to proactively and systematically identify individuals who are at high risk for OIRD, provide THN kits and educate in a non-stigmatizing environment.^{10,11} In fact, pharmacies have already shown great success as naloxone distribution sites.^{6,12} Despite this evidence, community pharmacies are still not universally included as free THN kit distribution sites in Canada.⁸

Community pharmacists can play a vital role in tackling the opioid crisis. A better understanding of the current pharmacy distribution system for naloxone and the associated policies surrounding that will help to enhance the current role that pharmacists in each region can play in the fight against this major public health crisis. The purpose of this study is to report the current naloxone distribution policies and practice for community pharmacists in Canada.

Methods

Two search methods were used to gather information about naloxone distribution policies and practice in Canada. First, a search of the databases PubMed and ScienceDirect was conducted to find current literature on naloxone distribution in Canada and pharmacist attitudes towards naloxone dispensing. The following MeSH headings were used: *naloxone dispensing*, *naloxone distribution*, *naloxone pharmacist remuneration*, *community naloxone*, *take home naloxone* and

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naloxone kit program. These search terms were also combined with the phrase “in Canada” or “in X” (where “X” represents a province or territory in Canada) to aid in specificity. When information was insufficient, such as statistics and remuneration in each jurisdiction, a Google search with the same MeSH terms was conducted to extract relevant data from grey literature. We sent the information we gathered to pharmacy professional bodies across the country, as well as known experts in the field to capture additional information and verify what we had found through our search.

Results

Table 1 describes the current state of naloxone distribution in community pharmacies across Canada and the costs associated with dispensing. It is clear that availability of free THN kits varies markedly across the country. Community pharmacies are not included as a distribution site for free THN kits in almost half of the Canadian provinces and territories (Saskatchewan, Newfoundland and Labrador, Prince Edward Island and New Brunswick). In contrast, British Columbia, Alberta, Ontario, Nova Scotia and the Northwest Territories have a majority of their community pharmacies participating as a distribution site offering free THN kits. The types of THN kits (nasal vs injectable) also vary between jurisdictions, with only 2 provinces (Ontario and Quebec) and 1 territory (Northwest Territories) offering a free nasal spray option. In 2018, the jurisdiction dispensing the largest number of free THN kits (125,606) through community pharmacies was Ontario.⁸

Remuneration to pharmacists for providing naloxone services was very limited and varied greatly between jurisdictions. Only Quebec and Ontario offer reimbursement for both naloxone dispensing and training on injectable use. Alberta and Nova Scotia only offer remuneration for dispensing, while the Northwest Territories offers reimbursement only for training.⁸

The cost of naloxone at pharmacies that do not offer free THN kits ranged from \$30 to \$50 for the injectable form and \$150 to \$200 for the nasal spray, depending on jurisdiction. Quebec, the Northwest Territories and Nunavut are the only jurisdictions to list naloxone in their drug formularies, allowing patients to walk into any pharmacy and receive it, as long they meet the criteria for dispensing. Although not listed in the drug formulary, naloxone is free in all community pharmacies across Ontario.

Discussion

Accessibility of naloxone varies greatly across Canada. Indeed, many provinces and territories currently do not offer free THN kits in community pharmacies, reducing accessibility to this crucial tool. Furthermore, only 2 provinces and 2 territories have over 80% of their community pharmacies participating in the program. In areas with poor access to naloxone, the perceived OIRD-to-death ratio is much higher, indicating

an opportunity for growth and expansion of the free THN program.^{12,20}

The “standard” form of naloxone available in free THN kits is the injectable form, which is administered intramuscularly. Although injectable naloxone is available in all jurisdictions (except the Northwest Territories) throughout Canada at THN kit distribution sites, this route of administration may act as a barrier for use by the general public. Indeed, injectable routes are well suited for medical professionals who have had extensive training, but emergency administration by the general public, especially in a crisis, can be stressful.^{12,23} Use of a nasal spray form, which has been observed to reverse OIRD when administered by the general public and is equally effective as the intramuscular form, may increase uptake of naloxone distribution and acceptance.^{23,24} However, cost may be a barrier in adopting intranasal naloxone, as the primary form found in free THN kits, as this product is approximately 3 to 4 times more expensive than the injectable version.²⁵

Recent studies have observed current naloxone distribution in community pharmacies and have indicated that naloxone dispensing in high-risk populations is still minimal.^{11,26} The current criteria for obtaining naloxone is insufficient, as it relies on self-identification of individuals being at risk or likely to witness OIRD. Criteria also vary between jurisdictions. A study in Ontario, consisting of 67,910 individuals who dispensed naloxone, found that only 40.7% of prescription opioid agonist therapy (OAT) patients and 1.6% of prescription opioid recipients received a THN kit.²⁰ This signifies large subgroup of patients receiving prescription opioids or OAT in this population that needs to be addressed, as this group is the most likely to be at risk of OIRD.

The inclusion of community pharmacies as THN distribution sites will create more accessible, credible venues and will aid in reducing health disparities.^{27,28} Furthermore, including more community pharmacies as distribution sites will allow pharmacists to systematically and *proactively* identify patients in the high-risk categories to co-dispense naloxone with their opioid prescriptions and opioid agonist therapy. Pharmacy-based interventions have been shown to be effective in reducing opioid-related harms and promoting safe use.^{12,20,26,29}

Pharmacists are more willing to participate in these intervention practices provided they receive proper training and remuneration.²⁷ Indeed, a study in Colorado identified fear of offending patients and enabling riskier behaviour as potential barriers in naloxone co-dispensing.²⁸ In an environment of declining pharmacy reimbursement and increasing administrative and regulatory requirements, the lack of remuneration has been observed to reduce pharmacists’ enthusiasm in naloxone distribution.¹² Standardization of naloxone availability and form is needed alongside appropriate training and remuneration across the country to enable pharmacists to play a greater role in addressing the public health crisis posed by opioids.

TABLE 1 Comparison of naloxone distribution and costs in Canada between provinces and territories

	BC ^{8,12-15}	AB ^{8,13-18}	SK ^{8,13,14}	MB ^{8,13,14}	QU ^{8,13,14,19}	ON ^{8,13,14,20,21}	NFL ^{8,13,14}	PEI ^{8,13,14}	NS ^{8,13,14,22}	NB ^{8,13,14}	YU ^{8,13,14}	NWT ^{8,13,14}	NU ^{8,13,14}
No. (%) of pharmacies distributing free THN kits	728/1358 (52.8)	1205/1457 (82.7)	No program	6/426 (1.4)	1633/1907 (85.6)	2729-3500/5051 (54-69.3)	No program	No program	285/307 (92.8)	No program	i	10/10 (100)	No program*
No. (year) of THN kits distributed by pharmacies	3523 (2018)	7608 (01/2019-09/2019)	NA	i	13,268 (2019)	125,606 (2018)	NA	NA	5700 (2017-2019)	NA	i	59 (2019)	NA
Forms of naloxone available in free THN kits	Injectable only	Injectable only	NA	Injectable only	Injectable and nasal spray	Injectable and nasal spray	NA	NA	Injectable only	NA	Injectable only	Nasal spray only	NA
Criteria for dispensing THN kits in pharmacies	At risk or likely to witness overdose	At risk or likely to witness overdose	NA	At risk or likely to witness overdose	At risk or likely to witness overdose	At risk or likely to witness overdose	NA	NA	At risk or likely to witness overdose	NA	Anyone	Anyone	NA
Remuneration for pharmacies (\$)	\$0	Dispensing (up to \$12.30/kit)	\$0	\$0	Dispensing (up to \$9.64) Counselling (\$18.59)	Training fee (\$25) Professional fee (\$10)	\$0	\$0	Administration fee (\$25)	\$0	Training fee	Training fee (\$15)	NA
Cost to patients to purchase injectable naloxone at nonparticipating pharmacies	\$45-\$55 (injectable)	\$40-\$50 (injectable)	\$40-\$50 (injectable)	\$30-\$50 (injectable)	\$0	\$0	\$50 (injectable)	\$50 (injectable)	i	\$40-\$50 (injectable)	\$55 (injectable)	\$0	NA
Cost to patients to purchase nasal spray at nonparticipating pharmacies	\$175-\$200 (nasal)	\$150-\$180 (nasal)	\$160-\$200 (nasal)	\$170-\$200 (nasal)	\$0	\$0	\$200 (nasal)	\$180 (nasal)	i	\$150-\$190 (nasal)	\$200 (nasal)	\$0	NA

A letter "i" denotes insufficient information. Data sources are indicated by references and consultation with experts.

NA, no information was available; THN, take-home naloxone.

* Although there is no territorial program for THN distribution through pharmacies, the Indigenous majority population is eligible for coverage of both intranasal and injectable naloxone from pharmacies through the Non-Insured Health Benefits (NIHB) program. Of pharmacies in the territory, 83% (5/6) offer naloxone.


Conclusion

Inconsistent inclusion of community pharmacies as free THN distribution sites limits the accessibility of a crucial, life-saving tool. This disparity is seen across the country and is unfair to Canadians, as they deserve equal and universal health care, regardless of jurisdiction. Including community pharmacies as distribution sites will also provide opportunities for pharmacists to proactively screen for high-risk

patients, who already visit frequently and who may not self-identify as benefitting from possession of a naloxone kit. Indeed, a practice guideline in this issue of the journal recommends co-dispensing THN with *all* opioid prescriptions.³⁰ Future research is needed to evaluate the effects of pharmacist intervention in increasing uptake of THN kits, especially in high-risk populations and its impact as a harm reduction strategy. ■

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