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Substance Use, Mental Health and Well-Being Indicators Among Ontario Adults, 1977–2013: Highlights from the *CAMH Monitor* eReport

This *eBulletin* highlights the key findings from the 2013 *CAMH Monitor*, an Ontario-wide telephone survey of substance use, mental health and well-being indicators among 3,021 adults aged 18 and older. Also highlighted are trends in alcohol, tobacco, and cannabis use, and mental health based on surveys conducted during a 37-year period between 1977 and 2013. 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 in 2013

Table 1 presents the major substance use and mental health estimates from the 2013 cycle of the *CAMH Monitor*. After controlling for other demographic characteristics, substance and mental health indicators were associated with the following demographic factors:

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

- drink alcohol
- drink alcohol daily
- consume more alcoholic drinks weekly
- exceed the low-risk drinking guidelines
- binge drink weekly
- drink hazardously or harmfully
- experience symptoms of alcohol dependence
- currently smoke cigarettes
- smoke cigarettes daily
- use cannabis in lifetime and in the past year
- experience problems from cannabis use
- use cocaine in lifetime
- drive within an hour of drinking alcohol, and
- drive within an hour of using cannabis.

Regarding mental health, women were more likely than men to report using antianxiety and antidepressant medication in the past year.

Age of respondent was significantly associated with substance use and related harms. With the exception of daily drinking – which tends to increase with age – most substance use decreased with age or was highest among 18 to 29 year-olds. Specifically, after adjusting for other demographic characteristics, 18 to 29 year-olds were the most likely to:

- exceed the low-risk drinking guidelines
- binge drink weekly
- drink hazardously or harmfully
- experience symptoms of alcohol dependence
- use cannabis in the past year
- experience problems from cannabis use
- use cocaine in the past year
- use prescription opioids nonmedically in the past year, and
- drive within an hour of using cannabis.

Age was also significantly associated with mental and physical health measures. The youngest respondents were most likely to report elevated psychological distress, frequent mental distress days, and suicidal ideation. The youngest respondents were least likely to rate the physical health as poor and experience frequent unhealthy days.

Region was significantly associated with only one substance use measure. Compared with the province as a whole, those in *Toronto* were less likely to drink alcohol, whereas those in the *East* and those in the *North* were more likely to drink alcohol.

Table 1
Substance Use, Mental Health and Well-Being Indicators Among Ontario Adults, 2013 *CAMH Monitor*

	Measure	Percentage Estimate	Population Estimate
Alcohol	Percentage drinking alcohol in the past year	78%	7,958,700
	Percentage drinking alcohol daily	7% of total sample 9% of drinkers	675,100
	Average number of drinks consumed weekly (among *drinkers*)	5 drinks	
	Percentage exceeding the low-risk drinking guidelines	19% of total sample 24% of drinkers	1,760,300
	Percentage consuming five or more drinks on a single occasion weekly ("weekly binge drinking")	7% of total sample 9% of drinkers	682,200
	Percentage reporting hazardous or harmful drinking (AUDIT 8+)	14% of total sample 18% of drinkers	1,353,500
	Percentage of *drivers* who drove within an hour of drinking two or more drinks, at least once in the past year	5% of drivers	483,100
Tobacco	Percentage currently smoking cigarettes	17%	1,698,300
	Percentage smoking cigarettes daily	13%	1,333,000
	Average number of cigarettes smoked daily (among *smokers*)	11 cigarettes	
	Percentage of *daily smokers* reporting high nicotine dependence	10% of daily smokers	130,600
Cannabis	Percentage using cannabis in lifetime	43%	4,298,800
	Percentage using cannabis in the past year	14%	1,417,500
	Percentage reporting a moderate or high risk of cannabis problems (ASSIST-CIS 4+)	8% of total sample 55% of users	788,200
	Percentage of *drivers* who drove within an hour of using cannabis, at least once in the past year	2% of drivers	215,000
Other Drug Use	Percentage using cocaine in lifetime	8%	783,700
	Percentage using cocaine in the past year	2%	153,700
	Percentage using prescription opioid pain relievers nonmedically in the past year	3%	294,550
Mental Health	Percentage reporting elevated psychological distress in the past few weeks (GHQ12 3+)	13%	1,380,500
	Percentage reporting suicidal ideation in the past year	2%	231,500
	Percentage using prescribed antianxiety medication in the past year	9%	938,300
	Percentage using prescribed antidepressant medication in the past year	8%	786,400
	Percentage rating their mental health, in general, as fair or poor	7%	716,200
	Percentage reporting frequent mental distress days in the past month	7%	756,700
Physical Health	Percentage rating their physical health, in general, as fair or poor	9%	955,300
	Percentage reporting frequent physically unhealthy days in the past month	7%	703,200

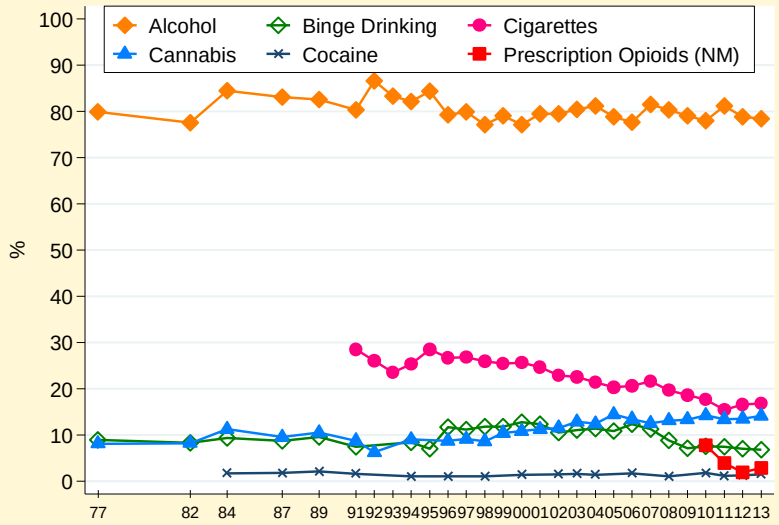
Notes: (1) total survey sample size was 3,021 Ontario adults; (2) percentages estimates have been rounded; (3) population estimates, based on an adult population of 10,157,960 in Ontario, have been rounded to the nearest hundred; (4) drivers are defined as those with a valid driver's licence.

Long-Term Trends in Substance Use

The following substance use trends are shown in Figure 1:

- The percentage of adults in Ontario who reported drinking **alcohol** in the past year remained stable between 1977 and 2013, varying slightly between 77% and 82%.
- Weekly **binge drinking** remained stable between 1977 and 1995, and then increased significantly in 1996 and remained at this elevated level until 2007. Since 2007, weekly binge drinking has significantly declined from 11% to 7%.
- **Cigarette smoking** shows a significant declining trend, from 29% in 1991 (the first available estimate) to 17% in 2013.
- Past year **cannabis** use remained stable between 1977 and the late 1990s, at about 8%. Use began an upward trend in the early 2000s and is currently at an elevated level, at 14%.
- Past year **cocaine** use has remained stable since monitoring first began in 1984, at about 2%.
- The nonmedical use of **prescription opioids** significantly declined between 2010 and 2013, from 8% to 3%.

Figure 1
Percentage of Ontario adults ages 18+ reporting substance use in the past year, 1977–2013 *CAMH Monitor*



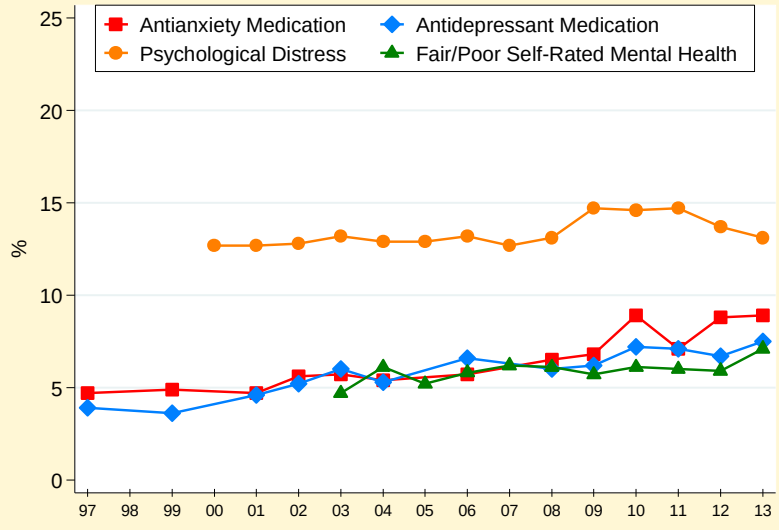
Notes: (1) binge drinking refers to drinking 5 or more drinks on one occasion on a weekly basis; (2) NM=nonmedical use; (3) not all drugs asked about in every year

Long-Term Trends in Mental Health

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

- The use of **antianxiety medication** among adults in Ontario has significantly increased from 5% in 1997 to 9% in 2013,
- The use of **antidepressant medication** has significantly increased from 4% in 1997 to 8% in 2013.
- Elevated **psychological distress** remained stable between 2000 (the first available estimate) and 2013, at about 13%.
- Ratings of **fair/poor mental health** has significantly increased over the past decade, from 5% in 2003 to 7% in 2013.

Figure 2
Percentage of Ontario adults ages 18+ reporting mental health problem indicators, 1997–2013 *CAMH Monitor*



Notes: (1) medication refers to past year use by prescription; (2) psychological distress refers to the past few weeks and was measured with the GHQ12 screener; (3) not all measures asked in every year

Methods

The *CAMH Monitor* is a substance use and mental health surveillance survey of the Ontario adult population aged 18 and older. It is an anonymous, list-assisted random-digit-dialling telephone survey (landline and cell phone), administered by the Institute for Social Research, York University. The *CAMH Monitor* is continuously conducted on quarterly probability samples from January through December. The survey uses a stratified (region) two-stage (telephone number, respondent) probability sample design. The following six regional strata are used in the design: Toronto, Central East, East, Central West, West, and North. The full sample size in 2013 was 3,021 (48% of eligible respondents). The average (mean) age of respondents was 47.9 and 48% were male. All survey estimates were weighted, and variance and statistical tests were corrected for the complex sampling design. The sample is representative of over ten million Ontarians aged 18 and older.

Measures & Terminology

- **Binge drinking weekly** is defined as drinking five or more drinks on a single occasion at least once a week during the past 12 months.
- **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 7 days, and derived separately by gender.
- **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 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 points given for the time to the first cigarette each morning and number of cigarettes smoked per day. High dependence is based on a score five or more of six.
- **Cannabis use problem** indicator 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 of 39 was used as a cut-off value.
- **Nonmedical use of prescription opioid pain relievers** is defined as using a prescribed opioid such as Percocet, Percodan, Demerol, OxyContin, or Tylenol #3 during the past 12 months without a doctor's prescription of one's own.
- **Elevated psychological distress** was measured with the 12-item version of the *General Health Questionnaire* (GHQ), a screening instrument used to assess current mental health problems. The items assess the recent frequency of experiencing 12 symptoms (e.g., stress, depression, problem making decisions). Elevated psychological distress is defined as experiencing three or more of the 12 symptoms.

(continued…)

- **Fair/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?*"
- **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/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?*"
- **Frequent unhealthy days** was measured with the question "*Now thinking about your physical health, which includes physical illness and injury, for how many days in the last 30 days, was your physical health not good?*" and is defined as reporting 14 or more of such days.
- **Region** refers to the Ontario Ministry of Health's seven public health planning regions: Toronto; Central South; Central West; South West; Central East; East; and North.
- **95% confidence interval** shows the probable accuracy of the estimate – that is, with repeated sampling, 95 of 100 sample CIs would contain the "true" population value. Design-based confidence intervals account for characteristics of the sample design (i.e., stratification, weighting).
- **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.

Source

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