

## Prescription Opioids

### Key Points

- In 2017, opioid pain relievers were used by an estimated 11.8% of the Canadian population, compared to 13% in 2015.
- A greater number of Indigenous peoples aged 15 and older who live off-reserve reported past-year use of opioid medication, compared to the general population.
- Among Canadians who used opioid pain relievers in 2017, about 3% reported using them for non-medical purposes, a similar percentage as in 2015.
- The rate of hospitalization due to opioid poisoning has increased, with an average of 17 hospitalizations per day in Canada in 2017.
- There were at least 15,393 opioid-related deaths in Canada between January 2016 and December 2019, with the highest number of deaths occurring in 2018.
- The rate of emergency department visits for opioid poisoning has doubled for younger adults aged 25–44, an increase larger than for any other age group.

### Introduction

Prescription opioids are medications primarily used to treat acute and chronic pain, but they can also be used to control persistent cough or diarrhea. Another accepted medical use for prescription opioids is for the treatment of opioid use disorder, using methadone or buprenorphine-naloxone, under the supervision of a trained healthcare practitioner.

Pain is one of the most common reasons for seeking health care in North America. Recent estimates indicate that about one in five Canadians experience chronic pain,<sup>1</sup> and many have limited access to appropriate and timely treatment: 50% have had to wait six months or more and many regions in Canada do not have any specialist pain treatment services.<sup>2</sup> Prescribers commonly use prescription opioids as one of several approaches to addressing chronic pain. A 2017 report found that in the fiscal year 2015–2016, about one out of every seven people in Ontario (almost two million individuals) filled an opioid prescription.<sup>3</sup> In Canada in 2018, almost one in eight people were prescribed opioids.<sup>4</sup> From 2016 to 2017, the total quantity of opioids dispensed decreased by more than 10% and the number of prescriptions for opioids fell by more than 400,000, the first decline seen since 2012.<sup>4,5</sup>

However, the use of prescription opioids can also result in addiction and overdose death. In previous years, prescription opioids have been falsely promoted as low-risk, non-addictive, effective treatments for moderate pain.<sup>6</sup> *The 2017 Canadian Guideline for Opioid Therapy and Chronic Non-Cancer Pain* reports that opioids are associated with a 5.5% risk of addiction, and recommends optimizing non-opioid pharmacotherapy (e.g., nonsteroidal anti-inflammatory drugs) and non-pharmacological therapy over the use of opioids for patients with chronic non-cancer pain.<sup>7</sup>



The non-medical use of prescription opioids<sup>A</sup> has traditionally been defined as use by people other than those to whom the medication is prescribed or use in a manner or for a purpose other than what is intended. There are various ways in which prescription drugs can be acquired and used or can result in harm. These ways include obtaining a prescription from a single physician, obtaining prescriptions from multiple physicians without informing them of other prescriptions in the past 30 days (“double doctoring” or “doctor shopping”), prescription fraud and forgery, theft, street drug markets and Internet purchases. A Canadian study found that 37% of opioid-dependent patients admitted to the Centre for Addiction and Mental Health in Toronto reported receiving opioids solely from physician prescriptions, compared to 26% of patients who received opioids from both a prescription and “the street,” and 21% from the street.<sup>8</sup>

Opioids are commonly referred to as “pain killers” or “narcotics” and have a variety of generic, trade and street names. Table 1 lists examples of prescription opioids currently marketed in Canada. However, prescription opioids not marketed in Canada might be diverted into the country. Prescription opioids are available in various forms in Canada, including tablets, capsules, syrups, solutions, liquid form for injection, skin patches, transmucosal preparations, suppositories and nasal sprays.

According to data from the 2018 Canadian Community Health Survey (CCHS), the opioid medications most commonly used included, in order of prevalence, products containing codeine (76%), hydromorphone or morphine (28%), oxycodone (20%) and fentanyl (5%).<sup>9</sup>

**Table 1. Common generic, trade and street names for prescription opioids**

Generic name	Trade name (examples)	Street names
Buprenorphine	BuTrans®	Bupe, bute
Buprenorphine-naloxone	Suboxone®	Subby, bupe, sobos
Codeine	Tylenol®2,3,4 (codeine + acetaminophen)	Cody, captain cody, T1, T2, T3, T4
Fentanyl	Abstral®, Duragesic®, Onsolis®	Patch, sticky, sticker, nerps, beans
Hydrocodone	Tussionex®, Vicoprofen®	Hydro, vike
Hydromorphone	Dilaudid®	Juice, dillies, dust
Meperidine	Demerol®	Demmies
Methadone	Methadose®, Metadol®	Meth, drink, done
Morphine	Doloral®, Statex®, M.O.S.®	M, morph, red rockets
Oxycodone	OxyNEO®, Percocet®, Oxycocet® Percodan®	Oxy, hillbilly heroin, percs
Pentazocine	Talwin©	Ts
Tapentadol	Nucynta®	Unknown
Tramadol	Ultram® Tramacet® Tridural® Durela®	Chill pills, ultras

**Note:** OxyContin® is no longer marketed in Canada and was replaced with OxyNEO®. Generic controlled-release oxycodone was approved by Health Canada. Oxymorphone (Opana®) has been approved by Health Canada, but is currently not marketed in Canada.

## Effects of Prescription Opioid Use

Opioids can reduce pain and improve function. Opioids work by changing the brain’s perception of pain by attaching to opioid receptors throughout the body’s nervous system. Opioids can also produce a feeling of well-being, relaxation or euphoria (“high”). Opioids come in both short- and long-acting forms. Short-acting forms typically last for three to six hours, while long-acting forms need to be taken only once or twice per day to maintain their effects.

A For the purposes of this document, “prescription opioid use” refers to use of pharmaceutical opioids as prescribed. “Non-medical use” of prescription opioids includes using prescription opioids without a prescription written for the individual taking the drug, using prescription opioids provided from multiple doctors, nurses or pharmacists (“double-doctoring”), using them for purposes other than those indicated when prescribed (e.g., for euphoric effect), using them in ways other than prescribed (different form or route), or taking prescription opioids more or less often than prescribed.



**Short term use:** At sufficiently high doses, opioids cause drowsiness, respiratory depression, coma and death. Other physical effects include constricted pupils, nausea, vomiting, constipation, loss of appetite and sweating. Opioids can also cause increased risk of sleep apnea, mood changes, decreased sex hormone levels resulting in decreased interest in sex and menstrual irregularities, physical dependence and addiction. Regular use of large quantities of opioids during pregnancy increases the risk of premature delivery and withdrawal in the infant. In those people who crush and inject oral opioids, certain filler chemicals in the pills can permanently damage veins and organs. Sharing needles or injecting with previously used needles greatly increases the risk of getting certain infections (e.g., HIV, hepatitis C).

**Long-term use:** Long-term use can lead to the development of physical dependence, which manifests as tolerance to the effects of the drug and prompts those who use prescription opioids to increase the dose to reinstate the desired effects. Those who have developed a physical dependence can also experience withdrawal symptoms when the dose is lowered. The potential for addiction increases with repeated use of higher doses. Addiction to opioids includes behaviours reflecting loss of control over use and significant harms from use, for example, which are usually in addition to physical dependence.

Long-term regular use of these drugs should be reduced gradually with medical supervision. People who are physically dependent on opioids might experience withdrawal symptoms if they stop using the drug abruptly. The severity of withdrawal symptoms depends on the type of medication used, the amount used, the duration of use and how abruptly the drug was discontinued. Withdrawal symptoms can include agitation, insomnia, muscle aches, abdominal cramping, diarrhea and vomiting. Those who are physically dependent might also experience craving for the drug and difficulty stopping use.

## Legal Status of Prescription Opioids in Canada

Most prescription opioids are classified as Schedule I drugs under the *Controlled Drugs and Substances Act*. Their use is legal when they are prescribed by licensed practitioners and used by the person for whom they are prescribed. Illegal possession of opioids and “double doctoring” can result in seven years’ imprisonment. Trafficking, importing, exporting or producing opioids can result in life imprisonment.<sup>10</sup>

## Lifetime Prevalence of Prescription Opioids in Canada

According to data from the 2018 CCHS, 40.5% of Canadians aged 15 and older (approximately 11.8 million people) reported the use of pain relief medications containing opioids, such as codeine or morphine.<sup>11</sup>

## Past-Year Use of Prescription Opioids in Canada

- **General population (age 15+):** According to the 2017 Canadian Tobacco, Alcohol and Drugs Survey (CTADS),<sup>12</sup> the prevalence of past-year use of opioid pain relievers among the general population was 11.8%, unchanged compared to 13.1% in 2015 (see Figure 1).<sup>13</sup> In 2018, data from the CCHS<sup>B</sup> show that 12.7% of Canadians used opioid pain relievers in the last 12 months.<sup>11</sup>
- **Youth (age 15–24):** In 2017 among youth aged 15–19, the prevalence of past-year opioid pain reliever use was 8.4%; the corresponding rate was higher for young adults aged 20–24 at 12.0% (Figure 1).<sup>12</sup>

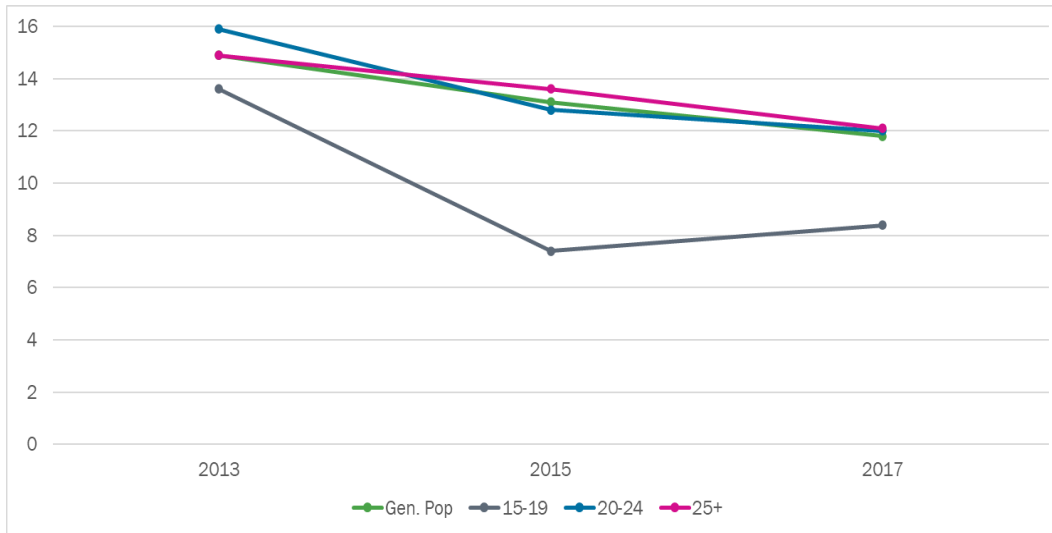
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<sup>B</sup> National averages cited from the CCHS exclude the territories, as analyses based on the territories are only available for two-year cycles of the CCHS.



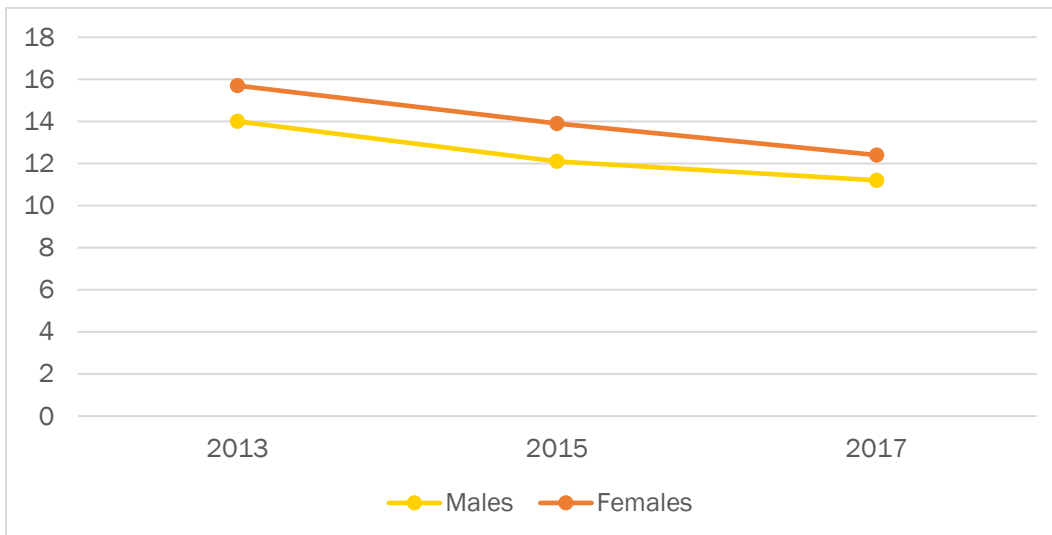
- **Adults (age 25+):** The prevalence of opioid pain reliever use among Canadian adults was 12.1% in 2017.<sup>12</sup> The use of opioid pain reliever medications among adults has remained stable since 2015, when 13.6% of adults reported using such medications (Figure 1).<sup>13</sup>
- **Older Adults (age 65+):** The rate of opioid pain reliever use among older Canadian adults was 11.3 in 2017.<sup>C,13</sup>
- **Sex:** Data from the 2017 CTADS indicate that the past-year prevalence of use of opioid pain relievers was similar between females (12.4%) and males (11.2%).<sup>12</sup> Both estimates remain unchanged compared to 2015 (13.9% for females and 12.1% for males, see Figure 2).<sup>13</sup> Recent data from the 2018 CCHS indicate that females (14%) were more likely than males (11%) to report using an opioid pain medication in the past year.<sup>11</sup>

**Figure 1. Prevalence of self-reported opioid pain reliever use among Canadians by age**



Source: CTADS 2013,<sup>15</sup> CTADS 2015,<sup>13</sup> CTADS 2017<sup>12</sup>

**Figure 2. Prevalence of self-reported opioid pain reliever use among Canadians by sex**



Source: CTADS 2013,<sup>15</sup> CTADS 2015,<sup>13</sup> CTADS 2017<sup>12</sup>

C This analysis is based on Statistics Canada, CTADS, 2017. All computations, use and interpretation of these data are entirely that of CCSA.



## First Nations

- **Adults:** Among First Nations individuals aged 18 and older living on reserve or in northern First Nations communities across Canada, 24.9% reported use of a prescription opioid in the past year in 2015–2016. Prescription opioids represent the most frequently used substance relative to any other substance measured in this survey.<sup>14</sup>
- **Youth:** Among First Nations Youth aged 12–17 years, 10.4% reported use of prescription opioids in the past year in 2015–2016. Prescription opioids represent the second most frequently used substance among First Nations youth after cannabis.<sup>14</sup>

## Past-Year Non-Medical Use of Prescription Opioids

### *Past-Year Prevalence of Non-Medical Use in Canada*

- **General Population (aged 15+):** Data from the 2017 CTADS revealed that among those who use opioid pain relievers, 2.9% (or approximately 100,000 Canadians) reported using them for non-medical purposes, a rate that remains unchanged since 2013.<sup>12</sup>

Data from the 2018 CCHS shows that 9.6% of Canadians aged 15 and older reported some form of non-medical use of opioid medication.<sup>11</sup> In addition, a greater number of males reported non-medical use as compared with females (11% and 8%).<sup>11</sup>

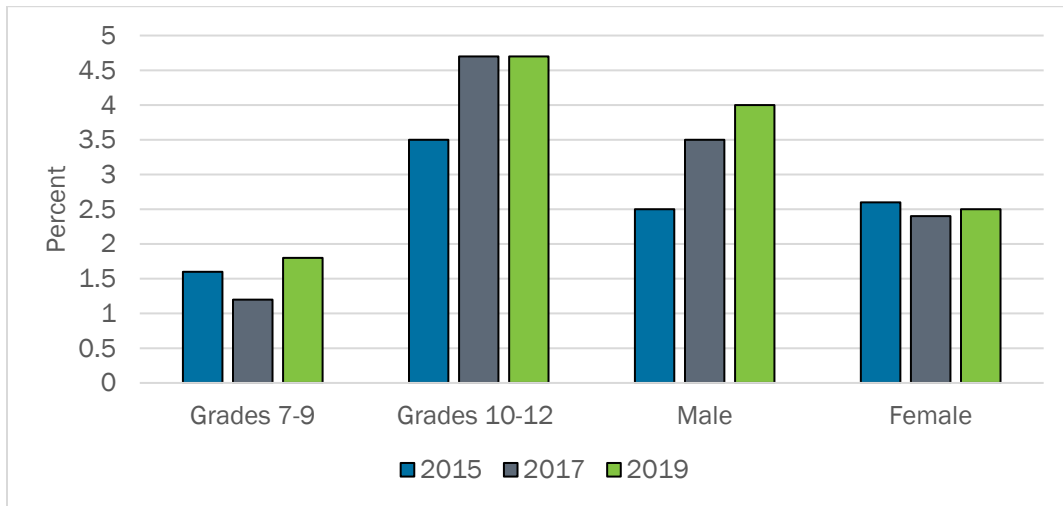
- **Students:** In the 2018–2019 Canadian Student Tobacco, Alcohol and Drug Survey (CSTADS), 1.8% of Canadian students in grades 7 to 9 (up from 1.2% in 2016–2017) and 4.7% of students in grades 10 to 12 (unchanged from 2016–2017) reported past-year use of pain relievers to get high and not for medical purposes (Figure 3).<sup>16,17</sup> A greater proportion of males than females in grades 7 through 12 reported past-year use of pain relievers to get high (4% and 2.5%).<sup>16</sup> The proportion of males reporting non-medical use of pain relievers has remained stable since 2017 (3.5%), as has the proportion of females reporting such use (2.4%), as shown in Figure 3.<sup>16,17</sup>

The 2019 Ontario Student Drug Use and Health Survey reported that 11% of students in grades 7 to 12 had used a prescription opioid pain reliever for non-medical purposes (10.9% among males and 11% among females).<sup>19</sup> These numbers remain stable since the previous survey in 2017, but are down from 20.6% in 2007.<sup>20</sup> Approximately 40.2% of students reporting past-year use reported obtaining these drugs from a parent.<sup>20</sup>

- **Post-secondary Students:** Data from the spring 2019 National College Health Assessment Survey, which is drawn from a convenience sample of 58 post-secondary institutions in Canada and therefore not representative of all post-secondary students in Canada, indicated that 5.9% of post-secondary students had used prescription pain relievers that were not prescribed to them in the past 12 months (5.1% of male post-secondary students, 6.1% of female post-secondary students).<sup>21</sup>



Figure 3. Prevalence of self-reported past year opioid pain reliever use among Canadian students by grade and sex



Source: CSTADS 2015,<sup>18</sup> CSTADS 2017,<sup>17</sup> CSTADS 2019<sup>16</sup>

### Past-Year Prevalence of Non-Medical Use Internationally

- **United States:** In 2016, the past-year prevalence of non-medical use of prescription pain relievers was 4.3% among those aged 12 and older.<sup>22</sup>
- **Australia:** Data from 2016 show that 3.6% of those aged 14 and older reported non-medical use of any type of opioid in the previous 12 months. Of those reporting non-medical use of opioids, 75% had used over-the-counter codeine products, 40% used prescription codeine products and 17% used oxycodone.<sup>23</sup>

### Healthcare Costs Associated with Opioid Use

Healthcare costs include inpatient hospitalizations, day surgeries, emergency department visits, substance use treatment, visits to family physicians and the use of prescription drugs. Between 2015 and 2017, the per-person healthcare costs associated with opioids<sup>D</sup> increased by 20.9%, the second largest increase next to CNS stimulants (excluding cocaine), which increased by 22.1%.<sup>24</sup> In 2017, opioids were responsible for the third greatest proportion of costs attributable to substance use across Canada.<sup>E</sup> In the same year, \$438.6 million of total healthcare costs were attributable to opioids, representing about 3.4% of all healthcare costs associated with substances.<sup>24</sup>

### Morbidity

#### Hospitalization Due to Opioid Poisoning

The rate of harms resulting from opioid poisoning<sup>F</sup> continue to rise nationally, with hospitalizations increasing by 27% over the last five years, increasing by 8% in 2016–2017 alone.<sup>25</sup> Despite this national increase, several provinces, including Alberta, Saskatchewan, New Brunswick, Nova Scotia and Prince Edward Island, have reported slight decreases in hospitalizations as of 2017.<sup>25</sup> There are a number of harms due to opioids<sup>G</sup> that can result in hospitalization, including opioid poisoning,

D Estimates from the Canadian Substance Use Costs and Harms (CSUCH) report include data on all opioids, not only prescription opioids.

E At the time of this report, some healthcare-related data were not available for the province of Quebec, so no meaningful estimates of overall healthcare costs could be generated for Quebec.

F An opioid poisoning occurs when an opioid is taken incorrectly and results in harm.

G Except for adverse drug reactions, opioid-related harms can be caused by either prescription or illicit opioids.



opioid use disorder, adverse drug reaction and neonatal withdrawal.<sup>25</sup> While hospitalizations due to adverse drug reactions appear to be declining, hospitalizations for all other reasons continue to increase.<sup>25</sup> Between January 2016 and December 2019, 19,377 hospitalizations due to opioid-related poisoning occurred (excludes Quebec).<sup>26</sup> Hospitalizations occur across communities of all sizes. The highest age-adjusted rates of hospitalization due to opioid poisoning in 2017 occurred in communities with populations between 50,000 and 99,999, whereas communities with a population greater than 500,000 had the lowest rates.<sup>25</sup>

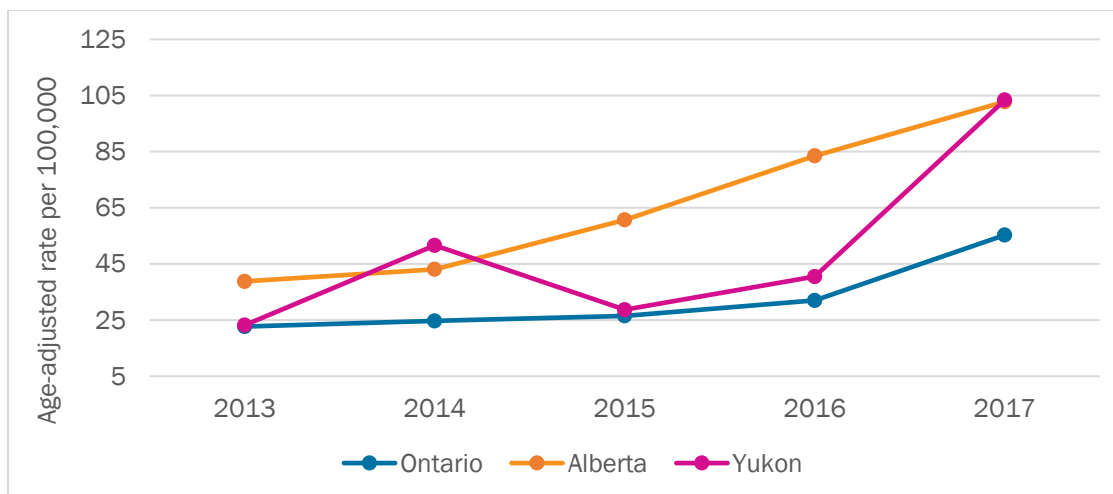
In Canada, between 2016 and 2017, the crude rate<sup>H</sup> of hospitalizations due to opioid poisonings increased from 15.3 to 16.5 per 100,000 population).<sup>25</sup> In 2016–2017, opioid poisonings resulted in an average of 17 hospitalizations each day,<sup>25</sup> higher than the averages in 2014–2015 (13 per day) and 2007–2008 (10 per day).<sup>27</sup> Across Canada, the age-adjusted rate of hospitalizations<sup>I</sup> in 2016–2017 ranged from 8.4 (Nova Scotia) to 33.7 (Northwest Territories) per 100,000.

Between January and December 2019, 58% of those being hospitalized for opioid-related poisoning were male and 42% were female. The highest proportion of those being hospitalized were above the age of 60 (29%),<sup>26</sup> which is consistent with the trend seen in the last six years.<sup>27</sup>

### Emergency Department Visits for Opioid Poisoning in Ontario, Alberta and Yukon

Comprehensive data collected by the Canadian Institute for Health Information (CIHI) on emergency department (ED) visits due to opioid poisoning are currently available for Alberta, Ontario and Yukon.<sup>J</sup> Between 2013 and 2017, the age-adjusted rate of ED visits due to opioid poisoning increased in Ontario by 144% and in Alberta by 165%. Over the same period, the rate of ED visits in Yukon increased more than four-fold (Figure 4).<sup>25</sup>

Figure 4. Age-adjusted rate (per 100,000) of opioid poisoning emergency department visits by province



Source: CIHI. Opioid related harms in Canada, December 2018.<sup>25</sup>

Note: Due to the low number of emergency department visits in Yukon, trends should be interpreted with caution.

In Ontario and Alberta, the rates of ED visits due to opioid poisoning were higher among males than females across all years. In 2017, the crude rate of ED visits due to opioid poisonings in Ontario was

H The crude rate indicates the overall rate of hospitalizations without taking into account confounding factors (e.g., the age distribution of the population).

I The age adjusted rate accounts for variation in age distribution in the different regions. The age-adjusted rate was calculated using the direct standardization process, with the 2016 Canadian population representing the standard population. See the cited report for more detail on the methodology.

J While comprehensive data were available for Yukon, many estimates are not reported as the sample sizes are small.



68.7 per 100,000 in males, compared to 41.5 per 100,000 in females, and in Alberta was 132.3 per 100,000 in males and 79.3 per 100,000 among females.<sup>25</sup> In Ontario between 2016–2017, rates of ED visits for opioid poisoning among males increased by 90% and by 49.8% for females. Over the same period in Alberta, rates for males increased by 31% and by 14% for females.<sup>25</sup>

Between 2016 and 2017 in Ontario, the rate of ED visits for opioid poisoning doubled in younger adults aged 25–44, increasing more than any other age group. Over the same period in Alberta, youth aged 15–24 and younger adults aged 25–44 continued to have the highest rates of ED visits.<sup>25</sup>

## **Driving After Use of Prescription Opioids**

There is evidence that opioid use can increase the risk of driving impairment when used in combination with other drugs or alcohol, when used non-medically or when used therapeutically by individuals who are unaccustomed to using opioids.<sup>28,29</sup> While much less prevalent than alcohol or cannabis, opioids are one of the most common classes of prescription drugs found among drivers during roadside surveys, along with benzodiazepines.<sup>28,30</sup> According to data derived from the 2011 to 2016 cycles of the Centre for Addiction and Mental Health (CAMH) Monitor survey in Ontario, 3.1% of the surveyed population reported driving under the influence of prescription opioids, behaviour which can significantly increase the odds of a collision.<sup>31</sup>

## **Neonatal Withdrawal**

Neonatal withdrawal<sup>K</sup> or neonatal abstinence syndrome (NAS) affects infants who were exposed to opioids in utero, causing physical dependence on opioids, and often leads to withdrawal symptoms after birth.<sup>32</sup> The incidence of neonatal withdrawal in Canada tripled between 2003 and 2014, from 1.8 to 5.4 per 1,000 live births.<sup>33</sup> The average incidence of neonatal withdrawal across the provinces ranged from 2.7 in Alberta to 9.7 in New Brunswick. From 2010 to 2014, total healthcare costs related to neonatal withdrawal increased from \$15.7 million to \$26.9 million, and the number of hospital beds occupied increased from 19.7 in 2003 to 69.4 in 2014.<sup>33</sup> CIHI reports that between 2013 and 2017, the rate of hospitalizations for neonatal withdrawal symptoms increased by 21%.<sup>25</sup> CIHI also estimated that between 2016–2017, about 0.51% of all infants born in Canada (excluding Quebec) had neonatal withdrawal, which translates to about 1,900 infants a year.

In Ontario, the prevalence of neonatal withdrawal increased from one to 6.2 per 1,000 live births from 2002–2003 to 2013–2014, a six-fold increase over the twelve-year period.<sup>34</sup> The most recently published estimate is that between 2002 and 2014 the number of infants born in Ontario to opioid-dependent women increased 16-fold from 46 to 800.<sup>35</sup>

## **Mortality**

### **Opioid-related Deaths**

There are no national-level data on opioid-related deaths before 2016. Given the magnitude and persistence of the current opioid crisis, the government of Canada now gathers data on apparent opioid-related death and provides updates four times a year. Between January 2016 and December 2019, 15,393 apparent opioid-related deaths occurred in Canada.<sup>26</sup> In 2018 there were at least 4,623 apparent opioid-related deaths in Canada, at a rate of 12.4 deaths per 100,000.<sup>26</sup> In 2019, 3,823 deaths occurred, at a rate of 10 deaths per 100,000.<sup>26</sup> The majority of opioid-related deaths were accidental (94%) and occurred among males (74%), and the highest percentage was among those aged 30–39 (28%).<sup>26</sup> Seventy-two percent of opioid-related deaths involved one or more types of non-opioid substances (e.g., cocaine, methamphetamine, alcohol).<sup>26</sup> Estimated province-specific

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<sup>K</sup> Neonatal withdrawal is often used interchangeably with neonatal abstinence syndrome (NAS).





rates of opioid or illicit drug-related deaths ranged from three (Northwest Territories) to 20.7 per 100,000 (British Columbia).<sup>L,26</sup>

- **Ontario:** Opioid-related deaths<sup>M</sup> have increased four-fold in Ontario between 2003 and 2018 (from 366 to 1,473), increasing by about 17% from 2017 to 2018 alone.<sup>36</sup> Between July 2017 and June 2018, there were 1,337 opioid-related deaths, a rate of about 9.3 per 100,000.<sup>37</sup> Among these deaths, the non-opioid substances that most often directly contributed to death<sup>N</sup> were cocaine (33.9%), methamphetamine (14.6%), alcohol (13.2%) and benzodiazepines (11.0%).<sup>37</sup> One study suggested that as of 2013, one in five fatal opioid overdoses involved alcohol.<sup>38</sup>
- **Alberta:** From January to September 2019 in Alberta, 458 people died from an apparent accidental opioid poisoning,<sup>O</sup> compared to 576 during the same period in 2018.<sup>39</sup> On average, just under two individuals die every day in Alberta as a result of an apparent accidental overdose poisoning.<sup>39</sup> Opioids were directly involved in 75% of all confirmed drug and alcohol poisoning deaths in 2019.<sup>P,39</sup>
- **British Columbia:** Reported deaths related to drug toxicity in B.C. includes all unintentional illicit drug toxicity deaths, including confirmed and suspected deaths.<sup>Q</sup> The most recent estimate for 2019 shows that the number of illicit drug toxicity deaths equates to about 2.7 deaths per day over the course of the year.<sup>40</sup> Males accounted for 76% of deaths during 2019 and 72% of those who died that year were between the ages of 30 and 59.<sup>40</sup>

### Fentanyl-related Deaths

Between 2013 and 2014, there were at least 525 fentanyl-detected deaths in Canada.<sup>41</sup> In 2016, about 55% (1,424) of all opioid-related deaths involved fentanyl-related opioids (e.g., fentanyl, carfentanil, furanyl-fentanyl<sup>R</sup>) and this number rose to 78% in the first nine months of 2019.<sup>26</sup>

Recent provincial data on trends in fentanyl-related deaths are available from Alberta, British Columbia and Ontario.<sup>S</sup> Numbers and rates of opioid-related deaths involving fentanyl or its analogues from 2016 until September of 2019 for all jurisdictions in Canada are available in quarterly reports published by the Government of Canada.<sup>26</sup>

- **Ontario:** Fentanyl or its analogues were reported to be involved in 71.2% of the 1,209 accidental opioid-related deaths in Ontario between July 2017 and June 2018.<sup>37</sup>
- **Alberta:** Since January 1, 2016, 1,993 individuals died in Alberta from an apparent accidental drug poisoning death related to fentanyl.<sup>T,39</sup> The first carfentanil cases were detected in late 2016, peaked in late 2017 and have decreased since. Despite this decrease, 55 deaths related to carfentanil poisoning occurred in the first nine months of 2019.<sup>39</sup>

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L An opioid-related death is a death caused by poisoning because of drug use, where at least one of the drugs is an opioid. A fentanyl-related death is a death caused by poisoning because of drug use, where one of the drugs is fentanyl.<sup>31</sup>

M An acute intoxication/toxicity death resulting from the direct contribution of substance consumed, where one or more of the substances was an opioid, including opioids available by prescription for pain or opioid use disorder and non-pharmaceutical opioids.

N Substances directly contributing to death as determined by the pathologist or coroner based on the complete investigative findings.

O Preliminary evidence suggests that the death was most likely a drug overdose.

P A medical examiner has determined the cause of death based on all available evidence and listed the cause of death, including the substances directly involved in the overdose, on a death certificate.

Q These may include deaths due to street drugs (controlled and illegal), medications not prescribed to the decedent but obtained on the street with unknown origin, or combinations of the above with prescribed medications.

R Carfentanil and furanyl-fentanyl are synthetic analogues of fentanyl that are more potent and pose a high risk of fatality.

S These data include fatalities implicating illicit or prescription opioids.

T Deaths in which fentanyl or a fentanyl analogue was identified as a cause of death.



- **British Columbia:** Between 2012 and December 31, 2019, the number of fentanyl-detected deaths in B.C. increased almost 69 times from 12 to 827.<sup>42</sup> Preliminary data suggests that the proportion of illicit drug toxicity deaths where fentanyl was detected (either alone or in combination with other drugs) was about 87% in 2018 and 85% in 2019.<sup>40</sup> Carfentanil was detected in 130 illicit drug toxicity deaths between January and October 2019, a three-fold increase compared to all of 2018.<sup>40</sup>

## Treatment for Opioid Use Disorder

While all federal, provincial and territorial agencies collect data on their own treatment systems, there are currently no national-level data available for prescription drug-related treatment in Canada. According to the 2016 National Treatment Indicators report,<sup>U</sup> in Nova Scotia opioids were the second most reported substance for which treatment was sought, accounting for 22.9% of treatment episodes. In Ontario, opioids accounted for 2.4% of treatment episodes. However, in the last six years, Ontario has seen an increase in the number of admissions identifying prescription opioids as the client's primary reason for seeking treatment. In addition, among individuals accessing treatment services during 2013–2014, opioids were the third most common substance used in the past 12 months in Saskatchewan, and the fourth most common substance used in Alberta and Prince Edward Island.<sup>43</sup>

The standard of care for opioid use disorder includes psychosocial treatment and medication-assisted treatment, although these options are not universally accessible across the country. For example, they tend not be available in rural and remote areas.<sup>6</sup> Improving access to medication-assisted treatment is a key initiative recently funded by the Government of Canada. For medication-assisted treatment, the Canadian Research Initiative in Substance Misuse (CRISM) developed national clinical practice guidelines for treating opioid use disorders.<sup>44</sup> The guidelines provide recommendations for three levels of treatment, ranging from withdrawal management (least intense form of treatment) to agonist therapies to specialist-led alternative approaches (most intense).<sup>44</sup>

In Canada, it is highly recommended that withdrawal management (detoxification) only be provided with immediate transition to long-term addiction treatment, as not doing so can increase relapse rates, morbidity and death.<sup>44</sup> Recommended first-line agonist therapies for opioid use disorder include buprenorphine-naloxone, followed by methadone. A recent review by the Canadian Agency for Drugs and Technologies in Health found that there are benefits to both drugs in maintenance treatment of opioid use disorder, but buprenorphine-naloxone appeared to be the safer, more effective and cost-effective choice compared to methadone.<sup>45</sup> The currently recommended specialist-led alternative approach is sustained release oral morphine. Injectable hydromorphone and prescription diacetylmorphine (pharmaceutical grade heroin) are also being evaluated for the treatment of opioid use disorder in some populations, such as patients refractory to methadone treatment.<sup>46</sup>

Regardless of treatment approach, evidence-based harm-reduction approaches should be offered to all individuals with an opioid use disorder and integrated throughout the continuum of care.<sup>44,47</sup>

Harm reduction, as defined by the CRISM guidelines, includes education about safer use of sterile syringes and needles, and access to sterile syringes, needles and other supplies, take-home naloxone kits, and supervised consumption services.<sup>44</sup> Naloxone, a fast-acting nasal spray (Narcan®), can be used to temporarily reverse both known or suspected opioid overdoses, and was approved by Health Canada for use in 2016. Naloxone is now available for sale without a prescription in many regions across Canada or for free in some communities. See the [Government of Canada website](#) for information about where to get naloxone in your province or territory.

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<sup>U</sup> The *National Treatment Indicators Report* provides 2013–2014 fiscal-year data on public, specialized substance use treatment from seven provinces (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan and Alberta) one territory (Yukon), one provincial association (Association des centres de réadaptation en dépendance de Québec) and one federal association (First Nations and Inuit Health Branch).



## Additional Resources

- [Strategies for Addressing the Opioid Crisis in the United States and Canada: Cross-Border Knowledge Sharing](#)
- [Best Practices across the Continuum of Care for the Treatment of Opioid Use Disorder](#)
- [First Do No Harm: Responding to Canada's Prescription Drug Crisis](#)
- [Joint Statement of Action to Address the Opioid Crisis](#)
- [Opioids, Driving and Implications for Youth](#)
- [Deaths Involving Fentanyl in Canada, 2009–2014](#)
- [Misuse of Opioids in Canadian Communities](#)
- [The Effects of Psychoactive Prescription Drugs on Driving](#)
- [Hospitalizations and Emergency Department Visits Due to Opioid Poisoning in Canada](#)
- [The Availability of Take-Home Naloxone in Canada](#)



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