

Rural vs. Non-Rural Differences in Drug-Related Risk Behaviours Among High School Students

This eBulletin describes the differences in drug use and related risk behaviours between high school students (grades 9–12) living in rural areas versus those living in urban or suburban areas of Ontario. Data are from the 2011 *Ontario Student Drug Use and Health Survey* (OSDUHS). The OSDUHS is a repeated, cross-sectional, anonymous survey of 7th- to 12th- graders in Ontario, with the purpose of monitoring drug use, mental and physical health, and other risk behaviours. Conducted every two years since 1977, the OSDUHS is the longest ongoing school survey in Canada and one of the longest in the world.

Past Year Drug Use

As seen in Figure 1, compared with students in urban or suburban areas, those in rural areas are more likely to report the use of alcohol, high-caffeine energy drinks, and the non-medical use of prescription opioid pain

relievers (such as Percocet[®], Tylenol No. 3[®]). Further, as seen in Figure 2, rural students are more likely to report the use of over-the-counter cough/cold medication to “get high,” the non-medical use of a stimulant drug to treat ADHD (such as Ritalin[®], Adderall[®]), and methamphetamine. Non-rural students are more likely to report using inhalants (such as glue and solvents).

Risky Driving-Related Behaviours

As seen in Figure 3, students in rural areas are more likely to report risky behaviours involving vehicles and alcohol. Specifically, compared with students in urban or suburban areas, those in rural areas are more likely to report drinking and driving a vehicle, drinking and operating a snowmobile, motorboat, Sea-doo, or all-terrain-vehicle (ATV), and being a passenger in a vehicle with a driver who had been drinking alcohol.

Figure 1
Percentage of Ontario High School Students Reporting Past Year Drug Use by Urban/Suburban versus Rural Residence, 2011 OSDUHS (N=6,383)

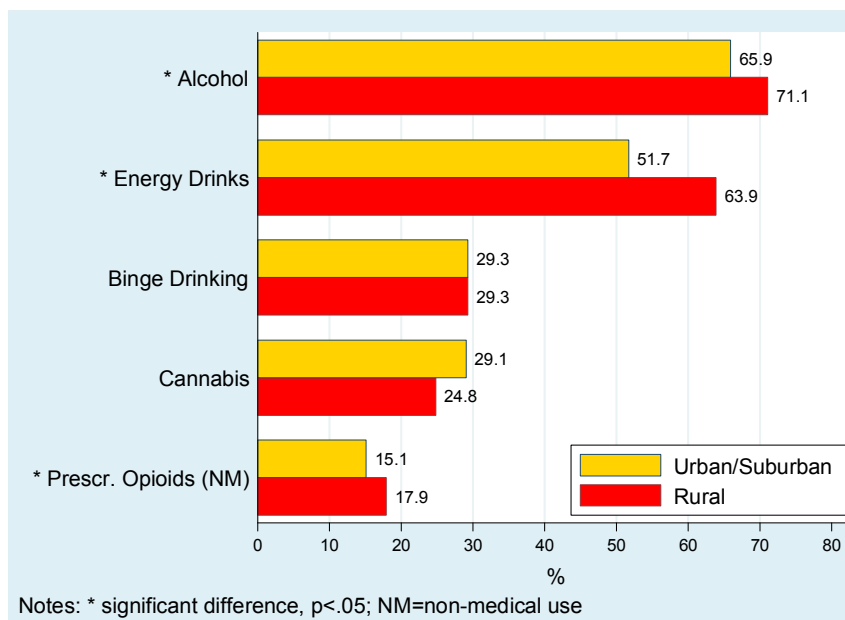


Figure 2
Percentage of Ontario High School Students Reporting Past Year Drug Use
by Urban/Suburban versus Rural Residence, 2011 OSDUHS (N=6,383)

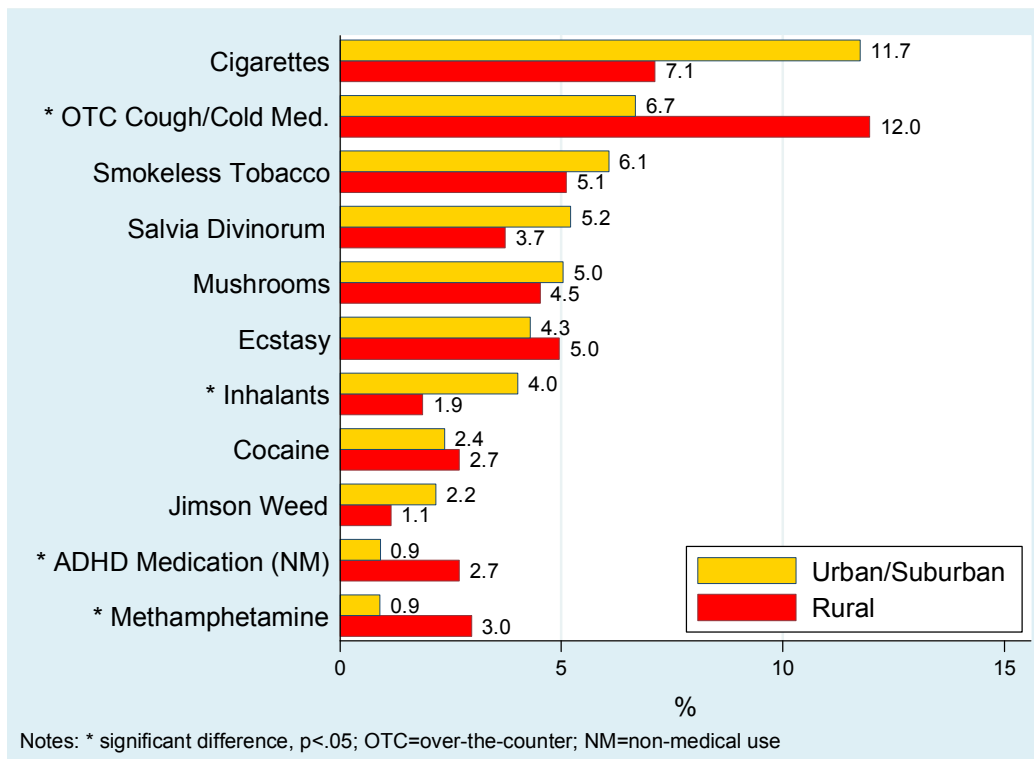
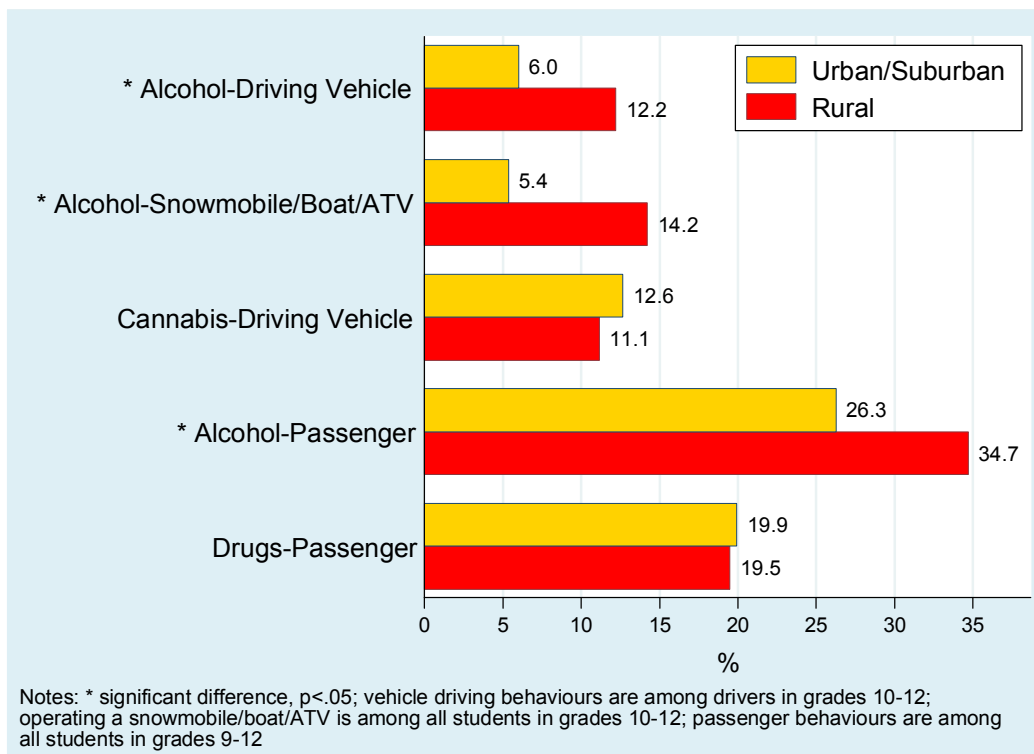


Figure 3
Percentage of Ontario High School Students Reporting Driving-Related Risky
Behaviours by Urban/Suburban versus Rural Residence, 2011 OSDUHS



Methods

CAMH's *Ontario Student Drug Use and Health Survey* (OSDUHS) is an Ontario-wide survey of elementary/middle school students in grades 7 and 8 and secondary school students in grades 9 through 12. The 2011 survey, which used a stratified (region, school level) two-stage (school, class) cluster design, was based on 9,288 students in grades 7 through 12 from 40 public and Catholic school boards, 181 schools, and 581 classes. Self-administered questionnaires, which promote anonymity, were administered by staff from the Institute for Social Research, York University on a classroom basis between October 2010 and June 2011. Seventy-one percent of selected schools, and 62% of eligible students in those schools, participated. The 2011 complete sample is representative of over one million Ontario students in grades 7 through 12 in publicly-funded schools.

The findings presented here are based on data from 6,383 secondary school students (grades 9-12). The tests comparing rural versus urban/suburban controlled for region of the province. All survey estimates presented were weighted, and variance and statistical tests were corrected for the complex sampling design.

Measures & Terminology

- **Urban/suburban versus rural** residence was derived from the first 3 digits (Forward Sortation Area) of the school's postal code. The assumption is that students live in the same FSA as their school. Among high school students who participated in the 2011 OSDUHS, 15% attended a school in a rural area.
- **Past year alcohol use** is defined as drinking any type of alcohol during the 12 months before the survey. Use includes consumption on special occasions, but excludes sips just to try it.
- **Binge drinking** is defined as drinking 5 or more drinks on the same occasion at least once during 4 weeks before the survey.
- **Past year cigarette smoking** is defined as smoking at least one cigarette daily or smoking occasionally during the past 12 months. Those who smoked a few puffs or less than one whole cigarette in the past 12 months are not classified as smokers.
- **Past year use:** used the drug at least once during the 12 months before the survey. Cases that responded "don't know what [the drug] is" were classified as non-users.
- **Non-medical (NM) drug use:** used the drug without a prescription, or without a doctor's supervision, at least once during the 12 months before the survey. Note that "non-medical" use does not necessarily *solely* reflect recreational use or use to "get high."
- **Non-medical (NM) use of opioid pain relievers** was measured with the question "*In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin, codeine) without a prescription or without a doctor telling you to take them? (We do not mean regular Tylenol or Aspirin that anyone can buy in a drugstore.)*"
- **Over-the-counter (OTC) cough/cold medication** refers to medication that contains the drug dextromethorphan (DXM), such as Robitussin DM[®] and Benylin DM[®], and used specifically to "get high."

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- **Drinking alcohol and driving a vehicle** is defined as driving a vehicle within one hour of drinking two or more alcoholic drinks, at least one time in the past 12 months, among students in grades 10-12 with a valid driver's licence.
- **Drinking alcohol and operating a snowmobile, motorboat, Sea-doo, or all-terrain-vehicle (ATV)** is defined as operating any one of these within one hour of drinking two or more alcoholic drinks, at least one time in the past 12 months, among students in grades 10-12.
- **Been a passenger with a driver who had been drinking alcohol** refers to riding in a "car or other vehicle driven by someone who had been drinking alcohol" at least one time in the past 12 months.
- **Been a passenger with a driver who had been using drugs** refers to riding in a "car or other vehicle driven by someone who had been using drugs (other than alcohol)" at least one time in the past 12 months.
- **95% confidence interval (CI)** 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, clustering, weighting).
- **Significant difference** refers to a difference between estimates that is statistically different at the $p < .05$ level, or lower, after adjusting for the sampling design, and thus not likely due to chance alone.

Source

Paglia-Boak, A., Adlaf, E.M., & Mann, R.E. (2011). *Drug use among Ontario students, 1977-2011: Detailed OSDUHS findings* (CAMH Research Document Series No. 32). Toronto, ON: Centre for Addiction and Mental Health. [Available online at <http://www.camh.net/research/osdus.html>]

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