Opioid Use, Related Harms, and Access to Treatment Among First Nations in Ontario

Annual Update 2013-2021

Chiefs of Ontario

ODPRN
Ontario Drug Policy Research Network

A report prepared by:

The Chiefs of Ontario

and

The Ontario Drug Policy Research Network

November 2023

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List of Acronyms

COO	Chiefs of Ontario
ODPRN	Ontario Drug Policy Research Network
LC	Leadership Council
OODO	Ontario Opioid Drug Observatory
CIHR	Canadian Institutes of Health Research
ICES	Institute for Clinical Evaluative Sciences
MOH	Ministry of Health
MLTC	Ministry of Long-Term Care
OH	Ontario Health
OUD	Opioid Use Disorder
OAT	Opioid Agonist Therapy
ORSC	Opioid Research Steering Committee
PTO	Political Territorial Organization
IRS	Indian Registry System

About the Research Partners

Chiefs of Ontario (COO)

The Chiefs of Ontario (COO) supports all First Nations in Ontario as they assert their sovereignty, jurisdiction, and their chosen expression of nationhood. The main objective of the Chiefs of Ontario office is to facilitate the discussion, planning, implementation, and evaluation of all local, regional, and national matters affecting the First Nations people in Ontario. The activities of the Chiefs of Ontario are mandated by the Chiefs-in-Assembly and guided by the Leadership Council (LC), which is comprised of the Grand Chiefs and representatives of the Association of Iroquois and Allied Indians; Grand Council Treaty #3; Nishnawbe-Aski Nation; Anishinabek Nation; Mushkegowuk Council; Mohawks of Akwesasne; Six Nations of the Grand River; Independent First Nations; and the Ontario Regional Chief.

For more information, visit www.chiefs-of-ontario.org.

Ontario Drug Policy Research Network (ODPRN)

The Ontario Drug Policy Research Network (ODPRN) is a province-wide network of researchers who provide timely, high-quality, relevant drug policy research to decision-makers and knowledge users across the province. The ODPRN houses the Ontario Opioid Drug Observatory (OODO), which is funded through a grant from the Canadian Institutes of Health Research (CIHR). This observatory aims to measure, assess and evaluate the use of prescription opioids, opioid-related toxicity, and opioid-related drug policy by leveraging large, population-level data sources. The ODPRN regularly uses data from ICES (formerly the Institute for Clinical Evaluative Sciences), an independent, non-profit research institute in Ontario, Canada to conduct this research.

For more information, visit www.odprn.ca.

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Acknowledgements

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The authors of this report would like to acknowledge the loss and trauma held by First Nations People in Ontario who have been impacted by the opioid crisis. The grief experienced by First Nations people who use opioids, as well as their families, friends, and communities, is vast and cannot be fully represented by quantitative data, nor can the struggle or triumph of seeking support and treatment for opioid use. The strength and resiliency of First Nations people who use opioids is highlighted through personal testimonies of those who have accessed community programs. Community-based approaches would not be possible without the hard work and dedication of First Nations peer support workers, harm reduction workers, Elders, traditional healers, and all healthcare professionals who are responding to the opioid crisis. We also acknowledge that many First Nations communities across Ontario have experienced the profound impacts of the opioid crisis, and yet have had challenges securing the funding needed to implement these types of programs and services. We hope that the data provided in this report will provide the impetus for federal, provincial, and municipal support for the development of additional First Nations-led, culturally appropriate policies, programs, and services that improve access to treatment and address the root causes of the opioid crisis in these communities.

Co-Principal Investigators for this report are Bernadette deGonzague (Chiefs of Ontario) and Tara Gomes (Ontario Drug Policy Research Network). The Chiefs of Ontario and the Ontario Drug Policy Research Network would like to thank the following individuals for their contribution to this report.

Opioid Research Steering Committee Members:

Affiliation	Representative(s)
Wikwemikong Unceded Indian Reserve	Shirley Williams (Elder)
Chiefs of Ontario	Emily King and Roseanne Sutherland
Nishnawbe-Aski Nation (NAN)*	Alexandra Calderon and Paula Vangel
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Kenora Chiefs Advisory (KCA)	Sherry Copenace
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Six Nations of the Grand River	Crystal Burning
Ontario First Nations Young Peoples Council	Janine Frogg and Paul Porter

* PTO: There are 4 provincial territorial organizations (PTO) in Ontario. PTOs are the primary support for political advocacy and secretariat services for First Nations. Representatives are subject to change throughout the course of the grant.

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How to Cite This Report

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Key Terms

Opioids:
Opioids are medications that are primarily used to relieve pain. Common prescription opioid pain relievers include oxycodone, hydromorphone, fentanyl, morphine, codeine, and other combination products (e.g. Tylenol® No. 2 and No. 3, Percocet®). Certain opioids can also be used for the treatment of opioid use disorder, as well as for treating cough and diarrhea. Opioids can be classified as immediate-release or long-acting. Immediate-release opioids have relatively short pain-relieving effects in the body, whereas long-acting opioids have relatively long pain-relieving effects in the body. Because of this, immediate-release opioids are often used for short-term pain relief (e.g. after surgery), and long-acting opioids are often used for the treatment of chronic pain.

Opioid Use Disorder:
Opioid use disorder (OUD) is a medical condition associated with cravings for opioids that can lead to chronic use of opioids and behaviors that may interfere with daily life activities. Opioid agonist therapy is often used as a first-line for the treatment of OUD.

Opioid Agonist Therapy:
Opioid agonist therapy (OAT) is the recommended treatment for people with OUD. Two of the most common types of OAT, and the types that we will examine in this report are methadone and Suboxone®.

- **Methadone** is an opioid that aids in the prevention of opioid withdrawal and cravings and can block the euphoric effect of other opioids.
- **Suboxone®** is most commonly available as the combination product buprenorphine/naloxone which is taken orally and has a “ceiling effect” that helps to prevent overdose.
- **Sublocade®** is a new form of injectable, extended-release buprenorphine (commonly known by its brand name Sublocade®) and was approved by Health Canada in February 2020. People must first be stabilized on Suboxone® before beginning this treatment.

Harm Reduction:
Harm reduction refers to evidence-based policies, programs, and services that aim to reduce the harm related to substance use and other high risk activities without requiring the person to stop using substances. They range from safer substance use to abstinence and recognize substance use as a complex multi-faceted issue that aims to minimize the harmful effects of substance use. It is grounded in compassionate care and acting with a trauma-informed lens to take care of each other with kindness, and acceptance. Harm reduction measures recognize drug use as a complex issue and aim to minimize the harmful effects of drug use without stigma. It is about meeting people where they are at, providing resources to keep them alive, and protecting the "sacred breath of life" (Thunderbird Partnership foundation 2023).

Opioid-Related Toxicity:
Opioid-related toxicity occurs when the body receives too much of an opioid or a mix of opioids and other substances like alcohol or benzodiazepines. Opioids affect the part of the brain that controls breathing. Opioid-related toxicity can cause breathing to slow which can lead to loss of consciousness and sometimes death.

- **Naloxone** is a medication that can be accessed without a prescription and can be administered to an individual experiencing symptoms to reverse the effects of opioid-related toxicity and restore normal breathing.

Benzodiazepines:
Benzodiazepines are sedative and anti-anxiety medications that are widely prescribed for the treatment of anxiety, sleep disorders, certain forms of epilepsy, and alcohol withdrawal. Currently, 14 different benzodiazepines are approved for use in Canada, with lorazepam (Ativan®), alprazolam (Xanax®) and diazepam (Valium®), being among the most frequently prescribed drugs within this class. Benzodiazepines that are not approved for medical use in Canada, such as etizolam, are also increasingly being found in the unregulated drug supply.

Unregulated Drugs:
Substances with unknown contents and potency may contain multiple unexpected substances which can lead to toxicity-related deaths. These include any types of controlled substances that can only be obtained by prescription or are illegal and not approved for human medical use.

Background

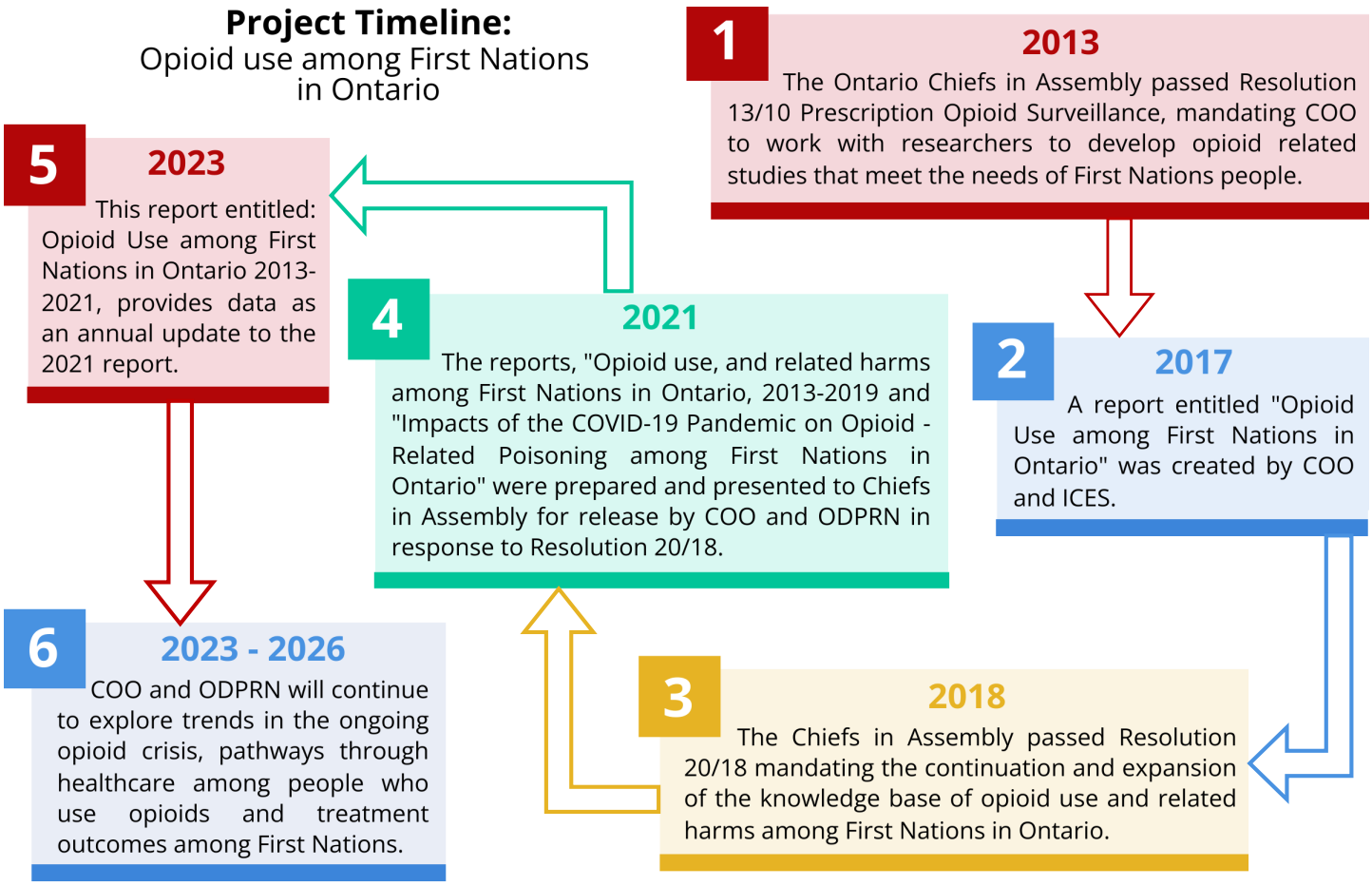
Opioid use and related harms have affected people and communities across Canada and have become a national public health crisis. Rates of opioid-related harms are consistently higher among First Nations people, which is a result of trauma from colonization and residential schools, the erosion and destruction of First Nation languages and culture, and continued barriers faced when accessing health care services (Bombay et al, 2014). Moreover, the overdose crisis has worsened across Canada during the COVID-19 pandemic, with the first joint COO-ODPRN report demonstrating that opioid-related deaths among First Nations people increased by 132% (March 17, 2020 – December 31, 2021) compared to before the pandemic (March 17, 2019 – December 31, 2019) (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021). Several factors have been cited as influencing rising opioid-related harms during the pandemic, including an increasingly unpredictable unregulated drug supply, increased isolation, stress, anxiety, and challenges in accessing services for people who use substances (Government of Canada, 2022). Further, opioid use data must be situated and understood within the context of colonization, racism, lack of access to quality healthcare services, and the continued trauma from residential schools and the child welfare system (Phillips-Beck, 2020).

Unfortunately, despite the disproportionate impacts of the increasing drug toxicity crisis among First Nations people, rapid access to up-to-date information about prescription and unregulated opioid use, access to treatment, and opioid-related harms among First Nations people at the provincial and national levels is challenging. This creates major barriers for community members and policymakers trying to generate evidence-based, culturally informed, timely responses to this crisis.

Over the past several years, Chiefs of Ontario, the Ontario Drug Policy Research Network, and ICES have been collaborating to study opioid prescribing, access to treatment, and opioid-related harms among First Nations people in Ontario. In 2013, the Chiefs in Assembly passed Resolution 2013/10, Prescription Opioid Surveillance, which mandated COO to begin this work and led to the 2017 study, Opioid Use among First Nations in Ontario. In response, Resolution 20/2018 supported the continuation of this collaboration and led to the submission of a CIHR grant, resulting in the creation of two reports in 2021 entitled Opioid Use, Related Harms, and Access to Treatment among First Nations in Ontario and Impacts of the COVID-19 Pandemic on Opioid-Related Poisoning among First Nations in Ontario (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021). These reports highlight the increase in opioid-related toxicity during the COVID-19 pandemic and the urgent need to address the opioid crisis which is disproportionately impacting First Nations. In particular, the report stresses the importance of expanding access and reducing barriers to opioid treatment and harm reduction vices that are essential for First Nations people and communities. COO and ODPRN will be providing regular updates to these reports to ensure that communities have access to the data that they need to make informed decisions about programs and services necessary to support healing.

This research is guided by an Opioid Research Steering Committee, which consists of an Elder and First Nations representatives from the Political Territorial Organizations, Independent First Nations, Six Nations of the Grand River, and the Ontario First Nations Young Peoples' Council. We worked in collaboration with the Opioid Research Steering Committee to ensure that the indicators included in this report are relevant and address the needs of First Nations people. The Steering Committee continues to guide the research questions, approaches, and interpretations of the data, ensuring that the research meets the needs of the community and is culturally relevant. It is through discussion with the Steering Committee that we become aware of factors of particular importance to communities that do not always come to light in the quantitative data such as the need for more awareness about treatment and harm reduction options and better access to, and information about, newer treatments such as Sublocade®.

The timeline below outlines our progress, beginning in 2013 and continuing into the future:



The current report builds on the results reported in the 2021 report Opioid Use, Related Harms, and Access to Treatment among First Nations in Ontario, 2013-2019 which was developed by COO and ODPRN. Using data up to the end of 2021, we examined the trends and patterns in opioid prescribing, access to treatment, and opioid-related toxicity among First Nations in Ontario.

The main objective of this report is to provide an annual update describing trends and patterns in opioid use to ensure that First Nations people and communities have accurate data on the following indicators:

1. Prescription opioid use for pain and combined prescribing of benzodiazepines
2. Use of OAT to treat OUD
3. Emergency department visits and hospital admissions for opioid-related toxicity
4. Deaths due to opioid-related toxicity

Where appropriate, we also compare these indicators between First Nations and non-First Nations people in Ontario.

Considering the recent changes in the landscape of OUD as described above, some indicators in previous reports are no longer relevant and are not included here, as recommended by the Opioid Research Steering Committee. The indicators that were removed include:

1. Type of opioid used to treat pain (immediate-release opioids vs. long-acting opioids)
2. Percent of opioid recipients who were prescribed a high daily opioid dose
3. Number of prescribers of OAT

Methods

Overview and Data Sources

The project sample includes all residents of Ontario including registered First Nations people living in and out of First Nations communities. To conduct this research, several databases held at ICES, an independent, non-profit research institute in Ontario, were used to describe trends and patterns in opioid prescribing and opioid-related harms among First Nations people in Ontario. To identify First Nations people, we used the Indian Registry System, which captures information on all registered (Status) First Nations people in Canada. We linked people in the Indian Registry System to the Registered Persons Database to identify First Nations people residing in Ontario, and to determine their demographic characteristics, such as age and sex. We identified opioid and benzodiazepine prescriptions dispensed in Ontario using the Narcotics Monitoring System. The Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System and Discharge Abstract Database were used to capture emergency department visits and hospitalizations for opioid-related toxicity, respectively. The Drug and Drug/Alcohol Related Death Database, which is sourced from the Office of the Chief Coroner/Ontario Forensic Pathology Services and contains data from completed investigations of confirmed opioid-related toxicity, was used to identify people who died due to opioid-related toxicity. These databases were linked using unique, encoded identifiers and analyzed at ICES using SAS Enterprise Guide Version 7.1.

We presented indicators of opioid prescribing and opioid-related harm among First Nations people overall and compared them between First Nations people residing within and outside of First Nations communities. For each year of the study period (2013-2021), residence within and outside of First Nations communities was determined using address information provided during healthcare encounters (e.g., emergency department visits or hospitalizations). If a person did not have a healthcare encounter in the year of interest, then their postal code listed in the Registered Persons Database was used to define residence within or outside of First Nations communities.

Figure 1. Overview of methods used to identify First Nations people living within and outside of First Nations communities

We also compared indicators of opioid prescribing and opioid-related harm between First Nations and non-First Nations people in Ontario. Non-First Nations people in Ontario were defined as people who were in the Registered Persons Database but not in the Indian Registry System.

In accordance with ICES' obligations under the Personal Health Information Protection Act, its commitments in data sharing agreements, and in order to minimize the risk of re-identification, ICES prohibits the publication of small counts (less than 6) in any report. Accordingly, we have taken steps to avoid publishing small counts in this report by either not presenting the data, or by presenting the percentage or rate that reflects the midpoint of the small count.

We calculated several indicators of opioid prescribing and opioid-related harm. We examined trends over time and by calendar year or quarter. We also examined the demographic characteristics of people who were prescribed opioids or experienced an opioid-related toxicity in calendar year 2021 (defined as January 1 to December 31), the most recent calendar year for which data were available. Detailed descriptions of each indicator are provided below. The key findings for each indicator begin on page 15.

Indicators

We calculated several indicators of opioid prescribing and opioid-related harm. We examined trends over time and by calendar year or quarter. We also examined the demographic characteristics of people who were prescribed opioids or experienced an opioid-related toxicity in calendar year 2021 (defined as January 1 to December 31), the most recent calendar year for which data were available. Detailed descriptions of each indicator are provided below. The key findings for each indicator begin on page 15.

Prescription Opioids for the Treatment of Pain

Note: Opioids used for the treatment of pain were defined as any opioid that was not indicated as a cough suppressant, as an antidiarrheal medication, or for the treatment of opioid use disorder. These distinctions were made by assessing the drug/product identification number and name for each opioid approved for use in Ontario. Opioids that are used for pain include several drugs with different formulations and routes of administration.

People who were prescribed opioids for pain

- Numerator: Total number of people who received a prescription opioid for pain
- Denominator: Total population
- Percent was calculated as numerator / denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021 only
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (0 to 14, 15 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

People who started/received a new prescription of opioids for pain

- Numerator: Total number of people who started/received a new prescription of opioids to treat pain. People starting a new prescription of opioids to treat pain were defined as those who received prescription opioids for the treatment of pain in the year of interest and had no prescription opioids in the year before.
- Denominator: Total population
- Percent was calculated as numerator / denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021

- Stratification:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (0 to 14, 15 to 24, 25 to 44, 45 to 64, 65+
  - Sex (female, male)

People who were prescribed opioids and benzodiazepines at the same time

- Numerator: Total number of people who received a prescription for benzodiazepine while being prescribed opioids for pain. This was defined as people who were dispensed both medications with overlapping periods of use based on the days' supply listed on each of the prescription claims.
- Denominator: Total number of people who received any type of prescription opioid used to treat pain
- Percent was calculated as numerator/ denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (0 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

Opioid Agonist Therapy (OAT) for the Treatment of Opioid Use Disorder (OUD)

Note: Children aged 14 or younger were excluded from these indicators due to privacy considerations.

People who were prescribed OAT

- Numerator: Total number of people who received a prescription for OAT
- Denominator: Total population aged 15 years plus
- Percent was calculated as numerator/ denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 202
  - Calendar year 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (15 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

People who started/received a new prescription of OAT

- Numerator: Total number of people who started a new prescription of OAT. People starting a new prescription OAT was defined as those who received OAT in the year of interest and had not received any prior OAT in the 30 days before.
- Denominator: Total population aged 15 years plus
- Percent was calculated as numerator/ denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021
- Stratification:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (15 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

People who were prescribed OAT, by type of medication

- Numerator: Total number of people who received a prescription medication for OAT, by type of OAT (methadone, buprenorphine)
- Denominator: Total population aged 15 years plus
- Percent was calculated as numerator / denominator x 100
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (15 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

Hospital Visits for Opioid-Related Toxicity

Note: This data captured opioid-related toxicity treated during emergency department visits and hospital admissions, and does not capture data from toxicity that were treated outside of a hospital (e.g., in nursing stations, or by paramedics or bystanders). Toxicity-related incidents included in this indicator could have come from any source of opioids (i.e., both prescribed and non-prescribed opioids).

Hospital Visits for Opioid-Related Toxicity

- Numerator: Total number of emergency department visits and hospital admissions for an opioid-related toxicity
- Denominator: Total population
- Rate was calculated as numerator / denominator x 10,000
- Time Frame:
  - Calendar quarters 2013 to 2021
  - Calendar year 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (0 to 24, 25 to 44, 45 to 64, 65+)
  - Sex (female, male)

People Who Died of Opioid-Related Toxicity

Note: Toxicity-related deaths included in this indicator could have come from any source of opioids (i.e., both prescribed and non-prescribed opioids).

Rate of deaths due to opioid-related toxicity

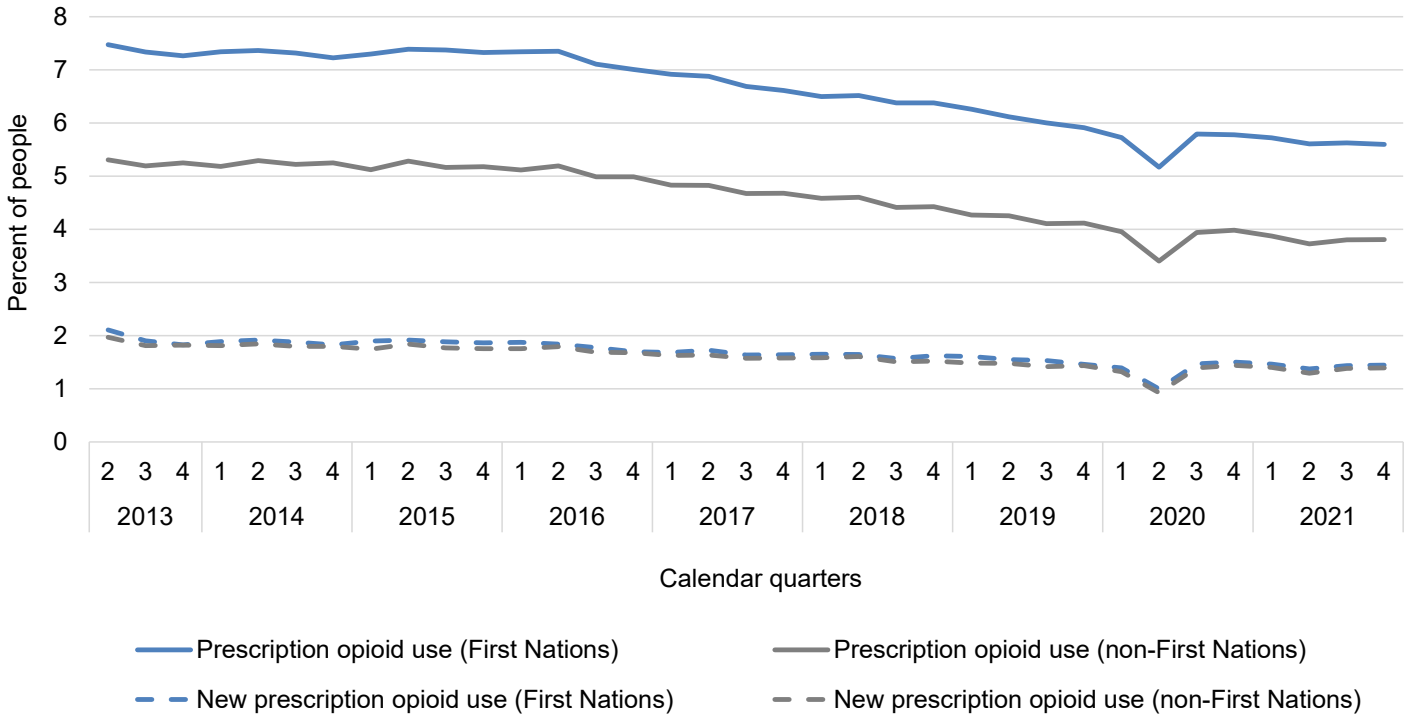
- Numerator: Total number of people who died due to an opioid-related toxicity
- Denominator: Total population
- Rate was calculated as numerator / denominator x 10,000
- Time Frame:
  - Calendar years 2013 to 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)
  - Age (0 to 24, 25 to 44, 45+)
  - Sex (female, male)

Opioid-related deaths involving fentanyl, stimulants, benzodiazepines, or alcohol

- Numerator: Total number of opioid-related deaths in which opioids and other substances (i.e., fentanyl, stimulants, benzodiazepines, alcohol) were detected
- Denominator: Total number of people who experienced an opioid-related death
- Percent was calculated as numerator / denominator x 100
- Time Frame:
  - Calendar years 2013 to 2021
- Stratifications:
  - First Nations and non-First Nations people
  - Residence within or outside of First Nations communities (among First Nations people only)

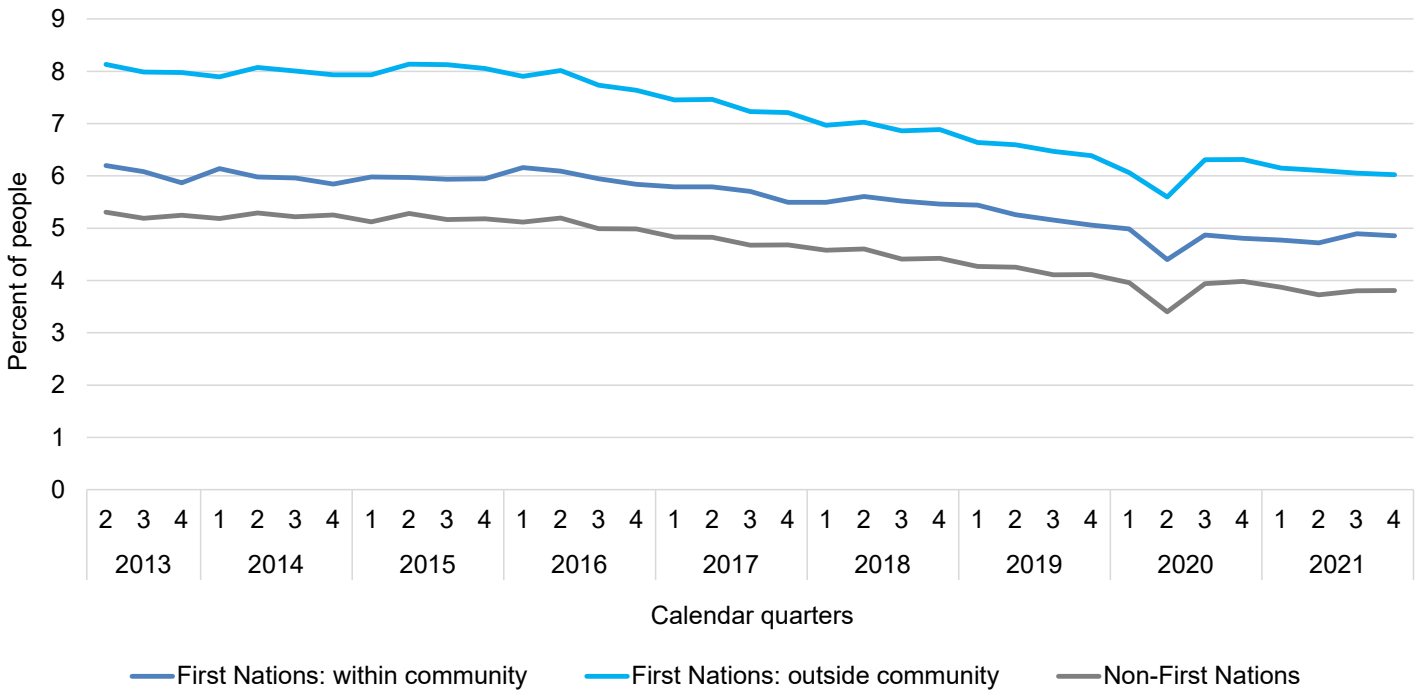
Key Findings

Figure 2: **Percent of people who were prescribed opioids for pain, from 2013 to 2021**



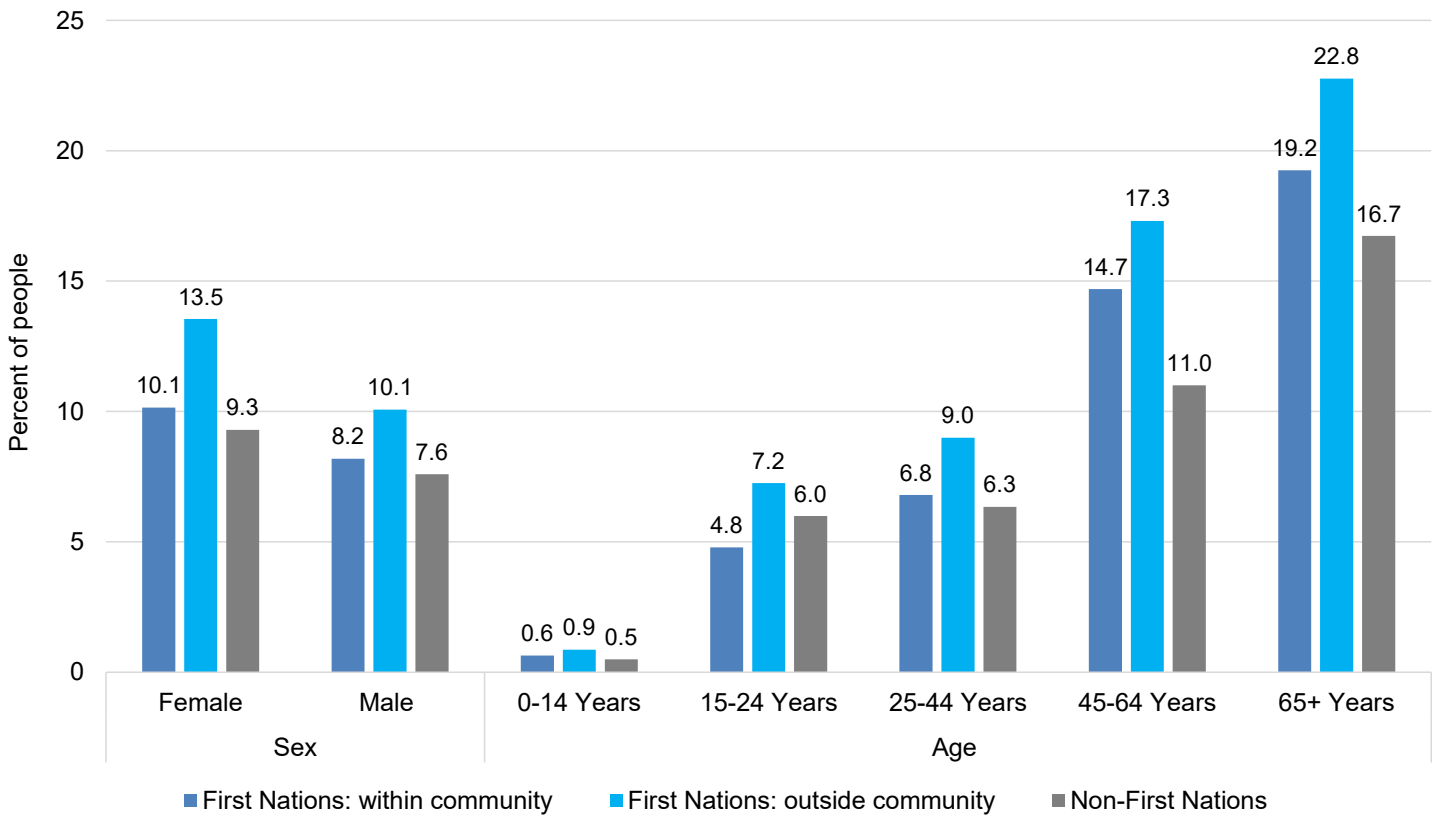
- In general, quarterly rates of all prescription opioid use for pain declined among both First Nations and non-First Nations people from 2013 to 2021; however, First Nations people were consistently prescribed opioids for pain more often than non-First Nations people throughout this time. There was a short-term decrease in prescription opioid use for pain in the second quarter of 2020 across all populations, which aligns with the beginning of the COVID-19 pandemic where interruptions in medication dispensing were observed across Ontario.
- Percentages of new prescription opioid use for pain were declining, and very similar for First Nations and non-First Nations throughout the study period. In 2021, 10.9% of First Nations people were prescribed opioids for pain compared to 8.5% of non-First Nations people. In the same year, 5.7% of First Nations people and 5.4% of non-First Nations people started a new course of prescription opioids for pain.

Figure 3: **Percent of people who were prescribed opioids for pain by location, from 2013 to 2021**



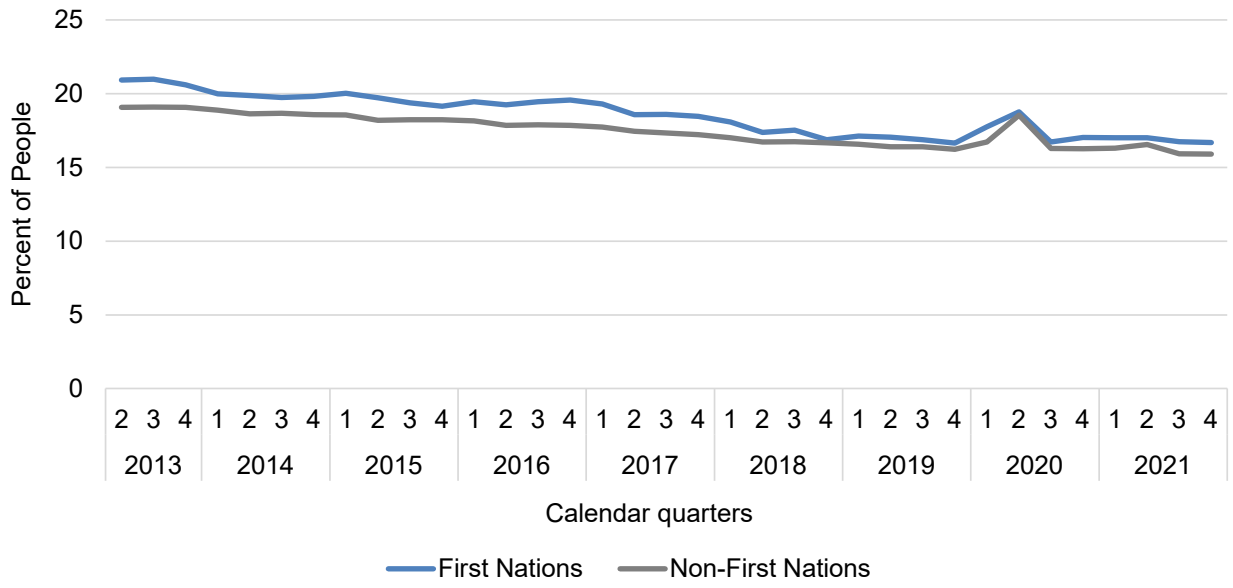
- Among First Nations people, those living outside of First Nations communities generally had a higher rate of prescription opioid use for pain compared to those living within First Nations communities; however, differences in prescription opioid use between First Nations people living within and outside of community have reduced slightly over time.
- Despite the faster decline in opioid prescribing among First Nations people living outside of community, rates in 2021 were still higher (11.8%) than among First Nations people living within community (9.1%) and non-First Nations people (8.5%).

Figure 4: **Percent of people who were prescribed opioids for pain in 2021, by sex and age**



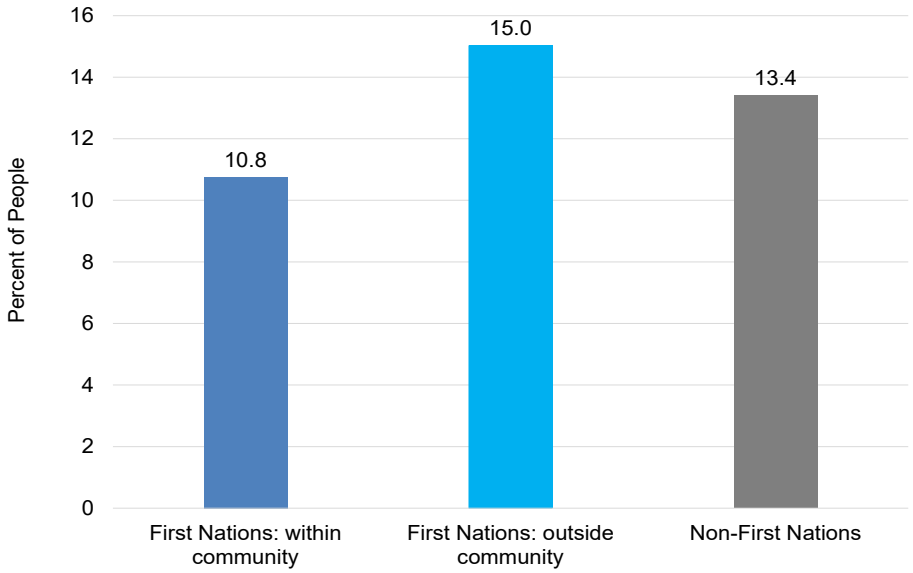
- In general, opioid use in 2021 was higher among females compared to males in all populations studied. First Nations females living outside of community had the highest rates of opioid use for pain (13.5%) compared to First Nations males (10.1%).
- The percent of people using prescription opioids for pain increased with age in all populations that were studied.
- Among First Nations people, opioid use continues to be higher among those living outside of (versus within) First Nations communities in each age and sex category. Over 1 in 5 First Nations people aged 65 years and older who were living outside of community were prescribed an opioid for pain in 2021 (22.8%).

Figure 5: **Percent of people who were prescribed benzodiazepines while being treated with opioids, from 2013 to 2021**



- Canadian national guidelines for prescribing opioids to manage chronic non-cancer pain recommend avoiding using opioids and benzodiazepines together whenever possible, as taking these medications together can increase the risk of harms like toxicity events (Busse et al., 2017).
- The prescription of opioids and benzodiazepines together has been falling over time among both First Nations and non-First Nations people and is similar between these two groups.

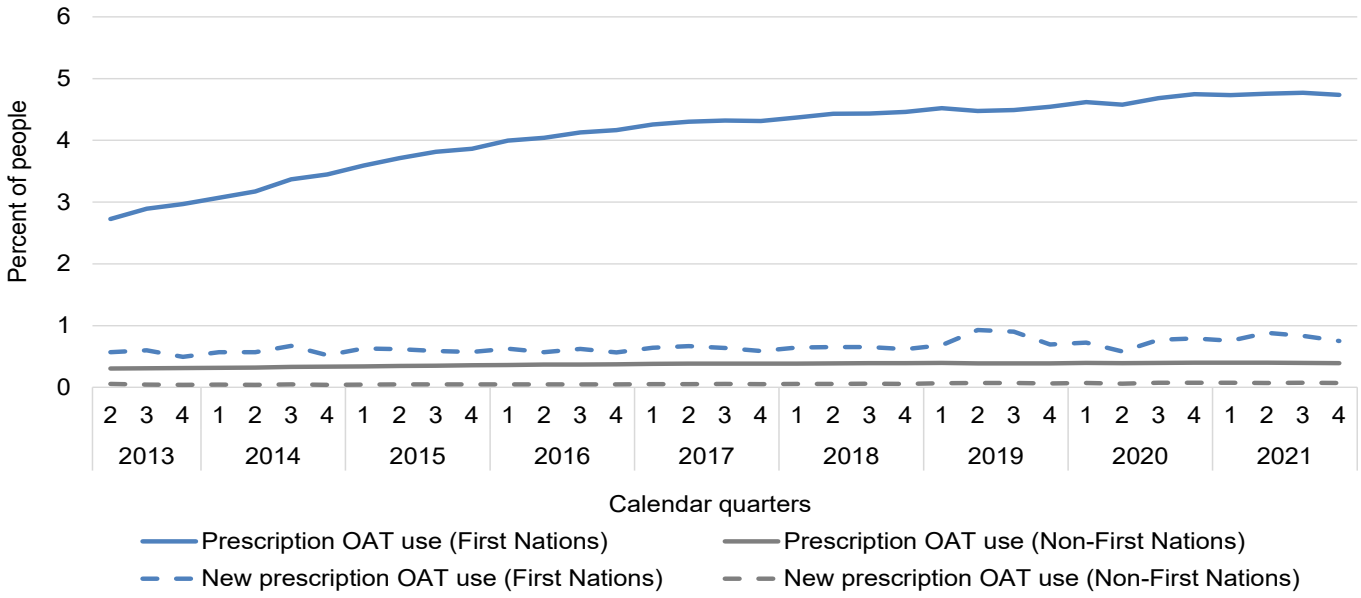
Figure 6: **Percent of people who were prescribed benzodiazepines while being treated with opioids in 2021, by location**



- In 2021, combined use of opioids and benzodiazepines was lowest among First Nations people living within communities (10.8%), and highest among First Nations people living outside of communities (15.0%), with 13.4% of non-First Nations people prescribed these two medications together (Figure 6).

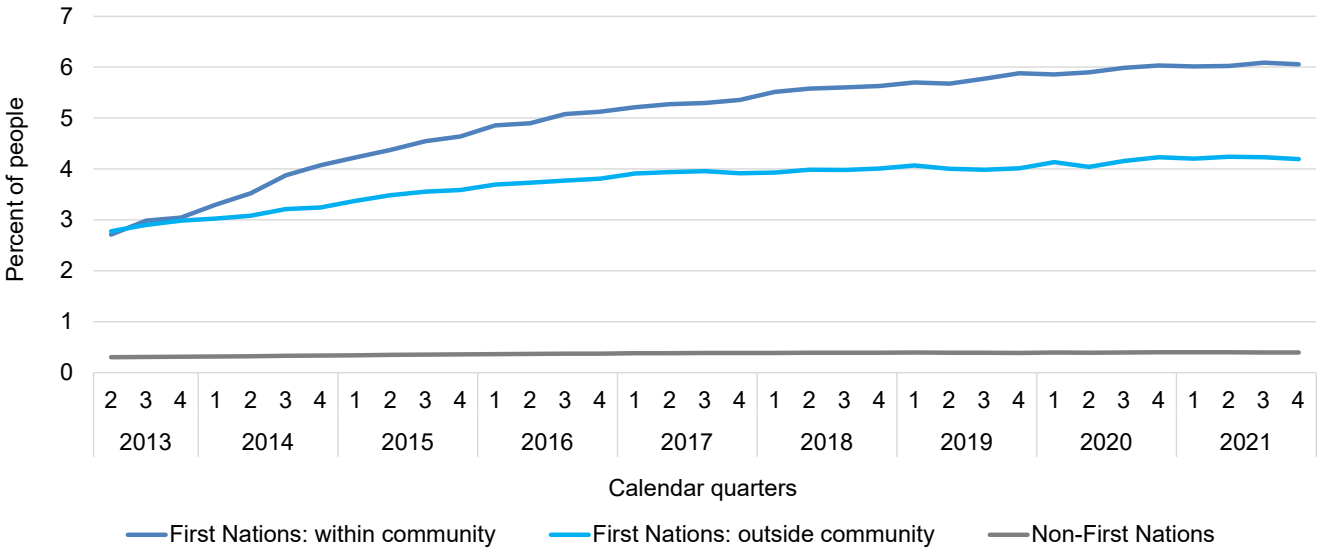
Use of Opioid Agonist Therapy (OAT) for the treatment of Opioid Use Disorder (OUD)

Figure 7: **Percent of people who were prescribed opioid agonist therapy for an opioid use disorder, 2013 to 2021**



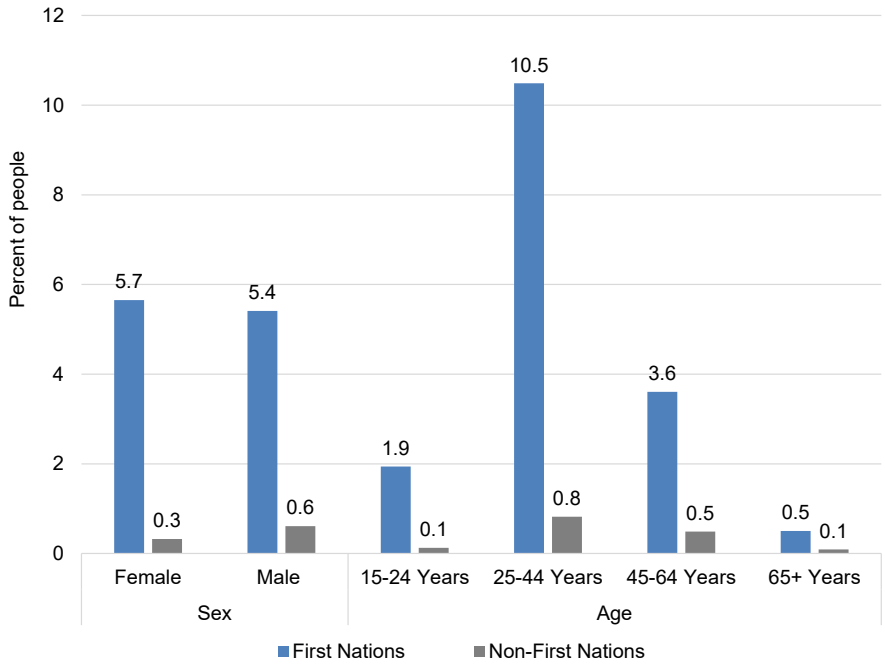
- The percent of people receiving OAT increased in Ontario from 2013 to 2021 across both First Nations and non-First Nations people but was generally much higher among First Nations people compared to non-First Nations people (Figure 7). In April – June 2013, 2.7% of First Nations people received OAT, which nearly doubled to 4.7% in the last 3 months of 2021. In contrast, among non-First Nations people, the percentage of people receiving OAT rose from 0.3% to 0.4% over this same period.
- In 2021, prescription OAT use was more than 10 times higher among First Nations people (5.5%; N=8,365 people) compared to non-First Nations people (0.5%; N=60,085 people). Similarly, in 2021, 2.3% of First Nations people started OAT to treat an OUD, compared to 0.2% of non-First Nations.

Figure 8: **Percent of people who were prescribed opioid agonist therapy by location, from 2013 to 2021**



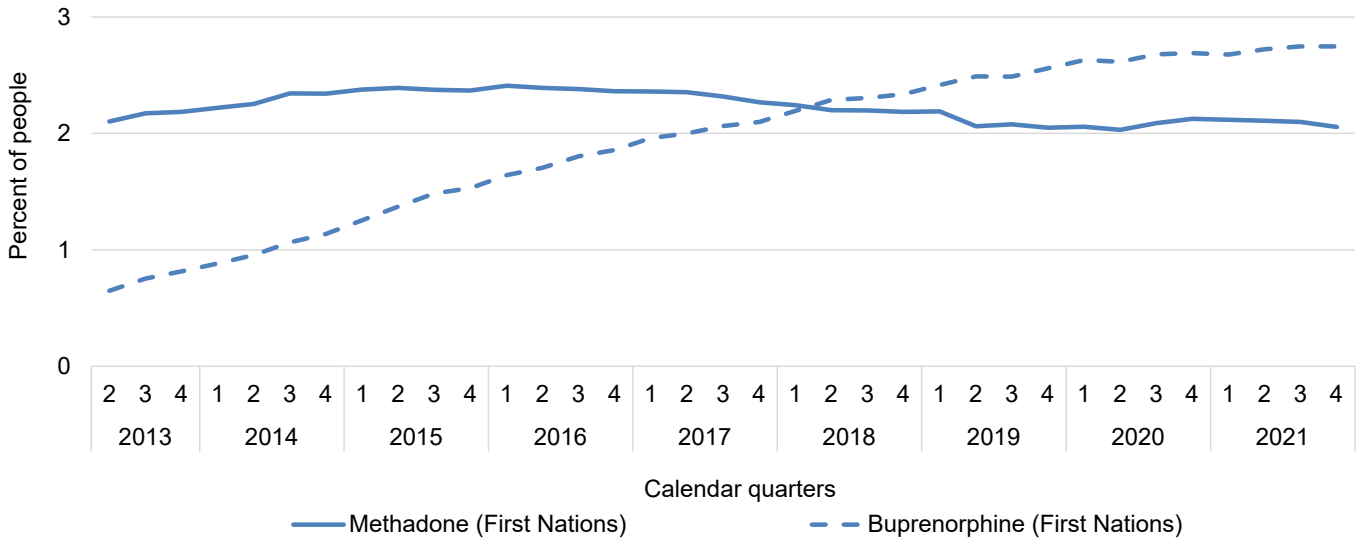
- In 2013, rates of prescription OAT were very similar for First Nations people living within and outside of community but quickly begin to diverge with a more pronounced increase for First Nations living within community.
- In the last 3 months of 2021, 6.1% of First Nations within community and 4.2% of First Nations outside of community were prescribed OAT.

Figure 9: **Percent of people who were prescribed opioid agonist therapy, by sex and age, in 2021**



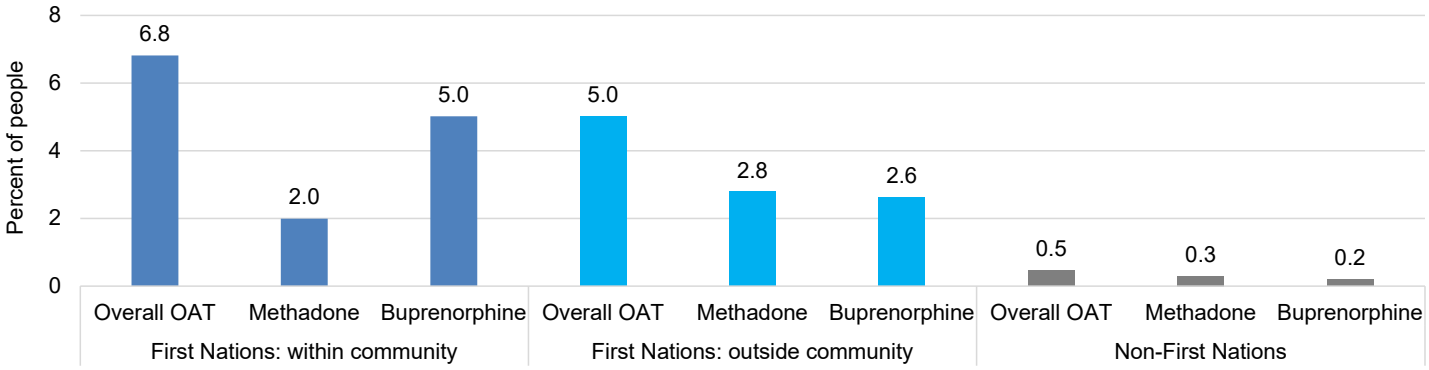
- Among First Nations people, a slightly higher percentage of females (5.7%) were prescribed OAT in 2021 compared to males (5.4%). In contrast, among non-First Nations people, the rate of OAT use was approximately two times higher among males (0.6%) compared to females (0.3%).
- Among both First Nations and non-First Nations people, OAT use was highest among people aged 25 to 44 in 2021, although this was more pronounced among First Nations people (10.5% vs 0.8%).

Figure 10: **Percent of people who were prescribed opioid agonist therapy, by type, from 2013 to 2021**



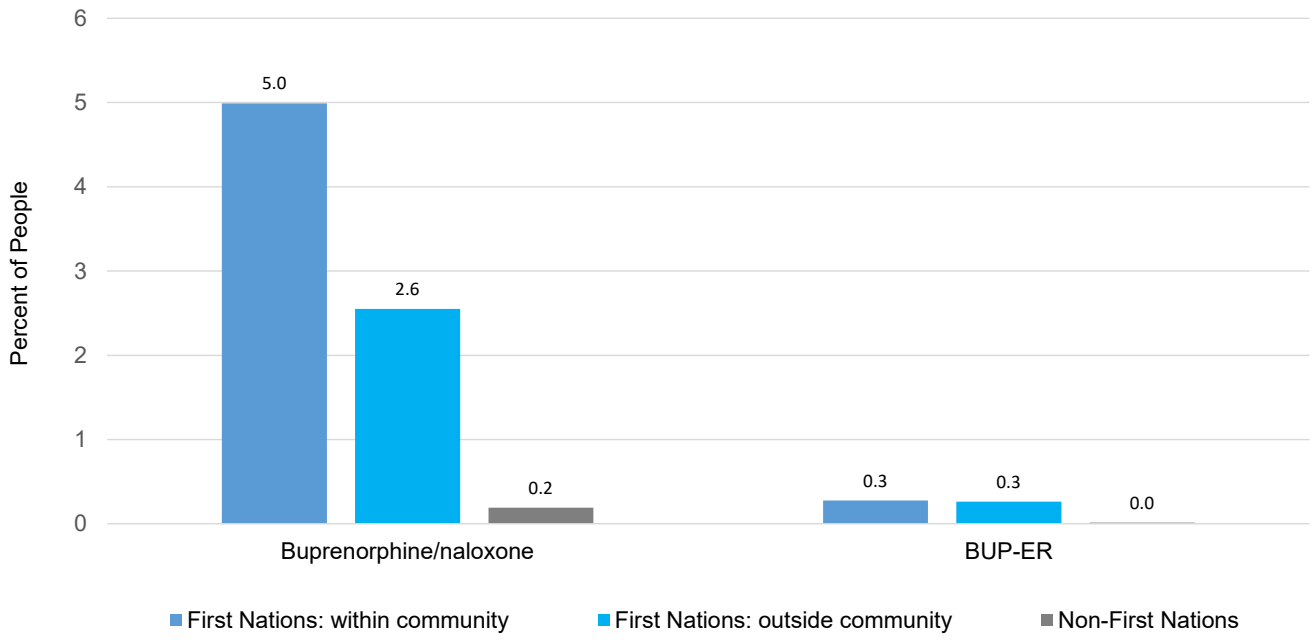
- The type of OAT prescribed has changed among First Nations people considerably over time. In early 2013, methadone was the most commonly prescribed form of treatment; however, methadone use started to decline in 2017, and buprenorphine use has been growing since 2013. In 2018, buprenorphine became the most commonly used treatment among First Nations people. By 2021, 3.3% of First Nations people were prescribed buprenorphine (primarily Suboxone® or Sublocade®), and 2.5% were prescribed methadone.

Figure 11: **Percent of people who were prescribed opioid agonist therapy in 2021, by location and type**



- In 2021, a similar percentage of First Nations people living outside of community were prescribed methadone (2.8%) and buprenorphine (2.6%). In contrast, among First Nations people living within communities, buprenorphine (e.g., Suboxone® or Sublocade®) was much more frequently prescribed (5.0% vs. 2.0% prescribed methadone).

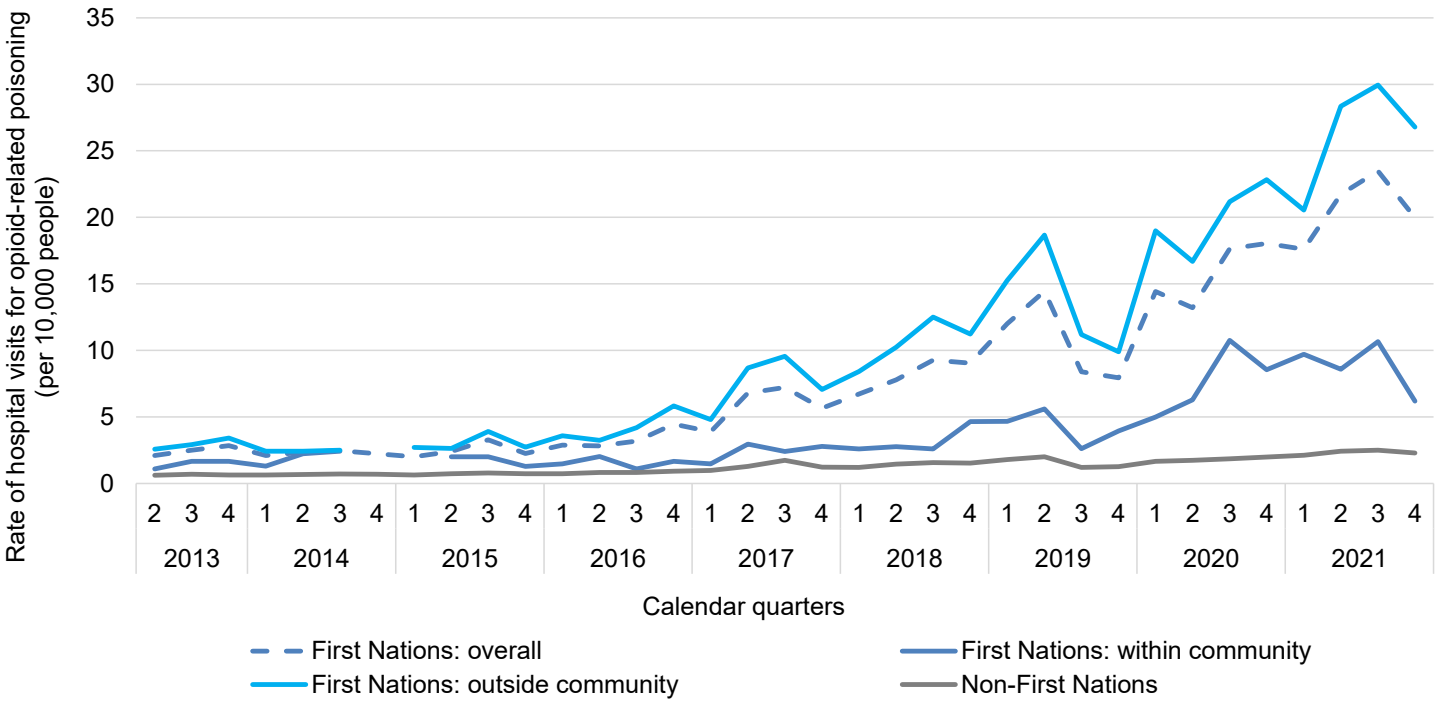
Figure 12: **Percent of people who were prescribed Suboxone® or Sublocade® for opioid use disorder by location in 2021.**



- An injectable form of buprenorphine, called Sublocade®, was approved by Health Canada in 2020. In 2021, the oral form (Suboxone®) was still the most commonly prescribed type of buprenorphine among First Nations people living within (5.0%; N=2,344) and outside (2.6%; N=2,610) of communities. However, 0.3% of First Nations people living within (N=130 people) and outside of community (N=270 people) were prescribed the new, injectable form (Sublocade®).

Hospital Visits for Opioid-Related Toxicity

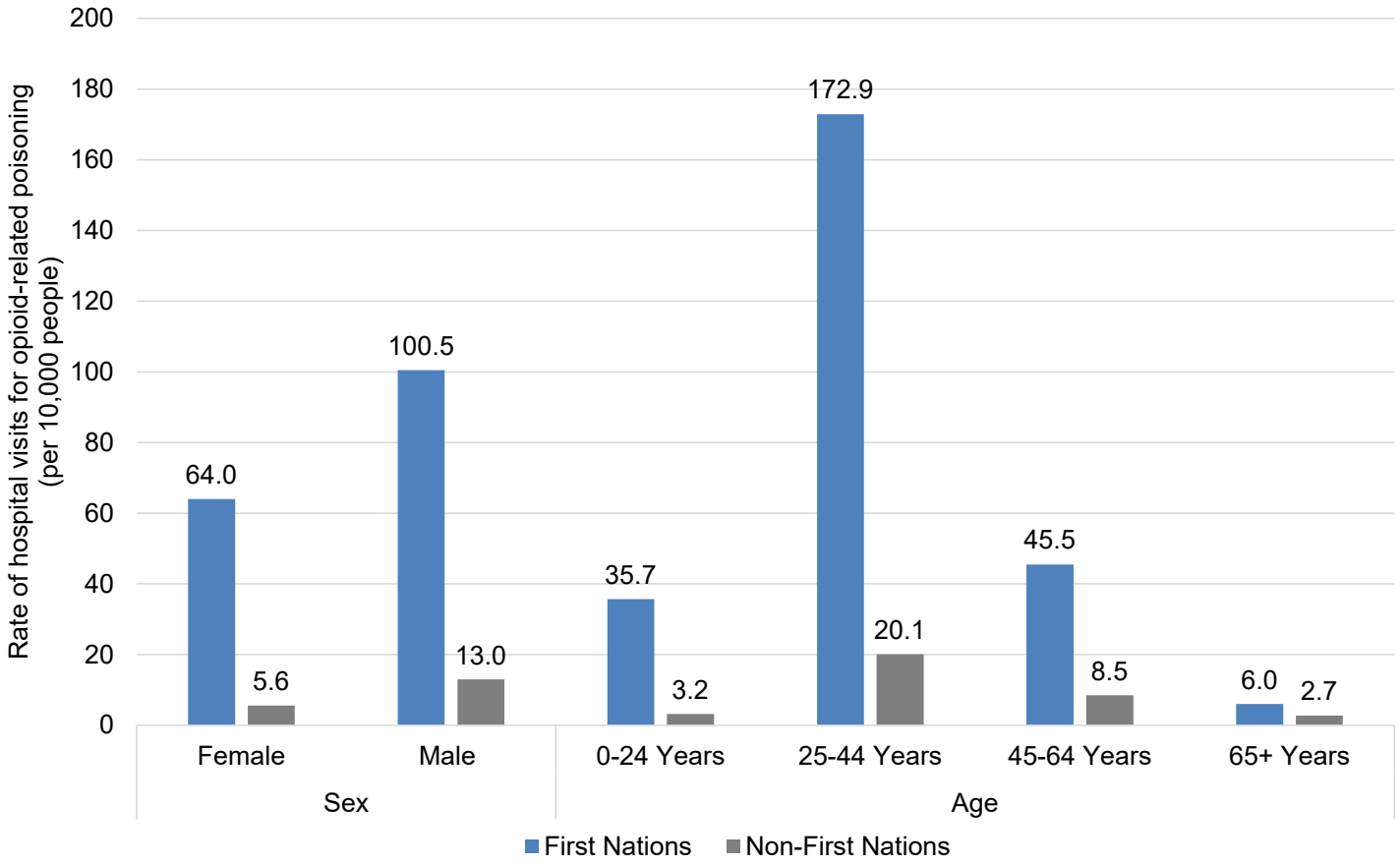
Figure 13: **Rate of hospital visits for opioid-related toxicity, from 2013 to 2021**



Note: These data capture opioid-related toxicity treated during emergency department visits and inpatient hospital admissions, but does not capture data from opioid-related toxicity that are treated outside of a hospital (e.g., in nursing stations, or by paramedics or bystanders with Naloxone).

- The rate of hospital visits for opioid-related toxicity remained relatively stable among all populations between 2013 and 2015. Starting in 2016, the rate of hospital visits for opioid-related toxicity increased among all populations. The increase was most rapid among First Nations people compared to non-First Nations people, particularly those living outside of First Nations communities (Figure 13). Importantly, during the first 3 months of 2018 (Q1) and the last 3 months of 2021 (Q4), the rate of hospital visits for opioid-related toxicity more than doubled among First Nations people living within First Nations communities (2.6 to 6.2 per 10,000) and more than tripled among First Nations people living outside of First Nations communities (8.4 to 26.8 per 10,000).

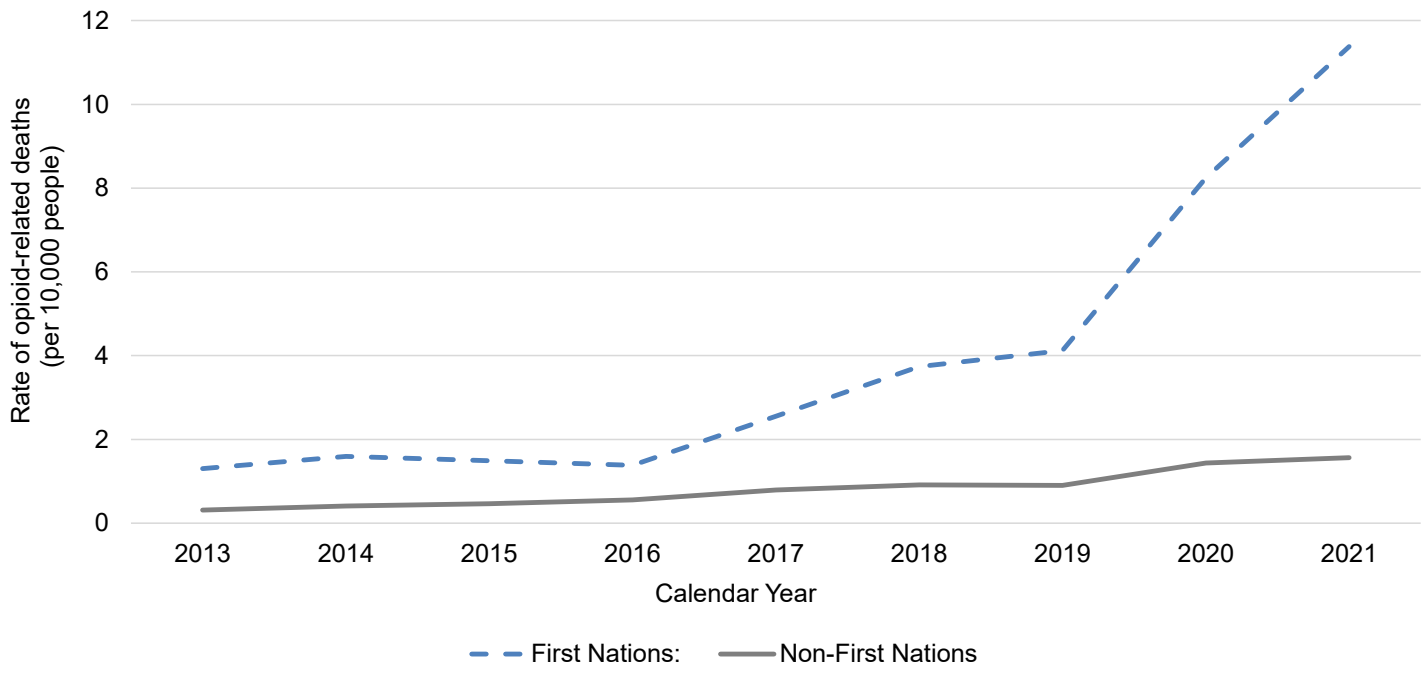
Figure 14: **Rate of hospital visits for opioid-related toxicity in 2021, by sex and age**



- In 2021, the annual rate of hospital visits for opioid-related toxicity among First Nations people reached 82.5 per 10,000 First Nations people (N=1,377 people), which was nine-fold higher than the rate among non-First Nations people (9.2 hospital visits per 10,000 people). The annual rate of hospital visits for opioid-related toxicity was highest for First Nations people living outside of First Nations communities (105.4 per 10,000; N=1,175 people) compared to First Nations people living within First Nations communities (35.1 per 10,000 people; N=188 people).
- In general, rates of opioid-related toxicity are higher among males compared to females, with rates reaching 100.5 per 10,000 among First Nations males and 13.0 per 10,000 among non-First Nations males. However, differences between males and females were less pronounced among First Nations people.
- In both populations, people between the ages of 25 and 44 experienced the highest rates of hospital visits for opioid-related toxicity compared to other age groups (172.9 per 10,000 First Nations and 20.1 per 10,000 non-First Nations people).

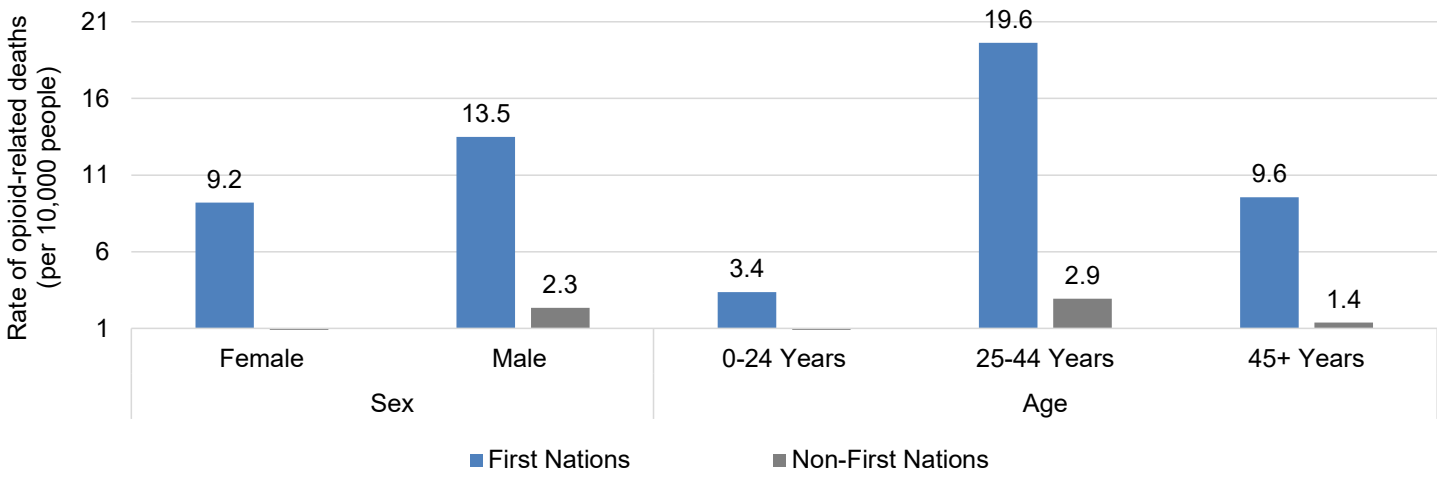
People Who Died from Opioid-Related Toxicity

Figure 15: **Rate of opioid-related deaths from 2013-2021**



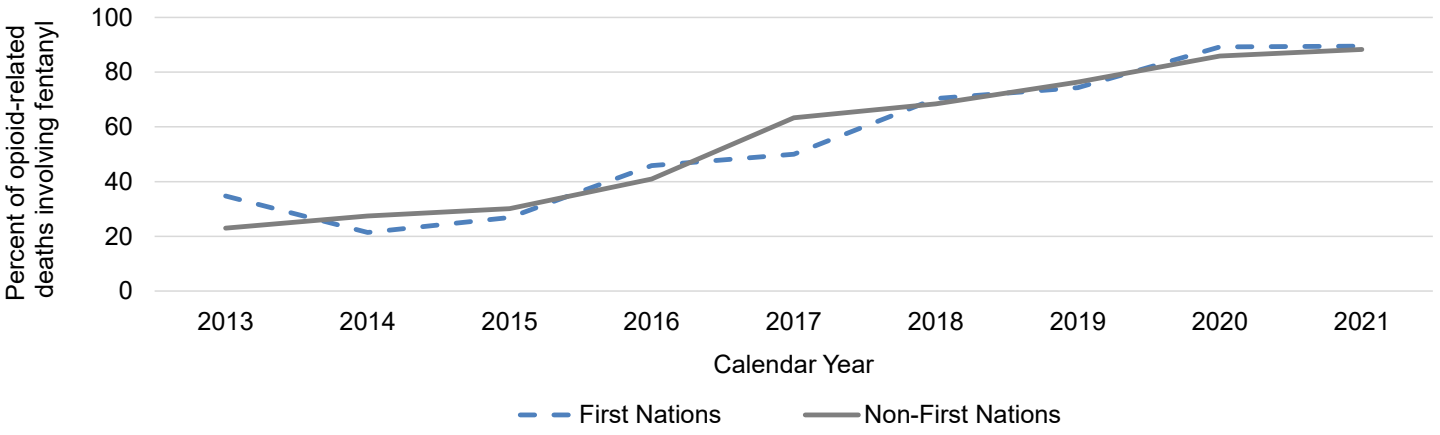
- Similar to the rates of hospital visits for opioid toxicity, in 2016 and 2017 the rate of opioid-related deaths among First Nations people began to rise, with a rapid increase in deaths beginning in 2020. Between 2019 and 2021, the annual rate of opioid-related deaths among First Nations people nearly tripled, increasing from 4.1 to 11.4 per 10,000 population (Figure 15).
- Although similar increases were seen among First Nations and Non-First Nations people, the rates of opioid-related deaths were much higher and increasing more rapidly among First Nations people. In 2021, the rate of opioid-related deaths was more than 7 times higher among First Nations (11.4 deaths per 10,000 people; N=190 people) compared to non-First Nations people (1.6 per 10,000 people; N=2,417 people).
- The initial increase in opioid-related deaths in 2016 was driven by the introduction of fentanyl to the unregulated drug supply, while community border closures and lockdowns at the onset of the COVID-19 pandemic were likely contributing factors to the rapid increase in opioid-related harms among First Nations people in 2020.

Figure 16: **Rate of opioid-related deaths in 2021, by sex and age**



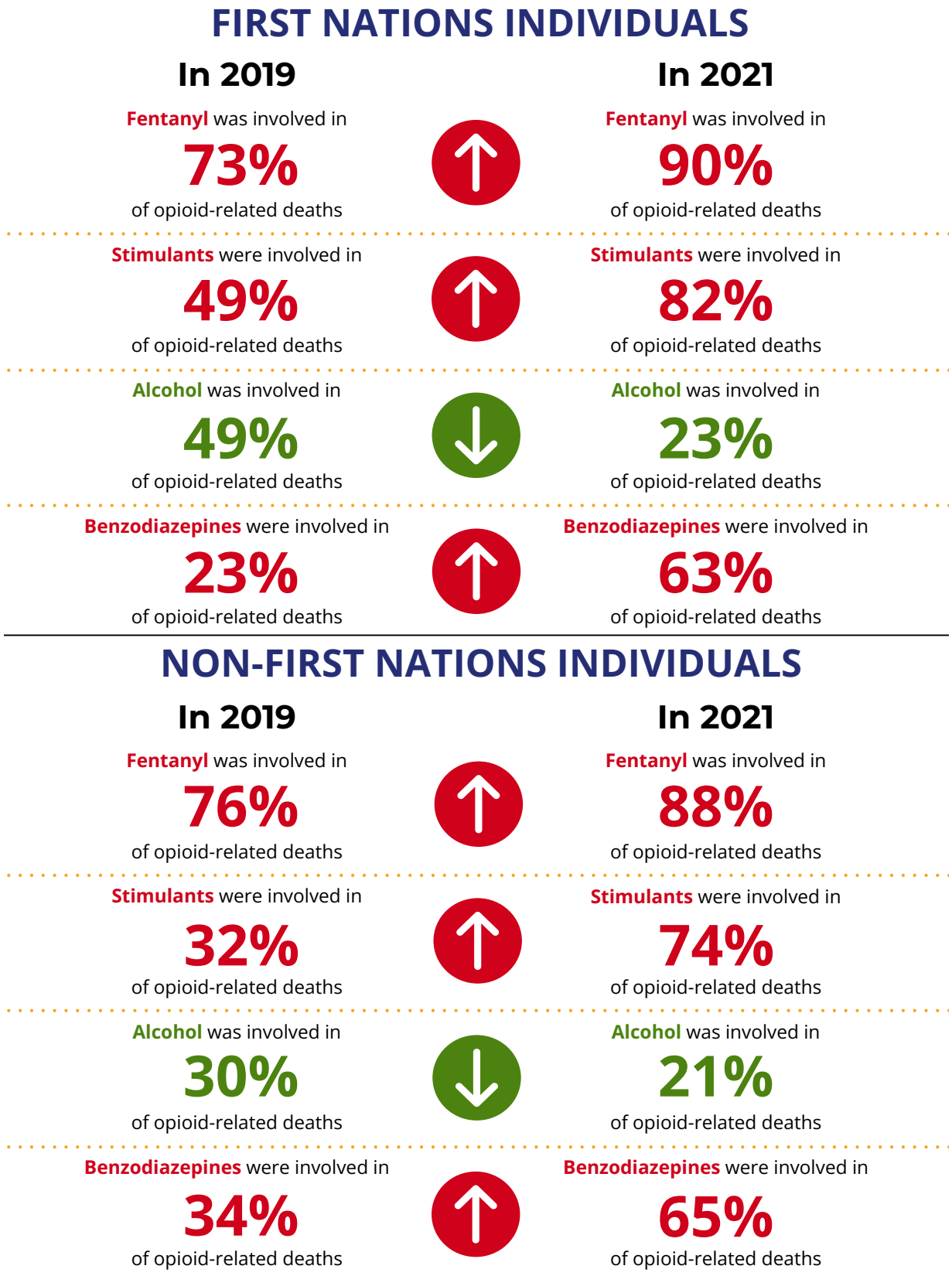
- In 2021, the rate of opioid-related deaths was higher among males in both First Nations and non-First Nations people. However, differences between sexes were much smaller among First Nations people (13.5 vs. 9.2 per 10,000 for males vs. females) compared to non-First Nations people (2.3 vs. 0.8 per 10,000 for males vs. females).
- Similarly, the rate of opioid-related deaths was highest among people aged 25-44 among both First Nations (19.6 per 10,000 people) and non-First Nations (2.9 per 10,000 people) people, although rates were consistently about 7 to 8 times higher among First Nations people compared to non-First Nations people in each age group studied.

Figure 17: **Percent of opioid-related deaths involving fentanyl from 2013 to 2021**



- Since 2013, the percent of opioid-related deaths involving fentanyl has increased dramatically (approximately 2.5 times) among both First Nations and non-First Nations people, an indication of the increasing presence of fentanyl in the unregulated drug supply
- By 2021, approximately 90% of opioid-related deaths in both populations involved fentanyl compared to 23% (non-First Nations) to 35% (First Nations) in 2013.

Figure 18: **Percent of opioid-related deaths involving fentanyl and non-opioid substances in 2019 and 2021**



- In 2021, stimulants were detected in 82% of opioid-related deaths among First Nations people, and 74% of opioid-related deaths among non-First Nations people compared to 49% for First Nations and 32% for non-First Nations people from the 2019 data that we previously reported (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021).
- The detection of benzodiazepines in opioid-related deaths was also common in 2021, occurring in approximately two-thirds of deaths among both First Nations and non-First Nations people. This also represents a large increase compared to 2019, where benzodiazepines were only detected in 23% of opioid-related deaths among First Nations and 34% of deaths among non-First Nations people (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021).
- Alcohol was detected in approximately 23% of opioid-related deaths in 2021 in both populations. This is lower than what we observed in our earlier report in 2019, where alcohol was involved in 49% of opioid-related deaths among First Nations people and 30% of non-First Nations people.

Summary

In general, rates of opioid prescribing for the treatment of pain and OUD are higher among First Nations people, with much higher rates of opioid-related toxicities treated in hospitals and leading to death. The prescribing of opioids for the treatment of pain has been decreasing for First Nations people, particularly those living within First Nation communities but is still higher than non-First Nations people. This reduction in prescriptions could be reflective of the more stringent guidelines and monitoring of opioid prescribing that have been implemented to help address the opioid crisis in Canada.

The prevalence of the prescribing of OAT is higher among First Nations people and is likely reflective of the higher rates of OUD experienced by First Nations people compared to non-First Nations people. In addition, differences in rates of OAT use and opioid-related toxicity between males and females are far smaller among First Nations people compared to non-First Nations people, for whom OUD and opioid-related harm occur predominantly among males. Higher rates of Suboxone® and Sublocade® being used among First Nations people likely reflect the benefits of these treatment options for people who do not have easy access to pharmacies as these medications typically do not require the same frequency of pharmacy visits as with methadone.

Many First Nations communities have strengthened their approaches to addressing the opioid toxicity crisis within their communities by creating their own community-based, culturally appropriate programs to help those struggling with OUD, with more people seeking treatment through OAT. These strengthened approaches are reflected by higher rates of OAT observed among First Nations people living within communities and further reinforces the need for continued investments in low-barrier services focused on supporting First Nations people generally, as well as programs specifically supporting women with OUD since rates of OAT and opioid-related harms are much more similar between First Nations males and females.

The harms associated with opioid use have negatively impacted both First Nations people living within and outside of community. These high rates show the need for culturally appropriate services, harm reduction and better access to OAT for First Nations people regardless of where they reside. The impacts of COVID-19 on mental wellness have placed an increased burden on the human resources available to help community members. Building the human resource capacity of communities to provide culturally-based trauma-informed

care will be critical. This has been identified and is being addressed by COO as mandated by First Nations Chiefs in Assembly in Resolution 18/2018: Support for Development of a Health Human Resources Strategy. Another challenge faced by First Nations and non-First Nations people is that the driver of opioid-related deaths has changed from prescription opioids to unregulated opioids. Rates of opioid-related hospitalizations have increased dramatically among First Nations people and non-First Nations people in Ontario since 2016 largely due to the growing presence of fentanyl in the unregulated drug supply. The rate of opioid-related deaths among First Nations people in 2021 was approximately 7 times higher than that for non-First Nations people. Furthermore, First Nations people living outside of First Nations communities and those aged 25 to 44 years were particularly impacted by opioid-related toxicities, highlighting the immediate need for additional support and access to harm reduction services among these populations.

Harm reduction is focused on meeting people where they are to reduce the harms associated with opioid use without requiring a person to stop using opioids. These programs work with a trauma-informed lens to take care of each other with kindness, compassion and acceptance to ensure the protection of the “sacred breath of life” (Thunderbird Partnership Foundation, 2023). By ensuring that First Nations people and communities have access to services such as safe consumption sites, drug checking services, and naloxone we are helping to keep our loved ones safer from the harms associated with opioid use.

OAT is a form of treatment for opioid use disorder that can also be described as a harm reduction approach because providing people with an alternative to the unregulated drug supply can help prevent overdose and help stabilize people’s lives. However, despite relatively widespread access to OAT, several communities have expressed a need for education and awareness around what OAT is, about the advantages and disadvantages to various treatment options to help reduce stigma and misunderstanding surrounding OAT, and its role in helping people with OUD.

Trends in the use of OAT differed by the type of treatment when comparing methadone and buprenorphine. The use of buprenorphine (e.g., Suboxone® and Sublocade®) rose considerably between 2013 and 2021, becoming the most common type of OAT used among First Nations people living within First Nations communities in 2021. In particular, Suboxone® is widely accessed by First Nations people residing within First Nations communities, which likely reflects advocacy by First Nations leadership to increase access to OAT within First Nations communities and guidelines recommending Suboxone® as the first-line treatment option for OUD (Centre for Addiction and Mental Health, 2021). Take-home doses (carries), which can be consumed at home without direct supervision from a healthcare provider, are also more readily accessible with Suboxone® compared to methadone which is a significant advantage in communities without a pharmacy. This has made Suboxone® a preferred type of OAT for residents of rural or remote communities, where there are often barriers to frequently accessing a healthcare provider or pharmacy. Importantly, a newer form of buprenorphine, Sublocade® was approved by Health Canada in 2020 and was made available on public drug plans soon thereafter. This injectable form of buprenorphine only requires monthly injections, which may be preferred by people with challenges accessing pharmacies. However, there can also be difficulties finding healthcare providers who are trained and have the appropriate infrastructure to prescribe and administer this new form of OAT, meaning that widespread accessibility to this newer form of OAT has been limited. In this report, we found that only 0.3% of First Nations people accessed Sublocade® in 2021 (400 individuals in total), which represents a small proportion of all OAT among First Nations people. Future work should explore patterns of uptake and use of Sublocade® among First Nations people as its use becomes more widespread

Ensuring access to OAT and increasing education about the medications used is extremely important in helping to reduce the risk of opioid toxicity among people with OUD and the stigma associated with it (Pearce et al, 2020). Between 2013 and 2021, rates of OAT use increased among First Nations and non-First Nations people in Ontario, although the increase was highest among First Nations people, particularly those living within First Nations communities. In 2021, 1 in 18 First Nations people in Ontario (5.5%) received treatment with OAT. While we are unable to measure the total number of First Nations and non-First Nations people with

OUD, the disproportionately high rate of OAT among First Nations people likely reflects a higher underlying rate of OUD, which can be influenced by high rates of trauma and poor access the healthcare (Bombay et al., 2014).

However, these findings likely also reflect increased political advocacy and awareness of the need for improved treatment and harm reduction approaches due to the increase in reports of First Nations deaths related to opioid toxicity. First Nations leadership has been advocating for access to these services due to the disproportionately high number of opioid-related deaths affecting First Nations people.

Therefore, efforts to continue to facilitate access to OAT for First Nations people with OUD must remain a key strategy for addressing the opioid crisis within and outside of First Nations communities in Ontario. There is also a need to integrate wraparound services and other programs such as traditional land-based healing programs, access to counseling, and ongoing support services within OAT programs provided to First Nations people across the province (Thunderbird Partnership Foundation, 2023).

Many communities have created their own community-based programs to help those struggling with OUD, but many more are struggling to find the resources and supports to build on the resilience and strengths within their families. “Communities which have implemented land-based healing programs are showing promising evidence in effectiveness, but equitable, sustainable funding will be required to maintain progress” (Maar et al., 2022). Funding models for OAT must include culturally-based mental health and addictions programs and case management services. Given the high rate of complex trauma experienced by First Nations community members, the disproportionate impact of the COVID-19 pandemic on Indigenous people living with OUD, and the current re-traumatization related to the uncovering of unmarked graves of children at Indian Residential Schools, a continuum of culturally based services from prevention to aftercare must be developed. (Maar et al., 2022). Increased efforts to implement the First Nations Mental Wellness Continuum Framework could support this continuum of care, strength-based approach which has been successful for many community-based programs (Thunderbird Partnership Foundation 2015). Finally, addiction affects the family as well as the individual, meaning that we need to ensure that programs and services are available to the family unit of those struggling with OUD to ensure everyone is getting the help that they need.

Future Directions

Over the next two years, COO and the ODPRN will continue monitoring and reporting these trends to help provide information to support culturally based, holistic programs and services distinctly for First Nations people. Planned work under this grant includes the formation of a Circle of Lived Experience Advisory Committee to bring forward the insight of those with first-hand experience accessing care, and the factors that lead to OUD. Their input will add to the value of further work which aims to advance the understanding of opioid-related prescribing, access to treatment, pathways through care, and health outcomes for First Nations people in Ontario. All work is First Nations-led, guided by the principles of OCAP®, and supported by the Steering Committee composed of First Nations community members, identified earlier in this report. It is our hope that the data in this report, and the research to come, will provide evidence to support investment in, and implementation of, First Nations-led policies, programs and services meeting the distinct health and well-being needs of First Nations people across Ontario.

Strengths and Limitations

A core strength of our study is that it is First Nations-led, and has been guided by a Steering Committee made up of First Nations community members, healthcare workers, and researchers, whose insights have helped to inform and shape this report, and will continue to inform our future work. In addition, our use of the Narcotics Monitoring System, which includes all prescription opioids dispensed to people residing in Ontario, allowed for a comprehensive analysis of opioid use for pain and for OAT, and linkage to other administrative databases enabled us to examine how trends and patterns differ by various demographics, including age, sex, and residence within and outside of First Nations communities.

Finally, this study used the detailed records available from the Office of the Chief Coroner of Ontario to gain an in-depth understanding of circumstances surrounding opioid-related deaths among First Nations and non-First Nations people.

There are also several limitations to this report:

- We identified First Nations people using the Indian Registry System database, which includes people who are eligible for 'Indian Status' under the 'Indian Act'. Therefore, anyone who is not a registered First Nations person as identified in the Indian Registry System - even though they may be eligible ("non-status") - are not identified as First Nation.
- Complete prescription records were only captured in Ontario beginning in July 2012, and therefore we were unable to assess opioid use prior to this time.
- Our data identified dispensed prescriptions, but we were not able to measure the degree to which dispensed medications were used by people as intended.
- Our databases do not include information on gender. We, therefore, cannot study the impact of gender on opioid prescribing, access to treatment, or opioid-related harm.
- The indicator for hospital visits for opioid-related toxicity is based on emergency department visits and hospital admissions and so it does not capture opioid-related toxicity that are treated outside of hospitals (e.g., by paramedics, bystanders, or in nursing stations). Thus, we may have underestimated the true number of opioid-related toxicity among First Nations people living in areas with limited access to emergency health services or those who don't seek medical services after treatment outside of hospitals.
- We were not able to measure access to, or use of, naloxone for reversing opioid-related toxicity, and therefore, we were not able to explore whether there are disparities in naloxone access between First Nations and non-First Nations populations. In addition, we did not have access to data on the use of opioids from the unregulated drug supply (other than in toxicology from death records) and therefore cannot comment on trends and patterns in the use of non-prescribed opioids. However, it is important to note that the data for hospital visits and deaths due to opioid-related toxicity captures incidents arising from the use of prescribed and non-prescribed opioids.
- The data on opioid-related deaths only reflect deaths that are directly caused by opioid-related toxicity. We were not able to capture information on deaths caused by accidents (e.g., drowning, automobile accidents) or medical emergencies (e.g., cardiac arrest) that occurred while an individual was under the effects of an opioid but was not directly due to opioid-related toxicity.
- We were not able to measure the underlying rate of OUD in any population, thus higher rates of OAT may reflect higher OUD diagnoses and/or higher acceptance to treatment.

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