

Cocaine

Key Points

- The percentage of cocaine use in the Canadian population is low (~1%).
- The rate of Canadian youth who report cocaine use is increasing.
- Cocaine use in Canada is often concentrated among high-risk populations.

Introduction

Cocaine is a white powder that is often mixed with substances similar in appearance, such as cornstarch. Crack is derived from cocaine and takes the form of a whitish, opaque crystal.* Commonly used street names for cocaine include “coke,” “coca,” “coco,” “snow,” “Charlie,” “dust,” “snowflake” and “powder,” while “freebase” and “rock” are terms often used for crack.¹

Cocaine in powdered form can be taken through the nose by snorting or dissolved and injected. Crack or freebase cocaine can be smoked or dissolved and injected. Using other drugs with cocaine, particularly opiates, either at the same time (“speedballs”) or consecutively, is associated with an increased risk of overdose.

Effects of Cocaine Use

Short term: Cocaine use can cause increased energy and alertness; euphoria; increased body temperature; increased heart rate and blood pressure;^{2,3} agitation; paranoia; suppressed appetite; muscle spasms; stroke; fainting; and overdose. An overdose can involve chest pain, arrhythmia, confusion, convulsions, respiratory depression, coma or death.²

Long term: Longer term effects of cocaine use are sleep disturbance; weight loss; tolerance to the drug; depression; cardio-vascular problems;^{3,4} nasal damage (through snorting); kidney failure;⁵ throat and bronchial damage (through crack smoking);⁶ headaches; hallucinations; seizure; and attention and memory disruptions. Maternal use of cocaine during pregnancy can also result in low birth weight (and related long-term health complications) for newborns.^{5,7}

Legal Status of Cocaine in Canada

Cocaine is a Schedule I drug under the Canadian *Controlled Drugs and Substances Act*. Possession of the drug can result in seven years’ imprisonment, while trafficking and production of the drug can result in life imprisonment. Driving while impaired by cocaine is also a criminal offence under the

* Unless otherwise specified, use of the term “cocaine” in the remainder of this document also encompasses “crack.”



Criminal Code of Canada, as is refusing to comply with drug tests enforced by police officers; penalties for those convicted are equivalent to those for alcohol impairment.

Past-Year Use of Cocaine in Canada

General population (age 15+): According to data collected from the Canadian Tobacco, Alcohol and Drugs Survey (CTADS), 1.2% of Canadians aged 15 and older reported using cocaine during the past year in 2015, which is comparable to the 0.9%[†] who reported such use in 2013 (Figure 1).^{8,9} This pattern aligns with a levelling-off or slight rebound seen internationally during this time period.¹⁰ Because of methodological differences between CTADS and the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS), comparisons of prevalence estimates between CADUMS (2008–2012) and CTADS (2013) data should be made with caution.

Adults (age 25+): 0.8%[†] of Canadian adults report past-year cocaine use according to the 2015 CTADS.⁹ This level of use has remained fairly stable since 2008, with the exception of a reduction to 0.3% in 2010.¹¹

Youth (age 15-24): Youth in Canada, including students as well as those not in school, reported past-year rates of cocaine use of 3.5% in 2015 (2.1%[†] in 15–19 year olds, 4.7% in 20–24 year olds), representing a significant increase after having a continued decrease in trends since 2008, though rates from 2011 and 2012 are not available.^{8,9,11}

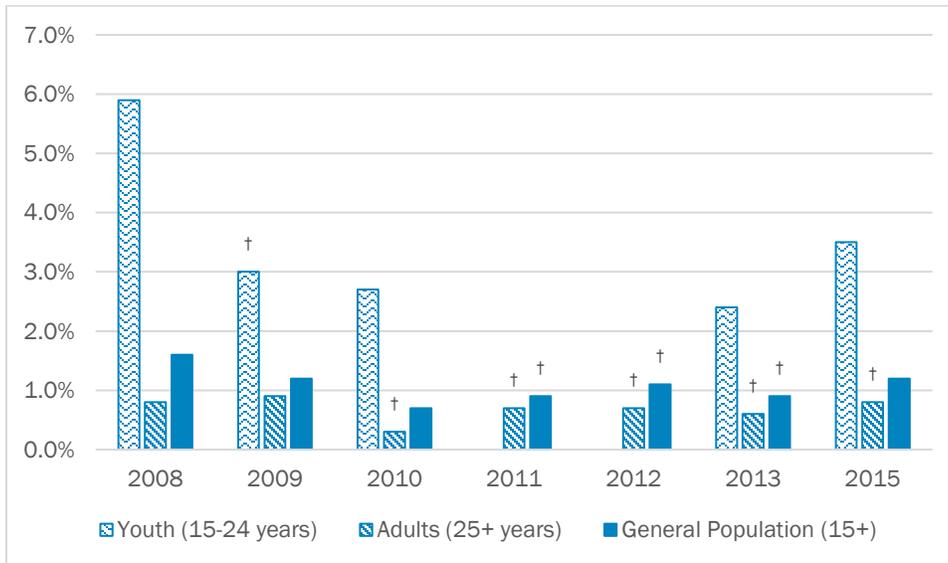
Students (grades 7-12): The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) 2014–2015 indicated that 2.0% of youth in grades 7–12 reported past-year cocaine use, compared to 1.8% in 2012–2013¹² More specifically, 3.2% of students in grades 10–12 and 0.8%[†] of students in grades 7–9 reported past year of cocaine use. The Ontario Student Drug Use and Health Survey (OSDUHS) noted a decrease in the use of both cocaine (5.7% in 2003 to 2.5% in 2015) and crack (3.2% in 2003 to <0.5% in 2015) among students in grades 9–12.¹³ Rates of past-year use for 2012–2013 in the Atlantic provinces ranged from 2.9% in Prince Edward Island¹⁴ to 4.1% in Nova Scotia¹⁵ to 4.5% in New Brunswick¹⁶ and 5.8% in Newfoundland and Labrador¹⁷ for students in grades 7, 9, 10 and 12. Rates of use increased with grade level in all provinces.

Gender: Over the past several years, the prevalence of past-year use of cocaine among males has been consistently decreasing, from 2.3% in 2008 to 1.3%[†] in 2013. In 2015, the prevalence slightly increased to 1.5%[†] but remains relatively low. The rates of females who used cocaine also showed an increase in 2015 (0.9%[†] compared to 0.5% in 2013). Nonetheless, rates remain higher among males than among females.^{8,9,11}

[†] Note: All figures identified with a cross (†) should be interpreted with caution due to small sample size.



Figure 1: Prevalence of self-reported past year cocaine use among Canadians, by age category



Source: CADUMS 2008–2012; CTADS 2013–2015^{8,9,11}

Note: Figures identified with a cross (†) should be interpreted with caution due to small sample size. Figures for youth are not available for 2011 and 2012 due to data suppression.

Because of methodological differences between CADUMS and CTADS, comparisons of prevalence estimates between CADUMS (2008–2012) and CTADS (2013–2015) data should be made with caution.

Ranking Among Top Five Substances

According to CTADS 2015 data, cocaine was the third most used substance after alcohol and cannabis, and use occurs as frequently as for hallucinogens among the general population (15+).⁹ In contrast, youth were almost as likely to report the use of ecstasy as cocaine, although alcohol and cannabis use were substantially more prevalent. Among adults (25+), cocaine was the fourth most used substance, after alcohol, cannabis and hallucinogens (Table 1).

Table 1: Top five substances used in the past year by Canadians

	#1	#2	#3	#4	#5
General Population (15+)	Alcohol (76.9%)	Cannabis (12.3%)	Cocaine/Crack Hallucinogens & Salvia (1.2%)	Ecstasy (0.7%)	Pharmaceuticals to get high† (0.5%)†
Youth (15–24)	Alcohol (71.8%)	Cannabis (25.5%)	Cocaine/Crack (3.5%)†	Ecstasy (3.4%)†	Hallucinogens & Salvia (2.7%)†
Adults (25+)	Alcohol (77.8%)	Cannabis (9.9%)	Hallucinogens & Salvia (0.9%)†	Cocaine/Crack (0.8%)†	Pharmaceuticals to get high (0.3%)†

Source: CTADS, 2015⁹

Note: Figures identified with a cross (†) should be interpreted with caution due to small sample size.

† This category includes any pharmaceutical such as pain relievers, sedatives and stimulants

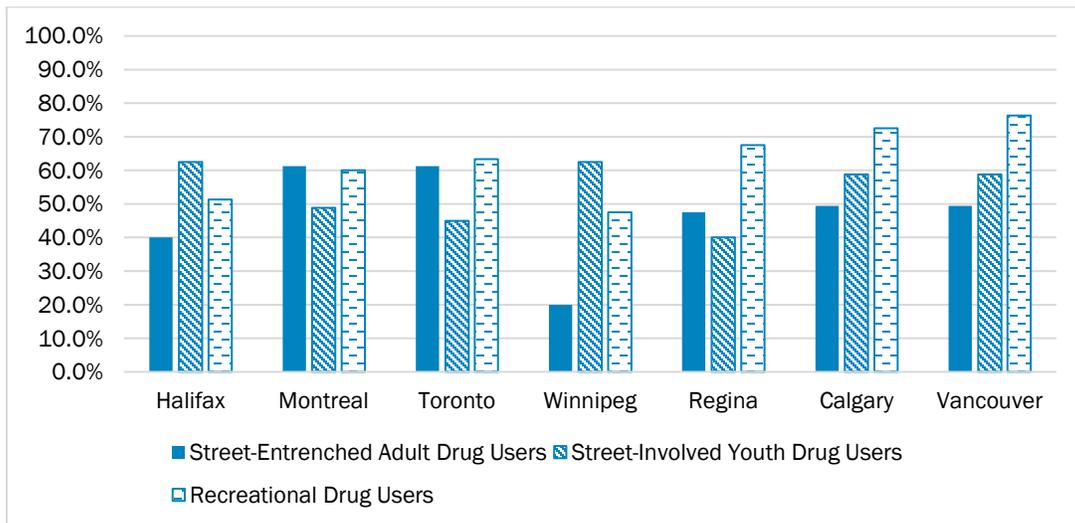


High-Risk Populations

In Canada, cocaine use is concentrated among specific groups, such as homeless or street-involved adults, and youth in urban centres.^{18,19} Data from Phase 3 of the I-Track survey (2010–2012) found that among those who had injected drugs in the past six months, 64% had first injected cocaine before the age of 16.²⁰

Health Canada’s Monitoring of Alcohol and Drug Use among High-Risk Populations Study (HRPS),[§] a survey monitoring drug use among high-risk populations, found that in 2013 cocaine was the second most commonly used illicit substance after cannabis among both street-entrenched and recreational adult drug users.^{21,22} The prevalence of past-year use of cocaine powder in these respective groups ranged from 20.0% in Winnipeg to 61.3% in Montreal and Toronto among street-entrenched adult users, and from 47.5% in Winnipeg to 76.3% in Vancouver among recreational adult users (Figure 2). Also of note, use among street-involved youth ranged from 40.0% in Regina to 62.5% in Halifax and Winnipeg.²³

Figure 2. Prevalence of self-reported past-year cocaine use among high-risk populations by city (2013)



Source: 2012–2013, HRPS^{21,22,23}

Past-Year Use of Cocaine Internationally

According to the United Nations Office on Drugs and Crime (UNODC), annual prevalence of cocaine use among the general population in Canada (15+) is relatively high at 1.1% compared to the global estimate of 0.38%; however, rates remain lower than in the United States (2.1%), England and Wales (2.4%), and Australia (2.1%) (Figure 3).²⁴

§ To be included in the HRPS study, individuals from each of these groups had to have used at least one drug (excluding alcohol and tobacco) at least once in each of the last six months prior to each of the interviews.

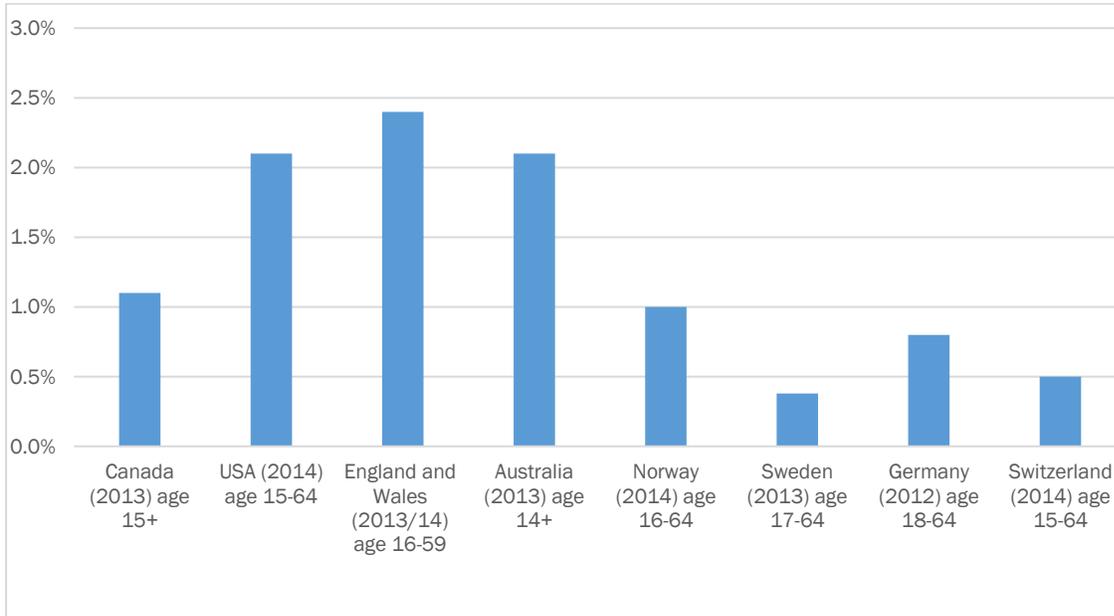
Street-entrenched adults include individuals 19 years of age or older with no permanent shelter.

Recreational drug users include individuals recruited at an event-specific site (e.g., rave, warehouse party) or permanent nightclub sites.

Street-involved youth include individuals 15–24 years of age who might be experiencing total homelessness; have temporary, but not permanent, shelter; use services oriented to street youth; or were identified by local stakeholders as “street-involved.”



Figure 3. Prevalence of self-reported past-year cocaine use among the general population by country



Source: UNODC 2016²⁴

Note: International prevalence rates are not directly comparable due to variations in survey dates and population age ranges.

Associated Harms

Hospital data provide an important measure of the impact of substance use on the healthcare system. Data produced by the Canadian Institute for Health Information (CIHI) indicate that the rate of hospital separations or visits (defined as the number of inpatient events ending in discharge or death) where cocaine use was recorded doubled between 1996 and 2005, from 22 to 45 per 100,000 discharges.²⁵ However, more recent data provided by CIHI have shown a 55% decrease in the number of cocaine-related hospital separations between 2006 and 2011, mainly due to a drop in admissions among 25–44 year olds.²⁶

Treatment

According to 2013–2014 data from the National Treatment Indicators report, 17.5% of treatment episodes in Ontario were for individuals who identified cocaine as one of the primary substances for which they were seeking treatment. In Ontario, the third most commonly reported reason for seeking treatment was cocaine, preceded by alcohol and cannabis.²⁷

Although research is ongoing, at present there is no evidence to support the use of pharmacological treatments (i.e., anticonvulsants,²⁸ antidepressants,²⁹ stimulants,³⁰ antipsychotics³¹ or dopamine agonists³²) or vaccines^{33,34} for treating cocaine use or dependence.

Despite the challenges accessing comprehensive, effective treatment interventions, there are initiatives in place to reduce the harms associated with the use of cocaine, including:

- Needle exchanges that provide sterile injection equipment, which are present in urban centres and many rural locations across Canada;



- Crack kit dispensaries that provide sterile pipes and stems for inhaling crack cocaine, which are present in a limited number of Canadian urban centres; and
- Supervised injection facilities where people can inject cocaine under the supervision of health professionals, which are present in Vancouver, British Columbia, and several European countries.

Enforcement

According to the UNODC, Canada reported the seizure of some 2,365 kilograms of cocaine by law enforcement in 2014, an increase of about 125 % compared to seizures in the previous year (1,030 kilograms).²⁴ In 2015, cocaine-related drug offences were the second most common type of drug crime in Canada according to police records. Yet, the drug offences related to cocaine declined 7% in 2015 from a peak in 2007, mostly as a result of decreases in Alberta (12%) and British Columbia (17%). The only increases in rates of cocaine offences were reported in Nunavut, the Northwest Territories, Newfoundland and Labrador, and Saskatchewan.³⁵

Driving Following Cocaine Use

A 2012 roadside survey conducted in five communities in British Columbia found that cocaine was the second-most commonly detected illegal drug, following cannabis. Cocaine showed the greatest increase in percentage of drug-positive samples, moving from 24.3% in 2010 to 33% in 2012.³⁶ In addition, an ongoing cross-sectional telephone survey of Ontario adults over five years (2002–2004, 2006 and 2008) found that the prevalence of self-reported collision involvement in the past year was significantly higher among those reporting cocaine use in the past 12 months compared to those who had not used cocaine (18.9% versus 7.4%, respectively).³⁷

Additional Resources

- [The Impact of Substance Use Disorders on Hospital Use \(Technical Report\)](#)
- [Licit and Illicit Drug Use during Pregnancy: Maternal, Neonatal and Early Childhood Consequences \(Substance Abuse in Canada Report\)](#)
- [National Treatment Indicators Report: 2013–2014 Data](#)
- [Stimulants, Driving and Implications for Youth \(Topic Summary\)](#)





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