

Substance Use and Mental Health Indicators Among Ontario Adults: Highlights from the 2017 CAMH Monitor eReport

This *eBulletin* highlights the key findings from the 2017 CAMH Monitor, an annual Ontario-wide phone survey of adults aged 18 and older that covers topics related to substance use, mental health and well-being. Also presented are trends in alcohol, tobacco, and cannabis use, and mental health indicators based on surveys conducted since 1977, where possible. The resulting compilation of these surveys represents the longest ongoing surveillance study of adult substance use in Canada.

Substance Use, Mental Health and Well-Being Indicators, Ontario Adults, 2017

Table 1 presents the key substance use and mental health estimates from the 2017 cycle of the CAMH Monitor. After controlling for other demographic characteristics, substance use and mental health indicators were associated with the following demographic factors:

Sex was significantly associated with substance use and related harms, with men showing higher prevalence than women. Men were more likely than women to:

- drink alcohol
- drink alcohol daily
- binge drink weekly
- drink hazardously or harmfully
- use electronic cigarettes
- use cannabis
- experience problems from cannabis use
- use cocaine
- drive within an hour of drinking alcohol, and
- drive within an hour of using cannabis.

Men were also more likely than women to report texting while driving in the past year, and experiencing a traumatic brain injury in their lifetime. Women were more likely than men to report using prescription opioids, either medically or nonmedically, in the past year.

Age of respondent was also significantly associated with substance use and well-being indicators. In most cases, use declined with age or was highest among 18 to 29 year-olds. The only exceptions were daily drinking, poor self-rated physical health, and problem gambling, which increased with age. Those in the 18-29 year-old age group were significantly more likely than older respondents to:

- drink hazardously or harmfully
- use electronic cigarettes
- use cannabis
- experience problems from cannabis use
- use prescription opioids nonmedically
- use cocaine
- drive within an hour of using cannabis
- indicate moderate-to-serious psychological distress
- report suicidal ideation, and
- indicate problematic electronic device use.

Region was significantly associated with only a few substance use measures:

- alcohol use was highest in the North region
- electronic cigarette use was highest in Toronto and the East region, and
- nonmedical use of prescription opioids was highest in the Central West region.

Table 1
Selected substance Use, mental health and well-being indicators, 2017 CAMH Monitor

Indicator		Percentage	Population Estimate
Alcohol	Percentage drinking alcohol in the past year	80%	8,545,900
	Percentage drinking alcohol daily	7%	764,500
	Percentage exceeding the low-risk drinking guidelines	16%	1,552,000
	Percentage drinking five or more alcoholic drinks on a single occasion weekly (“weekly binge drinking”)	7%	727,900
	Percentage drinking hazardously or harmfully	13%	1,275,500
	Percentage of <i>drivers</i> driving within an hour of drinking two or more alcoholic drinks at least once in the past year	5%	491,100
Tobacco	Percentage currently smoking tobacco cigarettes	15%	1,614,700
	Percentage smoking tobacco cigarettes daily	11%	1,178,800
	Percentage of <i>daily smokers</i> indicating nicotine dependence	11%	124,900
	Percentage using electronic cigarettes in the past year (vaping)	9%	915,400
Cannabis	Percentage using cannabis in lifetime	47%	4,993,900
	Percentage using cannabis in the past year	19%	2,068,200
	Percentage indicating a moderate or high risk of cannabis use problems	10%	1,003,000
	Percentage using cannabis for medical purposes in the past year	7%	766,200
	Percentage of <i>drivers</i> driving within an hour of using cannabis at least once in the past year	3%	244,300
Other Drugs	Percentage using prescription opioids nonmedically in the past year	3%	298,900
	Percentage using prescription opioids either medically or nonmedically in the past year	21%	2,217,600
	Percentage using cocaine in lifetime	9%	929,000
	Percentage using cocaine in the past year	3%	268,400
Mental Health	Percentage rating their mental health as “fair” or “poor”	10%	1,082,300
	Percentage reporting frequent mental distress days in the past month	12%	1,214,400
	Percentage indicating moderate-to-serious psychological distress in the past month	26%	2,720,800
	Percentage indicating serious psychological distress in the past month	4%	422,700
	Percentage using prescribed anti-anxiety medication in the past year	11%	1,195,500
	Percentage using prescribed antidepressant medication in the past year	9%	931,300
	Percentage reporting suicidal ideation in the past year	4%	426,900
Physical Health	Percentage rating their physical health as “fair” or “poor”	12%	1,284,500
	Percentage reporting experiencing a traumatic brain injury in lifetime	15%	1,582,700
Gambling	Percentage reporting any gambling activity in the past year	69%	7,249,700
	Percentage reporting casino gambling in the past year	23%	2,460,000
	Percentage reporting online gambling in the past year	4%	386,300
	Percentage indicating a gambling problem in the past year	1%	122,000
Technology	Percentage indicating a moderate-to-severe problem with electronic device use	8%	859,100
	Percentage of <i>drivers</i> texting while driving at least once in the past year	28%	2,588,500

Notes: (1) total survey sample size was 2,812 Ontario adults ages 18 and older; (2) percentages estimates have been rounded; (3) population estimates, based on an adult population of 10,766,725 in Ontario, have been rounded to the nearest hundred; (4) drivers are defined as those with a valid driver’s licence.

Selected Changes, 2016 vs. 2017

Some notable changes between the 2016 and 2017 survey cycles are presented in the table below.

	2016		2017
Past year cannabis use	16%	↑	19%
Fair/poor self-rated physical health	9%	↑	12%
Fair/poor self-rated mental health	7%	↑	10%
Frequents mental distress days	7%	↑	12%
Suicidal ideation	2%	↑	4%

Selected Long-Term Trends

The following long-term substance use trends are shown in Figure 1:

- The percentage who report **drinking alcohol** in the past year remained stable between 1977 and 2017, varying between 77% and 84%.
- Weekly binge drinking** remained stable between 1977 and 1995, increased significantly in 1996 (12%), and remained at this elevated level until 2007. Weekly binge drinking declined during the late 2000s, but has stabilized in recent years at around 7%-8%.
- While **tobacco cigarette smoking** shows a dramatic decrease from 29% in 1991 (the first available estimate) to 15% in 2017, the level has stabilized in recent years.
- Past year **cannabis use** remained stable between 1977 and the late 1990s, at about 8%. Use began an upward trend in the early 2000s, remained stable, and increased significantly again in recent years to a high of 19% in 2017.
- Past year **cocaine use** has remained stable since monitoring first began in 1984, at about 2%-3%.
- Nonmedical use of prescription opioids** significantly declined between 2010 and 2017, from 8% to 3%.

The following trends in mental health indicators are shown in Figure 2:

- Reported use of **anti-anxiety medication** has significantly increased from 5% in 1997 (the first year of monitoring) to 11% in 2014, and has remained stable at this level since then.

- Reported use of **antidepressant medication** significantly increased over time, from 4% in 1997 (the first year of monitoring) to 9% in 2014 and has remained at this level since then.
- The percentage who rate their **mental health as fair or poor** has doubled since 2003 (the first year of monitoring), from 5% to 10% in 2017.

Figure 1
Percentage of Ontario adults ages 18+ reporting substance use in the past year, 1977–2017 CAMH Monitor

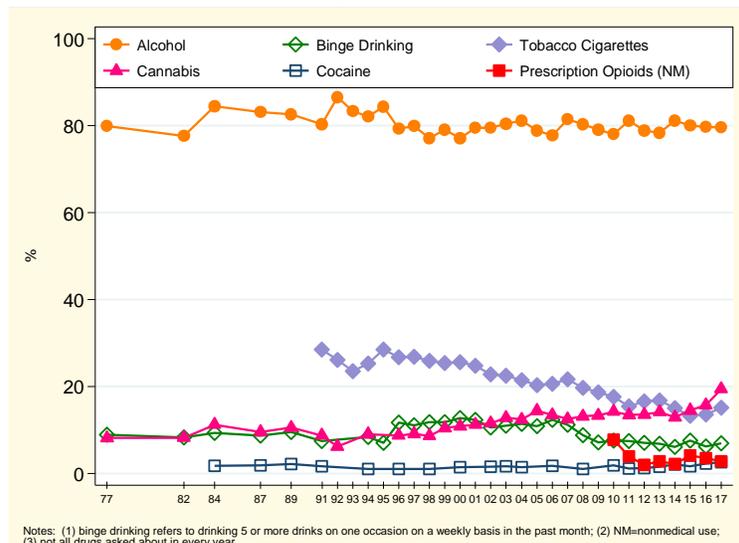
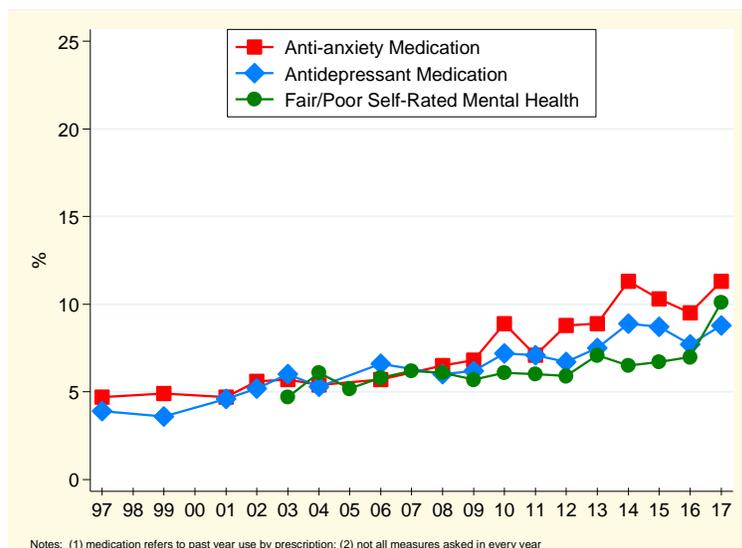


Figure 2
Percentage of Ontario adults ages 18+ reporting mental health problem indicators, 1997–2017 CAMH Monitor



Methods

The CAMH Monitor is a substance use and mental health survey of the Ontario adult population aged 18 and older. It is an anonymous telephone survey (landline and cell phone), administered by the Institute for Social Research at York University on CAMH's behalf. The survey uses a stratified (region) two-stage (phone number, respondent), dual-frame random-digit dialling probability sample design. It is continuously conducted from January through December on quarterly probability samples. The following six regional strata are used: Toronto, Central East, East, Central West, West, and North. The full sample size in 2017 was 2,812 (46% of eligible respondents). The average (mean) age of respondents was 48.9 and the weighted percentage of males was 48%. Excluded from selection are adults without a phone, those who are institutionalized, and those who are unable to complete the interview in English. All survey estimates shown here were weighted, and variance and statistical tests accounted for the complex survey design.

Measures & Terminology

- **Exceeding the low-risk drinking guidelines** refers to drinking beyond the amount recommended in Canada's *Low-Risk Alcohol Drinking Guidelines*. The recommendation is no more than two drinks a day or 10 standard drinks a week for women, and no more than three drinks a day or 15 standard drinks a week for men. Compliance is based on reported number of drinks daily for each of the past seven days, and derived separately by sex.
- **Hazardous or harmful drinking** was measured with the *Alcohol Use Disorders Identification Test (AUDIT)*, a 10-item instrument designed to detect hazardous or harmful drinking at the less severe end of the spectrum. The percentage reported is based on a score of eight or more out of 40, which represents an established high-risk pattern of drinking that increases the likelihood of future medical and physical problems, or indicates harmful consequences of use already experienced. The reference period for the AUDIT is the past 12 months before the survey.
- **Current tobacco cigarette smoker** is defined as someone who: 1) has smoked over 100 cigarettes in one's lifetime, 2) is a daily or occasional smoker, and 3) has smoked in the past 30 days.
- **Nicotine dependence** was measured among daily smokers using the *Heaviness of Smoking Index (HSI)*, a scale based on the time to the first cigarette each morning and number of cigarettes smoked per day. High dependence is indicated by a score five or more out of six.
- **Cannabis use problem** was measured with the *Cannabis Involvement Score (CIS)* on the ASSIST screener, which consists of six items assessing cannabis use and past-3-month cannabis-related problems. A score of four or more out of 39 was used to indicate a potential problem.
- **Nonmedical use of prescription opioid pain relievers** is defined as using a prescribed opioid such as Percocet, Demerol, OxyNEO, Dilaudid, Fentanyl patch, Tylenol #3, or other products with codeine during the past 12 months without a doctor's prescription of one's own. Note that nonmedical use does not necessarily solely reflect recreational use or to use to "get high."
- **Psychological distress** (symptoms of depression and anxiety) was measured with the *Kessler-6 Psychological Distress Scale (K6)*. A moderate-to-serious level of distress experienced during the past 30 days is defined as scoring five or higher out of 24. Serious psychological distress is defined as scoring 13 or higher out of 24.
- **Fair or poor mental health** is defined as responses of "fair" or "poor" to the question: "*In general, would you say your overall mental health is excellent, very good, good, fair or poor?*"

(cont'd)

- **Frequent mental distress days** was measured with the question "*Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days in the last 30 days was your mental health not good?*" and is defined as reporting 14 or more of such days.
- **Fair or poor physical health** is defined as responses of "fair" or "poor" to the question: "*In general, would you say your overall health is excellent, very good, good, fair or poor?*"
- **Traumatic brain injury** is defined as a head injury that "*...resulted in you being unconscious (knocked out) for at least 5 minutes, or you had to stay in the hospital for at least one night because of it.*"
- **Problem gambling** was measured with the 9-item *Problem Gambling Severity Index (PGSI)* subscale of the *Canadian Problem Gambling Index (CPGI)*. A moderate-to-high risk of developing a gambling problem is defined as scoring three or higher out of 27.
- **Problematic use of electronic devices** was measured with six items adapted from the *Minnesota Impulsive Disorder Interview*. Experiencing at least three of the six problem symptoms (e.g., tried to cut back on use, family member expressed concern, missed work/school due to use) was used as an indicator for a moderate-to-severe problem.
- **Region** refers to the six regional strata used in the sampling design: Toronto, Central East, East, Central West, West, and North.
- **Statistically significant difference** refers to a difference between (or among) estimates that is statistically different at the $p < .05$ level, or lower, after adjusting for the sampling design. A finding of statistical significance implies that any differences are not likely due to chance alone; it is not necessarily a finding of public health importance.

Source

Ialomiteanu, A.R., Hamilton, H.A., Adlaf, E.M., & Mann, R.E. (2018). *CAMH Monitor eReport: Substance Use, Mental Health and Well-Being Among Ontario Adults, 1977–2017* (CAMH Research Document Series No. 48). Toronto, ON: Centre for Addiction and Mental Health. Available at: <http://www.camh.ca/camh-monitor>

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