Evidence. Engagement. Impact.

**Summer 2019** 

**Canadian Drug Summary** 

# **Alcohol**

#### **Key Points**

- Alcohol is by far the most common drug used by Canadians and use has increased significantly among females since 2013.
- Approximately 15% of Canadians who drink alcohol consume above *Canada's Low-risk Alcohol Drinking Guidelines*.
- The risky use of alcohol is still the most prevalent among young adults (age 18–24).
- The use and risky use of alcohol by underage youth and young adults has remained steady in recent years.
- In 2017, the rate of hospitalizations entirely caused by alcohol (249 per 100,000) was comparable to the rate of hospitalizations for heart attacks (243 per 100,000) and the rate was thirteen times higher than for opioids.
- In 2014, alcohol contributed to 14,826 deaths in Canada, representing 22% of all substance use attributable deaths.

### Introduction

Alcohol is produced by fermenting or distilling various fruits, vegetables or grains. Fermented beverages include beer, cider and wine, and they, along with flavoured purified alcohol, generally have an alcohol content of between 0.5% and 20%. Distilled beverages, also known as "spirits," include products such as vodka and whiskey, and have a higher alcohol content (25% or more).

The consumption of alcohol carries a risk of adverse health consequences, including heart and liver disease, and several types of cancers, as well as the risk of injuries and violence. A recent meta-analysis on the global burden of alcohol use indicates that any potential health benefits from low levels of alcohol intake are outweighed by the increased risk of other health-related harms. In November 2011, the Canadian federal, provincial and territorial health ministers launched *Canada's Low-risk Alcohol Drinking Guidelines* (LRDGs), consisting of five guidelines and a series of tips to help Canadians reduce their chronic alcohol-related harm. The guidelines were developed when different guidelines existed across various provinces and jurisdictions and as per capita consumption of alcohol had increased 14% from 1996. The guidelines recommend that women should consume no more than two drinks a day, 10 per week, and men should consume no more than three drinks a day, 15 per week. To reduce their risk for acute alcohol-related harm, women should not exceed three drinks and men should not exceed four drinks on any single occasion.<sup>2</sup>

The most recent comprehensive cost study estimated the total cost of alcohol-related harm to Canadians to be \$14.6 billion in 2014.<sup>3</sup> This figure includes the following annual costs:

- \$5.9 billion in lost productivity due to disability and premature death
- \$4.2 billion for healthcare costs

- \$3.2 billion for criminal justice costs
- \$1.3 billion for other direct costs due to property damage, workplace programs, and research and prevention

#### **Effects of Alcohol Use**

- **Short term**: Intoxication, memory loss and blackouts, injury, violence, accidents, spousal abuse, suicide, alcohol toxicity (overdose), death.<sup>4,5,6,7</sup>
- Long term: Alcohol dependence, increased risk of several types of cancer (e.g., cancers of the mouth, throat, liver, breast and digestive track), learning and memory problems, mental health (e.g., depression, anxiety), social problems (e.g. lost productivity, unemployment, family problems), diabetes, cirrhosis, pancreatitis, low birth weight, fetal alcohol spectrum disorder (FASD).<sup>4,8</sup>

## Legal Status of Alcohol in Canada

Alcohol is a legal, regulated substance in Canada. The regulatory framework for controlling the production, distribution, sale and possession of alcohol is shared between federal, provincial and territorial governments. The provincial and territorial governments maintain wholesale monopolies on the distribution of alcohol and, with the exception of Alberta, are also the leading retailers of alcohol. All jurisdictions have statutes prohibiting the sale of alcohol to minors (age 17 and under in Alberta, Manitoba and Quebec; age 18 and under elsewhere in Canada) and laws prohibiting sale to those who are visibly intoxicated.

Driving while impaired by alcohol (i.e., with a blood alcohol content [BAC] equal to or greater than 80 mg/dL) is prohibited under federal law. When found in combination with cannabis (THC), the prohibited level of alcohol while driving is a BAC equal to or greater than 50mg/dL. Most provincial jurisdictions also have administrative sanctions (e.g., 24-hour roadside suspension of license) for drivers with a BAC equal to or greater than 50 mg/dL, and all provincial/territorial jurisdictions except Nunavut have zero alcohol tolerance provisions for young or novice drivers. 10

### **How Canadians Drink**

#### Past Year Use of Alcohol in Canada

- General population (age 15+): According to data collected from the 2017 Canadian Tobacco, Alcohol and Drugs Survey (CTADS), 78.2% of Canadians aged 15 and over reported drinking alcohol at least once in the last year.<sup>11</sup> This level has remained relatively stable since 2013 (75.9%). Provincial prevalence of alcohol use in the past year ranged from 68.4% (85,000) in Prince Edward Island to 84.2% (5.8 million) in Quebec.
- Young Adults (18–24): According to CTADS, the prevalence of past-year drinking in 2017 among young-adults of legal drinking age (18-24 years\*) was 82.3%, and 79.4% for adults age 25 or older.<sup>11,†</sup> The highest prevalence of drinking for both males and females was among those aged 25 to 34 (87.4% for males and 85.6% for females) (Figures 1).

<sup>\*</sup> Legal drinking age in Alberta, Manitoba and Quebec is 18 years old; in the rest of provinces and territories it is 19 years old.

<sup>†</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely those of the Canadian Centre on Substance Use and Addiction.

- Older Adults (age 65+): According to CTADS, in 2017 74.6% of older adults reported drinking in the past year, 79.2% of males and 70.7% of females.<sup>‡</sup>
- **Gender**: According to CTADS, a higher proportion of males compared to females reported past-year alcohol use in both 2013 (80.6% vs. 71.2%) and 2015 (81.3% vs. 72.7%). 12,13 However, in 2017, there was no significant different in the proportion of males and females who reported past-year alcohol use (79.5% vs. 76.9%). 11 Reported past-year use of alcohol has remained constant among males since 2013 (approximately 80%), but has increased significantly among females (71.2% to 76.9%).

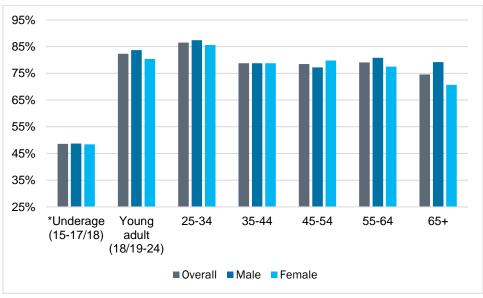


Figure 1: Self-reported past-year alcohol use among Canadians by age and sex (2017)§

Source: CTADS 2017

Note: Underage in Alberta, Manitoba and Quebec is 17 years old; in the rest of provinces and territories it is 18 years old.

<sup>‡</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely that of the Canadian Centre on Substance Use and Addiction.

<sup>§</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely those of the Canadian Centre on Substance Use and Addiction.

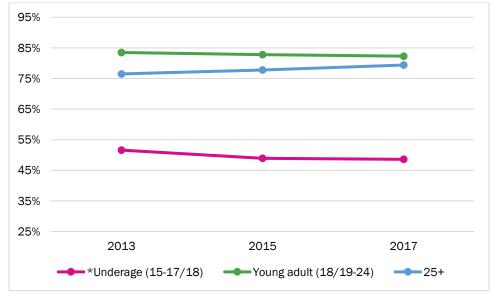


Figure 2: Prevalence of self-reported past-year alcohol use among Canadians by age category (2013-2017)\*\*

Source: CTADS 2013, 2015, 2017

Note: Underage in Alberta, Manitoba and Quebec is 17 years old; in the rest of the provinces and territories it is 18 years old.

#### Youth Drinking

## **Underage Drinking**

Alcohol use among underage youth has remained steady in the past few years, and high-risk or binge drinking has declined, consistent with international trends. <sup>14,15,16</sup> Data from the most recent Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) indicate that among students in grades 7–12, the average age at drinking onset has increased from 13.1 years in 2013 to 13.4 years in 2017, and the average age of initiating high-risk drinking<sup>††</sup> increased from 14.3 years to 14.5 years. <sup>17,18</sup> Among underage drinkers in 2017, the average age of initiation is significantly earlier among boys (13.2 years) than for girls (13.6 years). <sup>17</sup>

The overall prevalence of alcohol use in the past 12 months among students in grades 7–12 for 2016–2017 is 44.0%. This rate is similar for males (44.2%) and females (43.8%) (Figure 3). Prevalence of past-year alcohol use increased substantially with each grade level, from an estimated 23.1% among students in grade 7–9 to 64.5% among those in grades 10–12.

Overall, 24.2% of students grade 7–12 reported drinking five of more drinks on one occasion in the past year in 2016–2017, a significant decrease from 29.2% of students in 2012–2013.<sup>17,18</sup> Similar proportions of males (25.1%) and females (23.3%) reported drinking five or more drinks on one occasion in the past year in 2016–2017 (Figure 4).

<sup>\*\*</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely those of the Canadian Centre on Substance Use and Addiction.

<sup>††</sup> Five or more drinks on one occasion.

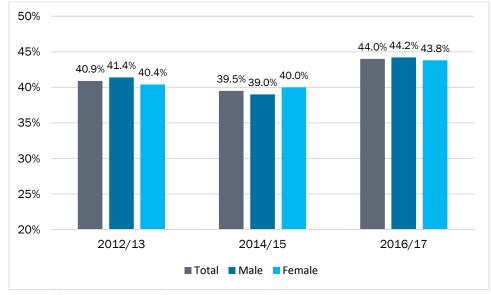


Figure 3: Prevalence of self-reported past-year alcohol use among grades 7-12 in Canada (2017)

Source: YSS 2012-2013, 18 CSTADS 2014-2015, 19 CSTADS 2016-2017 17

Note: For survey cycles preceding 2014-2015, CSTADS was called the Youth Smoking Survey (YSS).

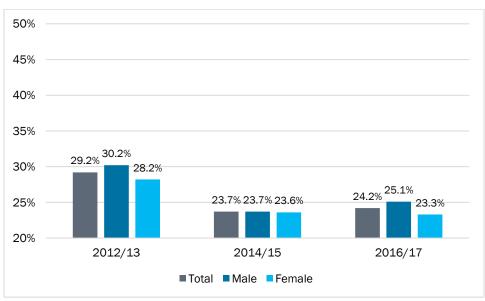


Figure 4: Prevalence of self-reported past-year drinking five or more drinks on one occasion among grades 7-12 in Canada (2017)

Source: YSS 2012-2013, <sup>18</sup> CSTADS 2014-2015, <sup>19</sup> CSTADS 2016-2017 <sup>17</sup>

Note: For survey cycles preceding 2014–2015, CSTADS was called the Youth Smoking Survey (YSS).

# Post-secondary Students' Drinking

The most current Canadian data on post-secondary student drinking is captured by the National College Health Assessment Spring 2016 survey, which is drawn from a convenience sample of 43,780 students in 41 post-secondary institutions in Canada and therefore not representative of all

post-secondary students in Canada, indicated that 69.3% of students reported any use of alcohol within the last 30 days preceding the survey (70.2% of females and 68.1% of males).<sup>20</sup>

Among college and university drinkers, about 35% reported having five or more drinks of alcohol at a sitting over the last two weeks. A higher proportion of males (38.9%) than females (33.5%) reported this risky drinking. The average reported number of drinks consumed is 5.96 for men and 4.67 for females.<sup>20</sup>

## **Provincial Comparison**

Prevalence of alcohol use varies across provinces. In 2017, Prince Edward Island had the lowest prevalence of past-year alcohol use at 68.4%, while Quebec had the highest prevalence at 84.2 % (Figure 5).<sup>11</sup> (The territories are not captured in this data.) Prevalence of alcohol use does not directly relate to absolute per capita consumption (see subsection on Volume of Alcohol Consumed), nor to patterns of drinking (see subsection on Drinking Patterns).

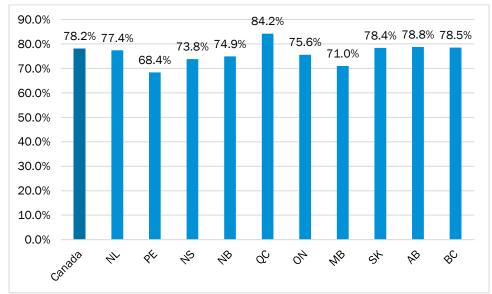


Figure 5: Prevalence of self-reported past-year alcohol use across provinces (2017)

Source: CTADS 201711

## **International Comparison**

Data from the World Health Organization's 2017 World Health Statistics report shows that alcohol consumption in Canada is higher than the global average, and among the highest for developed countries.<sup>21</sup> Total per capita (aged 15 years and older) consumption of alcohol in 2016 was 10.0L in Canada, higher than the United States (9.3 L), Sweden (8.8 L), and Australia (5.4 L), and lower than New Zealand (10.1 L), Germany (11.4 L) and the United Kingdom (12.3 L)<sup>21</sup> (Figure 6).

14 12.3 11.4 12 10.1 10 9.3 10 8.8 8 5.4 6 2 0 United Canada USA Australia New Zealand Sweden Germany Kingdom

Figure 6: Total alcohol per capita (≥15 years of age) consumption (litres of pure alcohol), projected estimates, 2016

Source: World Health Organization 201721

### Ranking Among Top Five Substances

According to CTADS 2017, 78.2% of the general population age 15 and over reported consuming alcohol in the past year, 56.8% of youth aged 15–19 and 83.5% of young adults aged 20–24, making it the leading substance used by Canadians by a wide margin (see Table 1). In comparison with cannabis, Canadians are five times more likely to have consumed alcohol than cannabis in the past year (78.2% vs. 14.8%).<sup>11</sup>

#1 #2 #3 #5 Hallucinogens and Problematic Cannabis Cocaine/Crack **General Population** Salvia Alcohol (78.2%) Prescription Drugs (15+)(14.8%) $(2.5\%)^{\dagger}$ (1.5%) $(1.2\%)^{\dagger}$ Hallucinogens and Ecstasy (1.6%)† Problematic Cannahis Youth (15-19) Alcohol (56.8%) Cocaine/Crack Salvia Prescription Drugs (19.4%)(2.8%) $(1.6\%)^{\dagger}$  $(2.1\%)^{\dagger}$ Problematic Hallucinogens and Young Adults Cocaine/Crack Cannabis Alcohol (83.5%) Prescription Drugs Salvia (33.2%) (6.2%)(20 - 24)(3.6%)† (5.1%)Cannabis Cocaine/Crack Number Number Alcohol (79.4 %) Adults (25+) (12.7%) $(2.2\%)^{\dagger}$ suppressed suppressed

Table 1: Top five substances used in the past year by Canadians (2017)

Source: CTADS 2017<sup>11</sup>

 $\textbf{Note:} \ \ \text{Figures identified with a cross ($^\dagger$) should be interpreted with caution because of the small sample size.}$ 

#### Volume of Alcohol Consumed

## **Alcohol per Capita Consumption**

In 2017–2018, individuals 15 years of age and over purchased an average of 8.2 litres of pure alcohol per year, representing \$756.9 per capita sales per year.<sup>22</sup> There are important variations in

the total recorded per capita alcohol consumption among the provinces and territories. The highest per capita consumption level in the territories is in the Yukon (13.1 L per capita sales), while the lowest is in Nunavut (2.8 L per capita sales). For the provinces, the highest per capita consumption level is in Newfoundland and Labrador (9.1 L per capita sales), while the lowest is in New Brunswick (7.1 L per capita sales) (Figure 7).<sup>22</sup>

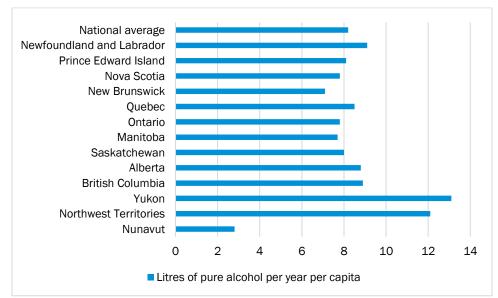


Figure 7: Per capita consumption of alcohol by Canadian jurisdiction (2017-2018)

Source: Statistics Canada, 2019, Table 10-10-0010-0122

## **Most Consumed Alcoholic Beverages**

According to the most recent report on the *Control and Sale of Alcoholic Beverages*, in 2017–2018, 39.7% of the absolute value for total per capita sales in Canada was consumed in the form of beer, followed by 32.4% for wine, 23.7 % for spirits and 4.2% for ciders, coolers and other refreshment beverages.<sup>23</sup> Liquor stores, agencies and other retail outlets sold 2,215 million litres of beer, equivalent to 220.6 bottles of beer per person over the legal drinking age in Canada (1 bottle = 341 ml, 5% alcohol content).<sup>23</sup>

# **Drinking Patterns**

# Low-risk Alcohol Drinking Guidelines

In 2017, among the general population (age 15+) who consumed alcohol in the past 12 months, 20.8% (16.1% of the total population) exceeded the LRDGs for chronic effects. That is, they exceeded the guideline of no more than 10 drinks a week for women, with no more than two drinks a day most days, and 15 drinks a week for men, with no more than three drinks a day most days. In the same period, 14.8% (11.5 % of the total population) exceeded the LRDGs for acute effects. That is, they exceeded the guideline of no more than three drinks for women or four drinks for men on any single occasion. 11

Across provinces, Prince Edward Island has the highest proportion of drinkers exceeding the LRDGs for both chronic (27.1% or 18.4% % of the total population) and acute effects (22.3% or 15.1% of

the total population). At the other end of the spectrum, Saskatchewan has the lowest proportion of drinkers exceeding the LRDGs for chronic effects (14.3 % or 11.1 % of the total population), while Alberta has the lowest proportion of drinkers exceeding the LRDGs for acute effects (11.4 % or 8.9% of the total population). <sup>11</sup>

Canadian men are more likely than women to exceed the LRDGs for both types of effects. The LRDGs were exceeded by young adults (age 18/19-24) at higher rates for both chronic and acute harms (28.9 % and 22.7 %, respectively) than among underage drinkers (12.0 % and 7.5 %, respectively) and adults over the age of 25 (20.1 % and 14.1 %, respectively) (Figure 8).

The data on drinking habits in relation to the LRDGs are derived completely from the alcohol consumption of respondents in the previous seven days. Respondents who did not drink in the week preceding the survey are automatically considered as not exceeding the LRDGs, so the numbers of people exceeding the LRDGs could be underestimated. Using a different methodology, some researchers have estimated that more than a quarter (27.3%) of Canadians who drink alcohol could be exceeding the guidelines for chronic effects and more than a third (38.6%) could be exceeding the guideline for acute effects.<sup>24</sup>

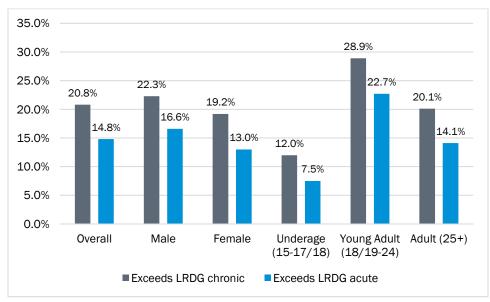


Figure 8: Percentage of the Canadian population exceeding low-risk drinking guidelines for chronic or acute related harm (2017) $^{\ddagger\ddagger}$ 

Source: CTADS 201711

**Note:** Based on alcohol consumption in the previous 7 days. Underage drinking varied by province and is 15–17 years in Alberta, Manitoba and Quebec, and 15-18 years elsewhere in Canada

## **Heavy Drinking**

Heavy drinking is a measure of alcohol consumption that refers to males who reported having five or more drinks on one occasion or women who reported having four or more drinks on one occasion, at least once a month in the past year.<sup>2</sup>

<sup>‡‡</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely that of the Canadian Centre on Substance Use and Addiction.

According to the 2018 Canadian Community Health Survey, 19.1% of Canadians aged 12 and older report heavy drinking at least once a month in the previous year. Across provinces, this prevalence varies from 16.0% in Manitoba to 27.7% in Newfoundland and Labrador. Canadians living in rural areas were more likely to report heavy drinking (22.4%) compared to those living in urban areas (18.4%). In 2018, 23.5% of males reported having five or more drinks on one occasion at least once in the past year, compared to 14.8% of females who reported having four or more drinks on one occasion at least once in the past year.

Data from the 2017 Canadian Tobacco Alcohol and Drug Survey (CTADS) indicate that male and female young adults (age 18/19 to 24) are more likely to report heavy drinking than adults over the age of 25 (43.1% vs. 27.1% for males and 36.3% vs. 19.6% for females) (Figure 9).<sup>11, §§</sup>

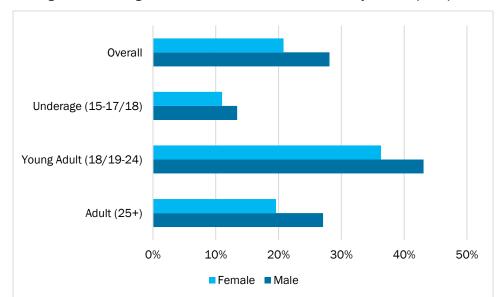


Figure 9: Percentage of Canadians who are classified as heavy drinkers (2017)\*\*\*

Source: CTADS 201711

# **Drinking and Driving**

# **Driving after Consuming Alcohol**

Based on data from the 2014 Canadian Community Health Survey available for Ontario, Manitoba, Alberta, Yukon and Nunavut, less than one in 20 drivers (4.3%) reported driving within an hour after consuming two or more drinks in the past year.<sup>27</sup> Those who reported driving after drinking did so on average six times in the past year, accounting for 97% of all self-reported drinking and driving incidents during the year.<sup>27</sup> Men (7.5%) were more likely than women (0.8%) to report drinking and driving in 2014.

The 2017 Ontario roadside survey reported the prevalence of alcohol use among nighttime drivers to be 4.4%. Among those, 2.6% of survey participants had a BAC under 50 mg/dL, 1.0% had a BAC

<sup>§§</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely that of the Canadian Centre on Substance Use and Addiction.

<sup>\*\*\*</sup> This analysis is based on the Statistics Canada microdata file. All computations, use and interpretation of these data are entirely that of the Canadian Centre on Substance Use and Addiction.

between 50 and 80 mg/dL, and 0.8% had a BAC over 80 mg/dL.<sup>28</sup> The 2018 British Columbia roadside survey reported a similar prevalence of alcohol use among nighttime drivers at 4.9%, where 4.1% had a BAC under 50 mg/dL, 0.3% had a BAC between 50 and 80 mg/dL, and 0.5% had a BAC over 80 mg/dL.<sup>29</sup> Both surveys reported that the percentage of male drivers who had been drinking (Ontario: 5.4%, British Columbia: 5.8%) was significantly higher than females (Ontario: 2.5%, British Columbia: 3.2%).<sup>28,29</sup>

Based on a 2018 national public opinion poll, 20% of respondents reported driving after consuming any amount of alcohol in the past 30 days; this prevalence has not changed substantially in the past decade.<sup>30</sup> In 2018, 5.8% of respondents reported driving when they thought they were over the legal limit in the past year, and this prevalence has increased in the past few years (from 4.2% in 2015). Respondents who reported driving when they thought they were over the legal limit did most of their drinking at the home of a friend or relative (30.2%), while a quarter (23.8%) consumed alcohol at their own home. 20.4% at a restaurant and 15.5% at a bar.

### **Incidents for Criminal Drinking and Driving**

Impaired driving is one of the most common criminal offences and is among the leading criminal causes of death in Canada. In 2017, 65,558 alcohol-impaired driving incidents were reported (179 incidents per 100,000 population), which is the lowest rate since 1986 and a 26% decrease from 2007.<sup>31</sup> Almost all police-reported impaired driving incidents continued to involve alcohol in 2017 (95%), while a small proportion involved drugs (5%).<sup>31</sup>

## **Deaths Caused by Drinking Drivers**

In 2014, 1,558 people died in a motor vehicle crash in Canada, of which 1,472 involved alcohol<sup>†††</sup> and 421 involved a drinking driver.<sup>‡‡‡,32</sup> The percentage of fatalities involving a drinking driver has decreased from 34% in 2010 to 27% in 2014. *Impaired Driving in Canada* provides an up-to-date, comprehensive summary of all statistics related to impaired driving in Canada.<sup>33</sup>

# **Criminal Justice Costs**

In 2014, 3.15 billion was spent on criminal justice costs associated with alcohol use, including the policing, courts and corrections costs of offenses that are either completely attributable to alcohol (i.e., impaired driving and drug-related offenses) or partially attributable to alcohol (i.e., violent and non-violent).<sup>3</sup> Alcohol is disproportionately associated with violent crime compared to other types of non-violent crime (20% vs 8%). Per-person criminal justice costs associated with alcohol increased 6% from \$84 per person in 2007 to \$89 per person in 2014.

<sup>†††</sup> A motor vehicle fatality was considered to involve alcohol if there was at least one drinking driver or drinking pedestrian in the fatal

<sup>‡‡‡</sup> At the time that the 2014 Alcohol and Drug Crash Problem Report was being prepared, 2014 coroner data from British Columbia were not available. For this reason, British Columbia is not included in these counts.

# **Mortality and Morbidity**

#### Chronic Diseases

Twenty-five chronic disease and condition codes in the International Classification of Disease 10 are entirely attributable to alcohol use. Alcohol plays a contributing role in the risk of developing certain types of cancers and other chronic diseases including diabetes, heart disease and liver cirrhosis. Alcohol is one of the leading risk factors for death from cancer worldwide and a causal link has been established between alcohol consumption and cancers of the oral cavity, pharynx, esophagus, colon, rectum, liver and breast. It has been estimated that alcohol-attributable cancers make up 5.8% of all cancer deaths world wide. It

According to the 2012 Canadian Community Health Survey, 3.2% of the general population reported alcohol abuse or dependence in the past year, including 1.7% of females and 4.7% of males.<sup>38</sup> Alcohol was also the most common substance for which people met the criteria for abuse or dependence.<sup>38</sup> Overall in 2014, 14,826 deaths were attributable to alcohol, accounting for approximately 22% of all deaths attributable to substance use.<sup>3</sup>

## **Hospital Costs and Healthcare Impacts of Alcohol Use**

Healthcare costs in Canada associated with the use of alcohol in 2014 were estimated to be 4.2 billion and accounted for 38% of all healthcare costs attributable to substance use.<sup>3</sup> Healthcare costs include inpatient hospitalizations, day surgeries, emergency department visits, substance use treatment, family physician time and prescription drugs. Per-person healthcare costs associated with alcohol increased approximately 25% from \$95 per person in 2007 to \$119 per person in 2014.

# Hospitalizations Caused by Alcohol

In 2017, the rate of hospitalizations entirely caused by alcohol§§§ in Canada was 249 per 100,000, which is more than the rate of hospitalizations for heart attacks (243 per 100,000).³9 Middle-aged adults (45 to 64) make up approximately half of the hospitalizations entirely caused by alcohol, and nearly three out of four hospitalizations are due to mental and behavioural disorders (e.g., alcohol dependence or intoxication). Hospitalizations caused entirely by alcohol were 13 times more common than for opioids (227 hospitalization each day for alcohol and 17 hospitalizations each day for opioids). Provincial estimates for hospitalizations entirely caused by alcohol vary from 174 per 100,000 in New Brunswick to 1,751 per 100,000 in the Northwest Territories (Figure 10).

<sup>§§§</sup> Hospitalizations entirely caused by alcohol are hospital stays for the treatment of conditions considered to be wholly caused by the harmful consumption of alcohol. Common conditions contributing to hospitalizations entirely caused by alcohol in Canada are chronic alcohol use disorder, alcohol-induced cirrhosis of the liver, alcohol withdrawal, alcohol-induced acute pancreatitis, harmful alcohol use, alcohol-induced hepatitis, alcohol intoxication, alcohol-induced hepatic failure, alcohol withdrawal delirium and toxic effects of alcohol.

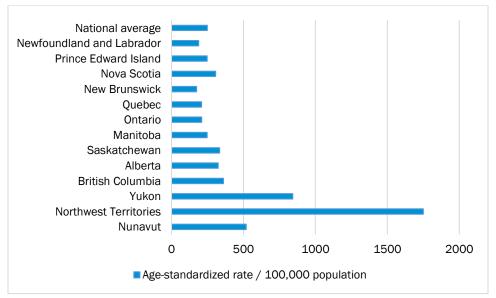


Figure 10: Number of hospitalizations entirely caused by alcohol by Canadian jurisdiction (2017)

Source: Canadian Institute for Health Information, 2019, Health indicators interactive tool: Hospitalizations entirely caused by alcohol<sup>39</sup>

In 2014, alcohol was responsible for 87,911 hospitalizations,\*\*\*\* the greatest number of hospitalizations attributable to substance use after tobacco (145,801 hospitalizations) (Figure 11).<sup>3</sup> The costs associated with hospitalizations due to alcohol (approximately \$1 billion in 2014) were less than those for tobacco, but greater than the costs for all other substances (including cannabis, opioids, other central nervous system [CNS] depressants, cocaine and other CNS stimulants) combined (Figure 12).

A recent study in Ontario reported that 765,346 emergency department visits were directly attributable to alcohol use from 2003 to 2016, representing 1.18% of the total number of emergency-department visits in Ontario during this time.<sup>40</sup> Rates of emergency department visits attributable to alcohol increased 4.4 times more than the rates of overall emergency department visits. Individuals aged 25–29 had the largest increase in the rate of visits (175%) and the agestandardized rates of these visits increased more among women (86.5%) compared to men (53.2%).<sup>40</sup> A study conducted in Sherbrooke, Quebec, revealed that one youth aged 12 to 24 is admitted every second day to the emergency department for an alcohol-related medical emergency.<sup>41</sup>

<sup>\*\*\*\*</sup> Hospitalization counts include total counts for conditions 100% attributable due to alcohol consumption and partial counts for conditions where alcohol is a contributing factor.

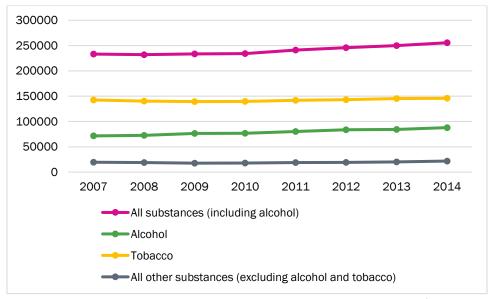


Figure 11: Number of all hospitalizations due to use of alcohol versus all other substances

Source: Canadian Centre on Substance Use and Addiction, Canadian Substance Use Costs and Harms, 2018<sup>3</sup>

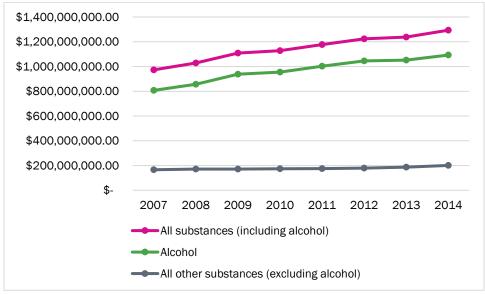


Figure 12: Costs associated with hospitalizations due to use of alcohol versus all other substances (excluding tobacco)

Source: Canadian Centre on Substance Use and Addiction, Canadian Substance Use Costs and Harms, 20183

#### **Treatment Services**

According to a National Treatment Indicators report, in 2014–2015, alcohol was overwhelmingly the most common substance used in the past 12 months by clients of publicly funded treatment centres.<sup>42</sup> Ontario, Nova Scotia and Prince Edward Island were the only jurisdictions able to provide information on the primary substance for which treatment is sought and in all three provinces alcohol was reported as the primary substance.

#### **Pan-Canadian Investments and Initiatives**

Canada has no alcohol act as it does for other legal psychoactive substances including tobacco and cannabis. The following are recent investments and initiatives on the national level that have been developed to address the harms associated with alcohol consumption:

- 1. The National Alcohol Strategy was produced in 2007 in a process led by the Canadian Centre on Substance Use and Addiction, Health Canada and the Alberta Alcohol and Drug Abuse Commission to address the harms from alcohol.<sup>43</sup> Since then, three provinces (Nova Scotia, Manitoba and Alberta) and one territory (Nunavut) have developed alcohol strategies. British Columbia has a provincial approach to alcohol policy.
  - The Canadian Centre on Substance Use and Addiction has begun working with partners to update the National Alcohol Strategy, which will address issues including the availability of alcohol, underage drinking, pricing and other incentives, advertising and promotion, and labelling.
- 2. The government of Canada recently adopted two key regulations to address alcohol-related harms:
  - Bill C-46 was passed in June 2018. The bill makes certain amendments to the *Criminal Code* sections related to impaired driving and strengthens the criminal law response to both drugand alcohol-impaired driving. It gives police authority to conduct roadside alcohol and drug screening.<sup>44</sup>
  - ii. With the objective to protect Canadians from unintentional overconsumption of sweetened alcoholic beverages (flavoured purified alcoholic beverages), the *Food and Drug Regulations* Act was amended to restrict the alcohol content of these beverages. Flavoured purified alcoholic beverages are limited to a maximum of 1.5 standard drinks if they are sold in a container volume of 1,000 mL or less, unless they are sold in glass containers of 750 mL or more.<sup>45</sup>
- 3. In 2016, the Minister of Health announced an updated drug strategy for Canada, the Canadian Drugs and Substances Strategy, which replaced the National Anti-Drug Strategy, effective April 1, 2017. The new drug strategy addresses illegal and legal problematic substance use, including alcohol, with an expanded mandate to include harm reduction as a key pillar alongside the existing pillars of prevention, treatment and enforcement.<sup>46</sup>

#### **Additional Resources**

- Canada's Low-risk Alcohol Drinking Guidelines
- Canada's Low-risk Alcohol Drinking Guidelines: Communications Toolkit
- Youth Alcohol Intoxication (infographic)
- Canadian Substance Use Costs and Harms
- Impaired Driving in Canada

- <sup>1</sup>Burton, R., & Sheron, N. (2018). No level of alcohol consumption improves health. The Lancet, 392(10152), 987-988.
- <sup>2</sup> Stockwell, T., Beirness, D., Butt, P., Gliksman, L., & Paradis, C. (2012). Canada's low-risk drinking guidelines. *Canadian Medical Association Journal*, 184(1), 75–75.
- <sup>3</sup> Canadian Substance Use Costs and Harms Scientific Working Group. (2018). *Canadian substance use costs and harms (2007–2014)*. Ottawa: Canadian Centre on Substance Use and Addiction.
- <sup>4</sup> Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). *Alcohol and health in Canada: A summary of evidence and guidelines for low-risk drinking*. Ottawa: Canadian Centre on Substance Abuse.
- <sup>5</sup> Foran, H.M., & O'Leary, K.D. (2008). Alcohol and intimate partner violence: A meta-analytic review. *Clinical Psychology Review, 28*(7), 1222–1234.
- <sup>6</sup> Sher, L. (2005). Alcohol consumption and suicide. *QJM*, 99(1), 57-61.
- <sup>7</sup> Boles, S.M., & Miotto, K. (2003). Substance abuse and violence: A review of the literature. *Aggression and Violent Behavior, 8*(2), 155–174.
- 8 Rehm, J. (2011). The risks associated with alcohol use and alcoholism. Alcohol Research & Health, 34(2), 135.
- 9 Department of Justice. (2019). Impaired Driving Laws. Retrieved from https://www.justice.gc.ca/eng/cj-jp/sidl-rlcfa/
- <sup>10</sup> Canadian Centre on Substance Use and Addiction. (2017). *Short-term administrative sanctions for alcohol and drug use by drivers.* Ottawa: Author.
- <sup>11</sup> Health Canada. (2018). Canadian Tobacco Alcohol and Drugs Survey (CTADS): 2017 supplementary tables. Ottawa: Author.
- <sup>12</sup> Health Canada. (2014). Canadian Tobacco Alcohol and Drugs Survey (CTADS): 2013 supplementary tables. Ottawa: Author.
- <sup>13</sup> Health Canada. (2016). Canadian Tobacco Alcohol and Drugs Survey (CTADS): 2015 supplementary tables. Ottawa: Author.
- <sup>14</sup> Pennay, A., Livingston, M., & MacLean, S. (2015). Young people are drinking less: It is time to find out why. *Drug and Alcohol Review*, 34(2), 115–118.
- <sup>15</sup> World Health Organization. (2018). Global status report on alcohol and health 2018. Geneva: Author.
- <sup>16</sup> Johnston, L.D., Miech, R.A., O'Malley, P.M., Bachman, J.G., Schulenberg, J.E., & Patrick, M, E. . (2019). *Monitoring the future: National survey results on drug use* 1975–2018: Overview, key findings on adolescent drug use. Ann Arbor: University of Michigan Institute for Social Research.
- <sup>17</sup>Health Canada. (2018). Canadian Student Tobacco, Alcohol and Drugs Survey 2016-2017 supplementary tables. Ottawa: Author.
- <sup>18</sup>Health Canada. (2014). Youth Smoking Survey 2012–13, supplementary tables. Ottawa: Author.
- <sup>19</sup>Health Canada. (2016). Canadian Student Tobacco, Alcohol and Drugs Survey 2014–2015 supplementary tables. Ottawa: Author. <sup>20</sup> American College Health Association. (2016). National College Health Assessment II: Canadian reference group executive summary, spring 2016. Hanover: Author.
- <sup>21</sup>World Health Organization. (2017). World health statistics 2017: Monitoring health for the SDGs, sustainable development goals. Geneva: Author.
- <sup>22</sup> Statistics Canada. (2019). Sales of alcoholic beverages types by liquor authorities and other retail outlets, by value, volume, and absolute volume (Table 10-10-0010-01). Retrieved from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1010001001
- <sup>23</sup> Statistics Canada. (2019). Control and sale of alcoholic beverages, year ending March 31, 2018. Ottawa: Author.
- <sup>24</sup> Zhao, J., Stockwell, T., & Thomas, G. (2015). An adaptation of the yesterday method to correct for under-reporting of alcohol consumption and estimate compliance with Canadian low-risk drinking guidelines. *Canadian Journal of Public Health*, 106(4), e204–e209.
- <sup>25</sup> Statistics Canada. (2019). Health characteristics, annual estimates (Table 13-10-0096-01). Ottawa: Author.
- $^{26}\mbox{Statistics}$  Canada. (2019). Health fact sheets: Heavy drinking, 2018. Ottawa: Author.
- <sup>27</sup> Statistics Canada. (2016). *Impaired driving in canada*, 2015. Ottawa: Author.
- <sup>28</sup> Beirness, D.J., and Beasley, E.E. (2018 ). Alcohol and drug use by drivers in Ontario: Findings from the 2017 roadside survey. Ottawa: Beirness & Associates.
- <sup>29</sup> Beirness, D.J., and the Canadian Drug and Alcohol Research Team. (2018). *Alcohol and drug use by drivers in British Columbia: Findings from the 2018 roadside survey.* Ottawa: Beirness & Associates.
- <sup>30</sup> Brown, S.W., Hing, M.M., Robertson, R.D., & Vanlaar, W.G.M. (2018). *Road safety monitor 2018: Drinking and driving in Canada*. Ottawa: Traffic Injury Research Foundation.
- <sup>31</sup> Statistics Canada. (2018). *Police-reported crime statistics*, 2017. Ottawa: Author.
- <sup>32</sup> Brown, S.W., Vanlaar, W.G.M., & Robertson, R.D. . (2017). *The alcohol and drug-crash problem in Canada 2014 Report.* Ottawa: Canadian Council of Motor Transport Administrators.
- 33 Canadian Centre on Substance Use and Addiction. (2019). Impaired driving in Canada. Ottawa: Author.
- <sup>34</sup> Shield, K.D., Parry, C., & Rehm, J. (2014). Chronic diseases and conditions related to alcohol use. *Alcohol Research: Current Reviews*, 35(2), 155.
- 35 World Health Organization. (2018). Cancer (factsheet). Retrieved from https://www.who.int/new-room/fact-sheets/detail/cancer
- <sup>36</sup> Connor, J. (2017). Alcohol consumption as a cause of cancer. Addiction, 112(2), 222-228.
- <sup>37</sup> Praud, D., Rota, M., Rehm, J., Shield, K., Zatoński, W., Hashibe, M., . . . Boffetta, P. (2016). Cancer incidence and mortality attributable to alcohol consumption. *International Journal of Cancer*, 138(6), 1380–1387.
- <sup>38</sup> Pearson, C., Janz, T., & Ali, J. (2013). *Mental and substance use disorders in Canada*. Ottawa: Statistics Canada.
- <sup>39</sup> Canadian Institute for Health Information. (2019). Health indicators interactive tool: Hospitalizations entirely caused by alcohol. Retrieved from https://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/061/hospitalizations-entirely-caused-by-alcohol/;mapLevel2;trend(C1);/
- <sup>40</sup> Myran, D.T., Hsu, A.T., Smith, G., & Tanuseputro, P. (2019). Rates of emergency department visits attributable to alcohol use in Ontario from 2003 to 2016: A retrospective population-level study. *CMAJ*, 191(29), E804–E810.
- <sup>41</sup> Paradis, C., Cyr, L.-O., & Cyr, C. (2018). Alcohol-related emergency department visits among adolescents and young adults in Sherbrooke, Canada. *Canadian Journal of Addiction*, 9(4), 25–31.



- <sup>42</sup> McQuaid, R.J., Di Gioacchino, L.A., & National Treatment Indicators Working Group. (2017). *Addiction treatment in Canada: The National Treatment Indicators report: 2014–2015 data.* Ottawa: Canadian Centre on Substance Use and Addiction.
- <sup>43</sup> Canadian Centre on Substance Use and Addiction. (2017). *The National Alcohol Strategy monitoring project: A status report*. Ottawa: Author.
- <sup>44</sup> Bill C-46: An Act to amend the Criminal Code (offences relating to conveyances) and to make consequential amendments to other Acts. 1st Session, 42<sup>nd</sup> Parliament (2018).
- <sup>45</sup> Regulations amending the Food and Drug Regulations (flavoured purified alcohol): SOR/2019-147. Canada Gazette, Part II. Vol. 153,
- No. 11. (2019). Retrieved from http://www.gazette.gc.ca/rp-pr/p2/2019/2019-05-29/html/sor-dors147-eng.html
- <sup>46</sup> Government of Canada. (2019). Canadian drugs and substances strategy. Ottawa: Author. Retrieved from https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy.html

ISBN 978-1-77178-583-9

© Canadian Centre on Substance Use and Addiction 2019



CCSA was created by Parliament to provide national leadership to address substance use in Canada. A trusted counsel, we provide national guidance to decision makers by harnessing the power of research, curating knowledge and bringing together diverse perspectives.

CCSA activities and products are made possible through a financial contribution from Health Canada. The views of CCSA do not necessarily represent the views of Health Canada.