

Cannabis Use and Driving among Ontario Adults

Whereas much research has been done on drinking and driving among adult drivers in Canada – showing prevalence rates that hover around 11%¹ – less is known about rates of cannabis use and driving.

This *eBulletin* presents the first Canadian description of changes in the prevalence of using cannabis and driving within an adult population. The data are from the 2002 *CAMH Monitor (CM)*, which is an on-going health survey of adults in Ontario, and a previously published study based on the 1996/1997 *Ontario Drug Monitor (ODM)*.²

Cannabis Use

In 2002, 11.4% (95% confidence interval: 10.0%-13.0%) of Ontario adults reported using cannabis at least once during the year before the survey. Use is significantly higher among males than females (15.1% vs 7.9%), and among younger age groups (from 22% among 18-34 year-olds, down to 3% among those over age 55).

Cannabis Use and Driving in 2002

Among adults with a driver's licence, 2.9% (95% CI: 2.1%-4.0%) report having driven a vehicle within an hour of using cannabis, at least once during the year before the survey. This estimate represents over 200,000 drivers in Ontario (or 1 in 34 drivers).

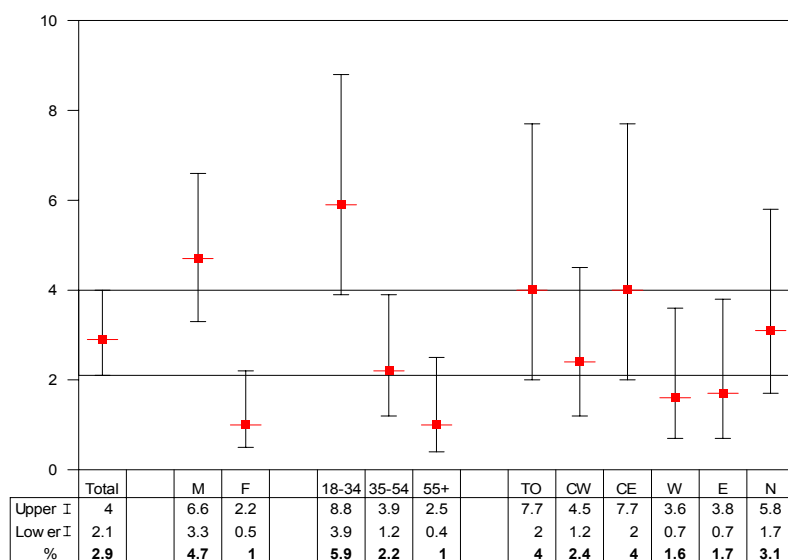
As seen in Figure 1, males are significantly more likely than females to use cannabis and drive (4.7% vs 1.0%), as are those in the 18-34 year-old age group (5.9%) compared to older respondents (1% to 2.2%). While there is regional variation, these differences are not statistically significant.

2002 vs 1996/97

Because the same question was asked of Ontario adults in 1996/97 as was in 2002, this allows us to compare estimates of cannabis use and driving between these years, although we cannot accurately establish trends between only two points in time.

A comparison shows a nominal increase in driving after cannabis use among drivers, from 1.9% (95% CI: 1.7%-2.1%) in 1996/97 to 2.9% in 2002. Although this increase is not statistically significant, it warrants continued scrutiny to determine whether or not it will develop into a dominant trend.

Figure 1. Percentage of Ontario Adults (Aged 18+) with a Valid Driver's Licence Reporting Driving within an Hour of Using Cannabis, by Sex, Age Group, and Region, CM 2002 (N=2,129)



Vertical bars represent 95% confidence intervals; horizontal bar represents 95% CI for total estimate

Methods:

The *CAMH Monitor (CM)* is an addiction and mental health random, anonymous telephone survey of the Ontario population aged 18 and older, administered by the Institute for Social Research, York University. The *CM* is an on-going monthly survey that employs a stratified (region) two-stage (household, respondent) probability sample design. The 2002 data are based on 12 cycles from January to December 2002. The total sample size was 2,421, and 2,129 had a valid driver's licence.

The *Ontario Drug Monitor (ODM)* was an addiction and substance use random, anonymous survey of the Ontario population aged 18 and older, administered by the Institute for Social Research, York University for the Addiction Research Foundation (now part of CAMH). The *ODM* employed a stratified (region) two-stage (household, respondent) probability sample design. Data from each month were collected in 12 survey cycles from January to December in the respective year. The 1996 and 1997 data were merged to obtain a total sample size of 5,497. The 1996/97 percentages presented here are based on 4,760 adults with a valid driver's licence.

All survey estimates were weighted, and variance and statistical tests were corrected for the sampling design. The population number estimates for 2002 are based on a population of 9,118,084 adults in Ontario aged 18 and older.

Terminology:

- **Cannabis Use** was measured with the question: "How many times, if any, have you used marijuana or hash during the past 12 months?" Past year prevalence is defined as using at least once during the past 12 months.
- **Cannabis Use and Driving** was measured with the question: "During the past 12 months, have you driven a motor vehicle within an hour of using marijuana or hash?"
- **Region:** For the survey, Ontario was divided into 6 regions: Toronto (TO), Central East (CE), East (E), Central West (CW), West (W), and North (N).
- **95% Confidence Interval (CI)** can be crudely interpreted as being 95% likely to include the "true" percentage value if every adult in Ontario was surveyed.
- **Significant Difference** refers to a difference between two percentages that is not likely due to chance. For example, a difference found at the $p < .05$ level of statistical significance is one that is less than 5% likely to occur by chance alone.

Sources:

The 2002 results are based on unpublished data analyses of the 2002 *CM*.

The 1996/97 results can be found in: Walsh, G.W., & Mann, R.E. (1999). On the high road: Driving under the influence of cannabis in Ontario. *Canadian Journal of Public Health, 90(4)*, 260-263.

References:

1. Adlaf, E.M., & Ialomiteanu, A. (2002). *CAMH Monitor eReport: Addiction and Mental Health Indicators among Ontario Adults in 2001, and Changes Since 1977*. CAMH Research Document Series No. 12. Toronto: Centre for Addiction and Mental Health. [electronic document]; available: http://www.camh.net/research/population_life_course.html
2. Walsh, G.W., & Mann, R.E. (1999). On the high road: Driving under the influence of cannabis in Ontario. *Canadian Journal of Public Health, 90(4)*, 260-263.

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Previous *CAMH Population Studies eBulletins* are also available at http://www.camh.net/research/population_life_course.html

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