

Canadian Drug Summary: Prescription Opioids

Introduction to Prescription Opioids for Pain Management and Other Purposes

Opioids are used to relieve and manage pain, which is the most common reason for seeking health care in North America. A large study of emergency departments in Canada and the United States (U.S.) noted that although pain accounts for up to 78% of visits to emergency departments, pain relievers are underused.¹ Other medical uses of opioids include control of coughs and diarrhea, and the treatment of addiction to other opioids. Opioids are commonly referred to as pain killers or narcotics and they have a variety of generic and trade names as outlined in the table below. Prescription opioids are available in tablets, capsules, syrups, solutions, suckers to take by mouth, liquid form for injection, skin patches and suppositories.

Table 1: Common generic, trade and street names for opioids

Generic name	Trade name	Street names
Fentanyl	Duragesic®	patch
Hydromorphone	Dilaudid®, Exalgo®	juice
Hydrocodone	Vicodin®, Norco®	
Morphine	Astramorph®, Avinza®	M, morph,
Methadone	Diskets®, Dolophine®, Methadose®, Methadose Sugar-Free®	meth
Meperidine	Demerol®	
Oxycodone	OxyContin®, OxyNEO®, Percocet®, Percodan®	Oxy, hillbilly heroin, percs
Codeine	Tylenol® 3, 4 (codeine + acetaminophen)	

Effects of Opioid Use

Short-term: Low doses of opioids suppress the sensation of pain and the emotional response to pain. They can also produce a feeling of well-being, euphoria, drowsiness or relaxation, or cause difficulty in concentrating. Other physical effects are constricted pupils, a slight decrease in respiratory rate, nausea, vomiting, constipation, loss of appetite and sweating. With higher doses, these effects are more intense and last longer. Some people misuse opioids for their ability to produce a mellow, relaxed “high.”

Long-term: Opioids can cause constipation, decreased interest in sex, menstrual irregularities, mood swings, physical dependence, tolerance and addiction. Regular use of large quantities of opioids during pregnancy can increase the risk of premature delivery and withdrawal in the infant. Some people inject opioids to increase the intensity of the euphoric effect and certain chemicals in opioids can permanently damage veins and organs. Sharing needles or injecting with previously used needles greatly increases the risk of getting certain infections and diseases (e.g., HIV, hepatitis).



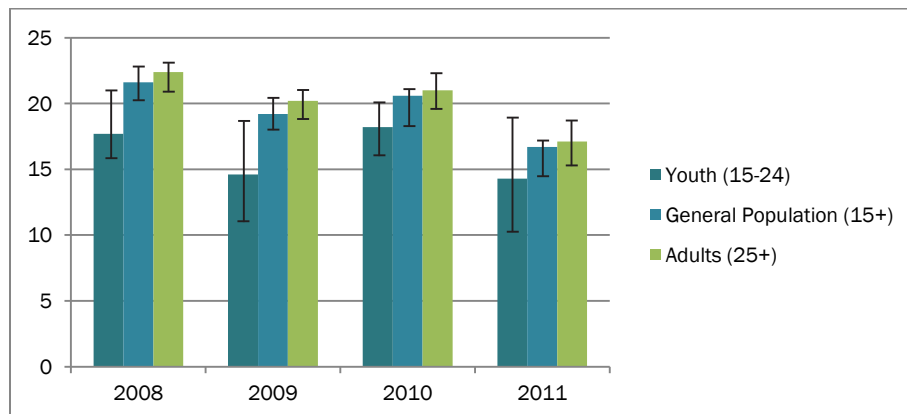
Legal Status of Opioids in Canada

Prescription opioids are classified as Schedule I drugs under the *Controlled Drugs and Substances Act* (CDSA). Their use is legal only when they are prescribed by licenced practitioners and are used by the person for whom they are prescribed. Illegal possession of opioids and “double doctoring” (i.e., obtaining a prescription from more than one practitioner without telling the prescribing practitioner about other prescriptions received in the past 30 days) can result in seven years imprisonment. Trafficking, importing, exporting or producing opioids can result in life imprisonment.²

Past-Year Opioid Use in Canada

- **General population (age 15+):** The prevalence of the use of opioid pain relievers among the general population was 16.7% in 2011, down from 21.6% in 2008, according to the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS 2008, 2009, 2010, 2011).³
- **Youth (age 15–24):** Youth have the lowest rate of opioid pain reliever use among all Canadians (14.3% for 2011).³
- **Adults (age 25+):** The rate of opioid pain reliever use among Canadian adults was 17.1% in 2011.³
- **Seniors (age 65+):** The rate of opioid pain reliever use among Canadian seniors was 17.7% in 2011.³
- **Gender:** Data from the 2011 CADUMS indicates that the prevalence of use of opioid pain relievers does not significantly differ between males and females.³

Figure 1: Prevalence of self-reported opioid pain reliever use among Canadians by age category (CADUMS)³



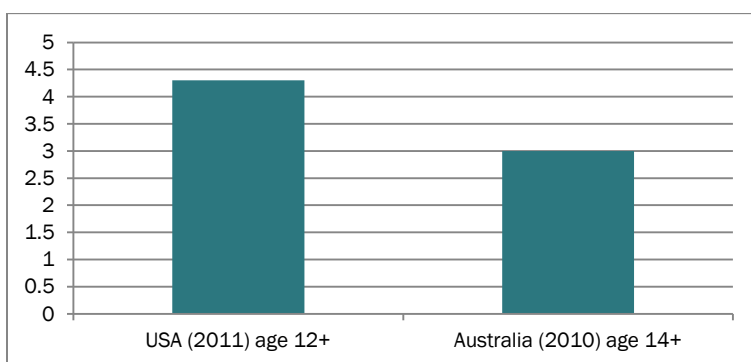
Misuse of Prescription Opioids

While prescription opioids are prescribed for pain management and other purposes, they have the potential to be misused because of their psychoactive properties and risk for psychological and physical dependence (addiction), accessibility, perceptions of relative safety compared with other illicit drugs, and multiple opportunities for diversion along the supply chain, among other factors. Those who misuse opioids might take the drug in ways other than those prescribed (e.g., taking more than prescribed or mixing the medication with alcohol) or tamper with the medication to achieve a more rapid and robust effect.⁴



- In 2010–2011, 3.9% of Canadian students in grades 6 to 12 reported past-year use of pain relievers to get high and not for medical purposes.⁵
- Among First Nations individuals aged 18 and older living on-reserve or in northern First Nations communities across Canada, 4.7% reported past-year use of illicit (heroin) or prescription opioids, including morphine, methadone and codeine, without a prescription in 2008–2010.⁶
- Among First Nations youth aged 12–17 years, 1.3% reported using illicit or prescription opioids without a prescription during the previous 12 months.⁶
- The prevalence of non-medical use of opioids is comparable in the United States and Australia.^{7,8}

Figure 2: Prevalence of self-reported non-medical use of prescription opioids among the general population by country



Sources: National Survey on Drug Use and Health (2011);⁷ National Drug Strategy Household Survey (2010)⁸

Prescription drugs are used widely by adults aged 65 and older, a growing demographic. Because of high prevalence rates of chronic pain and insomnia, seniors are also more likely to receive prescriptions for psychoactive medications, including opioids that have the potential for misuse.⁹ Accurate and reliable data on the prevalence of prescription drug misuse among seniors in Canada is lacking. However, as the baby-boom population ages, a substantial increase in the number of seniors needing treatment for substance misuse problems is anticipated. This prediction is based on a study that estimated that the number of older adults in need of substance misuse treatment in the U.S. could increase from 1.7 million in 2000 to 4.4 million in 2020.¹⁰

Opioid-related Harms

From 2005–2006 to 2010–2011, there was an almost 250% increase in the number of emergency room (ER) visits in Ontario related to narcotics withdrawal, overdose, intoxication, psychosis, harmful use and other related diagnoses.¹¹ Rates of ER visits for opioid-related mental and behavioural disorders also increased in Ontario between 2008–2009 and 2010–2011.¹²

Table 2: ER visits in Ontario by region

Region	2008–2009 ER Visits	2010–2011 ER Visits
All of Ontario	2.6 for every 10,000 people	3.7 for every 10,000 people
Northern Ontario only	9.2 for every 10,000 people	22.9 for every 10,000 people
First Nations	12.1 for every 10,000 people	55 for every 10,000 people

In Canada, 3.8 infants out of 1,000 births were born to mothers who used opioids during pregnancy and displayed a recognizable withdrawal syndrome called neonatal abstinence syndrome. In Ontario, that rate is 4.3 per 1,000 births.¹³



Opioid-related Deaths

There are currently no national-level data available for prescription drug-related mortality in Canada. Provincial data is available from three jurisdictions: Ontario, Alberta and British Columbia.

Ontario

In Ontario, dispensing and coroner data suggest that the rate of prescription opioid-related deaths doubled in eight to ten years.^{14,15} A recent review of opioid-related deaths in Ontario, notes that most of the people who died had been seen by a physician during an emergency room visit within nine days prior to death or an office visit within 11 days prior to death, and the final encounter with the physician involved a mental health or pain-related diagnosis. In almost one quarter of the cases, the coroner determined that the manner of death was suicide.¹⁴ The reasons for the increased mortality rate include introduction of long-release OxyContin® in 2002, which resulted in a higher potency that people were not aware of and did not adjust their dosage for when crushing, snorting or injecting.

Alberta

In Alberta, deaths attributable to poisoning from narcotics or hallucinogenic illicit drugs accounted for the second highest prescription drug-related death rate (3.79 per 100,000) between 2003 and 2006.¹⁶

British Columbia

The rate of prescription opioid overdose deaths of persons with chronic pain in one region of British Columbia is similar to that of the number of residents killed in motor vehicle accidents involving alcohol (2–3 per 100,000 persons) in any given year.¹⁷ Between 2005 and 2009, there were 815 deaths related to fentanyl, hydroxymorphone, morphine and oxycodone in British Columbia.¹⁸

Treatment for Opioid Addiction

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. The only publicly available data comes from Ontario, in which prescription opioid-related admissions to substance use treatment programs doubled from 2004–2009.¹⁹ In 2005–2006, prescription opioid use was identified by 10.6% of individuals seeking addiction treatment in that province. By 2010–2011, the numbers had increased to 18.6%.²⁰ In 2002, four of five patients presenting for methadone maintenance treatment (MMT) in Toronto reported non-medical prescription opioid use at time of admission.²¹ Currently, 350 physicians prescribe methadone to over 37,000 people in Ontario.²²

The projected cost of untreated opioid use in Ontario has been estimated at \$44,000 per person per year, compared to the approximate cost of \$6,000 per year for treating an individual with opioid dependence in a comprehensive MMT program. It has been reported that three percent of people prescribed opioids will develop a full-blown addiction if a prior risk assessment is not completed.¹¹



Additional Resources

- First Do No Harm: Responding to Canada's Prescription Drug Crisis
- National Dialogue on Prescription Drug Misuse

¹ Todd, K.H., Ducharme, J., Choiniere, M., Crandall, C.S., Fosnocht, D.E., Homel, P. & Tanabe, P. (2007). Pain in the emergency department: Results of the pain and emergency medicine initiative (PEMI) multicenter study. *The Journal of Pain*, 8(6), 460-466.

² *Controlled Drugs and Substances Act*, S.C. 1996, c. 19, <http://laws-lois.justice.gc.ca/eng/acts/C-38.8/index.html>.

³ Health Canada. (2012). Canadian Alcohol and Drug Use Monitoring Survey (CADUMS).

⁴ Vosburg, S., et al. (2012). Assessment of a formulation designed to be crush-resistant in prescription opioid abusers. *Drug and Alcohol Dependence*, 126, 206-215.

⁵ Health Canada. (2012). Youth Smoking Survey (YSS): Summary of Results for 2010-11.

⁶ First Nations Information Governance Centre (FNIGC). (2012). First Nations Regional Health Survey (RHS) 2008/10: National Report on Adults, Youth and Children living in First Nations Communities. Ottawa, ON: FNIGC.

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⁸ Australian Institute of Health and Welfare. (2011). *2010 National Drug Strategy Household Survey Report*. Canberra: Author.

⁹ Simoni-Wastila, L. & Yang, H.K. (2006). Psychoactive drug abuse in older adults. *American Journal of Geriatric Pharmacotherapy*, 4, 380-394.

¹⁰ Gfroerer, J., Penne, M., Pemberton, M., & Folsom, R. (2003). Substance abuse treatment need among older adults in 2020: The impact of the aging baby-boom cohort. *Drug and Alcohol Dependence*, 69, 127-135.

¹¹ Expert Working Group on Narcotic Addiction. (October 2012). *The Way Forward: Stewardship for Prescription Narcotics in Ontario*.

¹² Ontario Ministry of Health and Long-Term Care. Emergency Room Visits for Mental and Behavioural Disorders Due to Use of Psychoactive Substances, 2008/09 to 2011/12 (Q1 and Q2), as cited in Expert Working Group on Narcotic Addiction. (October 2012). *The Way Forward: Stewardship for Prescription Narcotics in Ontario*.

¹³ Better Outcomes Registry and Network Ontario (BORN) data, as cited in Expert Working Group on Narcotic Addiction. (October 2012). *The Way Forward: Stewardship for Prescription Narcotics in Ontario*.

¹⁴ Dhalla, I.A., et al. (2009). Prescribing of opioid analgesics and related mortality before and after the introduction of long-acting oxycodone. *CMAJ*, 181(12).

¹⁵ Office of the Chief Coroner of Ontario.

¹⁶ Wild, C., Wolfe, J., Newton-Taylor, M. & Kang, H. (2008). *Prescription Drug Misuse in Edmonton and Alberta: A Rapid Assessment*. Addiction and Mental Health Research Laboratory, University of Alberta.

¹⁷ Corneil, T., Elefante, J., May-Hadford, J., Goodison, K., & Harris, B. (September 2012). Non-illicit, non-methadone, prescription opiate overdose deaths in BC's Interior Region: Findings from a Retrospective Case Series, 2006-2011. British Columbia Interior Health Alert.

¹⁸ Fischer, B., Jones, W. & Rehm, J. (2013). High correlations between levels of consumption and mortality related to strong prescription opioid analgesics in British Columbia and Ontario, 2005-2009. *Pharmacoepidemiology and Drug Safety*, Article first published online: 14 JAN 2013 | DOI: 10.1002/pds.3404.

¹⁹ Fischer, B., Nakamura, N., Rush, B., Rehm, J. & Urbanoski, K. (2010). Changes in and characteristics of admissions to substance use treatment related to problematic prescription opioid use in Ontario, 2004-2009. *Drug and Alcohol Dependence*, 109, 257-260.

²⁰ Centre for Addiction and Mental Health (CAMH) Drug and Alcohol Treatment Information System, data collected up to February 29, 2012.

²¹ Brands, B., Blake, J., Sproule, B., Gourlay, D. & Busto, U. (2004). Prescription opioid abuse in patients presenting for methadone maintenance treatment. *Drug and Alcohol Dependence*, 73, 199-207.

²² Wade Hillier, College of Physicians and Surgeons, Personal Correspondence, May 3, 2012.

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