

At What Age do Students Start to Smoke Cigarettes, Drink Alcohol and Use Cannabis?

Early substance use is an important risk factor for subsequent problems during late adolescence and/or adulthood, such as substance abuse or dependence, school problems, and mental health problems. This *eBulletin* describes at what point during adolescence Ontario students typically begin to smoke cigarettes, drink alcohol and use cannabis. First, we describe the average age of initiation or uptake of smoking, drinking, and cannabis use reported by 12th graders (ages 17–19) who are currently using these substances. Following that, we describe the percentage of high schoolers who reported first using these three substances before entering high school (i.e., before grade 9). Data used are from the 2011 cycle of the *Ontario Student Drug Use and Health Survey* (OSDUHS), which is CAMH's Ontario-wide school survey of students in grades 7 through 12 repeated every two years.

As seen in Figure 1, the average age at which past year smokers in the 12th grade reported first smoking a whole cigarette was 14.9 years. There was no significant difference in the average age of smoking initiation between males and females. Past year drinkers in the 12th grade report drinking their first alcohol drink at an average age of 14.4 years. Males were significantly more likely to begin drinking at an earlier age than females. Past year cannabis users in the 12th grade reported first using cannabis at an average age of 14.9. Males were significantly more likely to begin using cannabis at an earlier age than females.

Figure 2 presents the percentage of high school students who are past year smokers, drinkers, and cannabis users who reported uptake of the substance before entering high school (defined here as “early use”). Among past year drinkers in high school, almost half (44%) reported first drinking alcohol, and one-fifth (21%) reported first getting drunk, before high school. Male drinkers were more likely than female drinkers to report early use of alcohol and early drunkenness (results by gender are not shown). Twenty-eight percent of past year smokers

Figure 1
Average Age at First Whole Cigarette Among Past Year Smokers, at First Alcoholic Drink Among Past Year Drinkers, and at First Cannabis Use Among Past Year Users, 2011 OSDUHS (Among Grade 12 Students)

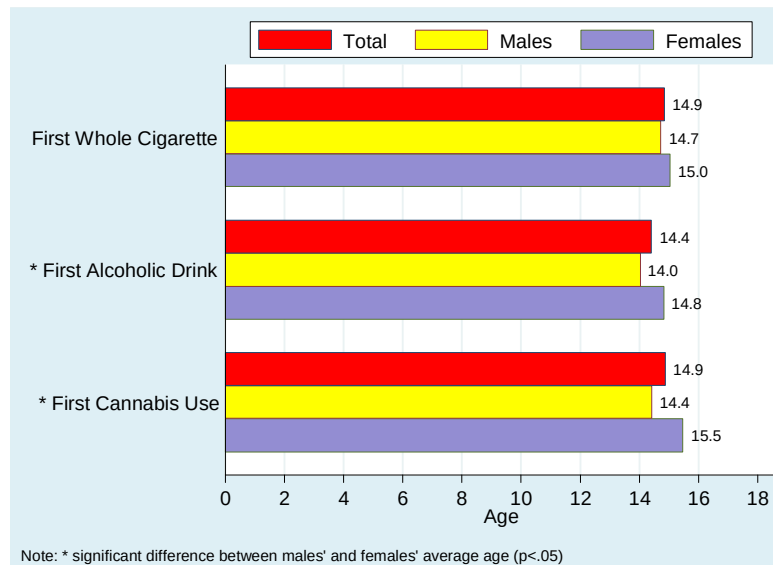
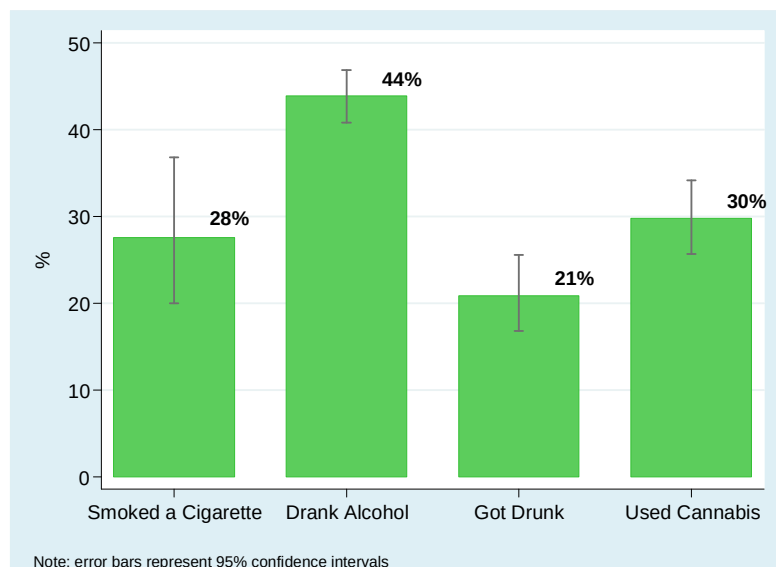


Figure 2
Percentage of High School Students (Grades 9–12) Who Reported Smoking a Cigarette, Drinking Alcohol, Getting Drunk, and Using Cannabis Before the 9th Grade, 2011 OSDUHS (Among Past Year Users)



reported early cigarette smoking. There was no significant gender difference in reports of early smoking. About one-third (30%) of cannabis users reported early use. Male cannabis users were more likely than female users to report early use.

Both these analyses indicate that among the general population of adolescents, the use of alcohol occurs before the use of cigarettes or cannabis, and that males begin to use alcohol and cannabis at younger ages than do females.

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. This repeated cross-sectional survey has been conducted every two years since 1977. The 2011 survey, which used a stratified (region by 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 participating classes participated in the survey. The 2011 total sample of 9,288 students is representative of over one million Ontario students in grades 7 through 12 in publicly funded schools.

Figure 1 showing the average ages is based on 12th grade students who reported past year use of the substance ($n = 246$ past year smokers, $n = 1,245$ past year drinkers, $n = 632$ past year cannabis users). Figure 2 showing early use (before high school) are based on students in grades 9–12 who reported past year use of the substance ($n = 719$ past year smokers, $n = 4,152$ past year drinkers, $n = 1,831$ past year cannabis users). All estimates presented were weighted, and variance and statistical tests were accommodated for the complex survey data.

Measures & Terminology

- **Early/first cigarette use** is defined here as first smoking a whole cigarette before grade 9. The question used was “When (if ever) did you first smoke a whole cigarette?” Response options ranged from “Grade 4 or before” to “Grade 12”, and also included an option for those who had “Never smoked a whole cigarette.”
- **Early/first alcohol use** is defined here as first trying alcohol before grade 9. The question used was “When (if ever) did you first drink more than just a few sips of alcohol?” Response options ranged from “Grade 4 or before” to “Grade 12” and also included an option for those who had “Never drank more than a few sips of alcohol in lifetime.”
- **Early/first drunkenness** is defined here as first getting drunk before grade 9. The question used was “When (if ever) did you first drink enough alcohol to feel drunk?” Response options ranged from “Grade 4 or before” to “Grade 12” and also included an option for those who had “Never been drunk in lifetime.”

(continued...)

- **Early/first cannabis use** is defined here as first trying cannabis before grade 9. The question used was “When (if ever) did you first try cannabis (also known as marijuana, weed, grass, pot, hashish, hash, hash oil)?” Response options ranged from “Grade 4 or before” to “Grade 12”, and also included an option for those who had “Never used cannabis in lifetime.”
- **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 infers that any differences are 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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