DRUG USE 1977–2019

Among Ontario Students

Detailed Findings from the Ontario Student Drug Use and Health Survey

with French summary within | avec resumé en français à l'intérieur

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OSDUHS
Ontario Student Drug Use and Health Survey

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OSDUHS
Ontario Student Drug Use and Health Survey

The 2019 OSDUHS Drug Use Report Summary

The Centre for Addiction and Mental Health's *Ontario Student Drug Use and Health Survey* (OSDUHS) has been conducted every two years since 1977, making it the longest ongoing school survey of adolescents in Canada, and one of the longest in the world. Between November 2018 and June 2019, a total of 14,142 students in grades 7 to 12 from 992 classes, in 263 schools, in 47 school boards participated in the 2019 cycle of the OSDUHS.

This report describes the 2019 results for use of alcohol, tobacco, cannabis, illicit drugs, prescription drugs, as well as changes over time. Also examined are harms related to drug use, perceptions and attitudes, and exposure to drugs. All data are based on self-reports derived from anonymous questionnaires completed in classrooms. The survey was administered by the Institute for Social Research (at York University) on CAMH's behalf.

Past Year Drug Use (%) for the Total Sample, by Sex, and by Grade, 2019 OSDUHS (N=14,142)

	Total	Males	Females		G7	G8	G9	G10	G11	G12	
Grades 7–12											
Alcohol	**41.7**	40.6	42.8		7.3	15.8	30.3	45.2	57.0	66.0	*
High-Caffeine Energy Drinks	**32.6**	38.8	26.1	*	18.9	28.9	32.7	32.3	38.1	36.4	*
Electronic Cigarettes (Vapes)	**22.7**	23.5	21.8		1.9	5.3	19.6	25.1	30.9	34.9	*
Cannabis	**22.0**	22.6	21.4		1.3	4.7	12.8	21.7	33.1	40.0	*
Binge Drinking (5+ drinks, past month)	**14.8**	14.9	14.7		1.1	3.0	8.7	13.7	21.3	28.2	*
Prescription Opioid Pain Relievers (NM)	**11.0**	10.9	11.0		9.9	11.5	10.1	9.9	11.3	12.5	
Cough/Cold Medication (NM)	**7.8**	9.3	6.2	*	6.9	7.0	8.3	6.5	8.4	8.8	
Tobacco Cigarettes	**5.0**	5.6	4.4	*	s	0.7	2.7	3.5	7.5	10.8	*
Waterpipes (Hookahs)	**4.4**	4.5	4.4		s	s	2.4	3.7	5.3	9.4	*
Smokeless (Chewing) Tobacco	**3.9**	6.1	1.4	*	s	s	2.7	2.9	5.5	7.2	*
Inhalants (Glue or Solvents)	**3.1**	2.7	3.6	*	4.5	5.9	3.2	2.9	2.1	1.9	*
ADHD Drugs (NM)	**2.7**	3.2	2.1	*	0.7	1.3	1.9	2.1	3.1	5.0	*
Synthetic Cannabis ("Spice," "K2")	**1.6**	2.0	1.2	*	s	s	1.2	2.7	2.3	1.8	*
Grades 9–12[†]											
Mushrooms (Psilocybin) or Mescaline	**4.5**	6.4	2.5	*	--	--	1.3	2.7	5.9	7.3	*
Tranquillizers/Sedatives (NM)	**2.9**	3.1	2.6		--	--	1.3	1.9	3.9	4.0	*
Cocaine	**2.6**	3.3	1.8	*	--	--	0.9	0.7	2.7	5.2	*
Ecstasy (MDMA)	**2.3**	2.9	1.6	*	--	--	0.7	1.4	2.8	3.7	*
LSD	**2.0**	2.8	1.2	*	--	--	1.0	1.3	2.2	3.3	*
Methamphetamine	**0.7**	0.9	s		--	--	s	s	s	s	
Crack	**0.5**	0.8	s		--	--	s	s	s	s	
Fentanyl	**0.5**	s	s		--	--	s	s	s	s	
Any NM Use of a Prescription Drug	**13.4**	13.7	13.0		--	--	11.3	11.6	13.9	15.8	*
Any Drug Use	**20.3**	22.5	18.0	*	--	--	15.8	17.9	22.0	23.8	*

Notes: [†] not asked of 7th and 8th graders; * statistically significant sex or grade difference (p<.05), *not* controlling for other factors; s=estimate suppressed due to unreliability; estimate for alcohol excludes "a sip"; estimates for tobacco cigarettes, electronic cigarettes, and waterpipes exclude smoking a few puffs; binge drinking refers to drinking five or more drinks on one occasion in the past month; NM=nonmedical use, without a doctor's prescription; "Any NM Use of a Prescription Drug" refers to the nonmedical use of opioids, Attention-Deficit/Hyperactivity Disorder (ADHD) drugs, or tranquillizers/ sedatives; "Any Drug Use" refers to use of any one of 14 drugs (excludes alcohol, tobacco, cannabis and energy drinks); estimates for heroin were suppressed due to unreliability.

2019 Subgroup Differences in Drug Use

Differences in past year drug use according to sex, grade, and four regions of the province are presented in the report.

- Among the drugs asked about in the 2019 survey, males are significantly more likely than females to use 10 drugs, as shown in the table below. Females are more likely to use inhalants.

Males are more likely to use	Females are more likely to use
• Energy Drinks • Cough/Cold Medication (NM) • Tobacco Cigarettes • Smokeless Tobacco • ADHD Drugs (NM) • Synthetic Cannabis • Mushrooms/Mescaline • Cocaine • Ecstasy (MDMA) • LSD	• Inhalants

NM=nonmedical use

- Past year use of many drugs significantly differs by grade, as shown in the table below. Use of most drugs increases with grade, peaking in grade 11 or 12.

Use increases with grade	Use decreases with grade
• Alcohol & Binge Drinking • Energy Drinks • Electronic Cigarettes • Cannabis • Tobacco Cigarettes • Waterpipes (Hookahs) • Smokeless Tobacco • ADHD Drugs (NM) • Synthetic Cannabis • Mushrooms/Mescaline • Tranquillizers (NM) • Cocaine • Ecstasy (MDMA) • LSD	• Inhalants

NM=nonmedical use; binge drinking refers to 5+ drinks on one occasion in the past month

The survey design divided the province into four regions: Greater Toronto Area; Northern Ontario (Parry Sound District, Nipissing District and farther north); Western Ontario (Dufferin County and farther west); and Eastern Ontario (Simcoe County and farther east).

- There are significant regional differences in drug use. Compared to the provincial average, students in the Greater Toronto Area are less likely to use many drugs, whereas students in the North, West, and East regions are more likely to use several drugs. These regional differences are shown in the table below.

Use in region below provincial average	Use in region above provincial average
Greater Toronto Area	
• Alcohol & Binge Drinking • Energy Drinks • Electronic Cigarettes • Cannabis • Cough/Cold Medication • Tobacco Cigarettes • Smokeless Tobacco • ADHD Drugs (NM) • Mushrooms/Mescaline • Tranquillizers (NM) • Cocaine • Ecstasy (MDMA) • LSD	
North	
	• Tobacco Cigarettes • Cocaine • Ecstasy (MDMA)
West	
	• ADHD Drugs (NM) • Ecstasy (MDMA)
East	
	• Tobacco Cigarettes • Cough/Cold Medication • ADHD Drugs (NM)

NM=nonmedical use; binge drinking refers to 5+ drinks on one occasion in the past month

Trends in Drug Use

2019 vs. 2017

Among the total sample of students, only one drug use measure showed an increase between the previous survey in 2017 and the 2019 survey. The past year use of electronic cigarettes (also known as "vapes") significantly increased from 10.7% to 22.7%.

Past year use of the following three drugs significantly decreased between 2017 and 2019:

- tobacco cigarettes (from 7.0% in 2017 to 5.0% in 2019),
- waterpipes (from 6.2% to 4.4%), and
- ecstasy (MDMA) (from 3.4% to 2.3%).

	2017 past year use		2019 past year use
Tobacco Cigarettes	7.0%	↓	5.0%
Waterpipes (Hookahs)	6.2%	↓	4.4%
Ecstasy (MDMA)	3.4%	↓	2.3%
Electronic Cigarettes	10.7%	↑	22.7%

1999–2019

The study was redesigned in 1999 to include all grades between 7 and 12. As such, 1999 is a key marker in the study's history. In this section, we highlight significant changes during the period between 1999 and 2019.

In general, most past year drug use measures show a significant downward trend over time, with two exceptions. Use of electronic cigarettes has significantly increased since 2015 (the first year of monitoring) from 11.7% to 22.7%. The nonmedical use of ADHD drugs (e.g., Adderall, Ritalin, Concerta) has significantly increased since 2007 (the first year of monitoring), from 1.0% to 2.7%.

The following drugs or drug use measures show a significant decrease during the period between 1999 and 2019:

- alcohol: from 66.0% to 41.7%
- binge drinking: from 27.6% to 14.8%
- energy drinks: from 49.5% (2011) to 32.7%
- cannabis: from 28.0% to 22.0%
- opioids (NM): from 20.6% (2007) to 11.0%
- tobacco cigarettes: from 28.4% to 5.0%
- waterpipes: from 9.7% (2013) to 4.4%
- inhalants: from 8.9% to 3.1%
- mushrooms:* from 17.1% to 4.5%
- ecstasy (MDMA):* from 7.9% (2001) to 2.3%
- cocaine:* from 5.7% (2003) to 2.6%
- LSD:* from 8.8% to 2.0%
- methamphetamine:* from 6.3% to 0.7%
- crack:* from 3.2% to 0.5%
- heroin:* from 2.1% to < 0.5%.

- Any nonmedical use of a prescription drug decreased between 2007 and 2019 (from 23.5% to 13.4%) among grades 9–12.

- Any use of at least one of eight drugs measured in all survey cycles (mushrooms, ecstasy, cocaine, LSD, methamphetamine, crack, heroin, and tranquillizers/sedatives) significantly decreased between 1999 and 2019, from 22.8% to 7.8%, among grades 9–12.

Drugs that remained relatively stable and show no dominant trend since their use was first monitored include smokeless tobacco, synthetic cannabis ("spice"), cough/cold medication (nonmedical use), and tranquillizers/sedatives (nonmedical use).

* among grades 9-12 only (not asked of grade 7 and 8 students)

Trends by Sex

Both males and females show a significant increase in past year use of electronic cigarettes since the previous survey in 2017, as well as since 2015, when monitoring of these products first began. Both sexes also show an increase in the nonmedical use of ADHD drugs since 2007, when monitoring of these drugs first began. However, as shown in the table below, both males and females show many decreases in drug use during the twenty-year period between 1999 and 2019.

Decreases in past year drug use by sex

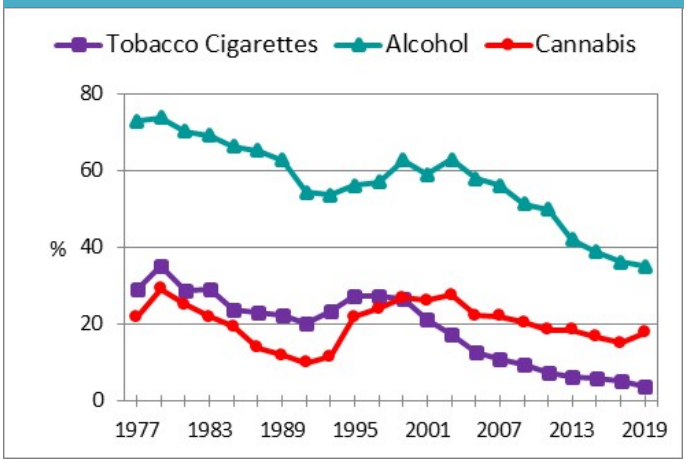
Males ↓	Females ↓
• Alcohol & Binge Drinking	• Alcohol & Binge Drinking
• Energy Drinks	• Energy Drinks
• Cannabis	• Opioids (NM)
• Opioids (NM)	• Tobacco Cigarettes
• **Tobacco Cigarettes**	• Waterpipes (Hookahs)
• **Waterpipes (Hookahs)**	• Inhalants
• Inhalants	• Mushrooms/Mescaline
• Mushrooms/Mescaline	• Cocaine
• Cocaine	• Ecstasy (MDMA)
• Ecstasy (MDMA)	• LSD
• LSD	• Methamphetamine
• Methamphetamine	• Crack
• Crack	• Any Prescription Drug
• Heroin	• Any Drug
• Any Prescription Drug	
• Any Drug	

Bolded text indicates a decrease in 2019 vs. 2017 (previous survey); NM=nonmedical use; binge drinking refers to 5+ drinks on one occasion in the past month

Long-Term Trends in Drug Use, 1977–2019 (Grades 7, 9, and 11 only)

The OSDUHS has been monitoring student drug use for over 40 years. Many past year prevalence estimates for the 11 drugs monitored since 1977 show a common pattern of use: a peak in the late 1970s, a decline in the late 1980s or early 1990s, a second peak in the late 1990s or early 2000s, followed by another decline. Most drugs, including alcohol and cannabis, show stability in recent years, whereas tobacco cigarettes continued on a downward trend in 2019.

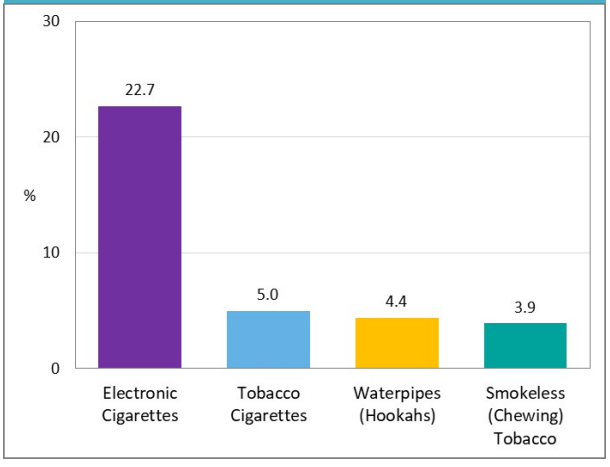
Percentage of students reporting past year drug use, 1977-2019 OSDUHS



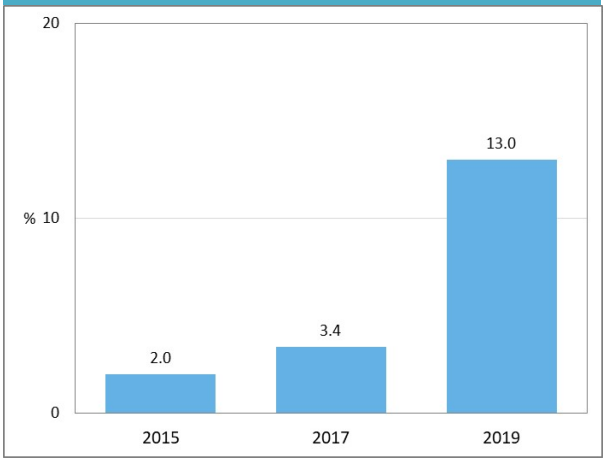
Tobacco and Alternative Smoking Devices

- In 2019, about 5% of students in grades 7–12 (an estimated 45,600 in Ontario) report smoking tobacco cigarettes (more than just a few puffs) during the past year. About 2% of students (an estimated 14,200) smoke cigarettes daily. After some years of stability, the prevalence of cigarette smoking continued on a downward trend that began decades ago, as it significantly declined to an all-time low in 2019.
- Males (6%) are significantly more likely than females (4%) to smoke tobacco cigarettes. The prevalence of cigarette smoking significantly increases with grade, reaching 11% among 12th graders.
- About one-quarter (23%) of students in grades 7–12 (an estimated 184,200) report using an electronic cigarette (also known as vaping) in the past year (more than just a few puffs). About one-in-eight (13%) students use weekly or daily. Past year electronic cigarette use doubled between 2017 and 2019, from 11% to 23%. Weekly or daily vaping has also significantly increased over time.
- Males (24%) and females (22%) are equally likely to use electronic cigarettes. Use significantly increases with grade, from 2% of 7th graders up to 35% of 12th graders.
- Among those who vaped in the past year in 2019, over half (56%) report using a product containing nicotine. This percentage is significantly higher than in 2017 (28%), when e-cigarettes containing nicotine were not legally available for sale in Canada.
- About 4% of students in grades 7–12 (36,100 students in Ontario) report smoking more than just a few puffs from a waterpipe (hookah) in the past year. The 2019 estimate is the lowest since monitoring began in 2013.
- Smokeless tobacco (chewing tobacco, dipping tobacco, snuff) is used by about 4% of students in grades 7–12 (31,400 in Ontario), with males (6%) more likely to use than females (1%).
- Among those who use tobacco cigarettes, as well as among those who use e-cigarettes, friends are reported to be the most common source of these products.

Percentage of students reporting past year use of electronic cigarettes and tobacco-related products, 2019 OSDUHS



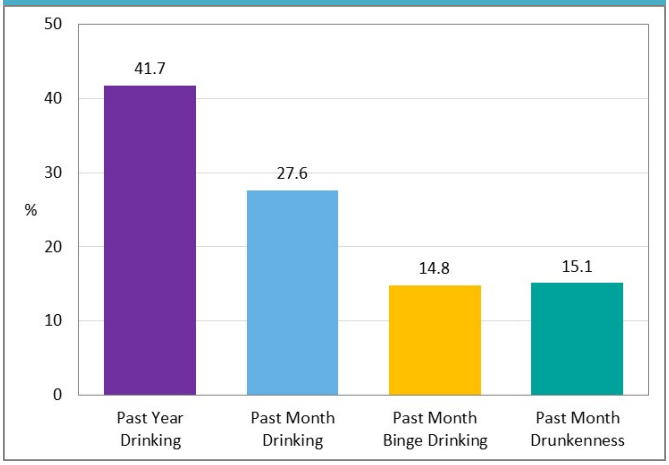
Percentage of students reporting weekly or daily use of electronic cigarettes, 2015-2019 OSDUHS



Alcohol

- In 2019, less than half (42%) of students in grades 7–12 (an estimated 374,300 in Ontario) report drinking more than just a few sips of alcohol during the past year. While the past year prevalence of drinking has been stable during the past few survey cycles, it has been on a significant decline during the last two decades.
- Males (41%) and females (43%) are equally likely to drink alcohol. Past year drinking significantly varies by grade, increasing from 7% of 7th graders to 66% of 12th graders.
- Over one-quarter (28%) of students report drinking alcohol in the past month.
- About one-in-seven (15%) students in grades 7–12 (an estimated 133,700 in Ontario) report binge drinking (defined as five or more drinks on one occasion) at least once in the past month. A similar percentage report getting drunk at least once in the past month. Males and females are equally likely to binge drink and get drunk. Over one-quarter of 12th graders report binge drinking and getting drunk at least once in the past month.

Percentage of students reporting alcohol use, 2019 OSDUHS

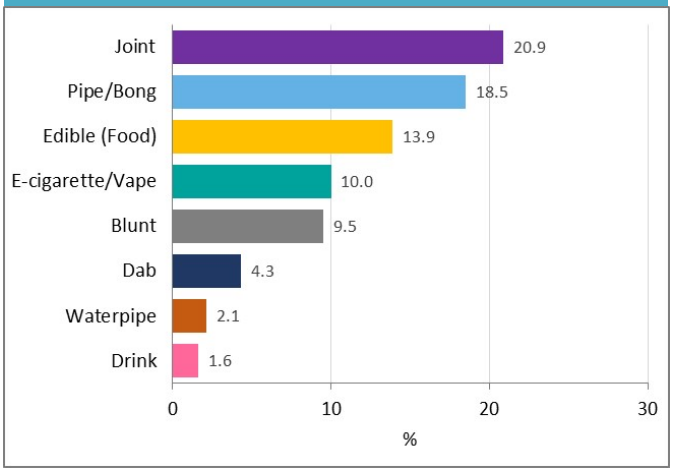


- One-in-six (17%) students report drinking alcohol mixed with an energy drink in the past year. Males (21%) are more likely than females (12%) to do so, as are 11th and 12th graders (about 20%) compared with students in the lower grades.
- One-in-seven (14%) high school students – (an estimated 99,100 in grades 9–12) report drinking hazardously or harmfully, as measured by the *AUDIT* screener. Hazardous/harmful drinking does not significantly differ by sex, but does significantly differ by grade, increasing to 22% of 12th graders. One-in-six (17%) high school students could not remember what had happened when they were drinking on at least one occasion during the past year.
- One-quarter (24%) of high school students report that they are allowed to drink alcohol at home during parties or get-togethers with their friends. This estimate increases to 37% of 12th graders.
- Among past year drinkers, the most common source of alcohol is a family member.
- One-third (33%) of high school students believe it would be more difficult for them to buy beer in a LCBO or beer store than in a grocery store in Ontario. Only 6% of high school students believe that it would be more difficult for them to buy beer in a grocery store than in a LCBO or beer store. About 28% believe the level of difficulty would not differ.

Cannabis

- In 2019, about one-in-five (22%) students in grades 7–12 (an estimated 198,300 in Ontario) report using cannabis in the past year. While past year cannabis use did not significantly change since the previous survey in 2017 (19%) – which occurred prior to legalization – the current prevalence is lower than estimates seen over a decade ago.
- Males (23%) and females (21%) are equally likely to use cannabis. Use increases with grade, from 1% of 7th graders up to 40% of 12th graders.
- About 2% of students in grades 7–12 use cannabis daily, representing about 20,700 students in Ontario. This estimate increases to 5% of 12th graders.
- One-in-seven (14%) students used alcohol and cannabis on the same occasion at least once in the past year. This estimate increases to 27% of 12th graders.
- Among high school students, the most common ways of using cannabis are smoking it in a joint (21%), smoking it in a pipe or bong (19%), and eating it in food products such as brownies or candy (14%).
- Among high school students, consuming cannabis edibles significantly increased between 2017 and 2019, from 11% to 14%. Vaping cannabis significantly increased between 2015 (5%) and 2019 (10%).
- About 3% of high school students (an estimated 20,500 students in grades 9-12) report symptoms of cannabis dependence, as measured by the *Severity of Dependence Scale*.
- Among past year cannabis users, the most common source of cannabis is friends.
- Over one-quarter (27%) of high school students report that their friends' use of cannabis did not change after legalization. About 14% report that their friends use cannabis more often now that it is legal, and 22% are not sure if their friends' use of cannabis changed after legalization.

Percentage of cannabis users in high school reporting ways they used cannabis in the past year, 2019 OSDUHS



Nonmedical Use of Prescription Drugs and Over-the-Counter Drugs

- One-in-ten (11%) students in grades 7–12 (an estimated 98,300 in Ontario) report using a prescription opioid pain reliever (e.g., Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNEO, codeine) without a prescription in the past year. Males and females are equally likely to use these drugs nonmedically. Although past year nonmedical opioid use has remained stable since the previous survey in 2017, it is currently lower than when monitoring first began in 2007.

- About 3% of students in grades 7–12 (an estimated 23,000) report using a drug typically used to treat Attention-Deficit/Hyperactivity Disorder (ADHD) in children (e.g., Adderall, Ritalin, Concerta, Dexedrine) without a prescription in the past year. Males are more likely than females to use these drugs nonmedically, as are older students. The nonmedical use of ADHD drugs has significantly increased since 2007, when monitoring first began.

The nonmedical use of prescription opioids declined during the past decade and remained stable in recent years.

The home is the most common source of prescription opioids used nonmedically.

- About 3% of high school students (an estimated 19,700 students in grades 9-12) report using a sedative/tranquillizer without a prescription in the past year. Males and females are equally likely to use these drugs nonmedically. Older students are more likely to use these drugs nonmedically. Nonmedical use of these drugs has remained relatively stable for decades.

- About 8% of students in grades 7–12 (an estimated 70,300) report using cough or cold medication to “get high” during the past year. Males (9%) are significantly more likely than females (6%) to use cough/cold medication to get high. Nonmedical use of these drugs has fluctuated during the past decade, showing no dominant trend.

- Students were asked about their use of highly caffeinated energy drinks (e.g., Red Bull, Monster, Rockstar, Amp) during the past year and the past week. One-third (33%) of students (an estimated 259,500 in grades 7–12) report drinking an energy drink at least once in the past year. One-in-ten (11%) students (an estimated 90,200) report drinking an energy drink at least once during the week before the survey. Males and older students are more likely to drink energy drinks. Energy drink use has decreased since 2011, when monitoring first began.

Consequences and Problems Related to Alcohol and Other Drug Use

Vehicles

- One-in-seven (15%) students in grades 7–12 report riding in a vehicle driven by someone who had been drinking alcohol, and one-in-ten (10%) report riding in a vehicle driven by someone who had been using drugs at least once in the past year. The percentage of students reporting these behaviours has significantly decreased during the two decades.

- About 4% of students in grades 10–12 with a G-Class driver's licence report driving a vehicle within an hour of consuming two or more drinks of alcohol at least once during the past year (an estimated 10,900 adolescent drivers in Ontario). Drinking and driving among adolescent drivers has been stable since 2013 at about 4%-7%. However, the current estimate is significantly lower than estimates seen in 1999 and the 2000s (12%-14%), and is substantially lower than estimates from the late 1970s and early 1980s (when almost half of 11th graders reported drinking and driving).

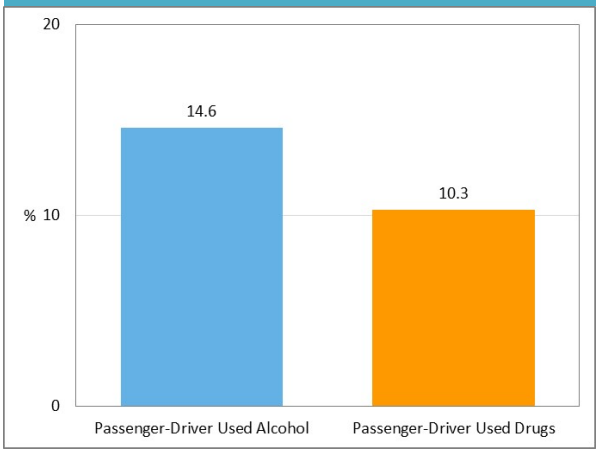
- More drivers in grades 10–12 report driving after cannabis use than driving after drinking alcohol. About 7% of drivers report driving a vehicle within one hour of using cannabis at least once during the past year (an estimated 18,900 adolescent drivers in Ontario). Driving after cannabis use remained stable between 2017 and 2019, but the there has been a significant decline since 2001 (the first year of monitoring), when the estimate was about 20%.

Drug Use Problem

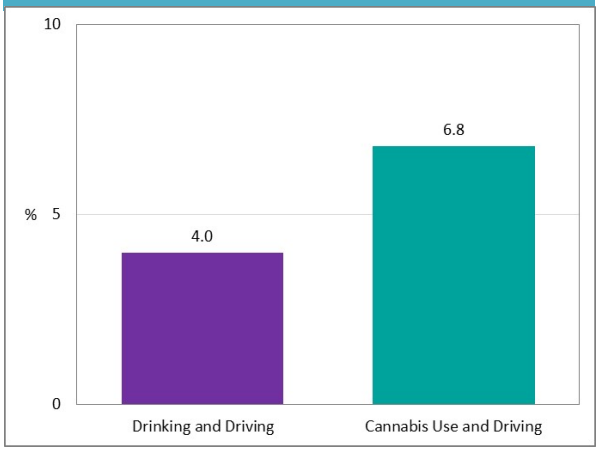
- One-in-seven (15%) high school students (an estimated 115,000 in grades 9–12) report symptoms of a drug use problem, as measured by the *CRAFFT* screener. This percentage has been stable in recent years, but is currently lower than estimates seen over a decade ago (about 22%).

- A very small proportion (0.7%) of high school students (an estimated 4,600 in grades 9–12) report that they had been in a treatment program during the past year because of their alcohol and/or drug use.

Percentage reporting being a passenger with a driver who used alcohol or drugs (past year), 2019 OSDUHS



Percentage of drivers in grades 10-12 reporting risky driving behaviours (past year), 2019 OSDUHS



Other Highlights

Abstinence

- About 42% of students in grades 7–12 (an estimated 340,600 in Ontario) report using no drug at all during the past year (this includes alcohol, cigarettes and other smoking devices, but excludes caffeinated drinks). Females are more likely than males to abstain from drug use. Past year abstinence significantly decreases with grade, from two-thirds of 7th graders down to one-quarter of 12th graders. There has been a significant increase in abstinence between 1999 and 2019, from 27% to 42%, with much of the decline occurring during the past few years.

New Users and Early Initiation

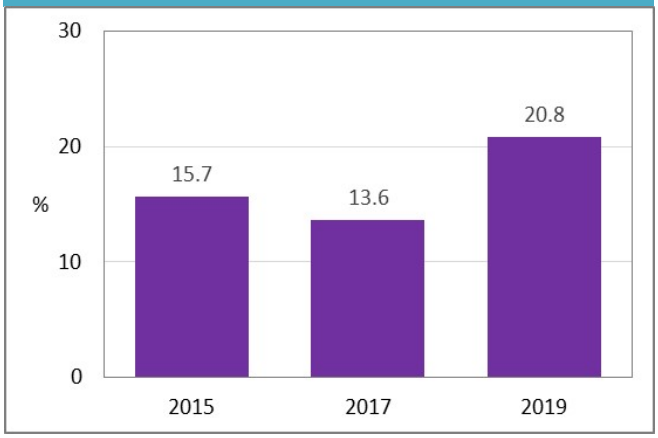
- The percentage of students in grades 7–12 reporting first-time drug use during the past year is as follows: 21% for electronic cigarettes, 19% for alcohol, 10% for cannabis, 4% for tobacco cigarettes, and 3% for illicit drugs.

- There has been a significant increase in the incidence of electronic cigarette use. The percentage of students who used e-cigarettes for the first time was higher in 2019 (21%) compared to 2017 (14%) and 2015 (16%). The incidence of tobacco cigarette smoking has declined during the past two decades, whereas there has been no significant change in the incidence of alcohol or cannabis use.

- In 2019, the average age at which 12th-grade smokers reported smoking their first cigarette was 15.2 years. The average age at first alcoholic drink among 12th-grade drinkers was 14.7 years, and the first time they were drunk was at age 15.4. The average age at first cannabis use among 12th-grade users was 15.4 years.

- Students today are initiating substance use at older ages than in the past, as the average age at first tobacco cigarette, first alcoholic drink, and first cannabis use has significantly increased over the decades.

Percentage of students reporting using an electronic cigarette for the first time in the past year, 2015-2019 OSDUHS



Perceived Risk of Drug Use

- Grade 7 and 8 students were asked about the perceived risk of physical harm associated with using alcohol, tobacco cigarettes, electronic cigarettes, marijuana, and prescription opioids. Of these drugs, these younger students perceive that the greatest risk of physical harm is associated with regular marijuana use. High school students were also asked about the risk associated with these drugs, as well as cocaine and ecstasy (MDMA). High school students believe the greatest risk of harm is associated with trying cocaine. For both elementary school students and high school students, trying marijuana and using electronic cigarettes regularly are considered to be the least risky.

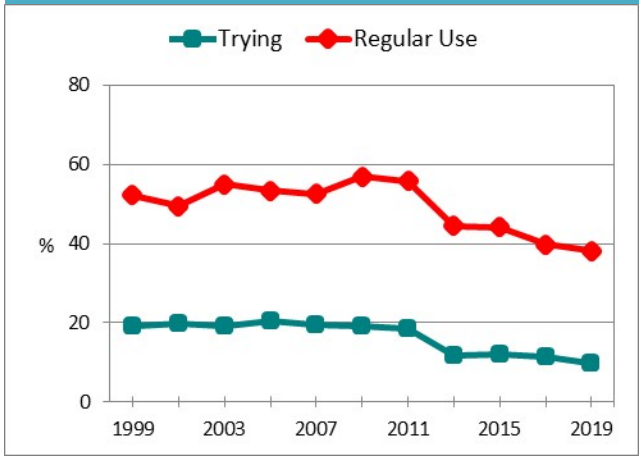
- The percentage of students who perceive a great risk of harm is associated with marijuana use (trying and regular use) has remained stable since the previous survey in 2017, but is currently lower than estimates from 1999 and the 2000s. The perceived risk of harm associated with regular use of electronic cigarettes has increased since 2015, the first year of monitoring.

Perceived Availability of Drugs

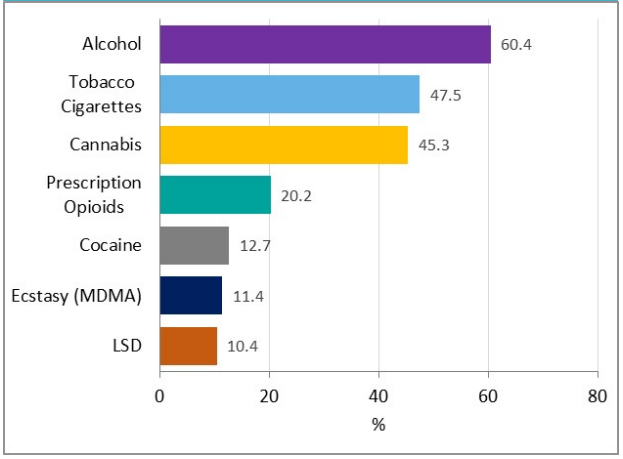
- Of the drugs asked about, alcohol is perceived as the most readily available to students (60% report that it would be "fairly easy" or "very easy" to obtain), followed by tobacco cigarettes (48%), and cannabis (45%). The drug that is perceived to be least available is LSD.

- The perceived availability of alcohol, tobacco cigarettes, cannabis, and prescription opioids did not significantly change since the previous survey in 2017. However, the perceived availability of most drugs has declined over the decades.

Trends in perceived "great risk" of harm from using marijuana, 1999-2019 OSDUHS



Percentage of students reporting that it is "easy" or "very easy" to get the drug, 2019 OSDUHS



School and Neighbourhood

- Students in grades 7, 8, and 9 are most likely to report receiving education about alcohol, cannabis, and other drugs.
- One-quarter (26%) of students in grades 7–12 believe that drug use in their school is a "big problem," half (50%) believe that drug use is a "small problem," and another quarter believe that it is "not a problem" in their school.
- One-in-nine (11%) students in grades 7–12 (an estimated 88,700 in Ontario) report having been drunk or high at school at least once in the past year. This percentage is significantly lower than a decade ago.
- One-in-six (17%) students in grades 7–12 (an estimated 133,700 in Ontario) report having been offered, sold, or given an illegal drug at school at least once in the past year. This percentage is significantly lower than a decade ago.
- One-in-five (21%) students in grades 7–12 (an estimated 165,800) report that someone tried to sell them drugs in the past year. The 2019 estimate is among the lowest on record.
- About one-in-five (18%) students in grades 7–12 (an estimated 145,600) report having seen drug selling in their own neighbourhood at least once in the past year. The 2019 estimate is among the lowest on record.

Methodology

The Centre for Addiction and Mental Health's *Ontario Student Drug Use and Health Survey* (OSDUHS) is an Ontario-wide health survey of elementary/middle school students in grades 7 and 8 and secondary school students in grades 9 through 12. This cross-sectional survey has been conducted every two years since 1977. The 2019 survey cycle, which used a stratified (region by school level) two-stage (school, class) cluster design, was based on 14,142 students in grades 7 to 12 from 992 classes, in 263 schools, in 47 English and French public and Catholic school boards. Excluded from selection were schools in First Nation communities, on military bases, in hospitals and other institutions, and private schools. Special Education classes and English as a Second Language (ESL) classes were excluded from selection.

Active parental consent procedures were used. Self-completed paper-and-pencil questionnaires, which promote anonymity, were group administered in classrooms during regular school hours by staff from the Institute for Social Research, York University between November 2018 and June 2019. Students in French-language schools completed questionnaires in French. Fifty-nine percent (59%) of eligible students in participating classes completed the survey. Data from the sample of 14,142 students were weighted to be representative of just under one million students in grades 7 to 12 enrolled in Ontario's publicly funded schools.

Please visit the OSDUHS webpage for reports, infographics, and FAQs:

www.camh.ca/osduhs

Résumé du rapport sur la consommation de drogues : SCDSEO 2019

Réalisé tous les deux ans depuis 1977 par le Centre de toxicomanie et de santé mentale, le Sondage sur la consommation de drogues et la santé des élèves de l'Ontario (SCDSEO) est le plus ancien sondage mené auprès d'adolescents en milieu scolaire au Canada et l'un des plus anciens au monde. De novembre 2018 à juin 2019, 14 142 élèves de la 7e à la 12e année répartis dans 992 classes, 263 écoles et 47 conseils scolaires ont participé au cycle de 2019 du SCDSEO.

Le présent rapport décrit la consommation d'alcool, de tabac, de cannabis, de drogues illégales et de médicaments sur ordonnance en 2019, ainsi que les tendances en la matière. On examine également les méfaits liés à l'usage de drogues, les perceptions et les attitudes, ainsi que l'exposition aux drogues. Toutes les données reposent sur les réponses des élèves à des questionnaires anonymes distribués en classe. Le sondage a été administré par l'Institut de recherche sociale de l'Université York pour le compte de CAMH.

Consommation de drogues (en pourcentage) au cours de l'année écoulée parmi l'échantillon total, selon le sexe et l'année d'études, SCDSEO 2019 (N = 14 142)

	Total	Garçons	Filles		7e	8e	9e	10e	11e	12e	
7e – 12e année											
Alcool	**41,7**	40,6	42,8		7,3	15,8	30,3	45,2	57,0	66,0	*
Boissons énergisantes fortement caféinées	**32,6**	38,8	26,1	*	18,9	28,9	32,7	32,3	38,1	36,4	*
Cigarettes électroniques (vapoteuses)	**22,7**	23,5	21,8		1,9	5,3	19,6	25,1	30,9	34,9	*
Cannabis	**22,0**	22,6	21,4		1,3	4,7	12,8	21,7	33,1	40,0	*
Excès occasionnels d'alcool (5 verres ou plus au cours du mois écoulé)	**14,8**	14,9	14,7		1,1	3,0	8,7	13,7	21,3	28,2	*
Analgésiques opioïdes (NM)	**11,0**	10,9	11,0		9,9	11,5	10,1	9,9	11,3	12,5	
Antitussifs et antirhumes (NM)	**7,8**	9,3	6,2	*	6,9	7,0	8,3	6,5	8,4	8,8	
Cigarettes de tabac	**5,0**	5,6	4,4	*	s	0,7	2,7	3,5	7,5	10,8	*
Pipes à eau (narguilés)	**4,4**	4,5	4,4		s	s	2,4	3,7	5,3	9,4	*
Tabac sans fumée (tabac à chiquer)	**3,9**	6,1	1,4	*	s	s	2,7	2,9	5,5	7,2	*
Substances inhalées (colle ou solvants)	**3,1**	2,7	3,6	*	4,5	5,9	3,2	2,9	2,1	1,9	*
Médicaments pour le TDAH (NM)	**2,7**	3,2	2,1	*	0,7	1,3	1,9	2,1	3,1	5,0	*
Cannabis synthétique (« spice », « K2 »)	**1,6**	2,0	1,2	*	s	s	1,2	2,7	2,3	1,8	*
9e – 12e année†											
Champignons (psilocybine) ou mescaline	**4,5**	6,4	2,5	*	—	—	1,3	2,7	5,9	7,3	*
Tranquillisants ou sédatifs (NM)	**2,9**	3,1	2,6		—	—	1,3	1,9	3,9	4,0	*
Cocaïne	**2,6**	3,3	1,8	*	—	—	0,9	0,7	2,7	5,2	*
Ecstasy (MDMA)	**2,3**	2,9	1,6	*	—	—	0,7	1,4	2,8	3,7	*
LSD	**2,0**	2,8	1,2	*	—	—	1,0	1,3	2,2	3,3	*
Méthamphétamine	**0,7**	0,9	s		—	—	s	s	s	s	
Crack	**0,5**	0,8	s		—	—	s	s	s	s	
Fentanyl	**0,5**	s	s		—	—	s	s	s	s	
Tout médicament sur ordonnance (NM)	**13,4**	13,7	13,0		—	—	11,3	11,6	13,9	15,8	*
Toute drogue	**20,3**	22,5	18,0	*	—	—	15,8	17,9	22,0	23,8	*

Nota : † questions non posées aux élèves de 7e et 8e année; * différence statistiquement significative entre les sexes ou années d'études ($p < 0,05$), *sans* tenir compte d'autres facteurs; s = estimation supprimée pour raison de fiabilité; les estimations pour l'alcool excluent « une gorgée »; les estimations pour les cigarettes de tabac, les cigarettes électroniques et les pipes à eau excluent « quelques bouffées »; l'excès occasionnel d'alcool renvoie à la consommation de 5 verres ou plus en une occasion au cours du mois écoulé; NM = usage non médical, sans ordonnance d'un médecin; « Tout médicament sur ordonnance (NM) » renvoie à l'usage non médical d'opioïdes, de médicaments pour le trouble déficitaire de l'attention avec ou sans hyperactivité (TDAH) et de tranquillisants ou sédatifs; « Toute drogue » renvoie à l'usage de l'une quelconque des 14 drogues (sauf l'alcool, le tabac, le cannabis et les boissons énergisantes); les estimations pour l'héroïne ont été supprimées pour raison de fiabilité.

Différences entre les sous-groupes pour 2019

Les différences dans la consommation de drogues au cours de l'année écoulée selon le sexe, l'année d'études et les quatre régions de la province sont présentées dans le rapport.

- En ce qui concerne les drogues étudiées lors du sondage de 2019, les garçons étaient nettement plus susceptibles que les filles de prendre dix drogues, tel qu'indiqué dans le tableau ci-après. Les filles sont plus susceptibles que les garçons de faire usage de substances inhalées.

Les garçons sont plus susceptibles de faire usage de :	Les filles sont plus susceptibles de faire usage de :
• boissons énergisantes • antitussifs et antirhumes (NM) • cigarettes de tabac • tabac sans fumée • médicaments pour le TDAH (NM) • cannabis synthétique • champignons/mescaline • cocaïne • ecstasy (MDMA) • LSD	• substances inhalées

NM = usage non médical.

- L'usage d'un grand nombre de drogues au cours de l'année écoulée varie considérablement selon l'année d'études, tel qu'indiqué dans le tableau ci-après. L'usage de la plupart des drogues augmente selon l'année d'études pour atteindre un sommet en 11e ou 12e année.

Hausse de l'usage selon l'année d'études	Baisse de l'usage selon l'année d'études
• Alcool et excès occasionnels d'alcool • Boissons énergisantes • Cigarettes électroniques • Cannabis • Cigarettes de tabac • Pipes à eau (narguilés) • Tabac sans fumée • Médicaments pour le TDAH (NM) • Cannabis synthétique • Champignons /mescaline • Tranquillisants (NM) • Cocaïne • Ecstasy (MDMA) • LSD	• Substances inhalées

NM = usage non médical; excès d'alcool : 5 verres ou plus en une occasion au cours du mois écoulé.

Aux fins du sondage, la province a été divisée en quatre régions : la région du grand Toronto; le Nord de l'Ontario (districts de Parry Sound et de Nipissing et régions plus au nord); l'Ouest de l'Ontario (comté de Dufferin et régions plus à l'ouest); et l'Est de l'Ontario (comté de Simcoe et régions plus à l'est).

- Il y a des différences importantes dans la consommation de drogues. Comparativement à la moyenne provinciale, les élèves de la région du grand Toronto sont moins susceptibles de faire usage d'un grand nombre de drogues, tandis que les élèves des régions du Nord, de l'Ouest et de l'Est sont plus susceptibles de consommer plusieurs drogues. Ces différences régionales sont présentées dans le tableau ci-après.

Consommation dans la région inférieure à la moyenne provinciale	Consommation dans la région supérieure à la moyenne provinciale
Région du grand Toronto	
• Alcool et excès occasionnels d'alcool • Boissons énergisantes • Cigarettes électroniques • Cannabis • Antitussifs et antirhumes • Cigarettes de tabac • Tabac sans fumée • Médicaments pour le TDAH (NM) • Champignons/mescaline • Tranquillisants (NM) • Cocaïne • Ecstasy (MDMA) • LSD	
Nord	
	• Cigarettes de tabac • Cocaïne • Ecstasy (MDMA)
Ouest	
	• Médicaments pour le TDAH (NM) • Ecstasy (MDMA)
Est	
	• Cigarettes de tabac • Antitussifs et antirhumes • Médicaments pour le TDAH (NM)

NM = usage non médical; excès d'alcool : 5 verres ou plus en une occasion au cours du mois écoulé.

Tendances de la consommation de drogues

Comparaison des résultats de 2019 et de 2017

Parmi l'échantillon total des élèves, on a relevé une augmentation de la consommation d'une seule drogue en 2019 depuis le sondage de 2017. En effet, l'usage de cigarettes électroniques (vapotage) au cours de l'année écoulée a augmenté considérablement, passant de 10,7 % à 22,7 %.

L'usage des trois drogues suivantes au cours de l'année écoulée a diminué considérablement de 2017 à 2019 :

- les cigarettes de tabac (de 7,0 % en 2017 à 5,0 % en 2019);
- les pipes à eau (de 6,2 % à 4,4 %);
- l'ecstasy (MDMA) (de 3,4 % à 2,3 %).

	2017 usage au cours de l'année écoulée		2019 usage au cours de l'année écoulée
Cigarettes de tabac	7,0 %	↓	5,0 %
Pipes à eau (narguilés)	6,2 %	↓	4,4 %
Ecstasy (MDMA)	3,4 %	↓	2,3 %
Cigarettes électroniques	10,7 %	↑	22,7 %

1999–2019

L'année 1999 marque un tournant décisif pour le sondage, car c'est à ce moment qu'il a été modifié pour inclure toutes les années d'études de la 7e à la 12e année. Dans cette section, nous présentons les changements importants survenus entre 1999 et 2019.

Pour la plupart des drogues consommées au cours de l'année écoulée, on constate une baisse marquée, à deux exceptions près. L'usage des cigarettes électroniques a augmenté considérablement depuis que l'on a commencé à le surveiller en 2015, passant de 11,7 % à 22,7 %.

L'usage non médical des médicaments pour le TDAH (p. ex. Adderall, Ritalin et Concerta) a lui aussi connu une hausse significative depuis que l'on a commencé à le surveiller en 2007, passant de 1,0 % à 2,7 %.

On a relevé des baisses importantes au chapitre des drogues suivantes ou des estimations de l'usage de ces drogues entre 1999 et 2019 :

- alcool : de 66,0 % à 41,7 %
- excès occasionnels d'alcool : de 27,6 % à 14,8 %
- boissons énergisantes : de 49,5 % (2011) à 32,7 %
- cannabis : de 28,0 % à 22,0 %
- opioïdes (NM) : de 20,6 % (2007) à 11,0 %
- cigarettes de tabac : de 28,4 % à 5,0 %
- pipes à eau : de 9,7 % (2013) à 4,4 %
- substances inhalées : de 8,9 % à 3,1 %
- champignons : de 17,1 % à 4,5 %
- ecstasy (MDMA) : de 7,9 % (2001) à 2,3 %
- cocaïne : de 5,7 % (2003) à 2,6 %
- LSD : de 8,8 % à 2,0 %
- méthamphétamine : de 6,3 % à 0,7 %
- crack : de 3,2 % à 0,5 %
- héroïne : de 2,1 % à < 0,5 %

- Il y a eu une baisse de l'usage non médical d'un médicament sur ordonnance entre 2007 et 2019 (de 23,5 % à 13,4 %) chez les élèves de la 9e à la 12e année.

- Il y a eu une baisse importante (de 22,8 % à 7,8 %) de l'usage d'au moins une drogue d'un groupe de huit mesuré dans tous les cycles du sondage entre 1999 et 2019 (champignons, ecstasy, cocaïne, LSD, méthamphétamine, crack, héroïne et tranquillisants ou sédatifs) chez les élèves de la 9e à la 12e année.

Les drogues dont l'usage est demeuré relativement stable et pour lesquelles aucune tendance dominante n'a été relevée depuis qu'on a commencé à les surveiller comprennent le tabac sans fumée, le cannabis synthétique (« spice »), les antitussifs et antirhumes (usage non médical), et les tranquillisants/sédatifs (usage non médical).

Tendances selon le sexe

On a relevé une hausse importante de l'usage des cigarettes électroniques au cours de l'année écoulée tant chez les garçons que chez les filles comparativement aux données du sondage de 2017 et à celles du sondage de 2015, année où on a commencé à surveiller ces produits. On a également relevé une hausse de l'usage non médical des médicaments pour le TDAH chez les deux sexes depuis 2007, année où on a commencé à surveiller l'usage de ces médicaments. Toutefois, tel qu'indiqué dans le tableau ci-après, l'usage de plusieurs drogues a baissé chez les garçons et les filles entre 1999 et 2019.

Baisse de la consommation au cours de l'année écoulée selon le sexe

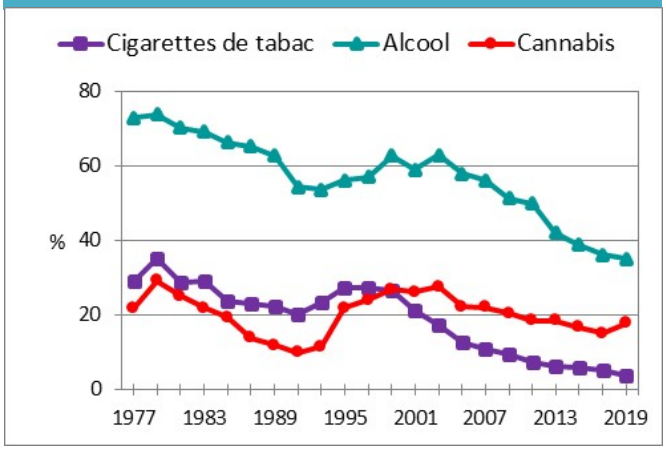
Garçons	Filles
• Alcool et excès occasionnels d'alcool	• Alcool et excès occasionnels d'alcool
• Boissons énergisantes	• Boissons énergisantes
• Cannabis	• Opioïdes (NM)
• Opioïdes (NM)	• Cigarettes de tabac
• **Cigarettes de tabac**	• Pipes à eau (narguilés)
• **Pipes à eau (narguilés)**	• Substances inhalées
• Substances inhalées	• Champignons/mescaline
• Champignons/mescaline	• Cocaïne
• Cocaïne	• Ecstasy (MDMA)
• Ecstasy (MDMA)	• LSD
• LSD	• Méthamphétamine
• Méthamphétamine	• Crack
• Crack	• Tout médicament sur ordonnance
• Héroïne	• Toute drogue
• Tout médicament sur ordonnance	
• Toute drogue	

Le texte **en gras** indique une baisse en 2019 par rapport à 2017 (sondage précédent); NM = usage non médical; excès d'alcool : 5 verres ou plus en une occasion au cours du mois écoulé.

Tendances à long terme : 1977–2019 (7e, 9e et 11e années seulement)

Dans le cadre du SCDSEO, on surveille la consommation de drogues chez les élèves depuis plus de 40 ans. Plusieurs estimations de la consommation des 11 drogues surveillée depuis 1977 révèlent une même tendance : un sommet à la fin des années 1970, suivi d'une diminution graduelle à la fin des années 1980 ou au début des années 1990 et d'un deuxième sommet à la fin des années 1990 ou au début des années 2000, suivi d'un autre déclin. La consommation de la plupart des drogues, y compris de l'alcool et du cannabis, est stable depuis quelques années, alors que l'usage de cigarettes de tabac a continué de diminuer en 2019.

Pourcentage d'élèves ayant dit avoir pris de la drogue au cours de l'année écoulée, SCDSEO 1977-2019



Tabac et autres dispositifs utilisés pour fumer

- En 2019, environ 5 % des élèves de la 7e à la 12e année (quelque 45 600 élèves en Ontario) ont dit avoir fumé des cigarettes de tabac (plus que quelques bouffées) au cours de l'année écoulée. Environ 2 % des élèves (quelque 14 200 élèves) fument tous les jours. Après avoir été stable pendant quelques années, la prévalence de l'usage de la cigarette a poursuivi sa tendance à la baisse amorcée il y a plusieurs décennies et a chuté pour atteindre un creux en 2019.

- Les garçons (6 %) sont nettement plus susceptibles que les filles (4 %) de fumer des cigarettes de tabac. On observe une augmentation importante de la prévalence de l'usage de la cigarette d'une année d'études à l'autre, qui atteint 11 % chez les élèves de 12e année.

- Environ le quart (23 %) des élèves de la 7e à la 12e année (quelque 184 200 élèves) ont indiqué qu'ils avaient utilisé une cigarette électronique (vapotage) au cours de l'année écoulée (plus que quelques bouffées). Environ un élève sur huit (13 %) vapote toutes les semaines ou tous les jours. L'usage de la cigarette électronique au cours de l'année écoulée a doublé entre 2017 et 2019, passant de 11 % à 23 %. Le vapotage hebdomadaire ou quotidien a lui aussi augmenté considérablement au fil des ans.

- Les garçons (24 %) sont tout aussi susceptibles que les filles (22 %) d'utiliser une cigarette électronique. L'usage s'accroît considérablement selon l'année d'études, passant de 2 % des élèves de 7e année à 35 % des élèves de 12e année.

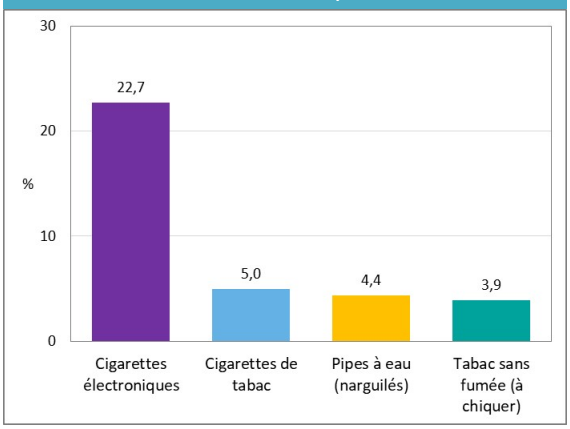
- Plus de la moitié (56 %) des élèves ayant vapoté en 2019 ont dit avoir utilisé un produit contenant de la nicotine. Ce pourcentage est nettement plus élevé que celui enregistré en 2017 (28 %), lorsque les produits de vapotage contenant de la nicotine étaient illégaux au Canada.

- Environ 4 % des élèves de la 7e à la 12e année (36 100 élèves en Ontario) ont dit avoir fumé plus que quelques bouffées à l'aide d'une pipe à eau (narguilé) au cours de l'année écoulée. L'estimation de 2019 est la plus faible enregistrée depuis que l'on a commencé à surveiller ce facteur en 2013.

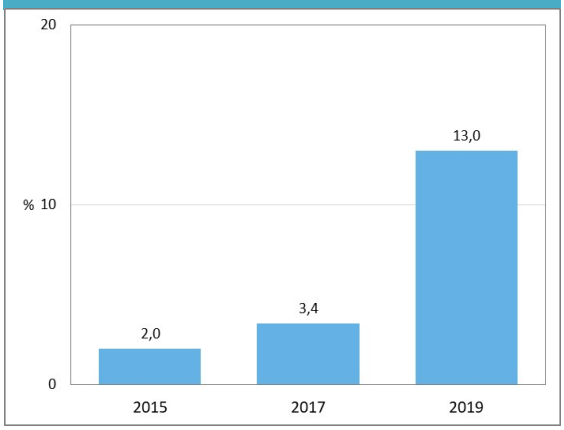
- Environ 4 % des élèves de la 7e à la 12e année (31 400 élèves en Ontario) ont consommé du tabac sans fumée (tabac à chiquer ou à priser). Les garçons (6 %) sont plus susceptibles que les filles (1 %) d'en faire usage.

- Les fumeurs de cigarettes de tabac tant que les vapoteurs se procurent ces produits auprès d'amis.

Pourcentage d'élèves ayant dit avoir utilisé une cigarette électronique et des produits de vapotage au cours de l'année écoulée, SCDSEO 2019



Pourcentage d'élèves ayant dit vapoter toutes les semaines ou tous les jours, SCDSEO 2015-2019



Alcool

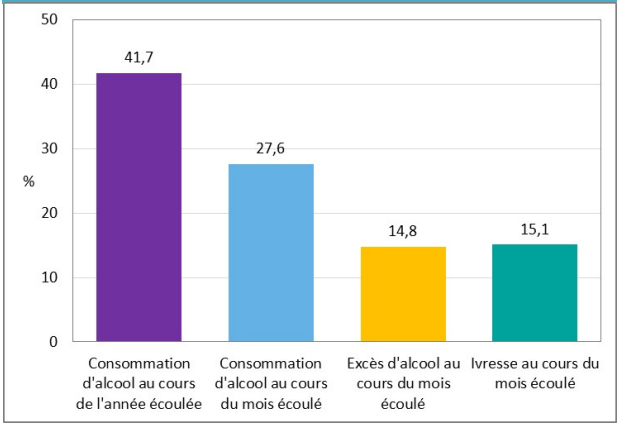
- En 2019, moins de la moitié (42 %) des élèves de la 7e à la 12e année (environ 374 300 élèves en Ontario) ont dit avoir bu plus de quelques gorgées d'alcool au cours de l'année écoulée. Bien que la prévalence de la consommation d'alcool au cours de l'année écoulée ait été stable lors des derniers cycles de sondage, elle a diminué considérablement au cours des 20 dernières années.

- La consommation d'alcool était à proportions égales chez les garçons (41 %) et les filles (43 %). La consommation au cours de l'année écoulée variait considérablement selon l'année d'études, allant de 7 % des élèves de 7e année à 66 % des élèves de 12e année.

- Plus du quart (28 %) des élèves ont déclaré qu'ils avaient consommé de l'alcool au cours du mois écoulé.

- Environ un élève sur sept (15 %), soit quelque 133 700 élèves en Ontario, a déclaré avoir fait un excès d'alcool (cinq verres ou plus en une occasion) au moins une fois durant le mois écoulé. Environ la même proportion d'élèves a déclaré s'être enivrés au moins une fois au cours de cette période. On n'a pas relevé de différence entre les sexes concernant les excès occasionnels d'alcool et l'enivrement. Plus du quart des élèves de 12e année ont indiqué avoir fait un excès d'alcool et avoir été saouls à au moins une occasion au cours du mois écoulé.

Pourcentage d'élèves ayant dit avoir pris de l'alcool, SCDSEO 2019



- Un élève sur six (17 %) a déclaré qu'il avait mélangé de l'alcool à des boissons énergisantes au cours de l'année écoulée. Les garçons (21 %) sont plus susceptibles que les filles (12 %) de le faire. Les élèves de 11e et 12e année (environ 20 %) sont plus susceptibles d'agir ainsi que les élèves des autres années d'études.

- Un élève du secondaire sur sept (14 %), soit quelque 99 100 élèves de la 9e à la 12e année, a signalé des pratiques à risque selon les critères du questionnaire de dépistage *AUDIT*. Il n'y a pas de différences significatives en ce qui concerne ces pratiques entre les garçons et les filles, mais elles varient considérablement selon l'année d'études. En effet, 22 % des élèves de 12e année s'y adonnent. Un élève du secondaire sur six (17 %) n'était pas en mesure de se souvenir de ce qui s'était passé à au moins une occasion pendant laquelle il avait bu au cours de l'année écoulée.

- Environ le quart des élèves du secondaire (24 %) ont déclaré qu'ils étaient autorisés à consommer de l'alcool à la maison avec leurs amis lors de fêtes ou de rencontres. Cette estimation atteint 37 % chez les élèves de 12e année.

- La plupart des élèves ayant bu au cours de l'année écoulée se sont procuré de l'alcool auprès d'un membre de leur famille.

- Le tiers (33 %) des élèves du secondaire estiment qu'il leur serait plus difficile d'acheter de la bière dans une succursale de la LCBO ou de The Beer Store que dans une épicerie en Ontario. Seuls 6 % des élèves du secondaire estiment qu'il leur serait plus difficile d'acheter de la bière dans une épicerie que dans une succursale de la LCBO ou de The Beer Store. Environ 28 % de ces élèves estiment qu'il n'y aurait pas de différence.

Cannabis

- En 2019, environ un élève sur cinq de la 7e à la 12e année (22 %, soit environ 198 300 élèves en Ontario) a déclaré avoir consommé du cannabis au cours de l'année écoulée. La consommation de cannabis au cours de l'année écoulée n'a pas beaucoup changé depuis le sondage précédent en 2017 (19 %), qui a eu lieu avant la légalisation, et est actuellement inférieure aux estimations faites il y a plus de dix ans.

- Les garçons (23 %) sont tout aussi susceptibles que les filles (21 %) de prendre du cannabis. Cette consommation augmentait avec les années d'études, passant de 1 % des élèves de 7e année à 40 % des élèves de 12e année.

- Environ 2 % des élèves de la 7e à la 12e année (quelque 20 700 élèves en Ontario) prenaient du cannabis tous les jours. Cette estimation atteint 5 % chez les élèves de 12e année.

- Environ un élève sur sept (14 %) a consommé de l'alcool et du cannabis pendant la même occasion au moins une fois au cours de l'année écoulée. Cette estimation atteint 27 % chez les élèves de 12e année.

- Parmi les élèves du secondaire, les façons les plus courantes de consommer du cannabis sont de le fumer dans un joint (21 %), de le fumer dans une pipe ou un bong (19 %) et de manger des produits alimentaires qui en contiennent comme des brownies ou des friandises (14 %).

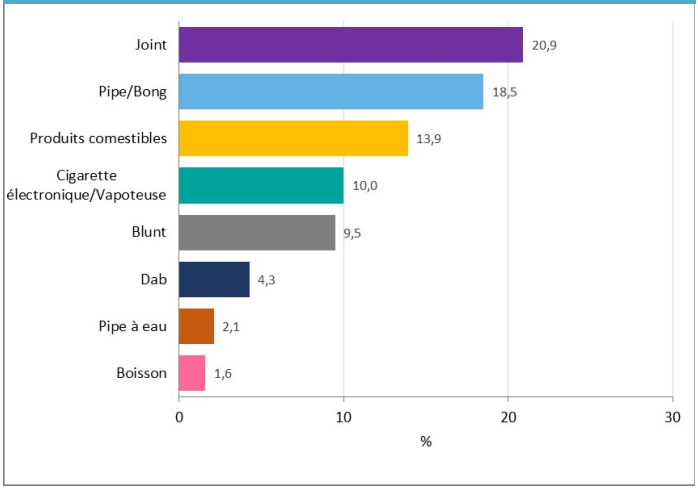
- Toujours parmi les élèves du secondaire, la proportion d'élèves ayant mangé des produits alimentaires contenant du cannabis a augmenté considérablement de 2017 à 2019, passant de 11 % à 14 %. Le vapotage de cannabis a lui aussi connu une hausse importante, passant de 5 % en 2015 à 10 % en 2019.

- Environ 3 % des élèves du secondaire (quelque 20 500 élèves de la 9e à la 12e année) signalent des symptômes de dépendance au cannabis selon les critères de l'échelle SDS (*Severity of Dependence Scale*, soit « échelle de la gravité de la dépendance »).

- La plupart des élèves ayant consommé du cannabis au cours de l'année écoulée se le sont procuré auprès d'amis.

- Plus du quart des élèves du secondaire (27 %) ont déclaré que la consommation de cannabis de leurs amis n'avait pas changé après la légalisation de cette drogue. Environ 14 % des élèves ont dit que leurs amis en prenaient plus souvent depuis la légalisation et 22 % ne savaient pas si la consommation de cannabis de leurs amis avait changé après la légalisation.

Modes de consommation du cannabis au cours de l'année écoulée chez les élèves du secondaire (en pourcentage), SCDSEO 2019



Usage de médicaments sur ordonnance et en vente libre à des fins non médicales

- Un élève sur dix (11 %) de la 7e à la 12e année (environ 98 300 élèves en Ontario) a déclaré avoir pris un analgésique opioïde qui ne lui avait pas été prescrit (p. ex. Percocet, Percodan, Tylenol 3, Demerol, Dilaudid, OxyNEO, codéine) au cours de l'année écoulée. Les garçons sont tout aussi susceptibles que les filles de prendre ces médicaments à des fins non médicales. La prise d'un opioïde à des fins non médicales au cours de l'année écoulée est demeurée stable depuis le sondage de 2017 et est actuellement inférieure à ce qu'elle était lorsqu'on a commencé à la surveiller en 2007.

- Environ 3 % des élèves de la 7e à la 12e année (quelque 23 000 élèves en Ontario) ont déclaré avoir pris sans ordonnance un médicament prescrit pour traiter le trouble déficitaire de l'attention avec ou sans hyperactivité (TDAH) chez les enfants (p. ex. Adderall, Ritalin, Concerta ou Dexedrine) au cours de l'année écoulée. Les garçons sont plus susceptibles que les filles de prendre ces quatre médicaments à des fins non médicales et les élèves plus âgés sont plus susceptibles de le faire que les élèves plus jeunes. La prise d'un médicament pour le TDAH à des fins non médicales a augmenté considérablement depuis 2007, année où on a commencé à la surveiller.

L'usage non médical d'opioïdes sur ordonnance a diminué au cours des dix dernières années et est demeuré stable ces dernières années.

Dans la plupart des cas, les jeunes s'étaient procuré ces opioïdes à la maison.

- Environ 3 % des élèves du secondaire (quelque 19 700 élèves de la 9e à la 12e année) ont déclaré avoir pris un sédatif ou un tranquillisant sans ordonnance au cours de l'année écoulée. Les garçons sont tout aussi susceptibles que les filles de prendre ces médicaments à des fins non médicales et les élèves plus âgés sont plus susceptibles de le faire que les élèves plus jeunes. L'usage non médical de ces médicaments est relativement stable depuis des dizaines d'années.

- Environ un élève sur douze de la 7e à la 12e année (8 %, soit environ 70 300 élèves) a déclaré avoir pris un antitussif et un antirhume pour « planer » au cours de l'année écoulée. Les garçons sont beaucoup plus susceptibles que les filles de consommer des antitussifs ou des antirhumes à cette fin (9 % par rapport à 6 %). L'usage non médical de ces médicaments a fluctué au cours des dix dernières années et aucune tendance dominante n'a été relevée.

- On a posé aux élèves des questions sur leur consommation de boissons énergisantes fortement caféinées (p. ex. Red Bull, Monster, Rockstar, Amp) au cours de l'année écoulée et de la semaine précédant le sondage. Le tiers des élèves (33 %, soit environ 259 500 élèves de la 7e à la 12e année) ont signalé qu'ils avaient bu une boisson énergisante au moins une fois au cours de l'année écoulée. Un élève sur dix (11 %, soit environ 90 200 élèves) a signalé qu'il avait bu une boisson énergisante au moins une fois au cours de la semaine précédant le sondage. Les garçons et les élèves plus âgés sont les plus susceptibles d'en consommer. La consommation de ces boissons a diminué depuis 2011, année où on a commencé à la surveiller.

Répercussions de la consommation d'alcool et d'autres drogues

Conduite de véhicules

- Un élève sur sept (15 %) de la 7e à la 12e année a déclaré avoir été dans un véhicule conduit par une personne qui avait bu de l'alcool et un élève sur dix (10 %) a déclaré avoir été dans un véhicule conduit par une personne qui avait consommé de la drogue au moins une fois au cours de l'année écoulée. La fréquence de ces comportements a nettement diminué au cours des 20 dernières années.

- Environ 4 % des élèves de la 10e à la 12e année qui sont titulaires d'un permis de catégorie G ont déclaré avoir, au moins une fois au cours de l'année écoulée, pris le volant une heure ou moins après avoir bu deux verres d'alcool ou plus. Cela représente environ 10 900 conducteurs adolescents en Ontario. Le taux de conduite chez les adolescents qui ont bu est stable depuis 2013 et se situe entre 4 % et 7 %. Toutefois, l'estimation actuelle est nettement inférieure aux estimations faites en 1999 et dans les années 2000 (qui se situaient entre 12 % et 14 %), et aux estimations de la fin des années 1970 et du début des années 1980 (pendant cette période, près de la moitié des élèves de 11e année ont déclaré avoir conduit après avoir bu).

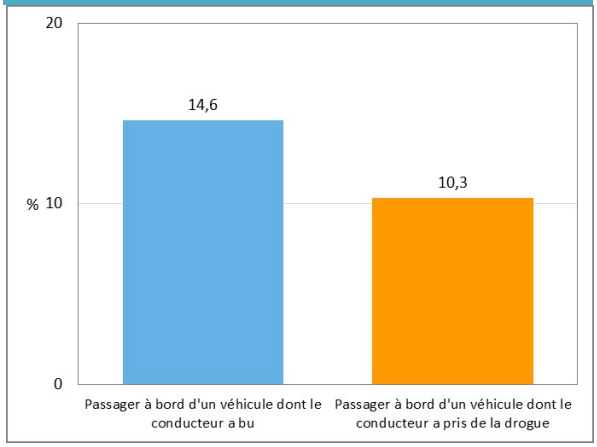
- Le pourcentage d'élèves de la 10e à la 12e année ayant déclaré avoir conduit un véhicule après avoir pris du cannabis est plus élevé que celui des élèves ayant déclaré l'avoir fait après avoir bu. Environ 7 % des conducteurs ont déclaré avoir, au moins une fois au cours de l'année écoulée, pris le volant une heure ou moins après avoir consommé du cannabis. Cela représente environ 18 900 conducteurs adolescents en Ontario. Le pourcentage d'élèves ayant agi ainsi est demeuré stable entre 2017 et 2019, mais a diminué considérablement depuis 2001, année où on a commencé à le surveiller, lorsqu'il était d'environ 20 %.

Problème lié à la consommation de drogue

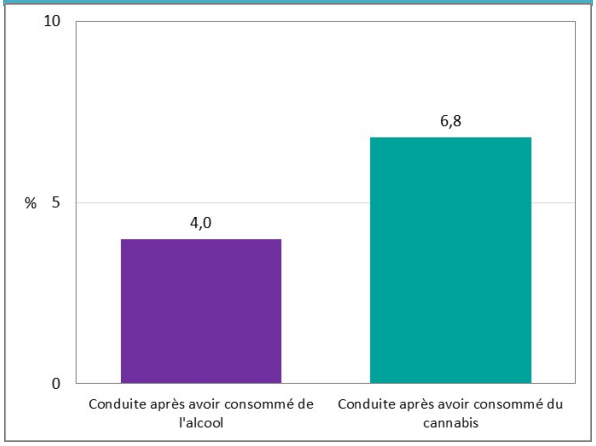
- Un élève sur sept (15 %, soit environ 115 000 élèves de la 9e à la 12e année) a déclaré avoir éprouvé des symptômes liés à l'usage de drogues, selon les critères du questionnaire de dépistage *CRAFFT*. Ce pourcentage est stable depuis quelques années et inférieur aux estimations faites il y a plus de dix ans, qui étaient d'environ 22 %.

- Un très faible pourcentage des élèves de la 9e à la 12e année (0,7 %, soit environ 4 600 élèves) ont déclaré avoir suivi un programme de traitement de la dépendance à l'alcool ou aux drogues au cours de l'année écoulée.

Pourcentage d'élèves qui ont dit avoir été dans un véhicule conduit par une personne ayant pris de l'alcool ou des drogues (année écoulée), SCDSEO 2019



Pourcentage de conducteurs de la 10e à la 12e année qui ont signalé des comportements risqués au volant au cours de l'année écoulée, SCDSEO 2019



Autres faits saillants

Abstinence

- Environ 42 % des élèves de la 7e à la 12e année (quelque 340 600 élèves en Ontario) ont déclaré n'avoir pris aucune drogue au cours de l'année écoulée (l'alcool, la cigarette et les autres dispositifs utilisés pour fumer étaient inclus, mais non les boissons énergisantes fortement caféinées). Les filles sont plus susceptibles que les garçons de s'être abstenues de prendre des drogues. Les taux d'abstinence au cours de l'année écoulée diminuaient de façon importante avec l'année d'études, passant des deux tiers des élèves de 7e année au quart des élèves de 12e année. On a relevé une hausse marquée de l'abstinence entre 1999 et 2019, les taux étant passés de 27 % à 42 %. La diminution est survenue surtout ces dernières années.

Nouveaux consommateurs et initiation précoce

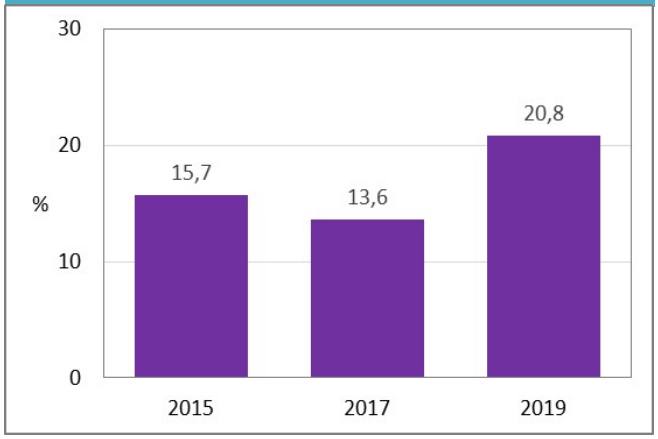
- Les pourcentages d'élèves de la 7e à la 12e année qui ont déclaré avoir pris de la drogue pour la première fois au cours de l'année écoulée sont les suivants : 21 % pour les cigarettes électroniques, 19 % pour l'alcool, 10 % pour le cannabis, 4 % pour les cigarettes de tabac et 3 % pour les drogues illégales.

- L'usage de la cigarette électronique a augmenté considérablement. Le pourcentage d'élèves qui en ont fait usage pour la première fois au cours de l'année écoulée était 21 % en 2019 comparativement à 14 % en 2017 et à 16 % en 2015. L'incidence de l'usage de la cigarette de tabac a diminué au cours des 20 dernières années, tandis que l'incidence de la consommation d'alcool et de cannabis a peu changé au cours de cette période.

- En 2019, l'âge moyen auquel les fumeurs de 12e année ont déclaré avoir fumé leur première cigarette était de 15,2 ans. En moyenne, les élèves de 12e année ont également déclaré avoir pris leur première boisson alcoolique à l'âge de 14,7 ans et s'être enivrés pour la première fois à l'âge de 15,4 ans. Ils ont également déclaré avoir pris du cannabis pour la première fois à l'âge de 15,4 ans.

- L'âge où les élèves consomment une substance intoxicante pour la première fois est plus élevé de nos jours. En effet, l'âge moyen où les élèves ont fumé leur première cigarette, ont bu leur première boisson alcoolique et ont pris du cannabis pour la première fois a augmenté considérablement au fil des décennies.

Pourcentage d'élèves qui ont dit avoir utilisé une cigarette électronique pour la première fois au cours de l'année écoulée, SCDSEO 2015-2019



Perception du risque associé à l'usage de drogues

- On a demandé aux élèves de 7e et 8e année quel était selon eux le risque pour la santé associé à la consommation d'alcool et à l'usage de cigarettes de tabac, de cigarettes électroniques, de marijuana et d'opioïdes sur ordonnance. Ces élèves plus jeunes ont jugé que la consommation régulière de marijuana était la plus dangereuse pour la santé. On a également demandé aux élèves du secondaire quels étaient les risques associés à ces drogues, ainsi qu'à la cocaïne et à l'ecstasy. Ils ont jugé que l'essai de la cocaïne était le plus dangereux pour la santé. Tant les élèves de 7e et 8e année que ceux de 9e à 12e année estiment que l'essai de la marijuana et l'utilisation régulière des cigarettes électroniques sont les moins risqués.

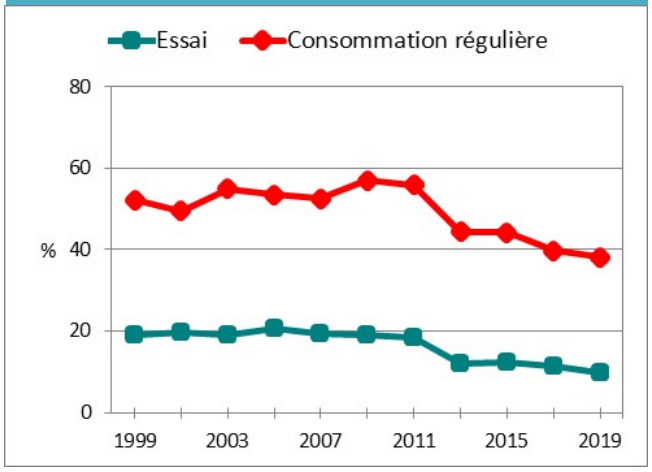
- Le pourcentage d'élèves qui estiment que la consommation de marijuana est dangereuse pour la santé (essai et consommation régulière) est stable depuis la réalisation du sondage précédent en 2017, mais est actuellement inférieur aux estimations faites en 1999 et dans les années 2000. Le pourcentage d'élèves qui estiment que l'usage régulier des cigarettes électroniques est dangereux pour la santé a augmenté depuis 2015, année où on a commencé à le surveiller.

Perception de la facilité d'accès aux drogues

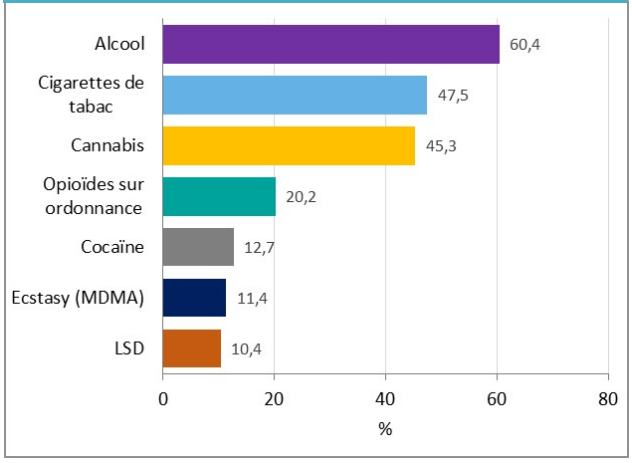
- Parmi les drogues étudiées, les élèves estiment que l'alcool est celle qui est la plus facile d'accès (60 % des élèves ont déclaré qu'il serait « assez facile » ou « très facile » de s'en procurer), suivi des cigarettes de tabac (48 %) et du cannabis (45 %). Ils estiment que le LSD est la drogue la plus difficile d'accès.

- La perception de la facilité d'accès à l'alcool, aux cigarettes de tabac, au cannabis et aux opioïdes sur ordonnance a peu changé depuis le sondage de 2017. Toutefois, la perception de la facilité d'accès à la plupart des drogues a diminué au fil des décennies.

Évolution de la perception d'un risque élevé associé à la consommation de marijuana, SCDSEO 1999-2019



Pourcentage d'élèves qui ont dit qu'il serait « facile » ou « très facile » de se procurer la drogue, SCDSEO 2019



École et quartier

- Les élèves de la 7e à la 9e année ont été les plus nombreux à déclarer que c'est à l'école qu'on leur a enseigné les effets de l'alcool, du cannabis et d'autres drogues.
- Le quart (26 %) des élèves de la 7e à la 12e année estiment que la consommation de drogues dans leur école est un « gros problème », 50 % croient que c'est un « problème mineur » et un autre quart pensent qu'elle ne constitue « pas un problème ».
- Parmi les élèves de la 7e à la 12e année, un sur neuf (11 %, soit environ 88 700 élèves en Ontario) a déclaré avoir, au moins une fois au cours de l'année écoulée, été sous l'influence de l'alcool ou de drogues à l'école. Ce pourcentage est nettement inférieur à ce qu'il était il y a dix ans.
- Un élève sur six (17 %) de la 7e à la 12e année (soit environ 133 700 élèves en Ontario) a déclaré qu'au cours de l'année écoulée on lui avait proposé, vendu ou donné une drogue illégale à l'école à au moins une occasion. Cette estimation est nettement inférieure à celle faite il y a dix ans.
- Un élève sur cinq (21 %) de la 7e à la 12e année (environ 165 800 élèves) a déclaré que quelqu'un avait essayé de lui vendre des drogues au cours de l'année écoulée. L'estimation de 2019 est parmi les plus faibles enregistrées depuis que l'on a commencé à surveiller ce facteur.
- Environ un élève sur cinq (18 %) de la 7e à la 12e année (quelque 145 600 élèves) a déclaré avoir été témoin de la vente de drogues dans son quartier au moins une fois au cours de l'année écoulée. L'estimation de 2019 est parmi les plus faibles enregistrées depuis que l'on a commencé à surveiller ce facteur.

Méthodologie

Réalisé par le Centre de toxicomanie et de santé mentale, le Sondage sur la consommation de drogues et la santé des élèves de l'Ontario (SCDSEO) est un sondage sur la santé réalisé à la grandeur de l'Ontario auprès d'élèves de 7e et de 8e année, ainsi qu'auprès d'élèves de la 9e à la 12e année. Ce sondage transversal est réalisé tous les deux ans depuis sa création en 1977. Le cycle de 2019, qui a fait appel à un plan d'échantillonnage en grappes stratifié (région par école) à deux degrés (école et classe), a été rempli par 14 142 élèves de la 7e à la 12e année répartis dans 992 classes, dans 263 écoles faisant partie de 47 conseils scolaires publics et catholiques anglophones et francophones. Étaient exclues de l'échantillonnage les écoles se trouvant dans les réserves des Premières Nations, les bases militaires, les hôpitaux et les autres établissements, ainsi que les écoles privées. Ont également été exclues les classes pour l'enfance en difficulté et les classes d'anglais langue seconde.

Des procédures actives ont été mises en œuvre pour obtenir le consentement des parents. Des membres du personnel de l'Institut de recherche sociale de l'Université York ont remis les questionnaires aux groupes d'élèves, qui les ont remplis à l'aide d'un crayon. Cette façon de faire favorise l'anonymat. Les questionnaires ont été remplis en classe entre novembre 2018 et juin 2019 pendant les heures normales de cours. Les élèves des écoles francophones ont rempli le questionnaire en français. Cinquante-neuf pour cent (59 %) des élèves admissibles des classes participantes ont rempli le sondage. L'échantillon total de 2019, regroupant 14 142 élèves, est représentatif d'un peu moins d'un million d'élèves de la 7e à la 12e année inscrits dans les écoles publiques de l'Ontario.

Les rapports, les infographiques et la FAQ se trouvent sur la page Web du SCDSEO :

www.camh.ca/osduhs

Acknowledgements

A study of this magnitude requires the ongoing cooperation and support of many individuals and groups alike. Over the years, several people have provided invaluable input into this study. Current colleagues who provided support include Anca Ialomiteanu, Bruna Brands, Tony Ivanoff, Michel Bérubé, and Régine Bohar. Former colleagues include John Pollard, Anita Dubey, Frank Ivis, Margaret Sheppard, Carolyn Liban, Hau Lei, and Michael Goodstadt. The 1981–1997 sampling plan was designed by P. Peskun and C.M. Lamphier of York University. In 1999, the survey was redesigned by Michael Ornstein of York University. The sampling design, fieldwork, data entry, and data file preparation was conducted by the Institute for Social Research, York University, and we especially thank Stella Park, Hugh McCague, David Northrup, Richard Myles, and Tammy Chi for their input throughout the project, as well as the ISR field staff for their dedication and work in the schools. We would also like to extend our deepest thanks to the Ontario Tobacco Research Unit, Public Health Ontario, and the ten Ontario public health units/departments (Durham Region Health Department, York Region Public Health, Ottawa Public Health, Simcoe Muskoka District Health Unit, Peel Public Health, Toronto Public Health, City of Hamilton Public Health Services, Niagara Region Public Health, Middlesex-London Health Unit, and Southwestern Public Health) who collaborated with us during the 2019 OSDUHS.

We also owe a debt of gratitude to two pioneers. First, we would not be in the enviable position of having such rich historical data without the work and foresight of the late Dr. Reginald G. Smart, who began the survey many decades ago. Second, we are immensely grateful to Dr. Edward Adlaf whose expertise and innovations contributed significantly to the expansion and transformation of the survey into the influential and renowned study that it is today. We thank both researchers for leading the way and allowing us to continue in their footsteps.

Most importantly, the high level of cooperation by Ontario school boards, school board research review committees, school principals, parents, and students has played a major role in ensuring the representativeness and success of this project. We gratefully acknowledge the support of all.

This study was supported, in part, by the Ontario Ministry of Health and Long-Term Care (MOHLTC). The views expressed here are those of the authors and do not necessarily reflect those of the MOHLTC.

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1. INTRODUCTION

This report describes the prevalence of alcohol, tobacco, cannabis and other drug use and related harms among Ontario students in grades 7 to 12 in 2019, and changes since 1977. The findings are based on the 22nd cycle of the Centre for Addiction and Mental Health's biennial *Ontario Student Drug Use and Health Survey* (OSDUHS).[1] The OSDUHS is the longest ongoing surveillance program of drug use and other health related behaviours among adolescent students in Canada, and one of the longest in the world.

Repeated cross-sectional surveys such as the OSDUHS contribute to an understanding of the past, present, and potential future patterns of alcohol and other drug use, related harms, and the associated contextual, social, and demographic risk and protective factors in the adolescent population. Such monitoring is not only fundamental to health professionals, educators, and governments, but also to the development of evidence-based knowledge.

Some drug-related surveillance objectives of the OSDUHS are to provide trustworthy and timely data regarding the following:

- current alcohol, tobacco, cannabis, and other drug use by students, and trends in use since 1977;
- use of newly emerging drugs and new ways of consuming drugs;
- early initiation of use and trends over time;
- trends in harms associated with drug use, such as impaired driving;
- exposure to drug use at school, and exposure to drug education; and,
- attitudes and beliefs about drug use.

History of the OSDUHS

The Centre for Addiction and Mental Health's OSDUHS is the longest ongoing survey of elementary and secondary school students in Canada. In 1967, several Toronto school boards approached the former Addiction Research Foundation (now CAMH) for assistance in determining the extent of drug use among their students. Four biennial surveys were conducted from 1968 through 1974 that monitored alcohol, tobacco and other drug use among Toronto students in grades 7, 9, 11 and 13.

In 1977, the scope of the study was expanded to include students across Ontario, and in 1999 it was expanded again to include students in grades 7 through 13/OAC. In 2003, 13th graders were excluded from the sampling plan (because this grade was eliminated by the Province of Ontario), and the number of classes surveyed in secondary schools was increased.

For over four decades the OSDUHS has surveyed thousands of students every two years, and to date over 125,000 students in Ontario have participated. The study's history is underscored by considering that most of the 12th graders studied in 1977 are approaching 60 years of age. Since its inception, the OSDUHS has not only been the source of data for numerous scientific and policy publications on an array of adolescent health issues, but has evolved into a well-recognized school survey globally.

The OSDUHS has been funded in part through ongoing support from the Ontario Ministry of Health and Long-Term Care. The Institute for Social Research (ISR) at York University has administered the survey in schools since 1981.

[1] In 2007, the word "Health" was added to the project title to better reflect its expanding content. Prior cycles used the OSDUS acronym without "Health."

This 2019 OSDUHS drug use report includes **newly introduced material** on the following drug-related topics:

- smoking cannabis mixed with tobacco;
- perceptions about the safety of driving after cannabis use versus alcohol use; and
- perceptions about friends' use of cannabis after legalization.

This report presents descriptive findings related to drug use.[2] Described are the prevalence, frequency, and harms from use, changes over time, and the associations between drug use and key demographic characteristics, namely sex, grade, and region.

The scope of the OSDUHS has evolved to include an array of mental and physical health indicators and other adolescent risk behaviours (for a topic overview, please see Table 2.2 in the Methods chapter). The 2019 OSDUHS mental health and well-being findings will be released in a companion report in the summer of 2020.

"Risks for cancer and cardiovascular disease in later life commonly start in adolescence (e.g., tobacco and alcohol use), or intensify during these years (e.g., overweight and obesity, physical inactivity, and poor diet). Most mental disorders begin before age 25 years. Numbers of injuries rise sharply in individuals during their early teenage years, and these account for a higher proportion of deaths in adolescents than in any other age group." (Patton et al., 2014, p. 385)

WHY MONITOR STUDENT DRUG USE?

Adolescent health is now recognized as a priority for health researchers, health service providers, educators, and policymakers around the world (Gates, 2016; World Health Organization, 2014). Adolescents in high-income countries, such as Canada, face different health issues than those in low-income countries, and many of these issues are associated with behavioural risk factors such as alcohol, tobacco, and other drug use. As highlighted in the *Lancet Commission* on adolescent health and well-being: "Non-communicable diseases of adolescents including mental and substance use disorders, and chronic physical illnesses are becoming the dominant health problems of this age group. Substantial investment in the health-care system and approaches to prevention are required" (Patton et al., 2016, p. 2). Thus, there are important reasons for estimating and monitoring drug use among adolescent students, including the following:

- Drug use typically begins during adolescence and patterns of regular use can become established. Many short-term consequences or acute harms can occur even from infrequent use, such as school problems, family problems, injuries and other physical health problems, mental health problems, other risky behaviours, and legal problems (Hall, 2015; Hall et al., 2016; U.S. Department of Health and Human Services, 2016).

- Adolescence is a pivotal developmental stage in which harms due to drug use could instigate negative life-course trajectories. For example, a well-established finding is that early initiation of drug use is related to problems experienced later in life, such as substance use disorder, neurocognitive deficits, mental health problems, and social problems (Agrawal et al., 2006; Behrendt, Wittchen, Höfler, Lieb, & Beesdo, 2009; Dawson, Goldstein, Chou, Ruan, & Grant, 2008; Fergusson, Boden, & Horwood, 2015; Hall et al., 2016; Hingson, Heeren, & Winter, 2006; Jacobus et al., 2015; Meier et al., 2012; Moss, Chen, & Yi, 2014).

[2] Our use of the term "drug use" in this report includes alcohol and tobacco. Note that the words "drugs" and "substances" are used interchangeably.

- In high-income countries, alcohol and other drug use are among the top risk factors that contribute to disability-adjusted life-years (DALYs)[3] among young people (Degenhardt, Stockings, Patton, Hall, & Lynskey, 2016; Erskine et al., 2015; Gore et al., 2011; Mokdad et al., 2016; Rehm, Taylor, & Room, 2006).

- Adolescent drug use can be a rapidly changing phenomenon. Drugs can rise or fall in popularity or availability from one year to the next, and related harms may occur for youth, their families, their schools, and their communities. We have seen several drug-related "outbreaks" emerge – crack cocaine in the late 1980s, ecstasy (MDMA), ketamine and other so called "club drugs" in the 1990s, nonmedical use of prescription opioids in the 2000s, and more recently synthetic cannabis, synthetic stimulant drugs, and electronic cigarettes. This cycling of emerging drugs, changing forms of administration (e.g., vapourizers, edibles), changes in availability (e.g., alcohol sales in grocery stores), and in policy (e.g., cannabis legalization) requires a surveillance system that is both timely and relevant, and one that can document important shifts in drug use behaviours in the population.

- The OSDUHS provides data on a broad set of health indicators and influences in the population of Ontario students. Such data are paramount to the population health framework promoted by organizations such as Health Canada and the World Health Organization. The findings can be used to inform the development of programs and policies to enhance well-being and reduce potential harms to the population.

- Monitoring surveys provide a basis for evaluating health objectives and related targets established by governmental and non-governmental agencies. Examples include the *Smoke-Free Ontario Strategy* (Ontario Ministry of Health and Long-Term Care, 2018) and Ontario's *Narcotics Strategy* (Ontario Ministry of Health and Long-Term Care, 2010).

- Because population surveys have a scientific methodology and a measurable representativeness and precision, they can provide the data needed to identify and confirm current or emerging drug-related outbreaks or turning points. Such data can also confirm or challenge anecdotal and media reports about the nature of drug use and its consequences. Thus, the survey results can inform the public and challenge myths. In the absence of reliable prevalence and trend data, misconceptions can arise resulting in the misallocation of resources. For example, while methamphetamine use, and crack use before that, may have been endemic in certain adult subpopulations, the OSDUHS data showed that these drugs did not measurably diffuse downward from older groups to the middle and secondary school population. On the other hand, the OSDUHS data can prompt public health stakeholders to take collective action. For example, over a decade ago our data drew national attention to the problem of driving after cannabis use among young drivers (Adlaf, Mann, & Paglia, 2003), sparking a national public awareness campaign by the *Canadian Public Health Association*. In addition, our findings about the nonmedical use of prescription opioid pain relievers informed a public awareness campaign by *Drug Free Kids Canada*.[4]

- Even when the size of the drug-using population is stable or declining, patterns of drug use among users and associated harms can differ dramatically over time. For example, the same fixed population of users may consume drugs more or less hazardously at one point in time than at another.

[3] Cause-specific disability-adjusted life-years (DALYs) are measures used to estimate the global burden of disease. This measure combines years of life lost due to premature mortality and those lost due to disability.

[4] See http://www.drugfreekidscanada.org/drug-info/prescription-drugs

WHAT DO DRUG USE SURVEYS TELL US?

Ongoing drug use surveys using representative samples, such as the OSDUHS, provide a public health barometer to identify and respond to various drug-related behaviours and their potential consequences. Drug use surveys function to:

- provide scientifically reliable estimates of the size of the adolescent student drug-using population, including both the relative (percentage of the population) and absolute size (population count);
- identify occasional users, high-risk users, and other drug consuming subtypes that may inform the need for differential programs or clinical interventions;
- identify the factors that correlate with drug use, such as demographics, other risk behaviours, and mental health problems;
- identify and/or verify newly-emerging drugs, their outbreaks and turning points, and their related harms;
- identify changes in the extent and nature of drug use and related harms over time; and
- assist in the evaluation of drug-related policies at the population level.

The size of the drug-using population and the pattern of drug use are only two components of the harm caused by drug use. Whether the use of a drug causes societal or individual harms depends on a host of factors in addition to the number of users. Some of these other factors include the pharmacological hazard of the drug, purity levels, addictive potential, and economic and social costs of treatment and enforcement. As well, in evaluating the harm caused by drug use it is important to weigh the relative number of users (the percentage using a drug) with the population count of users. Both factors are important, and in some cases considering only the percentages or the population counts can leave a misleading impression. Consider, for example, that 1% of the OSDUHS sample represents just under 10,000 7th through 12th graders in Ontario. Clearly, our assessment of potential public health significance will differ if this percentage is the number of students using cannabis once, the number of students driving a motor vehicle after using alcohol or other drugs, or the number of students using heroin.

Because different students are interviewed during each survey cycle, repeated cross-sectional surveys such as the OSDUHS cannot evaluate developmental change nor measure individual change (e.g., how patterns of drug use change within individuals as they age), nor can they address issues of causal order (e.g., whether poor grades precede drug use or whether drug use precedes poor grades). Nonetheless, repeated cross-sectional surveys are especially useful for identifying aggregate period trends, such as changes over time in the size of the population using alcohol and other drugs, and differences between subpopulation groups.

WHY USE A SCHOOL-BASED SURVEY?

There are many benefits to using school-based surveys, including the following:

- School-based surveys are cost efficient, having a low cost per respondent, and are relatively easy to administer. For example, numerous students in a class or school can be surveyed during a single visit.[5]
- Because administrative data on student enrolment and the number of schools are readily available, constructing a sampling frame is straightforward. Although school samples are not without their difficulties, they tend to have fewer sampling frame

[5] Unfortunately, there is a price to pay for this efficiency – higher design effects and lower precision relative to a simple random sample (see the Methods chapter for a discussion on this issue).

difficulties than do other methods (e.g., sampling frames for telephone surveys).

- In Ontario, adolescents without a secondary school diploma are legally required to attend school until age 18. Thus, the coverage of the total adolescent population is exceptionally good, especially for the lower grade students (grades 7–10), who represent the larger segment of the population.

- A wide scope of developmental periods – early, middle, and late adolescence – is "captured" in a school setting. This wide age range allows one to capture the spectrum of drug use patterns, including the early uptake of drug use.

- Response rates for school-based surveys tend to be higher than household face-to-face surveys or telephone surveys (Hibell et al., 2003).

- The school setting is conducive to eliciting truthful responses by adolescents (rather than in the home, for example). Adolescents feel more comfortable answering sensitive questions about drug use and other behaviours that may be considered stigmatizing or illegal in a school setting than in a less anonymous setting, such as the home. Data collected through anonymous, self-administered, school-based surveys often demonstrate higher validity than do data collected through alternative methods (Brener et al., 2006; Harrison, 2001; Hibell et al., 2003; Substance Abuse and Mental Health Services Administration [SAMHSA], 2012).

- In addition to drug-using behaviours, we can estimate and monitor exposure to school-based drug prevention in the classroom and similar activities in schools.

Impact of the OSDUHS

Findings from the OSDUHS have informed public health monitoring, education and prevention, and health-related programs and policies in Ontario and beyond for over 40 years.

Public Health Monitoring

- Since 1977, the survey has monitored changes in alcohol, tobacco, cannabis and other drug use among students and raised awareness about several drug "epidemics" over the years, such as cigarette smoking in the late 1990s, and prescription opioid misuse in the early 2000s.
- Since 1991, the survey has monitored changes in mental health, physical health, and risk behaviours among students and raised awareness about problems, such as the elevated levels of poor mental health and bullying.
- Over the decades, the survey has provided the first Canadian adolescent population estimates for the use of several emerging drugs (e.g., crack, ecstasy [MDMA], OxyContin), and risk behaviours (e.g., texting and driving, vaping cannabis).

Education and Prevention

- The findings have been used in various publications including CAMH brochures and other products designed for youth and parents, and Canadian psychology and sociology textbooks.
- The findings have been used to inform the development of mental health and gambling curriculum guides for Ontario educators.
- Public health units have used the findings to inform their program and service planning.
- Educators and other professionals have used the findings to facilitate outreach to parents and the wider community.
- The findings have sparked several media campaigns raising awareness about the risks of cannabis and driving, and the misuse of prescription medication.

Public Policy

- The findings have informed health-related policy initiatives in Ontario regarding smoking, vaping, drinking, prescription opioid misuse, impaired and distracted driving, and physical activity.
- The findings have informed school health policies in Ontario regarding cigarette smoking on school property, bullying, and safe schools.

- International organizations, most notably UN agencies, consider student surveys a valuable methodology to bolster not only surveillance data related to alcohol and other drug use, but for building cross-national comparisons as well. Examples of work encouraging the international development and application of student surveys include the earlier work of Smart and Fejer (1975), sponsored by the World Health Organization (WHO), and the work of Hibell and colleagues (2003), sponsored by the United Nations Office on Drugs and Crime (UNODC).

- In addition to monitoring, repeated surveys can also facilitate an array of special studies on adolescent health. One recent example was the collaboration of the OSDUHS investigators with researchers from St. Michael's Hospital in Toronto to conduct a grant-sponsored study on traumatic brain injury among adolescents. This data collection provided the first general population (nonclinical) prevalence estimate in North America (Ilie, Boak, Adlaf, Asbridge, & Cusimano, 2013).

WHAT STUDENT DRUG USE SURVEYS DO NOT TELL US

Because student surveys represent adolescents in school, their data cannot provide a complete picture of adolescent drug use and related harms. Student surveys cannot address the following:

- the extent and changes in drug use among non-students such as youth in institutions, school-leavers, and homeless youth; and

- the nature and changes in drug-related harms in the street drug scene. Student drug use typically plays a small role in administrative indicators such as arrests, convictions, deaths, and treatment. Thus, trends in student drug use need not correspond to trends in other drug use indicators, especially those dominated by older populations (e.g., arrests, seizures, and deaths).

Computer Mode of Administration

The OSDUHS is an in-school, self-administered, paper-and-pencil-instrument (PAPI) survey. The school setting is conducive to maintaining an assurance of anonymity, thereby reducing the likelihood of social desirability bias in reporting sensitive and illegal behaviours. Surveys of adolescents conducted in households, especially with parents at home – regardless of self-administration or interviewer-administration procedures – result in lower prevalence estimates for drug use and other socially stigmatizing behaviours (Brener et al., 2006; Denniston et al., 2010; Kann, Brener, Warren, Collins, & Giovino, 2002; Rootman & Smart, 1985; SAMHSA, 2012).

The OSDUHS has not adopted an online or computer mode of administration in the school setting because of the complex logistics of coordinating available computers/devices and Internet connectivity with school administrators. Further, not all Ontario schools have the required technical resources. It would be cost-prohibitive and challenging to equip all the survey administrators with the necessary portable devices (i.e., 20-25 tablets/laptops required to survey one class). Although students might prefer to complete the survey electronically rather than in a paper booklet, there is no conclusive evidence showing that a computer mode of administration decreases social desirability bias or improves response rates (Denniston et al., 2010; Dodou & de Winter, 2014; Eaton et al., 2010; Hallfors, Khatapoush, Kadushin, Watson, & Saxe, 2000). Further, some research suggests that online surveys produce lower drug use estimates due to confidentiality and privacy concerns (Denniston et al., 2010; Raghupathy & Hahn-Smith, 2013). However, some advantages of computer administration include speed of data input and a decrease in missing data.

SOME STRENGTHS AND LIMITATIONS OF STUDENT DRUG USE SURVEYS

Although no single method can fully describe the extent of drug use and related problems, in our view, the strengths of the survey method far outweigh the limitations in estimating the size and character of the drug-using population.

Strengths	Limitations
■ The survey is based on scientific, random (probability) sampling methods designed to produce representative samples in which the sampling error can be estimated.	■ The survey is restricted to adolescent students enrolled in publicly funded schools (note that schools cannot participate without prior school board approval). Excluded by design are out-of-scope groups for which drug use is typically elevated, such as institutionalized youth, school leavers, and homeless/street youth.
■ Drug use surveys are often the only feasible means to measure the size of the drug-using population because no other administrative source exists (e.g., such as for alcohol which can be estimated by sales data).	■ Enrolled students who do not participate (due to absenteeism or lack of consent) may bias estimates *if* nonparticipating students differ from participating students on variables of interest.
■ The OSDUHS sample is geographically dispersed throughout Ontario with typically over 45 school boards, 200 schools, and 500 classrooms participating.	■ Because the reporting of drug use is based on self-reports, there is a potential for misestimating drug use caused by intentional (e.g., underreporting) and unintentional errors (e.g., memory and recall errors).
■ The survey is administered in classrooms by trained field staff. This is cost-effective and tends to increase student participation. As well, the questionnaire is completed in an anonymous group setting, which is the most critical factor in reducing the underreporting of drug use and other sensitive behaviours. Indeed, school administered surveys typically obtain higher reports of drug use than do personal interview surveys.	■ The survey is designed to provide precise estimates of drug use at the provincial level. A single cycle, however, is not designed to provide precise estimates for local (small) geographic areas. Small area analysis, however, can be potentially accommodated by oversampling students or cumulating data across cycles.
■ Unlike enforcement data (e.g., arrests, convictions) and treatment data (e.g., number of admissions), survey data captures the widest continuum of use, spanning from abstainers to experimenters to active users to former users.	■ The collection of data in clusters (e.g., schools and classrooms), although cost-effective in reducing data collection costs, requires the use of specialized statistical software to accommodate the statistical dependence caused by the naturally occurring similarities among students in the same schools and classrooms.
■ Because surveys are based on individual responses, they can assess the correlates and predictors of drug use and identify varying subtypes of drug users and their defining characteristics.	■ Highly structured self-completed questionnaires do not allow for the probing or collection of rich qualitative information.

2. METHODS

SAMPLING DESIGN

Target and Survey Population

For each of the 22 survey cycles, the target or in-scope population – the population we are attempting to draw conclusions about – comprised all 7th to 12th graders enrolled in Ontario's four publicly funded school sectors (i.e., English language public, English language Catholic, French language public, and French language Catholic). Students excluded from the survey's target population (out-of-scope) were those enrolled in private schools (which include non-Catholic faith-based schools), those who were home-schooled, those institutionalized for correctional or health reasons, those schooled in First Nation communities, on military bases, or in the remote northern region of Ontario. These out-of-scope groups who are not sampled represent a small proportion of the Ontario student population (about 6%). Therefore, although our target population represents students, it captures the vast majority (94%) of all Ontario children and adolescents aged 12–18 years, based on Statistics Canada's population estimate (Statistics Canada, n.d.).

Table 2.1 Forty-Three Years (22 Cycles) of the OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
No. School Boards	20	20	31	31	20	24	25	27	25	20	22	38	41	37	42	43	47	40	42	43	52	47
No. Schools	104	87	182	227	193	170	171	179	165	137	168	111	106	126	137	119	181	181	198	220	214	263
No. Classes	196	195	198	261	205	215	224	221	233	223	234	285	272	383	445	385	573	581	671	750	764	992
No. Students	4687	4794	3270	4737	4154	4267	3915	3945	3571	3870	3990	4894	4211	6616	7726	6323	9112	9288	10272	10426	11435	14142
Student (Unweighted) Completion Rate	70	78	85	85	82	84	81	83	77	76	77	76	71	72	72	68	65	62	63	59	61	59
Design Features	3-stage selection (board; school; class), proportionately stratified by grade and region; Grades 7, 9, 11 and 13; self-weighted estimates		single-stage 2-per-stratum selection (board clusters), disproportionately stratified by grade and region; Grades 7, 9, 11 and 13 (OAC); weighted estimates									2-stage cluster selection (school, class), disproportionately stratified by region and school level; North oversampled; sponsored public health regions oversampled in 2009 (n=6), 2011 (n=5), 2013 (n=7), 2015 (n=7), 2017 (n=6), 2019 (n=10); weighted estimates										
												Grades 7–13 (OAC)		Grades 7–12								

Notes: (1) the unweighted student completion rates shown do not take into account the differing weights by regional strata; (2) the entries beginning in 2009 include public health regions' oversamples; (3) OAC (Ontario Academic Credits) – until 2003, Ontario students matriculating to postsecondary education were required to attend five years of secondary school (grades 9–13). This additional year of secondary school credits was eliminated in 2003.

The OSDUHS Surveillance Program

Data quality is achieved by the regular redesign of surveys (Biemer & Lyberg, 2003), and the OSDUHS program has strived to maintain its integrity in this regard. Sample design revisions are often required in organizational surveys such as the educational system to adapt to changing structure, policies, practices, and governmental change (e.g., removal of grade 13). As seen in Table 2.1, the OSDUHS program is the culmination of three data series spanning four decades: 1977–1979, 1981–1997,[6] and 1999 onward, of which each odd-year survey was based on a random probability design. The 1977 and 1979 surveys were based on a *stratified* (region by grade) *three-stage cluster design* (school board district, school, class).[7] The proportionate allocation of students by grade and region yielded self-weighted (i.e., unweighted) estimates.[8] In 1981, the design was modified to a *disproportionately stratified single-stage cluster design* with paired selection (two-per-stratum) of first-stage school board district clusters designed to improve the precision and efficiency of estimates.[9] This design entailed the selection of more schools and school boards.[10]

Since 1981, York University's Institute for Social Research (ISR) has produced, under contract, the OSDUHS data. ISR is responsible for the sample design and selection, questionnaire review and production, school recruitment, class selection, field operations, data capture, initial weighting and initial dataset preparation. The OSDUHS team is responsible for institutional and school board recruitment, questionnaire content, consent protocols, information material, and final dataset development (including any generation of poststratification adjustments to sampling weights), and variable creation.

Current Sampling Design[11]

In 1999, the OSDUHS transitioned to a *disproportionately stratified* [12] (region by school level[13]), *two-stage* (school, class) *cluster design*, which included the oversampling of students in Northern Ontario (to provide more precise estimates for that less populous region).[14] Further, rather than sampling students only in grades 7, 9, and 11 (and grade 13 before it was eliminated in 2003), the revised design samples students in grades 7 through 12, inclusive. This expansion yields greater age variation and more developmentally relevant detail on the relationship between health compromising behaviours and age. The revised design also

[6] The initial two data series were conducted under the auspices of the Addiction Research Foundation (ARF) prior to the formation of CAMH in 1998.

[7] Sample preparation, fieldwork and data preparation for the 1977 and 1979 surveys were contracted to Ian Sone and Associates.

[8] The original design of every odd grade (grade 7, 9, 11, 13) in every odd year (1977, 1979, etc.) yielded population cohorts across time given that the 7th grade population in 1977 would be surveyed again in the 9th grade in 1979, in the 11th grade in 1981, and in the 13th grade in 1983. This earlier grade × year cohort design can also be constructed for later survey cycles.

[9] This major redesign was developed by Professors P. Peskun and C.M. Lanphier (Departments of Mathematics and Sociology, respectively), both of York University.

[10] For the 1977, 1981 and 1983 cycles, an additional stratum of 5th graders was also sampled. To ensure cross-time comparability, these data have been excluded. The 5th-grade stratum was eliminated in 1985, largely due to the reticence of school boards to allow surveying of this young cohort over concerns that surveying such young students would induce drug taking.

[11] In addition to the authors, the 2019 OSDUHS sample design team included Stella Park, Hugh McCague, and David Northrup all from the Institute for Social Research (ISR) at York University.

[12] The primary stage stratification of region is disproportionate to the enrolled population.

[13] In Ontario, 7th and 8th graders can be enrolled in elementary schools (K–G8), middle or senior public schools (G6–G8), or junior high schools (G7–G9).

[14] Prior to 1999, the allocation of students from Northern Ontario was proportionate to the population, resulting in smaller samples than the other regions. This smaller sample proved problematic because, despite the elevated rates of certain behaviours in the North, the regional comparison tests did not reach significance due to weak statistical power. This redesign was led by Professor Michael Ornstein, York University/ISR.

allows for more direct grade comparisons to American and other international studies, thereby enhancing data quality by developing cross-national comparability (Biemer & Lyberg, 2003). Another design revision introduced in 1999 was the probability selection of schools in stage 1, rather than selection of school board clusters. In sum, the revised design yields more students per school and a wider geographical dispersion of schools (due to school selection being independent of school board) with more precise school-level estimates.[15]

OSDUHS Base Regions

The sample design first divided Ontario into four regional strata based on the following boundaries: (1) *Greater Toronto Area (GTA)*; (2) *Northern Ontario* (Parry Sound District, Nipissing District, and areas farther north); (3) *Western Ontario* (Dufferin County and areas farther west); and (4) *Eastern Ontario* (Simcoe County and areas farther east).[16]

Supplemental Oversamples Sponsored by Ontario Public Health Units/Departments in 2019

In addition to the four regional strata comprising the base design, the 2019 OSDUHS included 10 regional strata oversamples sponsored by the corresponding Ontario public health unit/department. The oversampling of students in these public health regions was conducted to provide more precise regional estimates for the health units/departments.[17] Schools in the following 10 regions of the province were oversampled: City of Ottawa, Simcoe Muskoka District, Durham Region, York Region, City of Toronto, Peel Region, City of Hamilton, Niagara Region, Middlesex-London District, and Southwestern District (Oxford County and Elgin County).[18]

School Selection (Stage 1)

Publicly funded schools represented by four school sectors in Ontario – English and French language schools in the public and Catholic school sectors – were eligible to participate.[19] Schools excluded as being out-of-scope were private schools, schools in First Nation communities, on Canadian Forces Bases, and schools in geographically inaccessible northern areas.[20]

[15] The disadvantages of wider school dispersion are that (1) it increases the number of school boards and therefore the resources needed for recruitment, and (2) it increases the school fieldwork coordination and travel costs. In contrast, wider school dispersion provides better estimation with more PSUs (schools) and richer, more precise school-level data necessary for multilevel analysis. OSDUHS examples of this type of analysis include Allison et al. (2016), Kariouz and Adlaf (2003), and Rehm et al. (2005).

[16] The base regional strata were redesigned in 2017. Between 1977 and 2015, the following four regions were used: *City of Toronto*; *Northern Ontario* (Parry Sound District, Nipissing District, and areas farther north); *Western Ontario* (Peel Region, Dufferin County and areas farther west); and *Eastern Ontario* (Simcoe County, York County and areas farther east). The regional estimates between 1999 and 2015 were recalculated to reflect the new base regional strata (trends prior to 1999 for the new region categories are not available). Due to this redesign, estimates for the City of Toronto are no longer provided.

[17] Since 2009, 15 public health units have sponsored supplemental oversamples of their jurisdictions for producing precise local estimates (see Appendix 3). Although such strategies serve to provide local data, the trade-off is variance inflation partly due to the increased variability in the inclusion weights. This effect is evident in the design effects shown in Appendix 7.

[18] Although each oversample was an independent stratum, for our analyses and presentation in this report, the oversamples were assigned to one of the four base regions: Greater Toronto Area, North, West, or East.

[19] In Ontario, each regional county usually has schools under two public (English and French) and two Catholic (English and French) school boards.

[20] School exclusions are likely not equally distributed throughout the province. For example, geographically remote school exclusions are typically in the North. Thus, exclusions may differentially affect population coverage by region.

The 2019 OSDUHS school selection proceeded as follows:[21]

1) The Ontario Ministry of Education's 2015/2016 school enrolment database (most recently available at the time) was used as the sampling frame to randomly draw the school sample. This frame included all publicly funded schools in Ontario with grades in our target (grades 7–12). As noted earlier, this comprised schools in four sectors: English language public, English language Catholic, French language public, and French language Catholic. To reduce costs and estimation difficulties with sparse data, schools with low enrolment (i.e., fewer than 30 students in schools with grades 7 and 8, fewer than 80 students in secondary schools, or secondary schools without all four grades), and schools in the remote northern region of the province, were excluded from the sampling frame.

2) Within *each* of the region-by-school level primary-stage strata, a probability proportionate-to-size (PPS) selection of schools by means of systematic selection[22] was drawn (i.e., larger schools had a greater probability of being selected). Following a random start, schools were selected with systematic sampling (i.e., every nth school) without replacement (WOR). Mutually exclusive school samples were drawn for each of the strata.

3) If a selected school declined to participate, or if it had closed, a replacement school from the same region-by-school level stratum was randomly selected, again with PPS/WOR sampling.

[21] Initially designed to enhance cross-time estimation, school selections for the 2003–2009 cycles were based on a longitudinal sample of schools initially drawn in 2001. Starting in 2011, the school selection reverted to a fully independent school sample.

[22] A systematic selection of schools is typically efficient. Firstly, such samples usually produce samples similar to SRSs. Secondly, systematic samples have been shown to perform well in sampling frames such as ours, wherein listings of schools show little periodic or cyclical ordering (Lohr, 1999, p. 43).

Class Selection (Stage 2)

Within each recruited school, a grade-stratified list of all eligible classes (provided by the school) was used to randomly subsample one class per grade with equal probability and without replacement (WOR). In elementary/middle schools, two classes were randomly selected – one 7th-grade class and one 8th-grade class. In secondary schools, four classes were randomly selected, one in each grade from 9 through 12 from either a list of classes in a required subject (e.g., English, math) or a required period (e.g., homeroom).

For all public health region oversamples with elementary/middle school students, *two* 7th-grade and *two* 8th-grade classes were sampled to participate (or all students in these grades if there were fewer than two classes in each grade). For certain public health units with a smaller secondary school population, the number of classes selected in the secondary schools was doubled (i.e., *two* classes in each grade between 9 and 12).

If a selected class could not participate, a replacement class from the same school and same grade was randomly selected, time permitting (otherwise this loss was incorporated in the class nonresponse adjustments). Classes excluded (out-of-scope) were special education classes, English as a Second Language (ESL) classes, and classes with fewer than four students enrolled.[23] All students in the selected classes who could read English or French with a returned signed consent form were eligible to participate.

[23] Small classes are excluded because they impede the creation of weights and within-class estimates.

Sample Exclusions

School Exclusions

- private schools
- schools in First Nation communities
- schools on military bases
- geographically remote schools
- elementary/middle schools with fewer than 30 students enrolled in Grade 7 and Grade 8 (combined)
- secondary schools with fewer than 80 students enrolled in Grades 9–12 or schools without all four grades

Class Exclusions

- special education classes
- English as a Second Language (ESL) classes
- classes with fewer than four students

Student Exclusions

- institutionalized or home schooled
- students who cannot comprehend English or French

Selection of Units

School Selection

- PPS/WOR: probability-proportionate-to-school size via systematic sampling; sampled without replacement; stratified by region and school type

Class Selection

- EPSEM/WOR: equal probability selection of classes; sampled without replacement; stratified by grade

Student Selection

- None: All students in a class with a signed consent form (who could read English or French) were eligible to participate.

ADMINISTRATIVE AND RECRUITMENT PROCEDURES

The 2019 OSDUHS protocol was approved by the Research Ethics Boards (REBs) at CAMH and York University,[24] as well as 34 school board research review committees (RRC).[25]

Student participation required the consent/permission of several entities, including school boards, school principals, classroom teachers, parents, and students themselves. For each school board associated with the selected schools, permission to survey students was first requested from the Director of Education. For about half of the school boards contacted in 2019, the decision to participate was conditional upon approval from the board RRC. If a school board was unwilling to have their schools participate, replacement schools from the same stratum were randomly selected and the corresponding board(s) were contacted for permission to approach the replacement schools. Following board approval, school principals were sent an invitation letter and accompanying material describing the study and the purpose. Once a school was recruited, the principal provided ISR with a grade-stratified list of classes, from which random selections were drawn by ISR. The date of survey administration was typically selected by the school, and usually all selected classes were surveyed on the same day.

All recruited schools were provided with active (also known as explicit or opt-in) parental consent forms,[26] which were available in six

[24] A protocol review by York University's REB is required for all contractual projects administered by ISR.

[25] Not all school boards in Ontario have Research Review Committees, which accounts for fewer RRCs than sampled boards.

[26] The OSDUHS *active/explicit* parental consent requires a clear approval for their child to participate from at least one parent indicated by an "I approve" response with an accompanying signature. In contrast, *passive* consent allows a student to participate as long as a parent does not indicate objection (or opt-out) to their child participating. In practice, active consent results in fewer students participating (Courser, Shamblen, Lavrakas, Collins, &

languages (English, French, Spanish, Portuguese, Russian, and Mandarin). Well in advance of the survey date, teachers of the selected classes distributed the consent forms to students, who, in turn, sought the signature of one parent/guardian if they were under age 18 (students aged 18 and older did not require parental consent). Students themselves were also required to provide a signature of assent. Those who did not return a dual-signed consent form on or before the survey date were precluded from participating. To limit costs, all selected classes in a school were surveyed in one day when possible. Thus, follow-up data collection was not rescheduled for absent students or those not returning a consent form. If a student did not participate, no substitution took place (because all students in the class were invited to participate). Instead, the inclusion weights were adjusted upward for this student unit nonresponse.

Administration procedures were designed to protect students' privacy by ensuring anonymous and voluntary participation. The survey was administered across the province by 43 trained ISR field staff in the sampled classrooms during regular class periods between November 2018 and June 2019.[27] The survey administrators read a standardized script to participating students explaining the history of the study, its purpose, and underscoring the anonymity of the survey.[28] Students were reminded that participation was voluntary and anonymous, and were instructed not to write their names on the questionnaires. They were also instructed to skip any question they did not understand, rather than risk disclosure by asking for assistance. Students recorded their answers directly on the paper-and-pencil instrument (PAPI), printed in a two-column booklet format. Although teachers were not required to remain in the classrooms during administration, most chose to do so, which added a beneficial climate of order during the administration. Teachers were asked to avoid walking around the room so that students would not feel their answers would be observed. Students were not compensated for their participation.[29]

The ISR field staff collected all completed questionnaires, which were then couriered to ISR for data capture by using the Computer-Assisted Survey Execution System (CASES) software. The quality of the data entry was verified by independently re-keying a random sample of 5% of all questionnaires.[30]

Ditterline, 2009; Jelsma, Burgess, & Henley, 2012). It is the policy of almost all school boards in Ontario to require active consent for external research studies.

[27] While some data collection occurred in 2018, we retain the odd-year designation used in previous cycles for simplicity and to reduce possible confusion. The data collection period was expanded to allow schools more time to schedule an acceptable administration date.

[28] The survey administrators also recorded information pertinent to the classroom, such as the number of students enrolled, number absent, presence of teacher during administration, whether the class was randomly selected, and whether any unusual events occurred during administration.

[29] In most schools (board permitting), school principals and teachers of participating classes were given a $15 gift card for a national chain restaurant to thank them for their assistance.

[30] The verification rate was reduced from 100% after multiple cycles showed low rates of data entry errors.

THE OSDUHS QUESTIONNAIRE

In addition to alcohol and other drug use, the OSDUHS questionnaire covers an array of topics related to mental and physical well-being. The general outline of the questionnaire topics is as follows: demographics, family and school life, tobacco, alcohol, cannabis and other drug use, beliefs and attitudes about drug use, vehicle-related questions, mental health indicators (e.g., suicidality, symptoms of anxiety and depression), physical health indicators (e.g., physical activity, injuries), bullying, video game playing, gambling and gambling problems, problems, problem technology use, and aggressive and other problem behaviours.

The objective of the OSDUHS data collection system is to maximize the data to cost ratio – to maximize data usability while minimizing cost and questionnaire length (i.e., respondent burden). To include as many topics as possible in a fixed class period, while minimizing the burden on students, we employed four split ballot versions of the questionnaire,[31] depending on school level, in a paper booklet format. As in past cycles, we used split ballot modularized questionnaires whose item content was distributed according to questionnaire form (Form A vs. Form B).[32] To better tailor the instrument, we reduced the number of questions in the forms for elementary school students (i.e., the 7th and 8th graders). The elementary school questionnaires excluded the following topics: gender identity, sexual orientation, the use of cocaine, crack, heroin, fentanyl, methamphetamine, hallucinogens, club drugs, prescription tranquillizers, modes of cannabis use, alcohol and drug use problem screeners, gambling problem screener, problem technology use, and driving-related behaviours. See Table 2.2 for an overview of the questionnaire content in the four forms. The item count was 180 in Form A-SS, 149 in Form B-SS, 132 in Form A-ES, and 113 in Form B-ES. About half of the items in each form were designated as core, that is, items common to all four forms. Because not all questions were in all forms, the number of cases upon which an estimate is based may be less than the total sample size. French-translated versions of Form A-ES and Form A-SS were used in French-language schools.[33]

In each classroom, Form A and Form B were distributed alternately (i.e., A, B, A, B) to achieve two near-equal random samples completing each form.[34] The average completion time was 29 minutes for secondary school students, and 31 minutes for elementary school students. By design, item branching (i.e., designated question skips) was not used in the questionnaire to protect students' privacy by ensuring comparable time to completion, thereby reducing the risk of disclosure such as the likelihood of identifying drug-using students (or those reporting other sensitive behaviours or problems) who would take longer to complete additional questions.[35] This was achieved by having nonusers respond to all questions using the response categories of *never used, did not currently use,* or *did not know what a drug was* for the drug-related items. A further advantage of minimizing item branching is a reduced risk of navigational errors (i.e., students skipping ahead to the wrong question).

[31] Customized questionnaire forms were developed for schools in two school boards that requested the removal of certain questions deemed too sensitive (suicide and self-harm), and a modification to the gender identity question.

[32] Split ballot methods cannot only expand the content coverage of the survey, but can also be used in an experimental or evaluative mode to assess methodological and questionnaire development. The disadvantage of the split ballot method is a reduced sample size for analyses based on questions that are not in all forms, and increased costs.

[33] Form B questionnaires were not translated into French.

[34] We must recognize that this distribution of questionnaire forms to students is not strictly random due to the absence of a random start, which would pose administration difficulties for field staff. Nonetheless, this alternating distribution strategy (essentially k=2 in systematic sampling) should result in two balanced samples of students. An assessment of this alternating distribution showed good characteristics, as there were few differences between the samples completing each form regarding demographics and drug use variables.

[35] A similar strategy is used in the CDC's national *Youth Risk Behavior Survey* (YRBS).

To maximize validity and to enhance cross-study comparability, many of the OSDUHS questionnaire items were derived from international guidelines (e.g., Hibell et al., 2003) and recognized student surveys such as NIDA's *Monitoring the Future* (MTF) survey,[36] the CDC's *Youth Risk Behavior Survey* (YRBS),[37] and the WHO's *Health Behaviour in School-aged Children* (HBSC) survey,[38] and have been shown to produce valid responses (Brener et al., 2002; Fosse & Haas, 2009; Inchly et al., 2016; Mawani & Gilmour, 2010; May & Klonsky, 2011; Miech, Johnston, O'Malley, Bachman, Schulenberg, & Patrick, 2019; O'Malley, Bachman, & Johnston, 1983). There are two principal advantages of employing existing survey questions: first, existing items have typically gone through field collection and testing for validity and reliability and have a demonstrated "fitness for use" (Biemer & Lyberg, 2003) and "usability" (Groves et al., 2009); and second, the capacity for interprovincial and cross-national comparisons extends the utility of the data. Such comparability of measurements is deemed an essential dimension of data quality by national statistical agencies (Biemer & Lyberg, 2003).

The 2019 OSDUHS questionnaire included validated scales and screeners such as the WHO's *Alcohol Use Disorders Identification Test* (AUDIT) assessing hazardous or harmful drinking (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993), the *CRAFFT* screener assessing drug use problems (Knight et al., 1999), the cannabis subscale of the *Severity of Dependence Scale* (SDS) assessing cannabis dependence (Martin, Copeland, Gates, & Gilmour, 2006), the *Kessler 6-Item Psychological Distress Scale* (K6; Kessler et al., 2003) assessing nonspecific psychological distress, the *Canadian Adolescent Gambling Inventory's Gambling Problem Severity Subscale* (CAGI-GPSS) assessing gambling problems (Stinchfield, 2010; Tremblay, Stinchfield, Wiebe, & Wynne, 2010), the *Problem Video Game Playing* (PVP) scale assessing problems with video gaming (Tejeiro Salguero & Morán, 2002), and the *Short Problematic Internet Use Test* (SPIUT) assessing problem technology use (Siciliano et al., 2015).

All newly introduced items in the 2019 questionnaire were evaluated by both expert review (by ISR and CAMH staff) and pretested by ISR on a small convenience sample of young adolescents. The readability of the 2019 questionnaire showed a 7th-grade reading level according to the Flesch-Kincaid reading score.

At the end of the questionnaire students were asked to evaluate the comprehension and sensitive nature of the questionnaire. The majority of students indicated positive assessments: 96% of students (95% of 7th graders) indicated that the questionnaire was "fairly" or "very easy" to understand; only 8% of students (5% of 7th graders) indicated that the questionnaire was "much too long"; and only 6% of students (6% of 7th graders) indicated that questions in the survey would make most students "very uncomfortable." This latter finding provides some reassurance that social desirability should not greatly bias our estimates, even among the youngest students.

[36] See www.monitoringthefuture.org

[37] See www.cdc.gov/healthyyouth/data/yrbs

[38] See www.hbsc.org

Table 2.2 Topic Overview of the Four Questionnaire Forms from the 2019 OSDUHS

Grades 7 and 8 (ES)		Grades 9–12 (SS)	
Form A-ES	**Form B-ES**	**Form A-SS**	**Form B-SS**
Demographics			
age, sex, grade, how long lived in Canada, language spoken at home, living situation, ethno-racial identity, **social media use**	age, sex, grade, how long lived in Canada, language spoken at home, living situation, ethno-racial identity, **social media use**	age, sex, gender identity, grade, how long lived in Canada, language spoken at home, living situation, ethno-racial identity, sexual orientation, **social media use**, hours work at part-time job	age, sex, gender identity, grade, how long lived in Canada, language spoken at home, living situation, ethno-racial identity, sexual orientation, **social media use**
School Life			
usual marks, **special education**, days absent, ever been suspended, attitudes about school, **feel treated fairly at school**, **is there an adult at school can talk to,** subjective social status at school, school transportation	usual marks, **special education**, days absent, attitudes about school, **feel treated fairly at school**, **is there an adult at school can talk to**, subjective social status at school, school transportation	usual marks, **special education**, days absent, ever been suspended, attitudes about school, **feel treated fairly at school**, **is there an adult at school can talk to**, subjective social status at school, school transportation	usual marks, **special education,** days absent, attitudes about school, **feel treated fairly at school**, **is there an adult at school can talk to**, subjective social status at school, school transportation
Family Life			
parents' education, parents born in Canada, parental support, subjective socio-economic status		parents' education, parents born in Canada, parental support, subjective socio-economic status	
Drug Use in the Past Year			
alcohol, cigarettes, cannabis, inhalants, cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, cigarettes, smokeless tobacco, waterpipe, electronic cigarettes, source of electronic cigarettes, cannabis, synthetic cannabis, inhalants, cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, cigarettes, cannabis, inhalants, cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, cigarettes, smokeless tobacco, waterpipe, content in waterpipe, electronic cigarettes, source of electronic cigarettes, cannabis, synthetic cannabis, inhalants, cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs
More Drug Use in the Past Year			
		hallucinogens, cocaine, crack, ecstasy, methamphetamine, heroin, fentanyl, prescription tranquillizers, drug use (any) problem screener	hallucinogens, cocaine, crack, ecstasy, methamphetamine, heroin, fentanyl, prescription tranquillizers
Alcohol			
first use, past month use, heavy episodic drinking	first use, past month use, heavy episodic drinking, usual source of alcohol	first use, past month use, heavy episodic drinking, alcohol problem screener, received treatment	first use, past month use, heavy episodic drinking, received treatment, parental permission to drink at home with friends, usual source of alcohol, opinion about purchasing beer in grocery stores
Cannabis			
first use, past month use	first use, past month use, usual source of cannabis, **use cannabis with tobacco**	first use, past month use	first use, past month use, usual source of cannabis, **use cannabis with tobacco**, modes of cannabis use, received legal warning for cannabis use, **noticed change in friends' cannabis use since legalization**, cannabis dependence screener
Tobacco Cigarettes/Smoking			
	first use, source of cigarettes, contraband cigarettes, exposure to second-hand tobacco smoke and **cannabis smoke**, opinions		first use, source of cigarettes, contraband cigarettes, exposure to second-hand tobacco smoke and **cannabis smoke**, opinions

(continued)

Grades 7 and 8 (ES)		Grades 9–12 (SS)	
Form A-ES	**Form B-ES**	**Form A-SS**	**Form B-SS**
Vehicles			
been passenger with intoxicated driver	seatbelt use, been passenger with intoxicated driver	been passenger with intoxicated driver	seatbelt use, been passenger with intoxicated driver
Driving Behaviours			
		driver's licence, impaired driving	driver's licence, in-class driver training, impaired driving, **perceptions about impaired driving**, collisions, driving while texting, **driving while talking on hand-held cell phone**
Perceptions About Drugs, Education, and Exposure			
	availability and risk perceptions (alcohol, cigarettes, e-cigarettes, cannabis, prescription opioid pills), recall of drug education, intoxicated at school, exposure to drugs		availability and risk perceptions (alcohol, cigarettes, e-cigarettes, cannabis, prescription opioid pills, cocaine, ecstasy, LSD), recall of drug education, intoxicated at school, exposure to drugs
Physical Health			
self-rated health, physical activity, sedentary behaviour, healthy eating, **eating breakfast**, go to bed/school hungry, hours of sleep on school night, height and weight, head injury	self-rated health, physical activity, sedentary behaviour, healthy eating, **eating breakfast**, go to bed/school hungry, hours of sleep on school night, height and weight, body image, head injury	self-rated health, physical activity, sedentary behaviour, healthy eating, **eating breakfast**, go to bed/school hungry, hours of sleep on school night, height and weight, head injury	self-rated health, physical activity, sedentary behaviour, healthy eating, **eating breakfast**, go to bed/school hungry, hours of sleep on school night, height and weight, body image, head injury
Mental Health			
self-rated mental health, help-seeking behaviour, **help-seeking preference,** psychological distress, perceived stress, self-esteem, suicidal ideation and attempt, **self-harm**, **coping skills**, **personality traits**	**personality traits**	self-rated mental health, help-seeking behaviour, **help-seeking preference**, psychological distress, perceived stress, self-esteem, suicidal ideation and attempt, **self-harm**, traumatic life event, prescription medication for anxiety or depression, **coping skills**, **personality traits**	**personality traits**
Other Risk Behaviours			
bullying perpetration and victimization at school, cyberbullying victimization and perpetration, video gaming and problems, **video game gambling**, gambling activities, antisocial behaviours		bullying perpetration and victimization at school, cyberbullying victimization and perpetration, video gaming and problems, **video game gambling**, problematic technology use, gambling activities, problem gambling, antisocial behaviours	
questionnaire evaluation			

Notes: (1) **bolded text** in the table indicates a new topic in 2019; (2) Form A-ES and Form A-SS were translated into French for use in French-language schools.

DATA QUALITY

2019 Sample Participation and Characteristics

A key objective of the OSDUHS is to produce a representative, unbiased sample of Ontario students in grades 7 through 12 in publicly funded schools. The allocated sample size for the 2019 OSDUHS was set at 14,500 students.

Schools

In total, 526 schools were invited to participate. Of these, 264 schools from 47 school boards participated in the survey, resulting in a school participation rate of 50%.[39] However, due to data editing issues, the final data file is based on students from **263 schools** (99 elementary/ middle schools – of which 13 were French language – and 164 secondary schools – of which 11 were French language). The most cited reasons given by nonparticipating schools were that they were too busy or that they had already committed to other research projects.[40] We attempted to replace each school that was unable to participate with another school randomly selected from the same stratum using our standard procedures.

Although we could not conduct a systematic follow-up of students in the nonparticipating schools, we do not expect the school refusals to have produced appreciable bias. Our analysis showed that nonparticipating schools were more likely to be located in the West region of the province, more likely to be public rather than Catholic schools, and more likely to be English language rather than French language schools. Any distortions by region were corrected by selecting replacement schools or in the weighting process. A further analysis was conducted to examine whether replacement schools[41] differed from initially selected schools. Results showed no substantial differences in the drug use measures between students in these two groups of schools.

If schools substantially differ with regard to student behaviours, then which schools participate can greatly influence the survey findings. Some research suggests that school-level variables are important and show relationships between variables such as school type, size, and socioeconomic status, and aggregated student drug use (Kairouz & Adlaf, 2003; O'Malley, Johnston, Bachman, Schulenberg, & Kumar, 2006; Rehm et al., 2005). However, the majority of the variance in students' behaviour may lie within schools, not between schools (Kairouz & Adlaf, 2003; O'Malley et al. 2006). Further, much of the between-school variance can be attributed to differences in region/urbanicity (Miech et al., 2019b) – a factor that is controlled for in the replacement sampling from within the same regional stratum. This would imply that which particular schools in the same region participate might not have an appreciable impact on estimates. Furthermore, a recent study using school survey data showed that school nonresponse does not introduce any considerable bias to student-level drug use estimates, suggesting that school attributes such as size or type have less influence than previously assumed (Thrul, Pabst, & Kraus, 2016).

Classes

The class participation rate was 92**%**. A total of 1,003 classes participated, but **992 classes** met the class inclusion criteria and are in the final data set (289 from elementary/middle schools, 703 from secondary schools). We must note that about 29% of classes were not randomly selected. In most of these cases, these classes

[39] Initially, 286 schools approved (54%). However, the survey was cancelled in 22 schools due to low consent form returns by students.

[40] Another factor that decreased the school participation rate was restrictions imposed by some school boards on the number of times ISR could contact schools to invite them to participate. Some boards limited contact to only once, and one board completely prohibited ISR contact (only the board representative could invite the schools).

[41] 49 schools were replacement schools.

were convenient same-grade replacements, typically identified by principals, for classes that were originally selected but declined to participate for logistical reasons.[42]

Students[43]

A total of 23,997 eligible students were enrolled in the 992 participating classes. Of these eligible students, 14,347 (60%) participated in the survey.[44] However, after the data quality criteria were applied, **14,142 cases were considered** "**completions**,"[45] resulting in a conditional student **completion rate of 59%**.[46] Twelve percent (12%) of students were lost due to absenteeism, and 29% were lost due to either unreturned consent forms or parental refusal. The sources of nonresponse varied by grade: the major source of nonresponse in the younger grades was unreturned consent or parental refusal (33% in grade 7 versus 25% in grade 12), whereas in the older grades absenteeism was higher than in the lower grades (19% in grade 12 versus 8% in grade 7).[47] The student completion rates according to the four base regions presented in this report were 62% in the Greater Toronto Area, 59% in the North, 54% in the West, and 61% in the East.[48]

Trends in Student Participation

Like many ongoing population surveys, student participation in the OSDUHS has trended downward over the long-term. Between 1977 and 2019, the student participation rate fell from 70% to 59%, with a peak in 1981–1983 at 85%. This decline is strongly associated with an increase in consent loss, which rose steeply from 4% to 29% during this period. In contrast, the loss due to absent students held steady (11%–15%). While the loss due to absenteeism has remained stable across cycles, the proportion not returning their consent form has been increasing across all grades and all regions. The reasons for this increase are unclear. One likely explanation is the increasing number of school board RRCs and institutional REBs that have mandated active parental consent/student assent procedures, which tend to increase loss. This problem of declining response rates is common to the survey research field and is not unique to the OSDUHS (Groves et al., 2009; Hendra & Hill, 2018; Kreuter, 2013).

Still, our student completion rate of 59% is acceptable for a school survey that uses full active parent-student consent/assent procedures (Courser, Shamblen, Lavrakas, Collins, &

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[42] Statistical tests comparing drug use estimates between students in randomly selected versus those in nonrandomly selected classes showed no significant differences. Further, prevalence estimates were also evaluated with and without the inclusion of the nonrandomly selected classes, and results did not significantly differ. Therefore, the non-random selection of a subset of classes does not appear to have biased estimates.

[43] Although students are neither a stage of selection nor a sampling unit, they are the unit of observation within clusters, from which data are collected. Consequently, their participation is a component of the overall participation rate.

[44] The participation rate (60%) is defined as the number of eligible students who participated/the total number of eligible students in the selected classes.

[45] An "incomplete" case (at the student level) met any one of the following criteria: (1) had a missing value for sex at birth, (2) reported using a fictitious drug, (3) reported using the core illicit drugs 40 or more times in the past year, (4) only completed the demographic questions in the questionnaire and nothing further, or (5) completed the questionnaire with assistance from the teacher. Cases that met any one of these criteria were excluded from the final data set. See the section on Data Editing.

[46] This shows the *unweighted* student completion rate. The ***weighted* rate** is based on the sum of the product of the regional weighted distribution and regional completion rate: Toronto (18.8×61) + Peel Region (14.3×60) + Durham Region (6.2×67) + York Region (7.6×62) + North (5.8×59) + Hamilton (3.3×48) + Niagara Region (3.6×64) + Middlesex-London District (4.0×48) + Southwestern District (1.6×53) + Other West (12.8×70) + Simcoe Muskoka District (4.6×65) + Ottawa (8.0×60) + Other East (9.2×60) = **61%.**

[47] The completion rate for secondary school students (grades 9–12 only) was 59% (14% absent, 27% no consent returned).

[48] For further details about the 2019 sample selection and completion rates for the regional strata, please see ISR's technical document by Park et al., 2019.

Ditterline, 2009; Draugalis, Coons, & Plaza, 2008; Shaw, Cross, Thomas, & Zubrick, 2015; Tigges, 2003; White, Hill, & Effendi, 2004). For example, Health Canada's 2016/2017 *Canadian Student Tobacco, Alcohol, and Drugs Survey* (CSTADS), which uses a combination of passive and active parental consent procedures, achieved a national student response rate of 76%, yet the response rate in Ontario – where active consent for external research is required by most school boards – was 60% (Burkhalter, Thompson-Haile, Rynard, & Manske, 2017). The American *Monitoring the Future* (MTF) survey also employs a blend of active and passive consent procedures and typically reaches national student response rates around 80%.[49] Furthermore, the OSDUHS considers students who are absent from class on the day of the survey as part of the target population. Thus, absent students (about 12% in 2019) are considered eligible and therefore remain in the denominator in the calculation of the completion rate, thereby reducing the rate. This is a conservative approach compared with other student surveys that exclude absent students from their target population, which yields higher rates (e.g., ESPAD Group, 2016).

Nonresponse and Nonresponse Bias

The association between the magnitude of nonresponse and nonresponse *bias* is complex. A nonresponse rate is only an indicator of the *risk* of nonresponse bias. Although a high response rate is a necessary condition for valid data, a low response rate does not necessarily indicate the presence of significant nonresponse bias, as bias is a function of both the *size* of the nonresponse rate and the *differences* between respondents and nonrespondents on the measures of interest (Groves, 2006; Hendra & Hill, 2018; Johnson & Wislar, 2012; Peytcheva & Groves, 2009).[50] Moreover, Groves and colleagues (2009) have shown that a survey can have a high response rate, yet discernible nonresponse bias when in the presence of large differences between respondents and nonrespondents.[51]

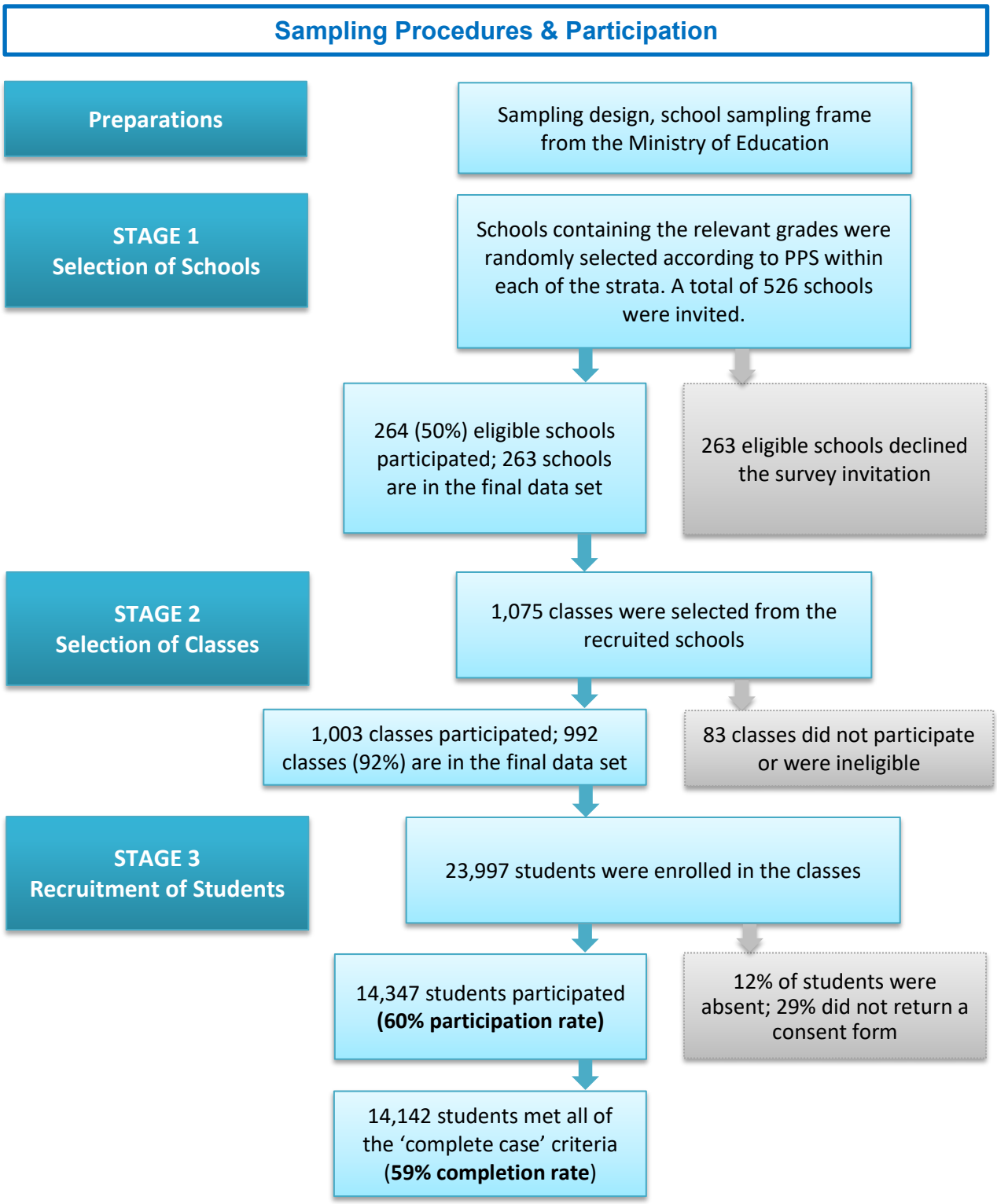
Existing research examining the impact of nonconsent (nonparticipation) on estimates of student drug use, mental health, and risk behaviours has not been conclusive. Some studies have found that students who do not return parental consent forms or do not choose to participate in research studies are more likely to use drugs, engage in risk behaviours, or have mental health problems than students who do participate (Anderman, Cheadle, Curry, & Diehr, 1995; Courser et al., 2009; Shaw et al., 2015; White et al., 2004), whereas others have found no such differences (de Winter et al., 2005; Eaton, Lowry, Brener, Grunbaum, & Kann, 2004; Jelsma et al., 2012).

[49] There are some important procedural differences between MTF and OSDUHS that may account for an exceptional MTF response rate. First, unlike Canada, research projects conducted in the U.S. can obtain confidentiality protection guaranteed in law. Second, when a school response rate is less than 70% a second "recoup" administration is conducted. Third, the default consent procedure for all students is passive consent (one that typically provides higher response rates), unless the school requires active consent. Fourth, information letters/consent forms are mailed directly to the parents. Fifth, participating schools in the MTF are given a relatively substantial monetary incentive to commit to the study for two cycles.

[50] Specifically, bias = nonresponse rate × ($\text{mean}_{\text{respondents}} - \text{mean}_{\text{nonrespondents}}$)

[51] An example would be a survey with a 90% response rate in which a large proportion underreported (or unreported) a given behaviour or state.

Figure 2.1 Sampling Procedures and Participation in the 2019 OSDUHS



Evaluation of Nonresponse Bias

While we are unable to compare students who returned a signed parental consent form with those who did not, we did compare demographics, drug use measures, and mental health measures in classes in which the class participation rate was below 70% (n=624 classes) with classes in which the rate was 70% or higher (n=368 classes). If students without consent are "high-risk" youth, then we would expect classes with low participation to have lower prevalence estimates (less likely) for risk behaviours and problem indicators due to the absence of the high-risk students compared with high participation classes. We found no significant sex or grade differences between classes with low versus high participation, however low participation classes were more likely to be in the West region. Of the over 50 drug-related, mental health-related, and school-related measures compared between the two groups only three showed a significant difference, with higher prevalence estimates in classes with low participation. This suggests that students who participated in the survey were not only "low-risk" youth. In sum, we have no compelling evidence that our nonparticipation rate produced appreciable bias.

By design, one group not represented by the OSDUHS sample is dropouts or early school leavers. We must recall, however, that our target population is *enrolled* students. Adolescents who have dropped out of secondary school are no longer enrolled and, therefore, are out of scope – unless they dropped out after the sampling frame was generated.[52] This should serve as a reminder that readers should not attempt to extrapolate the OSDUHS findings to groups outside the target population (e.g., early school leavers, homeless or institutionalized youth).

[52] Another source of sampling error would occur if school leavers are not removed from the enrolment list resulting in potential coverage errors of ineligible units, and deflating the class response rate and expansion estimates. We expect such error to be negligible.

School Leavers in Ontario

Although the *Ontario Education Act* (2006) stipulates that school attendance is compulsory to age 18 for those who have not graduated from high school,[53] there are some exceptions (e.g., illness, legal emancipation). One challenge in assessing the impact of school leavers (dropouts) on our sample lies with the differing methods of measurement and their corresponding estimates. The Ministry of Education reports that the high school graduation rate in 2017 was 86% (Ontario Ministry of Education, 2018, September). However, we cannot assume that the dropout rate was 14% because some students remain in school without graduating (i.e., take more years to graduate). Statistics Canada measures the dropout rate using the *Labour Force Survey* and found that about 5%-7% of 16-19 year-olds in Ontario were not attending high school (and did not already graduate) in 2009/2010 (McMullen & Gilmore, 2010). Similarly, the 2016 Census showed that about 7% of 20-24 years olds in Ontario did not complete high school (Statistics Canada, n.d.).

School leavers are more likely to be male, Canadian-born, and live outside of large urban centres (Gilmore, 2010; Uppal, 2017). The exclusion of school leavers from our sample does introduce some degree of bias in the estimation of drug use and risk behaviours if one wants to generalize to the wider adolescent population (rather than just students). This omission would not affect our trend findings if the proportion of school leavers remains constant from cycle to cycle. However, both the Ontario Ministry of Education and Statistics Canada indicate that the proportion of school leavers has declined over the past two decades, not only in Ontario but also in most of Canada. One would assume that because of this decline (and therefore retaining a greater number of older males in schools over time), our estimates would show increases in drug use and other risk behaviours over time, but this has not been the case. This suggests that the omission of school leavers does not substantially affect our trend estimates.

[53] Prior to 2006, the compulsory age of education in Ontario was 16 years.

Postsurvey Processing

Data Editing

As mentioned earlier, data editing rules were established to enhance data quality. Cases that met any one of the following conditions were removed from the final data set: did not report their sex (at birth), answered only the demographic questions,[54] reported using a fictitious drug,[55] reported using all the core illicit drugs 40 or more times during the past year ("faking bad"),[56] received assistance from the teacher when completing the survey,[57] or belonged to a class with fewer than four students participating. This data editing process resulted in a **final dataset consisting of 14,142 minimally complete cases** used in the data analyses (Form A-ES n=2,344 students; Form B-ES n=1,874 students; Form A-SS n=5,273 students; Form B-SS n=4,651 students).

Item Missingness

Both the single item missing rate and the cumulated item missing rate were low, suggesting quality responding. Across the 62 core questions (i.e., items in all four questionnaire forms), the item missingness average was about 1.5%. In addition, there is no evidence that item nonresponse inflates with the transition from the demographic questions to the more sensitive drug use questions.[58] Missing responses to questions were not statistically imputed, and, furthermore, any inconsistent responses provided by respondents were not corrected.

Poststratification

We compared the 2019 OSDUHS sample with the most currently available school enrolment numbers from the Ministry of Education, which were from the 2017/2018 school year. Table 2.3 shows that there were slight discrepancies between the 2019 OSDUHS sex-by-grade weighted (preadjusted) total sample distribution and the provincial enrolment figures. However, larger discrepancies were found within certain regional strata when compared to the provincial distribution. For example, in certain regions older males were overrepresented, whereas in other regions younger females were overrepresented. To further improve the quality of estimates by reducing potential nonresponse and noncoverage bias, we calculated postsurvey adjustments for the sex-by-grade distributions within *each* of the regional strata separately to restore each region's demographic composition to the population composition.[59] The poststratified weighted sample distribution is shown in Table 2.3 (far-right columns). The OSDUHS adjusted-weighted sample corresponds well to the Ontario enrolment. Table 2.4 and Figure 2.2 show the demographic characteristics of the final weighted sample.

[54] We contend that if a student is unwilling to complete more than the demographics section, the utility of the data provided is limited.

[55] The fictitious drug was called "adrenochromes." One hundred and fourteen cases were removed due to reporting use of the fictitious drug, and the proportion is consistent with prior survey cycles.

[56] Note that this data editing rule and the fictitious drug rule both address the potential bias of overreporting drug use ("faking bad"). This bias should be minimal given the small number of cases dropped.

[57] Teacher assistance would likely compromise anonymity and affect the truthfulness of responses.

[58] For example, the demographic and background items immediately preceding the drug use items averaged an item missing rate of 0.9%. Transition to the subsequent module containing the drug use items did not alter this rate (1.0%).

[59] The sex-by-grade population distribution was not available for each individual regional stratum, thus the provincial distribution was used to calculate the poststratification weights for each region. The assumption is that each region's population sex-by-grade distribution does not substantially differ from the provincial distribution.

Table 2.3 The 2019 OSDUHS Sample vs. Ontario 2017/2018 School Enrolment

	OSDUHS Preadjusted		Population Enrolment		OSDUHS Postadjusted	
	% Male	% Female	% Male	% Female	% Male	% Female
Grade 7	5.3	6.1	7.9	7.5	6.0	5.7
Grade 8	5.3	6.1	8.0	7.5	6.1	5.8
Grade 9	7.7	10.2	8.1	7.8	9.0	8.6
Grade 10	8.4	9.5	8.1	7.8	9.0	8.6
Grade 11	8.4	10.0	8.5	8.1	9.4	9.0
Grade 12	10.3	12.8	11.0	9.8	12.1	10.8
Total	45.3	54.7	51.5	48.5	51.6	48.4

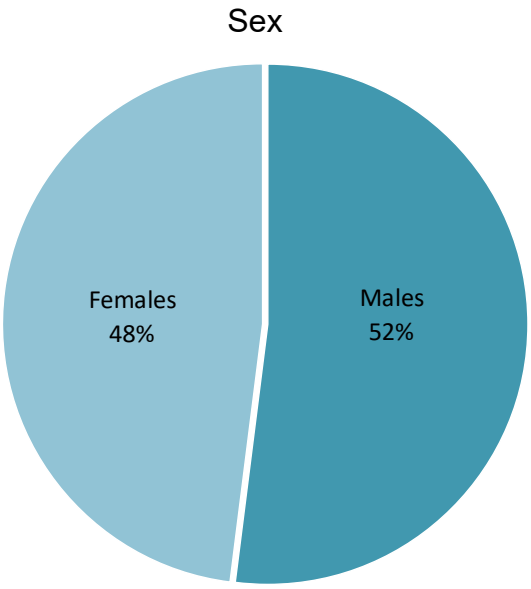
Notes: (1) OSDUHS cell entries are total sample percentages and are based on weighted data; (2) enrolment cell entries are total enrolment percentages and are based on 908,800 students in grades 7-12 enrolled in Ontario's publicly funded schools during the 2017/2018 school year.

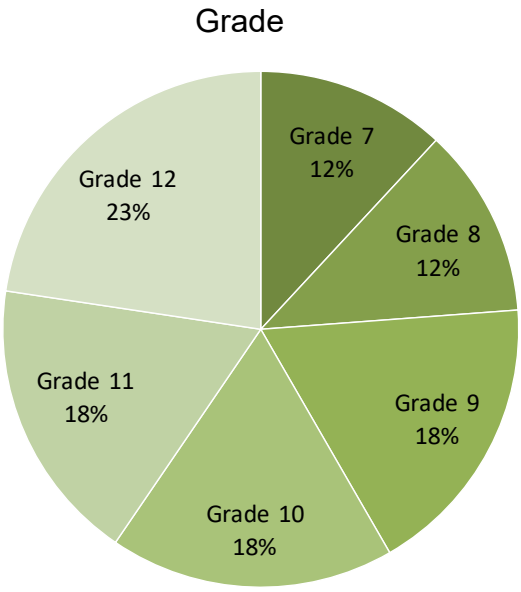
Table 2.4 Final Sample Characteristics, 2019 OSDUHS

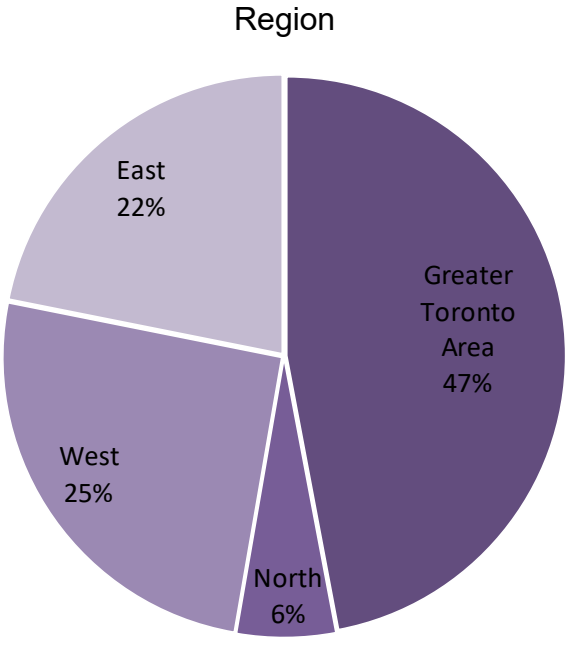
	Final Number (n)	Weighted %
Total	**14,142**	
Males	6,314	51.6
Females	7,828	48.4
Grade 7	2,044	11.7
Grade 8	2,174	11.8
Grade 9	2,596	17.6
Grade 10	2,534	17.6
Grade 11	2,419	18.3
Grade 12	2,375	23.0
Durham Region (OS)	1,143	6.2
York Region (OS)	1,082	7.6
Peel Region (OS)	1,436	14.3
Toronto (OS)	1,792	18.8
North	941	5.8
Hamilton (OS)	1,427	3.3
Niagara Region (OS)	1,101	3.6
Middlesex-London District (OS)	740	4.0
Southwestern District (OS)	698	1.6
Other West	615	12.8
Simcoe Muskoka District (OS)	1,181	4.6
Ottawa (OS)	1,126	8.0
Other East	860	9.2
Public School	7,636	51.0
Catholic School	6,506	49.0

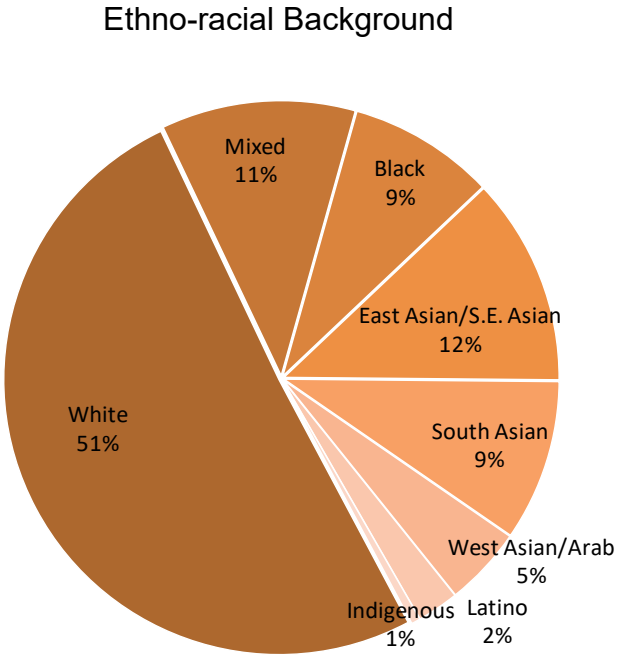
Notes: (1) mean age=15.2 years (SD=1.8); (2) OS=regional oversample for the public health unit/department; (3) the 13 regional strata were mutually exclusive; (4) the initial design included 14 regions, but school boards in one region declined participation; (5) for the four regional estimates presented in this report, the **Greater Toronto Area** includes Durham Region, York Region, Peel Region, and Toronto (combined n=5,453), the **West** region includes Hamilton, Niagara Region, Middlesex-London District, Southwestern District, and Other West (combined n=4,581), and the **East** region includes the Simcoe-Muskoka District, Ottawa, and Other East (combined n=3,167).

Figure 2.2 Sample Demographics, 2019 OSDUHS (Weighted Percentages of Total Sample)









DATA ANALYSIS, INTERPRETATION, AND PRESENTATION

Data Weighting

Our deliberate oversampling of students in certain regions and our equal allocation of students within grade results in the oversampling and undersampling of students relative to their population share. Given that the objective of our analyses is to provide descriptive population estimates, our design-based analysis requires selection or case weights attached to each student to ensure the proper representation of students to the Ontario student population.[60]

For each student, the final case weight is based on the product of five components: (1) the probability of a school being selected; (2) the probability of a class being selected within a selected school (components 1 and 2 comprise the base weight); (3) a student unit nonresponse adjustment factor; (4) a regional poststratification adjustment to restore regional representation; and (5) a final poststratification adjustment to restore the sex-by-grade distribution, using the most currently available provincial enrolment numbers.

Our weighted estimates are representative of all students in grades 7 through 12 enrolled in publicly funded schools in Ontario. Our population-scaled case weights expand our sample from **14,142 students to represent about 908,800 Ontario students** in grades 7 through 12, while ensuring that the sample composition corresponds to the population.[61]

Sample Weights

One intuitive way of thinking of the sampling weight is that each student in the sample represents or "stands in" for 64 students in the province who share similar characteristics.

Survey Estimation

Before turning to the survey results, we must first discuss briefly the meaning, interpretation, and limitations of survey estimates as they pertain to our data. The main goal of sample surveys is to estimate the "true" value of a particular characteristic in the population – in our case, the percentage of Ontario students in grades 7–12 who use a specified drug. Because we do not conduct a census of all students in the province, this "true" population percentage is unknown and must be estimated from a single sample. Consequently, every sample estimate has associated with it some degree of sampling error, a type of "statistical noise." The accuracy of a percentage – the difference between the obtained sample percentage and the "true" population percentage – is determined by the degree of precision and bias. Consequently, our goal in sampling is to obtain accurate estimates – that is estimates with high precision and low bias while maintaining an acceptable cost.

Precision refers to the variance or sampling error surrounding an estimate; those summarized in the present report include a range, or confidence interval (CI), enclosing a percentage value. The reason for employing confidence intervals stems from the uncertainty, or sampling error, associated with using the results obtained from a single sample to draw conclusions about the entire population. If we had drawn another sample, using identical procedures, the results would probably have differed slightly from those we obtained from our present sample, although the CI would most likely enclose the true percentage in this sample as well. It is important to note that CIs do not include various errors of bias such as nonresponse and

[60] The use of selection weights are not straightforward for analytic analyses, where data users must choose between an unbiased weighted estimate with inflated variance versus a biased unweighted estimate with smaller variance (Korn & Graubard, 1999).

[61] The population-scaled weights range in value from 4.04 to 870.17 (mean=64.26, median=47.85) and inflates to the population count of 908,777. The sample-scaled weights range in value from 0.06 to 13.54 (mean=1.00, median=0.74).

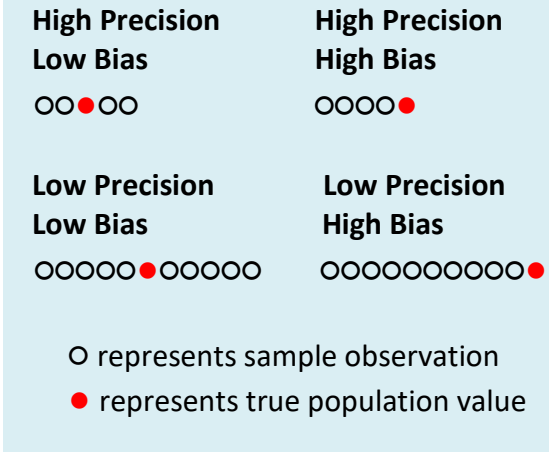
misreporting (e.g., unintentional errors of memory and recall, or intentional errors of underreporting or overreporting).

The confidence interval enclosing a percentage estimate indicates the likelihood of CIs from repeated samples containing the true population percentage (in our case, 95% of the CIs drawn from repeated samples). In reporting that the percentage of students who drink alcohol is 42% (40%–44%), we infer that with repeated sampling 95% of the CIs would contain the true population value (ignoring bias). Narrower confidence intervals indicate greater precision, or less sampling error; wider intervals indicate less precision, or greater sampling error.

In our case, the width of the interval depends on three factors: first, the number of students surveyed – other things being equal, the larger the sample size the narrower or more precise is the interval because sampling variance decreases as the sample size increases; second, the size of the percentage – other things being equal, percentages near 50% have the widest interval (i.e., maximum variance) while percentages approaching 0% and 100% have the narrowest interval;[62] and third, design effects (deff) – in our design, other things being equal, the greater the similarity (or correlation) among students within schools and classrooms the larger is the deff, which, in turn, widens the interval.[63] Changes in any of these three factors combine to affect the width of the confidence interval. All CIs shown in this report are design-adjusted, that is, accommodated for features of the complex sample design, and logit transformed to ensure that the lower and upper limits neither subceed 0% nor exceed 100%, a matter especially important to the estimation of rare or common behaviours (see Korn & Graubard, 1999, pp. 66-68).

Bias, in contrast to precision, refers to sources of error that may systematically inflate or deflate estimates from the true percentage. Such sources of nonsampling error include underreporting or overreporting of drug use, memory effects, nonresponse, noncoverage, and other sources of systematic error. Thus, a percentage may have a high degree of precision (a narrow confidence interval) and yet may still be biased (not close to the true population value). The margins of error, or confidence intervals, we present in this report include only sampling error. Confidence intervals do not include errors due to nonsampling factors such as the underreporting of drug use and other illegal behaviours or sensitive information, or errors of memory or recall.

Precision and Bias



[62] This is because very large and very small percentages have little variability, as most students are either in the "yes" category or in the "no" category.

[63] The design effect (deff), originated by Kish in 1965, represents the net effect of the combined influence of stratification, clustering and weighting, relative to a simple random sample. Deffs of 1.0 indicate a variable whose complex survey data has an equivalent precision to a simple random sample (SRS). Deffs larger than 1.0 indicate precision loss – precision less than an equivalent SRS. Deffs smaller than 1.0 indicate precision gain – precision greater than an equivalent SRS.

Validity of Self-Reports

The OSDUHS data collection features (i.e., in-class, self-completed, anonymous, voluntary, not administered by school staff) are the optimal conditions under which to survey adolescents about sensitive topics such as drug use, other illegal behaviours, and mental health problems (Bjarnason & Adalbjarnardottir, 2000; Brener et al., 2006; Gfroerer, Wright, & Kopstein, 1997; Griesler, Kandel, Schaffran, Hu, & Davies, 2008; Hibell et al., 2003; O'Malley, Johnston, Bachman, & Schulenberg, 2000; Tourangeau & Yan, 2007). We made full effort to elicit truthful responses by repeatedly ensuring students of complete anonymity and confidentiality of their responses. While the OSDUHS design does not include external, objective validation of students' self-reports of drug use (e.g., biomarkers) and mental health measures, we do have some inferential evidence to support their validity:

- The OSDUHS data have shown predictable relationships between self-reported drug use and demographics, problem behaviours, and school problems (for examples see Cook et al., 2017; Fischer et al., 2013; Hamilton et al., 2015; Hamilton, van der Maas, Boak, & Mann, 2014; Larsen et al., 2017). These various studies, including this descriptive report, provide empirical evidence of construct validity.

- As discussed earlier, the questionnaire includes several published, validated measures of problem-behaviour and mental health problems among adolescents.

- As discussed earlier, missing responses to the drug use questions are not substantially higher than nonsensitive questions (e.g., demographics) that immediately precede the drug use questions.

- A group of questions about a topic produce logical patterns of responses. For example, more students report ever using a drug than report past year use, or past month use. Another example is more students report suicidal ideation than a suicide attempt.

- The fictitious drug question elicited low levels of reported use indicating that intentional overreporting is likely minimal. Further, any cases reporting use of the fictitious drug or exaggerated drug use were removed from the dataset.

Still, there is research evidence to suggest that self-reported drug use, risk behaviours, and other problems are generally underreported to some extent due to the social stigma and sensitivity surrounding the (mostly) illegal behaviours being studied (Adlaf, 2005; Brener, Billy, & Grady, 2003; Delaney-Black et al., 2010; Hibell et al., 2003; McCambridge & Strang, 2006; Meiklejohn, Connor, & Kypri, 2012; Miech et al., 2019b; Tourangeau & Yan, 2007). In addition to intentional misreporting, respondents may unintentionally misreport their responses due to various errors in the response process. Respondents may err in their reporting of a behaviour or event due to such factors as the event not being stored in memory; not understanding the question; being unable to retrieve the information; and difficulty in formatting a response based on provided categories (Biemer & Lyberg, 2003). Further, students absent from class have a greater propensity to engage in risk behaviours than students who are regularly present in class (Bovet, Viswanathan, Faeh, & Warren, 2006; Eaton, Brener, & Kann, 2008; Michaud, Delbos-Piot, & Narring, 1998; Weitzman, Guttmacher, Weinberg, & Kapadia, 2003). **Considering all this, our survey results should be viewed as conservative, tending toward underestimation.** Yet, understated estimates still provide important public health information by establishing the lower bounds of a population value. Assuming that underreporting, misreporting, and absenteeism remains rather constant across years (as our data show for absenteeism), then any biases in survey estimates should be consistent from cycle to cycle. Therefore, trend estimates should not be greatly affected by any such biases (Cochran, 1977; Groves et al., 2009). Indeed, the steady nature of our trend lines provides support for this notion.

2019 Estimation and Analysis

The OSDUHS design featuring stratification, clustering, and selection weights (due to unequal selection probabilities) requires the use of estimation methods that accommodate complex survey data. Unfortunately, many standard statistical software systems assume that data are derived from simple random samples (i.e., the sampling of independent units with equal probability). Such systems cannot correctly estimate variances and their associated confidence intervals and statistical tests from such complex sample data.[64]

All 2019 percentages, confidence intervals, and population count estimates in this report were design-based and statistical tests were design-adjusted, (i.e., accommodated for characteristics of the complex sampling, namely, stratification, clustering, and weighting) using Taylor series linearization (TSL) available in Stata 14.2 (StataCorp, 2015).[65]

The 2019 OSDUHS sampling design was comprised of **23 strata (**region by school level),[66] **263 primary sampling units** (schools), and **14,142 students**. The design-based degrees of freedom (*df*) for our complex sample was 240 (*df*=263 [# school PSUs] – 23 [# strata]). We restrict design specification to stage 1 primary sampling units (schools), given that stage 2 variances (classes) "roll-up" into stage 1 PSUs (Heeringa et al., 2017, p. 69).[67] In addition, our negligible sampling fraction allows us to ignore the finite population correction (fpc) in our estimation.[68]

The statistical significance of subgroup (i.e., sex, grade, region) differences in 2019 was tested using bivariate second-order design-adjusted Rao-Scott Pearson chi-square tests at the $p<.05$ level of significance (Heeringa et al., 2017).

Another unique feature of complex sample analysis is the estimation of subpopulations (e.g., drinking problems among drinkers or drinking-driving among drivers). If the analysis was to employ a simple selection filter command (e.g., "select if" drinker), the software would ignore the correct survey design elements and, consequently, miscalculate the degrees of freedom, and by doing so would overstate statistical tests leading to false positive findings. In this report, we employ unconditional subclass methods for all subgroup analyses by specifying a command (`subpop` in Stata) that properly retains the correct design structure information (clusters and strata) of the subpopulation and full sample.[69]

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[64] Statistical systems assuming simple random samples (SRS) underestimate variances of complex sample data due to various violations of some key assumptions of SRS-based estimation, most notably being the independence of observations, which is readily violated by hierarchically clustered data and sampling with unequal probabilities. The consequence of this (and other) violations is underestimated variances and CIs resulting in overstated statistical inference (i.e., deflated probability levels). Another matter related to statistical testing is the calculation of degrees of freedom (*df*). In complex sampling the traditional calculation of the *df* no longer holds; instead, for stratified designs, fixed *df* are calculated based on the *sample design df* = N_{PSU} - N_{strata}. This correction typically reduces the *df*, which, in turn, results in lower statistical significance compared with the unadjusted *df*. Statistical systems that produce correct estimates now include general purpose software, including Stata's *svy* suite of survey commands, SPSS's Complex Samples module, SAS's SURVEY procedures, R's survey package, and dedicated systems including SUDAAN, WesVar, and Mplus.

[65] Estimation of percentages and other point parameters employed pseudo maximum likelihood estimation (PMLE) also known as weighted maximum likelihood estimation; estimation of variances and resulting confidence intervals employed first-order Taylor series linearization (TSL), a robust variance estimator, also known as the Huber White robust sandwich variance estimator.

[66] Elementary/middle schools were not included in three of the 13 regions, resulting in 23 rather than 26 strata.

[67] This restriction to stage 1 units has the added advantage of increasing the degrees of freedom by eliminating the stage 2 selection (classes).

[68] The fpc reflects the expected reduction in the sampling variance due to sampling without replacement and is used when the sampling fraction *n/N* exceeds 5%–10%. Given the negligible sampling fraction of the 2019 OSDUHS (n/N=.01) and the resulting fpc is ~ 1.0, we have employed the standard practice of ignoring the fpc in variance estimation (Biemer & Lymer, 2003; Korn & Graubard, 1999).

[69] Essentially, such a procedure assigns a weight of zero to all cases outside of the subclass and retains the original weight for subclass cases (Heeringa et al., 2017; Korn &

Why do cluster samples "lose data"?

One way to understand the loss of data due to clustering is to consider a simple random sample (SRS) of students, each selected independently throughout the province. In this scenario, each student represents a simple case count of 1 because each provides unique, independent information. Because the sample is widely dispersed over a large area, there is wide variability in student characteristics. Students selected in this way would reside in different neighbourhoods, in families with differing incomes, ethnic backgrounds, parental occupations, and so on.

Now, consider a sample of students drawn from clusters of schools and classrooms. Because students in the same schools and classes share many of the same background characteristics and behaviours, they tend to be similar, resulting in extra-correlation. Because of this high similarity, each student is no longer providing unique, independent information, and so is no longer representing a student count of 1, but represents a count of less than 1.

Consequently, a SRS of 100 students would statistically represent 100 students. In contrast, a cluster sample of 100 students might effectively (statistically) represent only 70 SRS equivalent students, for example.

This reduction in effective sample size depends on the degree of similarity – greater similarity within clusters results in greater data loss due to a higher design effect.[70]

Trend Analysis

In this report, we describe three patterns of change in our data: the first describes changes between 2017 and 2019 (changes since the previous survey); the second describes trends from 1999 to 2019; and the third describes long-term trends from 1977 to 2019. To evaluate the time trends, a merged or "stacked" dataset was used.[71] All estimates were accommodated for the respective survey design effects.

2019 vs. 2017 and 1999–2019 Trends

We first evaluated changes since the previous survey (i.e., 2019 vs. 2017). Following that, we evaluated changes since 1999 because this was the year the survey first included all grades from 7 through 12. The tests contrasting 2019 and 2017 estimates and estimates since 1999 were based on grades 7 through 12.

For 1999–2019 trends, we assessed change with a binary-response logistic regression providing an appraisal of the cycle-to-cycle change (with 2019 contrasted to each prior survey, i.e., reference group contrasts) as well as assessing the presence of linear and nonlinear trends.[72] A linear trend indicates a constant straight-line increase or decrease over the entire period. A nonlinear trend indicates a levelling-off and/or a change in direction over time (one or more bends in the line). Both linear and nonlinear trends may be simultaneously present in a longitudinal data series.

Graubard, 1999). Consequently, although observations are "removed," their strata and PSUs are not.

[70] This is why sample designers attempt to design clusters that are *internally heterogeneous* (i.e., highly dissimilar). This goal, however, is difficult to attain with some organizational populations such as schools where the composition of organizational-based clusters may be highly structured and less manageable to control.

[71] Trend analyses were conducted using a stacked dataset cumulating 22 cycles for the years 1977–2019. The dataset contains 129,256 students distributed among 305 strata. Cluster and stratum codes were created with unique values across cycles. The notion of a stacked dataset is descriptively accurate given that data from each cycle is sequentially stacked on top of one another. See Kish (1999) and Korn & Graubard (1999) for discussion on combining multiple surveys.

[72] Linear and nonlinear trends were evaluated with orthogonal polynomial contrasts that decompose linear from quadratic and higher order nonlinear contrasts.

1977–2019 Trends

The long-term trend analyses from 1977 through 2019 were based on an unconditional subpopulation consisting of only grades 7, 9 and 11, the three grades common to all survey cycles. Again, we assessed change with a binary-response logistic regression, providing an appraisal of the cycle-to-cycle change (with 2019 contrasted to each prior survey, i.e., reference group contrasts) and a joint test of the presence of any change between 1977 and 2019. We also assessed whether changes over time showed significant linear and nonlinear trends. Given the smaller long-term sample, we restricted our trend analyses to the total sample, and did not evaluate the long-term trends by subgroup.

For all statistical tests comparing percentages across time, we used the more conservative $p<.01$ significance level. As discussed earlier, absolute differences between two percentages do not necessarily signal meaningful differences. This more conservative significance level for temporal differences should reduce the problem of inflated false positive findings due to multiple testing – i.e., our large number of computed tests.

Reporting of Results

Readers should also note the following regarding our analyses and reporting:

- Statistical differences must be carefully interpreted. First, although we used methods to reduce the problem, our analysis does not fully resolve the problem of the large number of statistical tests performed. Indeed, for every 20 statistical tests, one "significant difference" could occur solely by chance, thus resulting in false positive findings. Second, outcomes that are statistically significant tell us only that the difference is probably not due to chance. Whether a statistically significant difference is a meaningful one of public health importance is a matter that requires both statistical and extra-statistical judgement.

- Readers should be mindful of the varying estimation sample sizes, even for the same subgroup. Although the modularized split ballot questionnaires (Form A vs. Form B) are efficient means to maximize data collection, sample sizes for the same subgroup of students (e.g., males) may vary widely depending on which questions from which questionnaire form are being assessed. Further, readers should note that only Form A was translated into French, therefore Form B was not completed in French-language schools.

- Visual inspection of overlapping CIs is a useful *approximation* of statistical findings, but each separate CI is a nominal 95% CI. Thus, when visually comparing two or more CIs for overlap, in some instances the visual difference may not perfectly correspond to a statistical test because the probability of two 95% CIs do not equal the probability of a single 95% statistical test.

- The scope of this report is limited to a select few epidemiologically relevant risk factors – sex,[73] grade, and region. It should be obvious that not all potentially relevant risk factors were assessed in this report. Such investigations will be a matter for future work.

- We intentionally emphasize the influence of grade when describing age-based associations because grade-related findings are more readily translated into school system programming. Nonetheless, readers should recognize that our findings concerning grade associations and health indicators would, of course, mirror age associations.

- Our report is descriptive. Associations found in these data do not imply causal relationships. For example, regarding regional differences, we can only determine if a difference exists and describe the pattern of differences. Because other factors may be the root cause of regional differences (e.g., socio-economic status differences or ethno-cultural differences), we cannot causally attribute such differences solely to the regional residence of students. Indeed, many socio-demographic characteristics are naturally "bundled" within region.

- Most estimates presented in this report are prevalence rates in percentages and population counts, the latter of which have been rounded downward.

- All analyses were based on casewise, or listwise, deletion of missing responses resulting in complete case analysis. In casewise deletion, if a student has at least one missing value for a set of items used in the analysis, *all* information from this student was temporarily removed from the specific analysis.

- Small percentages and estimates based on few students produce wide confidence intervals (i.e., large error) and ones that have a propensity toward being untrustworthy. In this report, estimates were suppressed due to unreliability (unstable) if they met any *one* of the following conditions:

  (1) an estimate less than 0.5%;

  (2) a base sample size (i.e., the denominator) of fewer than 50 students; or

  (3) a relative standard error, measured by the coefficient of variation[74] (CV), exceeding a value of 33.3. This suppression threshold for untrustworthy estimates is also used by Statistics Canada and other statistical agencies. Although the numerical value of a suppressed estimate is nonreportable, we may still draw useful interpretations of suppressed data. First, we can conclude that the estimate is too low to be discernible with our sample size. Second, a suppressed estimate can still establish that a behaviour has not measurably diffused into the student population.

[73] Sex at birth is the variable (binary) presented in this report. Gender identity was also measured in the survey among secondary school students using a separate question.

[74] The coefficient of variation is the ratio of the standard error to its estimate (i.e., CV = SE/estimate). Stata computes the CV as a percentage: CV = (SE/estimate) × 100%. This measure is especially useful when comparing the precision of measures with different percentage magnitudes and different sample sizes. Another important application of the CV is to flag potentially untrustworthy estimates requiring suppression.

Table 2.5 2019 OSDUHS Method and Sample Summary

Design	▪ Target sample consisted of 7th–12th graders enrolled in provincially funded English and French language schools (public and Catholic school sectors) in Ontario during the 2018/2019 school year. Students excluded as being out-of-scope were those in private schools, those schooled in correctional or health facilities, those schooled in First Nation communities, military bases, and remote areas, and those who were home-schooled. ▪ Sample selected by a disproportionately stratified (region by school level), two-stage cluster design. Stage 1: schools (stratified by region and school level) were selected by probability-proportionate-to-school size (PPS). Stage 2: classes (stratified by grade) were selected with equal probability. Both stages employed sampling without replacement (WOR). ▪ The primary stage stratification, which included both a base design sample and a sponsored public health oversample, resulted in a combined total of 23 region-by-school level strata. ▪ Within each stratum, schools were selected by systematic random sampling according to PPS using the 2015/2016 Ontario Ministry of Education's school enrolment database as the sampling frame. Within selected schools, one class per grade was randomly selected with equal probability of selection (EPSEM).
Participation	▪ 7th–12th graders sampled from 992 classes in 263 schools, and who provided active parental consent and student assent, completed questionnaires from November 2018 to June 2019. ▪ 50% of selected schools, 92% of selected classes, and 59% of students in participating classes completed the survey. ▪ Data based on the final sample of 14,142 students were weighted to be representative of the 908,800 7th–12th graders enrolled in Ontario's publicly funded public and Catholic schools.
Questionnaire	▪ Four split ballot versions (Form A-ES, Form B-ES, Form A-SS, Form B-SS) of the anonymous, self-completed, paper-and-pencil instrument (PAPI), which averaged 30 minutes to complete, were administered in classrooms by trained staff from the Institute for Social Research. Form A questionnaires were available in French and used in French-language schools.
Student Characteristics	▪ Males (n=6,314; 51.6% weighted); Females (n=7,828; 48.4% weighted). ▪ 7th graders (n=2,044; 11.7%); 8th graders (n=2,174; 11.8%;); 9th graders (n=2,596; 17.6%); 10th graders (n=2,534; 17.6%); 11th graders (n=2,419; 18.3%); 12th graders (n=2,375; 23.0%). ▪ GTA (n=5,453; 47.0%); North (n=941; 5.8%); West (n=4,581; 25.4%); East (n=3,167; 21.8%).
Data Quality	▪ Data editing rules were applied based on a definition of a "complete case," and untrustworthy cases were removed from the final data set. ▪ Nonresponse analysis comparing classes with participation rates of 70% or higher to classes with lower participation rates showed very few significant differences in drug-related and mental health-related measures.
Analysis	▪ Selection weights were used to account for differing sampling probabilities and to restore the sample to the corresponding population distribution. Poststratification adjustments were used to correspond to the Ministry of Education's 2017/2018 enrolment for sex-by-grade groupings. ▪ The complex sample analysis model is based on a design with 263 primary sampling unit clusters (schools), 992 secondary sampling unit clusters (classes) distributed among 23 region-by-school level strata. For analysis, only stage 1 primary sampling units (schools) and strata are necessary to approximate the 2-stage sampling design used to draw the sample.

Table 2.6 Definitions of Terms Used in the Report

Term	Definition
95% Confidence Interval (CI)	The 95% CI is interpreted as follows: the "true" population value would be expected within this range in 95 of 100 samples. Design-based CIs (presented here) also account for the characteristics of the complex sampling design.
Past Year Use of Tobacco Cigarettes, E-Cigarettes (Vapes), Waterpipes	Past year use estimates for tobacco cigarettes, electronic cigarettes (vapes), and waterpipes exclude smoking only "a few puffs." These cases were classified as nonusers (or experimenters) and assigned to the denominator.
Daily Smoking	Smoking at least one whole cigarette daily during the past 12 months.
Past Year Alcohol Use	Any alcohol consumed during the past 12 months. Use includes consumption on special occasions, but excludes sips.
Heavy Episodic Drinking	Two indicators are used: (1) binge drinking: drinking five or more drinks on the same occasion at least once during the past four weeks; (2) getting drunk at least once during the past four weeks.
Hazardous/Harmful Drinking	Scoring at least eight of 40 (Likert scoring) on the World Health Organization's *Alcohol Use Disorders Identification Test* (AUDIT) screen, which identifies the percentage drinking hazardously or harmfully. Hazardous drinking is a pattern of drinking that increases the likelihood of future physical, social, or mental health problems, including dependence. Harmful drinking is a pattern that is already causing harms (e.g., injuries).
Past Year Drug Use (Users)	Used the drug at least once during the past 12 months. Cases that responded "don't know what [the drug] is" were classified as nonusers and assigned to the denominator.
Frequent Drug Use	Used the drug six or more times during the past 12 months. Cases that responded "don't know what [the drug] is" were classified as nonusers and assigned to the denominator.
Nonmedical Use (NM)	Used the drug without a prescription, or without a doctor's supervision.
Any Drug Use in 2019 (excluding cannabis)	This binary measure indicates past year use of one or more of the following 14 drugs asked about in the 2019 survey (Form B-SS only): synthetic cannabis, inhalants, LSD, mushrooms/mescaline, cocaine, crack, methamphetamine, heroin, fentanyl, ecstasy (MDMA), tranquillizers/sedatives (NM), prescription opioid pain relievers (NM), ADHD drugs (NM), and cough/cold medication (NM). Excluded from this count are tobacco cigarettes, e-cigarettes, waterpipes, alcohol, cannabis, and energy drinks.
Any Drug Use (for trends)	To examine trends in any drug use, we use a measures based on drugs that were common to all surveys since 1977. Past year use of one or more of the following eight drugs: LSD, mushrooms/mescaline, methamphetamine, cocaine, crack, heroin, ecstasy (MDMA), and tranquillizers/sedatives (NM). Cannabis is excluded.
Any Nonmedical Prescription Drug Use	Nonmedical use of one or more of the following three prescription drug classes once or more often during the past 12 months: prescription opioid pain relievers, ADHD drugs, or tranquillizers/sedatives.
Drug Use Problem	Reporting two or more of the six items on the *CRAFFT* screener, which measures a drug use problem that may require intervention (past 12 month period).
Cannabis Dependence	Scoring at least four of 15 (Likert scoring) on the cannabis subscale of the *Severity of Dependence Scale* (SDS). The SDS is a validated 5-item instrument used to screen for potential drug dependence in adolescent and general populations.

3. RESULTS

3.1 Overview of Drug Use in 2019

Drug Use in the Past Year
(Figures 3.1.1, 3.1.2; Table 3.1.1)

The most commonly used drug is alcohol, with 41.7% of students in grades 7 through 12 reporting use (excluding just a sip to try it) during the 12 months before the survey. Consumption of high-caffeine energy drinks is also quite prevalent, as about one-third (32.6%) of students report past year use, followed by electronic cigarette use (also known as vaping) at 22.7%, and cannabis use at 22.0%. Notably the prevalence of electronic cigarette use is substantially higher than tobacco cigarette smoking (5.0%). One-in-ten (11.0%) students report the nonmedical (NM) use of prescription opioid pain relievers, such as codeine, Percocet, Percodan, Demerol, Dilaudid, or Tylenol #3 in the past year. One-in-twelve (7.8%) students report the use of cough/cold medication to "get high."

Questions about the use of certain illicit drugs were asked of secondary students only (grades 9–12). Among this subset of illicit drugs, psilocybin ("mushrooms") ranks highest with about 4.5% of secondary students reporting use in the past year, followed by the nonmedical use of tranquillizers/sedatives and cocaine at about 3%. Methamphetamine, fentanyl, and crack use is rare, as these past year prevalence estimates fall well below 1%. The estimate for past year heroin use was suppressed due to a very low value.

One-in-five (20.3%) secondary students report using any drug (other than alcohol, cannabis, tobacco/nicotine, or caffeine), during the past year. About one-in-eight (13.4%) secondary students report using at least one prescription drug nonmedically (without a doctor's prescription) during the past year.

Figure 3.1.2 shows the past year drug use prevalence estimates for elementary students (grades 7 and 8) and secondary students separately. Not only do younger students have lower prevalence estimates than older students, the drug ranking differs slightly as well.

Lifetime Drug Use
(Table 3.1.1)

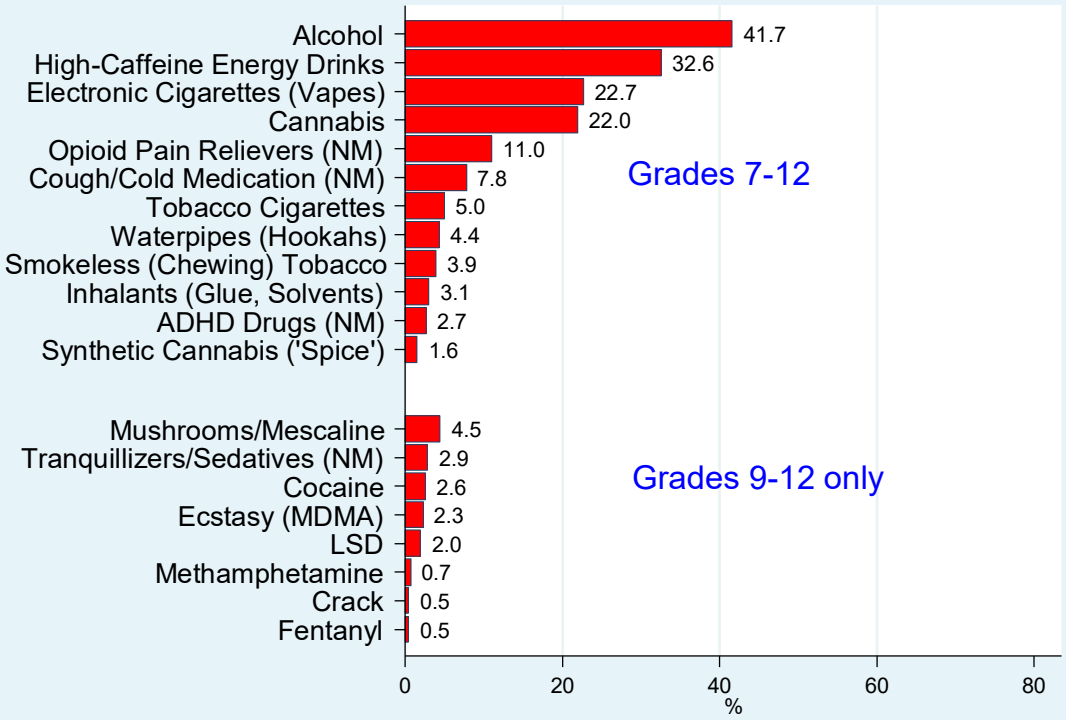
Estimates for lifetime use show that alcohol, e-cigarettes/vapes, and cannabis are the most likely substances to be tried by students.[75] Two-thirds (64.8%) of students have ever tried alcohol (including sips), about one-third (31.5%) have ever tried e-cigarettes (including a few puffs), and about one-quarter (24.2%) have ever tried cannabis. Notably, more students have tried e-cigarettes than tobacco cigarettes (13.5%) in their lifetime.

Frequency of Drug Use
(Figures 3.1.3, 3.1.4)

Frequent drug use, defined as using six or more times during the past year, is shown in Figure 3.1.3. Cannabis is the most frequently used drug, apart from alcohol, tobacco/nicotine, and caffeine. About one-in-nine (11.5%) students report frequent cannabis use in the past year. Frequent use of prescription opioid pain relievers is reported by about 3.8% of students. All other drugs measured in the survey are not frequently used. Figure 3.1.4 shows the number of times *past year users of a drug* used during the 12 months before the survey. Again, we can readily see that cannabis is the most frequently used drug.

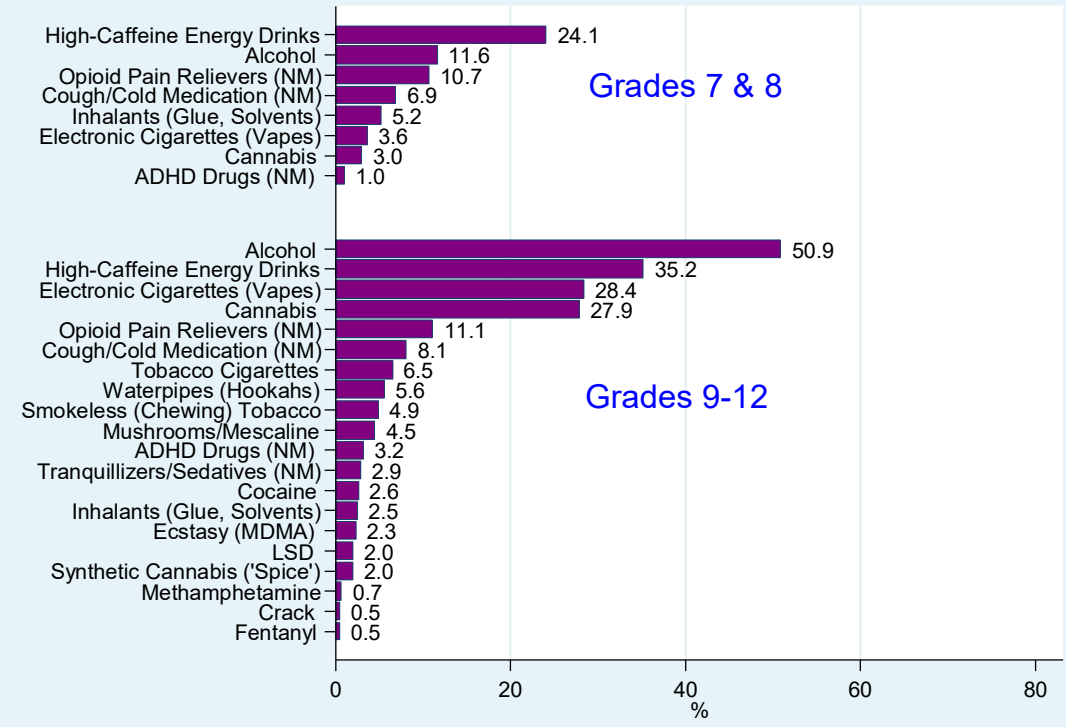
[75] Note that lifetime use of energy drinks was not measured.

Figure 3.1.1
Percentage Reporting Past Year Drug Use, 2019 OSDUHS



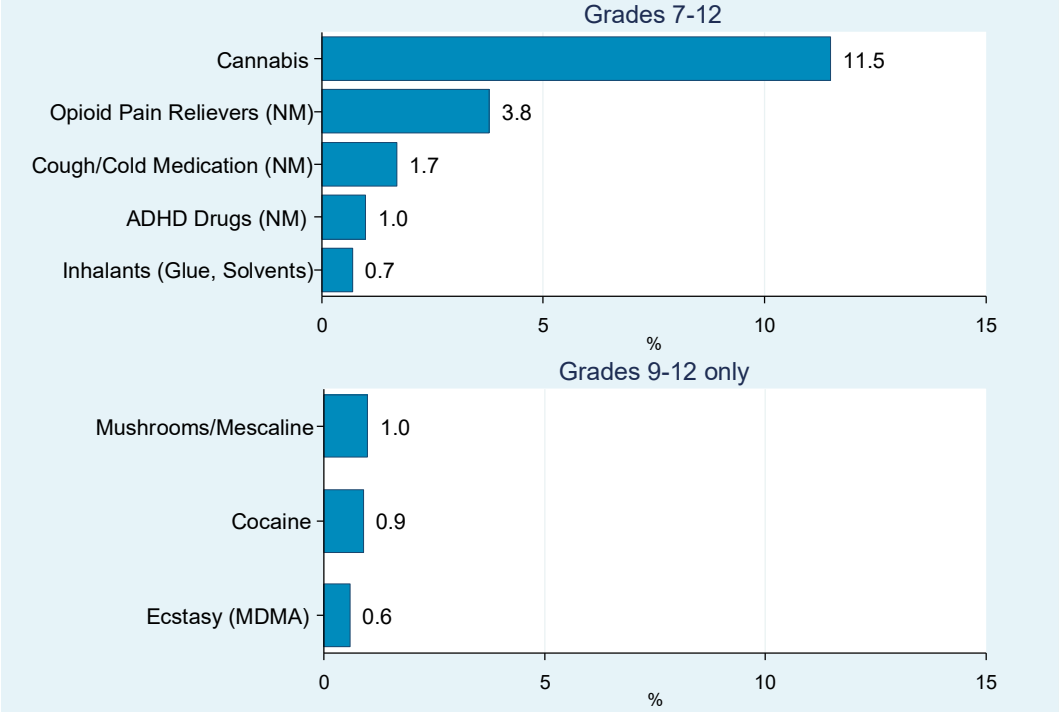
Notes: (1) NM=nonmedical use, or without a doctor's prescription; (2) ADHD=Attention-Deficit/Hyperactivity Disorder; (3) drugs shown for 'Grades 9-12 only' were not asked of Grade 7 & 8 students; (4) estimate for heroin among Grades 9-12 was suppressed due to unreliability

Figure 3.1.2
Percentage Reporting Past Year Drug Use by Grade Level, 2019 OSDUHS



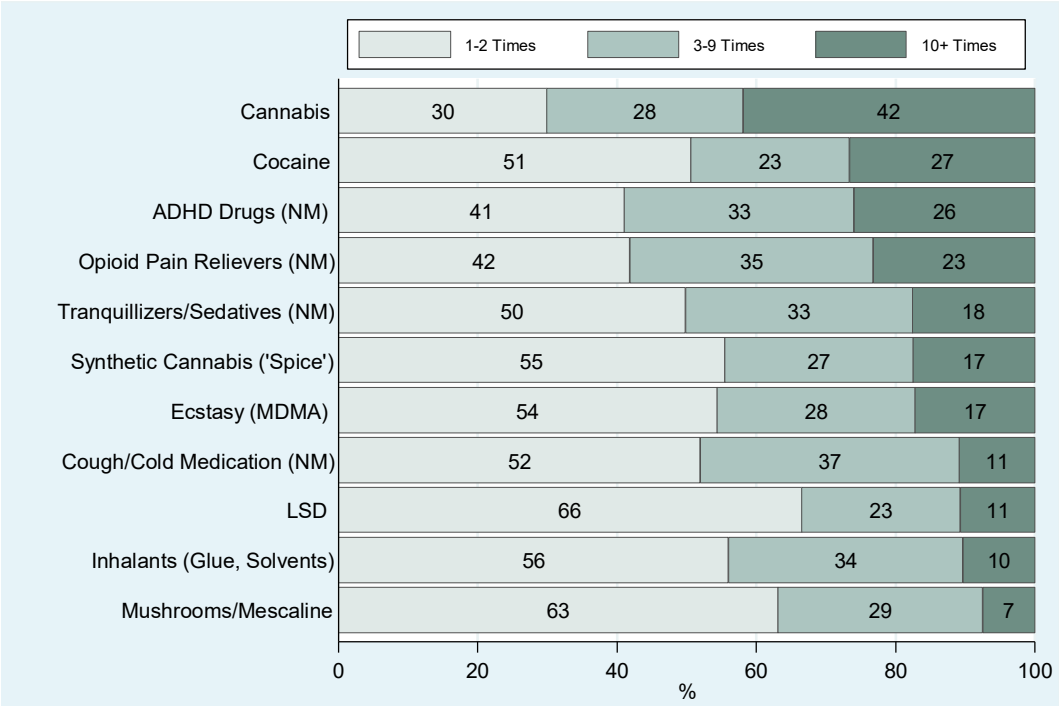
Notes: (1) NM=nonmedical use, or without a doctor's prescription; (2) ADHD=Attention-Deficit/Hyperactivity Disorder; (3) estimates for tobacco cigarettes, waterpipes, smokeless tobacco, and synthetic cannabis ('spice') among Grades 7 & 8 were suppressed due to unreliability; (4) estimate for heroin among Grades 9-12 was suppressed due to unreliability

Figure 3.1.3
Percentage Reporting Frequent Drug Use (Six Times or More Often) in the Past Year, 2019 OSDUHS (Total Sample)



Notes: (1) NM=nonmedical use, or without a doctor's prescription; (2) ADHD=Attention-Deficit/Hyperactivity Disorder; (3) estimates for synthetic cannabis, LSD, methamphetamine, crack, heroin, fentanyl, and tranquillizers were suppressed due to unreliability

Figure 3.1.4
Frequency of Drug Use in the Past Year, *Among Users*, 2019 OSDUHS (Grades 9–12 only)



Notes: (1) NM=nonmedical use, without a doctor's prescription; (2) ADHD=Attention-Deficit/Hyperactivity Disorder; (4) frequencies displayed only for drugs with 50 or more users

Table 3.1.1: Percentage Reporting Drug Use in Lifetime and in the Past Year, 2019 OSDUHS

	Lifetime Use			Past Year Use					
	Lower Estimate[a]	%	Upper Estimate[a]	Lower Estimate[a]	%	Upper Estimate[a]	Lower Estimate	**Approximate Number[b]**	Upper Estimate
AMONG GRADES 7–12									
Alcohol	62.7	**64.8**	66.8	39.5	**41.7**	43.8	349,000	**374,300**	399,600
High-Caffeine Energy Drinks		n/a		30.8	**32.6**	34.5	241,000	**259,500**	278,100
Electronic Cigarettes (Vapes)	29.3	**31.5**	33.8	20.7	**22.7**	24.8	165,400	**184,200**	203,100
Cannabis	22.7	**24.2**	25.9	20.5	**22.0**	23.6	182,900	**198,300**	213,600
Opioid Pain Relievers (NM)	12.3	**13.1**	13.9	10.3	**11.0**	11.7	90,400	**98,300**	106,200
Cough/Cold Medication (NM)	8.2	**9.0**	9.8	7.1	**7.8**	8.6	62,400	**70,300**	78,200
Tobacco Cigarettes	12.3	**13.5**	14.9	4.5	**5.0**	5.7	40,000	**45,600**	51,100
Waterpipes (Hookahs)	7.9	**8.9**	10.1	3.8	**4.4**	5.2	29,900	**36,100**	42,200
Smokeless (Chewing) Tobacco	4.2	**5.3**	6.7	3.0	**3.9**	4.9	23,700	**31,400**	39,200
Inhalants (Glue or Solvents)	4.7	**5.2**	5.8	2.7	**3.1**	3.6	24,200	**28,100**	31,900
ADHD Drugs (NM)	2.9	**3.3**	3.9	2.2	**2.7**	3.1	19,500	**23,700**	28,000
Synthetic Cannabis (“Spice,” “K2”)	1.6	**2.1**	2.6	1.2	**1.6**	2.1	9,724	**13,000**	16,300
AMONG GRADES 9–12 ONLY									
Mushrooms or Mescaline	4.6	**5.3**	6.1	3.9	**4.5**	5.2	26,800	**31,200**	36,100
Tranquillizers/Sedatives (NM)	2.9	**3.5**	4.1	2.4	**2.9**	3.4	16,000	**19,700**	23,400
Cocaine	2.7	**3.1**	3.7	2.2	**2.6**	3.1	14,800	**17,900**	21,000
Ecstasy (MDMA)	2.3	**2.8**	3.3	1.9	**2.3**	2.7	12,700	**15,600**	18,400
LSD	2.2	**2.6**	3.2	1.7	**2.0**	2.5	11,200	**14,100**	17,000
Methamphetamine	0.6	**0.8**	1.0	0.5	**0.7**	0.9	3,000	**4,500**	6,000
Crack	0.5	**0.7**	1.0	0.4	**0.5**	0.7	2,300	**3,400**	4,600
Fentanyl	0.4	**0.7**	1.0	0.3	**0.5**	0.9	1,600	**3,500**	5,500
Heroin		†			†				
Any NM Use of a Prescription Drug		n/a		12.5	**13.4**	14.3	84,000	**92,400**	100,900
Any Drug Use		n/a		18.6	**20.3**	22.2	114,400	**127,700**	141,000

Notes: (1) [a] 95% confidence interval; (2) [b] numbers are based on a population of approximately 908,800 students in grades 7–12, and have been rounded down; (3) † estimate suppressed due to unreliability (< 0.5%); (4) “Lifetime Use” refers to ever using the drug, including “sips” for alcohol and “a few puffs” for cigarettes; (5) “Past Year Use” refers to use at least once during the past 12 months, excluding “sips” for alcohol and “a few puffs” for cigarettes; (6) NM=nonmedical use, without a doctor’s prescription; (7) “Any NM Use of a Prescription Drug” refers to nonmedical use of prescription opioid pain relievers, ADHD drugs, or tranquillizers/sedatives; (8) “Any Drug Use” refers to the past year use of any one of 14 drugs asked about in 2019 (excludes alcohol, tobacco/nicotine, cannabis, electronic cigarettes, waterpipes, and energy drinks).

3.2 Overview of Drug Use Trends

Drug Use in 2019 vs. 2017

(Figures 3.2.1a, 3.2.1b; Table 3.2.1)

Of the 23 past year drug use measures in both the 2017 and 2019 survey cycles, use of electronic cigarettes (vapes) significantly increased from 10.7% in 2017 to 22.7% in 2019.

Three past year prevalence estimates show a significant decrease between these two years:

- use of tobacco cigarettes, from 7.0% to 5.0%;
- use of waterpipes/hookahs, from 6.2% to 4.4%; and
- use of ecstasy (MDMA), from 3.4% to 2.3%.

No other drug shows a statistically significant change in past year use between 2017 and 2019.

1999–2019 Drug Use Trends

(Figures 3.2.2a, 3.2.2b; Table 3.2.1)

Two drug use measures show statistically significant increases in 2019 compared to when monitoring first began. Past year use of electronic cigarettes shows an increase between 2015 and 2019 (from 11.7% to 22.7%). Past year nonmedical use of ADHD drugs shows a slight, yet significant, increase since monitoring of this class of drugs first began in 2007 (from 1.0% to 2.7%). Past year use of most of the other drugs monitored in the OSDUHS have shown decreases during the past two decades.

Drugs that decreased among grades 7–12:

- tobacco cigarette smoking significantly decreased from 28.4% in 1999 to 5.0% in 2019
- waterpipes (from 9.7% in 2013 to 4.4%)
- alcohol (from 66.0% in 1999 to 41.7%)
- cannabis (from 28.0% in 1999 to 22.0%)
- inhalants (from 8.9% in 1999 to 3.1%)
- high-caffeine energy drinks (from 49.5% in 2011 to 32.7%), and
- prescription opioid pain relievers (from 20.6% in 2007 to 11.0%).

Drugs that decreased among grades 9–12 only:

- LSD (from 8.8% in 1999 to 2.0% in 2019)
- mushrooms/mescaline (from 17.1% to 4.5%)
- methamphetamine (from 6.3% to 0.7%)
- cocaine (from 4.0% to 2.6%)
- crack (from 3.2% to 0.5%)
- ecstasy (MDMA) (from 5.3% to 2.3%)
- heroin (from 2.1% to <0.5%)
- an index measuring the nonmedical use of a prescription drug shows a decrease from 23.5% in 2007 to 13.4% (mainly due to the decrease in prescription opioids), and
- an index measuring any drug use of eight drugs monitored since 1999 significantly decreased from 22.8% to 7.8%.

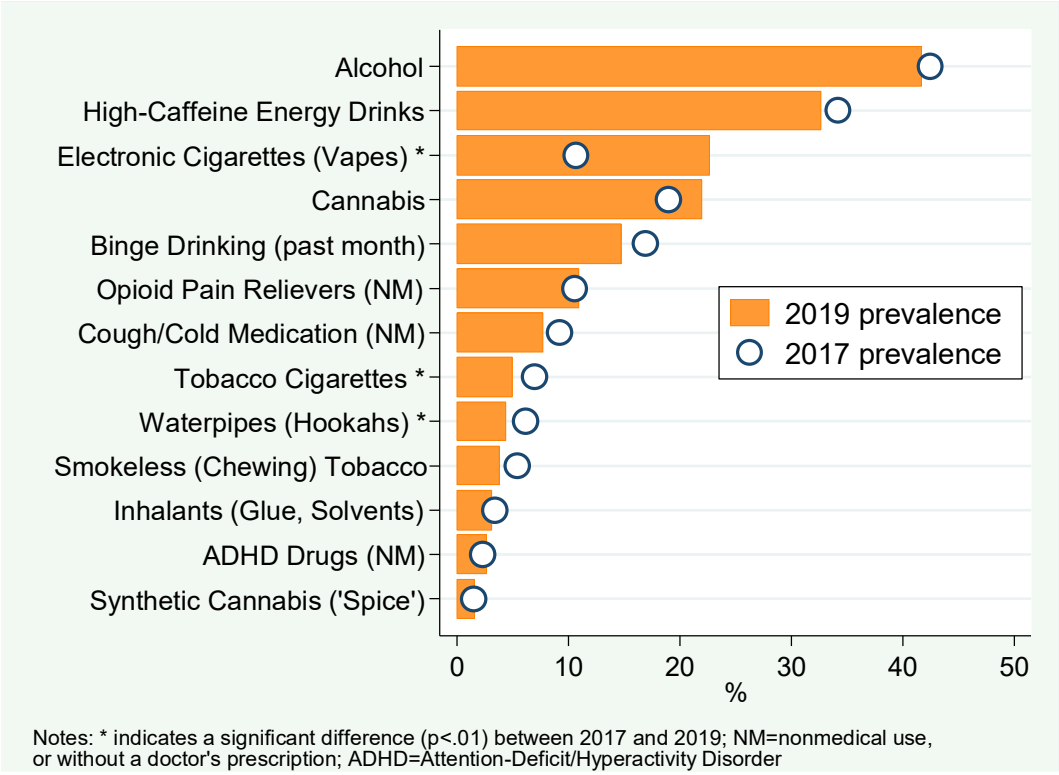
Drugs that remained stable in 2019 compared to when they were first monitored include smokeless (chewing) tobacco, synthetic cannabis ("spice," "K2"), cough/cold medication used to "get high," fentanyl, and tranquillizers/sedatives.

Frequent Drug Use Trends

(Table 3.2.2)

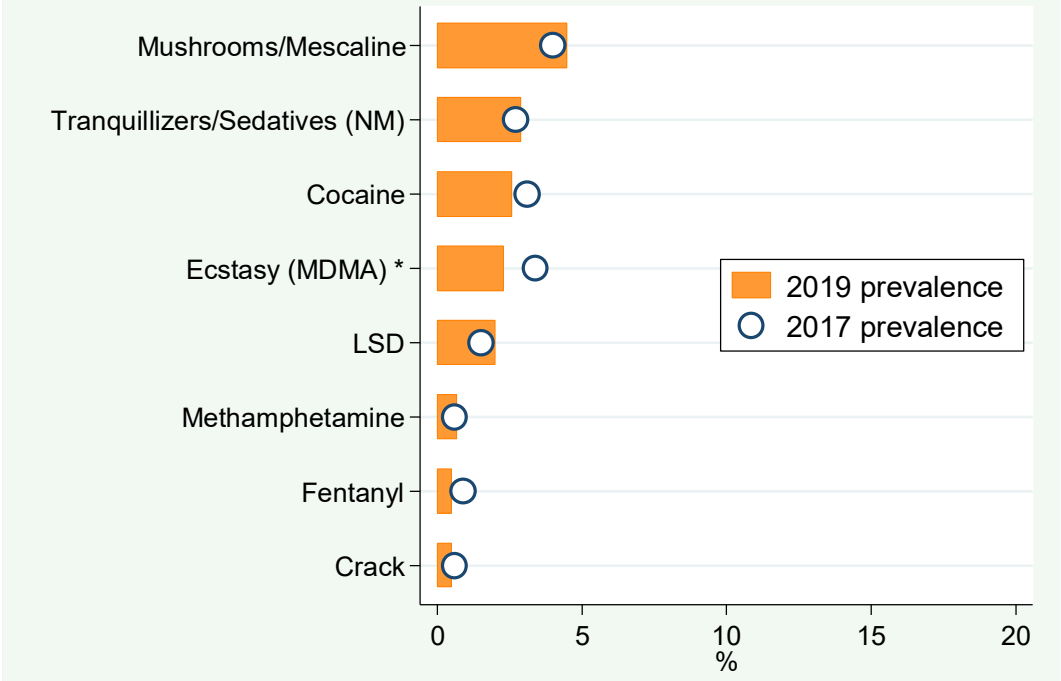
Frequent drug use is defined here as using six times or more often during the past year. Changes in frequent drug use among students between 1999 and 2019 are shown in Table 3.2.2. Frequent use of cannabis did not significantly change between 2017 (9.8%) and 2019 (11.5%), but the current estimate remains lower than 1999 and the 2000s. Estimates for the frequent use of inhalants, prescription opioid pain relievers, mushrooms/mescaline, and ecstasy (MDMA) are currently lower compared to two decades ago.

Figure 3.2.1a
Past Year Drug Use 2019 vs. 2017 OSDUHS (Grades 7–12)



Notes: * indicates a significant difference (p<.01) between 2017 and 2019; NM=nonmedical use, or without a doctor's prescription; ADHD=Attention-Deficit/Hyperactivity Disorder

Figure 3.2.1b
Past Year Drug Use 2019 vs. 2017 OSDUHS (Grades 9–12 only)



Notes: * indicates a significant decrease (p<.01) between 2017 and 2019; NM=nonmedical use, or without a doctor's prescription

Figure 3.2.2a
Overview of Past Year Drug Use Trends, 1999–2019 OSDUHS (Grades 7–12)

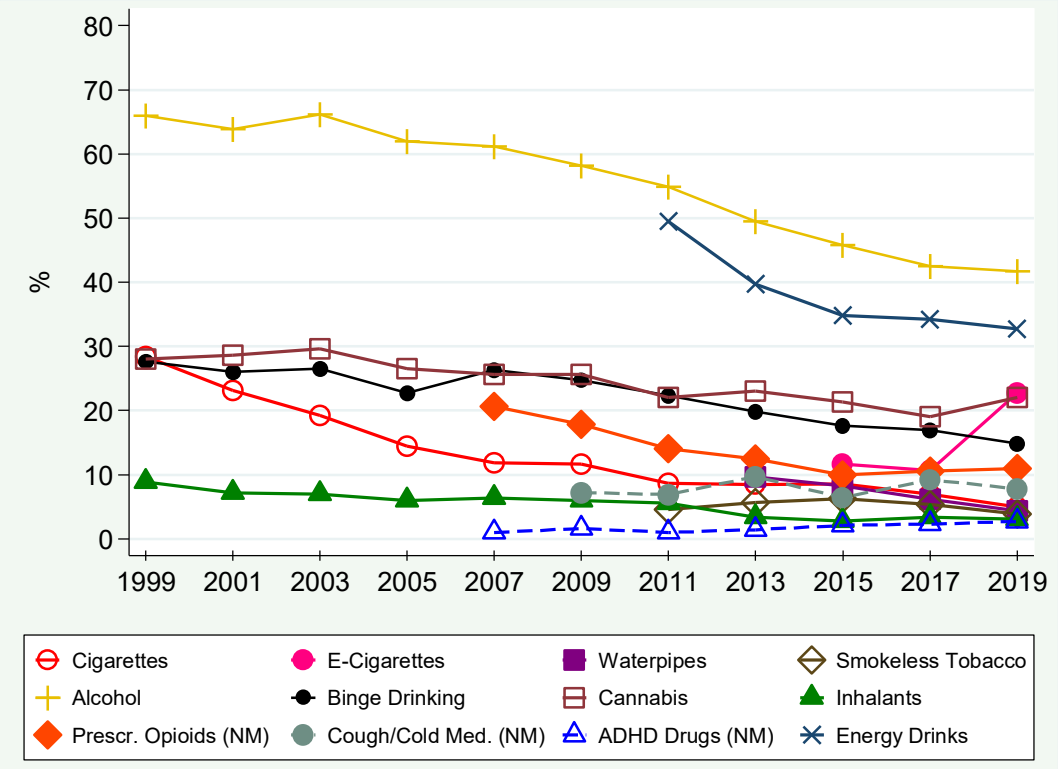
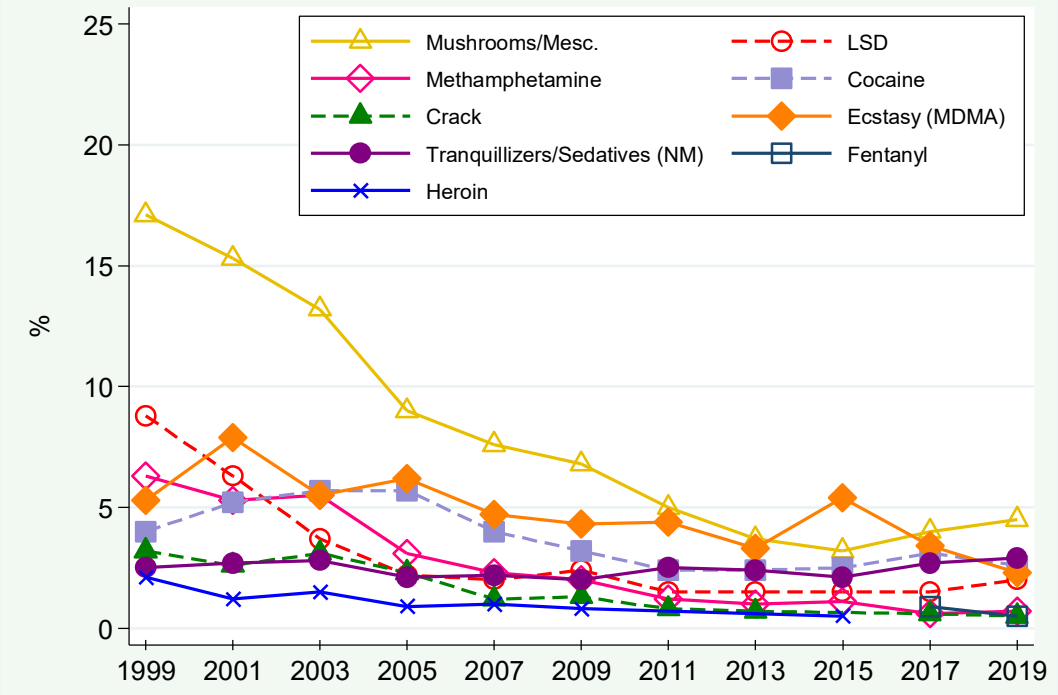


Figure 3.2.2b
Overview of Past Year Drug Use Trends, 1999–2019 OSDUHS (Grades 9–12 only)



Notes: suppressed estimates for heroin in 2011, 2013, 2017, and 2019, and for crack in 2015;
NM=nonmedical use, or use without a doctor's prescription

Table 3.2.1: Percentage Using the Drug At Least Once in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
AMONG GRADES 7–12 (n=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Tobacco Cigarettes	**28.4** (26.1-30.7)	**23.1** (20.3-26.1)	**19.2** (17.7-20.8)	**14.4** (13.0-15.9)	**11.9** (10.7-13.2)	**11.7** (10.6-13.0)	**8.7** (7.5-10.2)	**8.5** (7.2-9.9)	**8.6** (7.5-9.9)	**7.0** (5.8-8.4)	**5.0** [ab] (4.5-5.7)
Electronic Cigarettes (Vapes)	—	—	—	—	—	—	—	—	**11.7** (10.2-13.4)	**10.7** (8.6-13.2)	**22.7** [ab] (20.7-24.8)
Waterpipes (Hookahs)	—	—	—	—	—	—	—	**9.7** (8.2-11.5)	**8.3** (7.1-9.6)	**6.2** (5.1-7.3)	**4.4** [ab] (3.8-5.2)
Smokeless (Chewing) Tobacco	—	—	—	—	—	—	**4.6** (3.9-5.5)	**5.7** (4.6-7.0)	**6.3** (4.9-8.1)	**5.4** (3.6-7.9)	**3.9** (3.0-4.9)
Alcohol	**66.0** (63.6-68.3)	**63.9** (60.8-67.0)	**66.2** (64.1-68.4)	**62.0** (59.3-64.7)	**61.2** (58.9-63.5)	**58.2** (55.7-60.6)	**54.9** (52.1-57.6)	**49.5** (46.4-52.5)	**45.8** (42.9-48.7)	**42.5** (39.5-45.5)	**41.7** [b] (39.5-43.8)
Cannabis	**28.0** (26.0-30.1)	**28.6** (25.8-31.7)	**29.6** (27.6-31.6)	**26.5** (24.5-28.7)	**25.6** (23.7-27.7)	**25.6** (24.0-27.3)	**22.0** (20.5-23.7)	**23.0** (20.7-25.6)	**21.3** (19.2-23.6)	**19.0** (17.1-21.0)	**22.0** [b] (20.5-23.6)
Synthetic Cannabis ("Spice," "K2")	—	—	—	—	—	—	—	**1.8** (1.2-2.6)	**1.3** (0.9-1.7)	**1.5** (1.1-2.2)	**1.6** (1.2-2.1)
Inhalants (Glue or Solvents)	**8.9** (7.7-10.2)	**7.2** (6.1-8.4)	**7.0** (6.1-8.2)	**6.0** (5.1-7.1)	**6.4** (5.3-7.8)	**6.0** (5.0-7.1)	**5.6** (4.5-7.0)	**3.4** (2.7-4.5)	**2.8** (2.2-3.4)	**3.4** (2.7-4.1)	**3.1** [b] (2.7-3.6)
Cough/Cold Medication (NM)	—	—	—	—	—	**7.2** (6.1-8.5)	**6.9** (5.5-8.7)	**9.7** (8.2-11.4)	**6.4** (5.3-7.6)	**9.2** (8.0-10.6)	**7.8** (7.1-8.6)
High-Caffeine Energy Drinks	—	—	—	—	—	—	**49.5** (46.3-52.7)	**39.7** (37.8-41.7)	**34.8** (32.8-36.9)	**34.1** (31.7-36.6)	**32.6** [b] (30.8-34.5)
Opioid Pain Relievers (NM)	—	—	—	—	**20.6** (18.9-23.5)	**17.8** (16.6-18.9)	**14.0** (12.8-15.3)	**12.4** (11.2-13.6)	**10.0** (9.0-11.0)	**10.6** (9.5-12.0)	**11.0** [b] (10.3-11.7)
ADHD Drugs (NM)	—	—	—	—	**1.0** (0.7-1.5)	**1.6** (1.3-2.1)	**1.0** (0.7-1.3)	**1.4** (1.0-2.0)	**2.1** (1.6-2.7)	**2.3** (1.7-3.1)	**2.7** [b] (2.2-3.1)
AMONG GRADES 9–12 ONLY	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
LSD	**8.8** (7.2-10.7)	**6.3** (5.0-7.8)	**3.7** (3.0-4.5)	**2.2** (1.6-3.0)	**2.0** (1.4-2.8)	**2.4** (1.9-3.1)	**1.5** (1.0-2.2)	**1.5** (1.0-2.1)	**1.5** (1.1-2.0)	**1.5** (1.1-2.0)	**2.0** [b] (1.7-2.5)
Mushrooms/Mescaline	**17.1** (15.0-19.3)	**15.3** (13.0-17.8)	**13.2** (11.5-15.1)	**9.0** (7.5-10.8)	**7.6** (6.3-9.0)	**6.8** (5.7-8.1)	**5.0** (3.9-6.2)	**3.7** (2.7-5.1)	**3.2** (2.4-4.3)	**4.0** (3.3-4.8)	**4.5** [b] (3.9-5.2)
Methamphetamine	**6.3** (4.6-8.7)	**5.3** (3.5-7.8)	**5.5** (4.5-6.7)	**3.1** (2.4-4.0)	**2.3** (1.7-2.9)	**2.0** (1.4-2.7)	**1.2** (0.7-2.0)	**1.0** (0.6-1.5)	**1.1** (0.7-1.8)	**0.6** (0.3-1.1)	**0.7** [b] (0.5-0.9)
Cocaine	**4.0** (3.2-5.0)	**5.2** (4.1-6.6)	**5.7** (4.9-6.7)	**5.7** (4.8-6.8)	**4.0** (3.4-4.8)	**3.2** (2.5-4.0)	**2.4** (1.9-3.0)	**2.4** (1.7-3.4)	**2.5** (2.0-3.2)	**3.1** (2.2-4.2)	**2.6** [b] (2.2-3.1)
Crack	**3.2** (2.4-4.2)	**2.6** (1.9-3.5)	**3.1** (2.4-4.0)	**2.3** (1.9-2.8)	**1.2** (0.8-1.6)	**1.3** (1.0-1.7)	**0.8** (0.5-1.3)	**0.7** (0.5-1.1)	†	**0.6** (0.3-1.0)	**0.5** [b] (0.4-0.7)
Ecstasy (MDMA)	**5.3** (4.0-7.1)	**7.9** (6.5-9.6)	**5.5** (4.7-6.4)	**6.2** (5.2-7.4)	**4.7** (3.9-5.7)	**4.3** (3.5-5.2)	**4.4** (3.5-5.6)	**3.3** (2.4-4.5)	**5.4** (4.5-6.4)	**3.4** (2.6-4.4)	**2.3** [ab] (1.9-2.7)
Heroin	**2.1** (1.5-2.7)	**1.2** (0.8-1.7)	**1.5** (1.1-1.9)	**0.9** (0.7-1.2)	**1.0** (0.7-1.5)	**0.8** (0.6-1.2)	†	†	**0.5** (0.3-0.7)	†	† [b]
Fentanyl	—	—	—	—	—	—	—	—	—	**0.9** (0.5-1.6)	**0.5** (0.3-0.9)
Tranquillizers/Sedatives (NM)	**2.5** (1.9-3.3)	**2.7** (1.8-3.9)	**2.8** (1.2-3.4)	**2.1** (1.7-2.7)	**2.2** (1.7-2.8)	**2.0** (1.5-2.6)	**2.5** (1.9-3.3)	**2.4** (1.8-3.2)	**2.1** (1.7-2.7)	**2.7** (2.1-3.4)	**2.9** (2.4-3.4)
Any Prescription Drug (NM)	—	—	—	—	**23.5** (21.5-25.6)	**21.4** (20.0-22.9)	**17.0** (15.3-18.9)	**15.2** (13.8-16.7)	**12.1** (11.0-13.4)	**13.7** (12.4-15.2)	**13.4** [b] (12.5-14.3)
Any Drug	**22.8** (20.0-25.8)	**20.5** (18.3-22.9)	**17.0** (15.2-19.0)	**14.2** (12.5-16.1)	**11.9** (10.4-13.6)	**10.6** (9.4-12.0)	**9.5** (8.3-10.9)	**7.9** (6.4-9.7)	**9.1** (7.9-10.6)	**7.8** (6.7-9.0)	**7.8** [b] (7.0-8.6)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) [a] 2019 vs. 2017 significant difference, p<.01; (4) [b] 2019 vs. 1999 significant difference, p<.01 (vs. first year of monitoring for other drugs); (5) NM = nonmedical use, without a doctor's prescription; (6) ADHD = Attention-Deficit/Hyperactivity Disorder; (7) "Any Prescription Drug (NM)" refers to nonmedical use of prescription opioids, ADHD drugs, or tranquillizers/sedatives; (8) "Any Drug" refers to use of any one of the following eight drugs: LSD, mushrooms, methamphetamine, cocaine, crack, heroin, ecstasy, or tranquillizers/sedatives.
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.2.2: Frequent Drug Use: Percentage Using the Drug Six Times or More Often in the Past Year, 1999–2019 OSDUHS

		1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
AMONG GRADES 7–12	(n=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Cannabis		**15.5** (14.0-17.1)	**16.4** (14.4-18.6)	**16.5** (14.8-18.4)	**14.9** (13.4-16.6)	**14.2** (12.6-15.9)	**14.5** (13.1-16.0)	**12.9** (11.4-14.6)	**13.0** (11.1-15.2)	**12.4** (10.9-14.0)	**9.8** (8.4-11.4)	**11.5** [b] (10.5-12.7)
Inhalants (Glue or Solvents)		**1.8** (1.3-2.4)	**1.0** (0.7-1.6)	**1.6** (1.2-2.0)	**1.3** (0.8-2.0)	**1.7** (1.2-2.4)	**1.0** (0.7-1.6)	**1.7** (1.3-2.3)	**0.7** (0.5-1.2)	**0.7** (0.4-1.2)	**1.2** (0.8-1.7)	**0.7** [b] (0.6-1.0)
Cough/Cold Medication (NM)		—	—	—	—	—	**2.5** (1.8-3.4)	**2.5** (1.7-3.6)	**2.4** (1.8-3.2)	**1.8** (1.4-2.3)	**2.0** (1.4-2.7)	**1.7** (1.4-2.0)
Opioid Pain Relievers (NM)		—	—	—	—	**8.0** (6.8-9.3)	**6.9** (6.2-7.6)	**5.4** (4.6-6.4)	**4.2** (3.7-4.8)	**3.7** (3.1-4.5)	**3.4** (2.9-4.1)	**3.8** [b] (3.3-4.4)
AMONG GRADES 9–12	(n=)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
LSD		**2.5** (1.7-3.7)	**1.3** (0.7-2.3)	**0.9** (0.6-1.3)	†	†	**0.5** (0.3-0.8)	†	†	†	**0.6** (0.3-1.1)	†
Mushrooms/Mescaline		**5.6** (4.4-7.1)	**4.3** (3.4-5.5)	**3.6** (2.9-4.4)	**1.8** (1.3-2.6)	**1.4** (1.0-1.9)	**1.4** (0.9-2.1)	**0.7** (0.4-1.1)	**0.7** (0.4-1.3)	**0.5** (0.3-0.9)	**0.5** (0.3-0.9)	**1.0** [b] (0.7-1.4)
Methamphetamine		**1.7** (1.0-2.7)	†	**1.5** (1.0-2.2)	**0.7** (0.5-1.2)	**0.5** (0.4-0.8)	**0.5** (0.3-0.9)	†	†	**0.6** (0.4-0.9)	†	†
Cocaine		**1.4** (1.0-2.2)	**1.2** (0.7-1.9)	**2.0** (1.5-2.6)	**2.1** (1.6-2.8)	**1.7** (1.2-2.4)	**1.1** (0.8-1.6)	**0.7** (0.5-1.0)	**1.0** (0.7-1.5)	**1.0** (0.7-1.6)	**1.0** (0.6-1.8)	**0.9** (0.7-1.2)
Ecstasy (MDMA)		**1.5** (0.9-2.4)	**2.2** (1.4-3.2)	**1.6** (1.2-2.1)	**2.2** (1.6-3.0)	**1.6** (1.2-2.1)	**1.4** (1.1-2.0)	**1.2** (0.8-1.6)	**0.6** (0.4-1.0)	**1.9** (1.4-2.7)	**0.7** (0.4-1.1)	**0.6** [b] (0.4-0.9)
Tranquillizers/Sedatives (NM)		**0.5** (0.3-0.9)	†	**0.7** (0.5-1.1)	**0.5** (0.3-0.7)	**0.6** (0.4-0.9)	**0.6** (0.4-1.0)	**0.8** (0.4-1.5)	†	**0.6** (0.3-1.0)	†	**0.9** (0.6-1.2)

Notes: (1) entries in brackets are 95% confidence intervals; (2) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01 (vs. 2007 for opioid pain relievers); (3) † estimate suppressed due to unreliability (< 0.5%); (4) NM = nonmedical use, without a doctor's prescription; (5) estimates for synthetic cannabis, heroin, fentanyl, crack, ADHD drugs (NM) are not presented, all years 0.5% or less.

Source: OSDUHS, Centre for Addiction & Mental Health

Long-Term Trends, 1977–2019 (Grades 7, 9, and 11 only)

(Figures 3.2.3–3.2.6; Table A1)

Many past year prevalence estimates for drugs monitored since 1977 show a common pattern of use: a peak in the late 1970s, a decline in use during the late 1980s or early 1990s, a second peak in the late 1990s or early 2000s, followed by another decline, and stability in recent years.

The long-term changes can be further categorized into the following five patterns:

Pattern 1: After peaking in the late 1970s/early 1980s and again in the late 1990s, past year prevalence has reached an all-time low in recent years. As shown in Figure 3.2.3, this pattern applies to the following drugs:

- tobacco cigarettes
- alcohol (and binge drinking)
- LSD
- methamphetamine (includes crystal methamphetamine).

Pattern 2: Prevalence in 2019 is significantly lower than the peaks seen in the late 1970s and late 1990s (early 2000s for cocaine), and current use is similar to the low levels seen in the late 1980s/early 1990s. As shown in Figure 3.2.4, this pattern applies to the following drugs:

- inhalants
- mushrooms/mescaline
- cocaine.

Pattern 3: Pattern 3 is similar to pattern 2, with one important difference – current use is significantly *higher* than the low levels of use seen in the late 1980s/early 1990s. As shown in Figure 3.2.5, this pattern applies to the following drugs:

- cannabis.

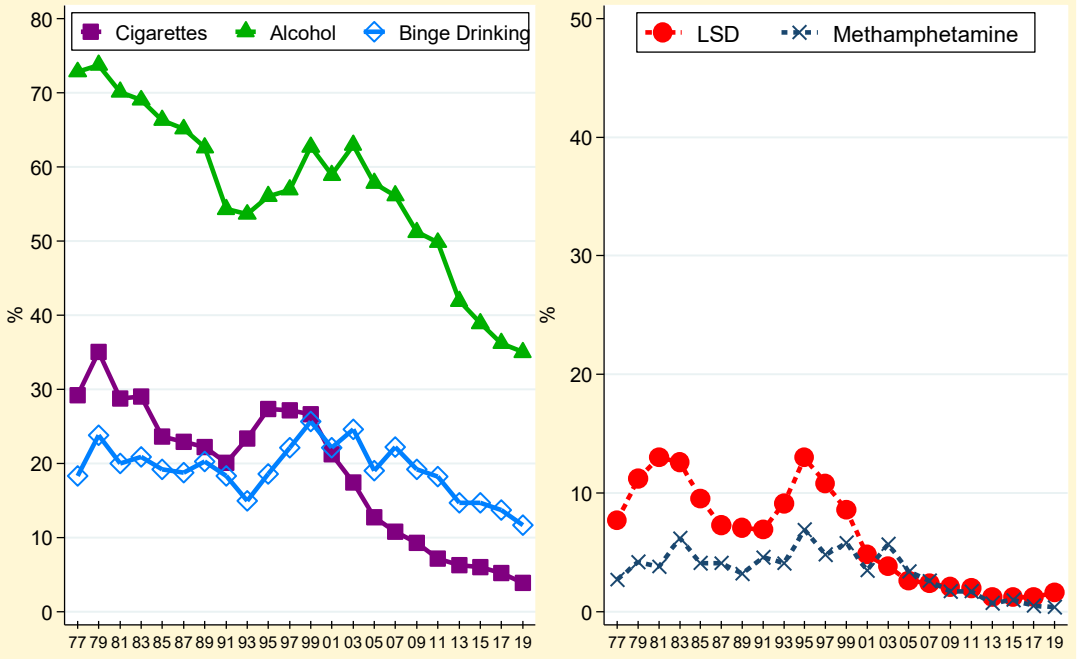
Pattern 4: Prevalence shows only one peak in the late 1990s or early 2000s (or the late 1970s for tranquillizers), followed by a decline, and stability. As shown in Figure 3.2.6, this pattern applies to the following drugs:

- ecstasy (MDMA)
- crack
- tranquillizers/sedatives (NM).

Pattern 5: Prevalence was very low and stable for decades, reaching an all-time low in recent years. This pattern applies to the following drugs:

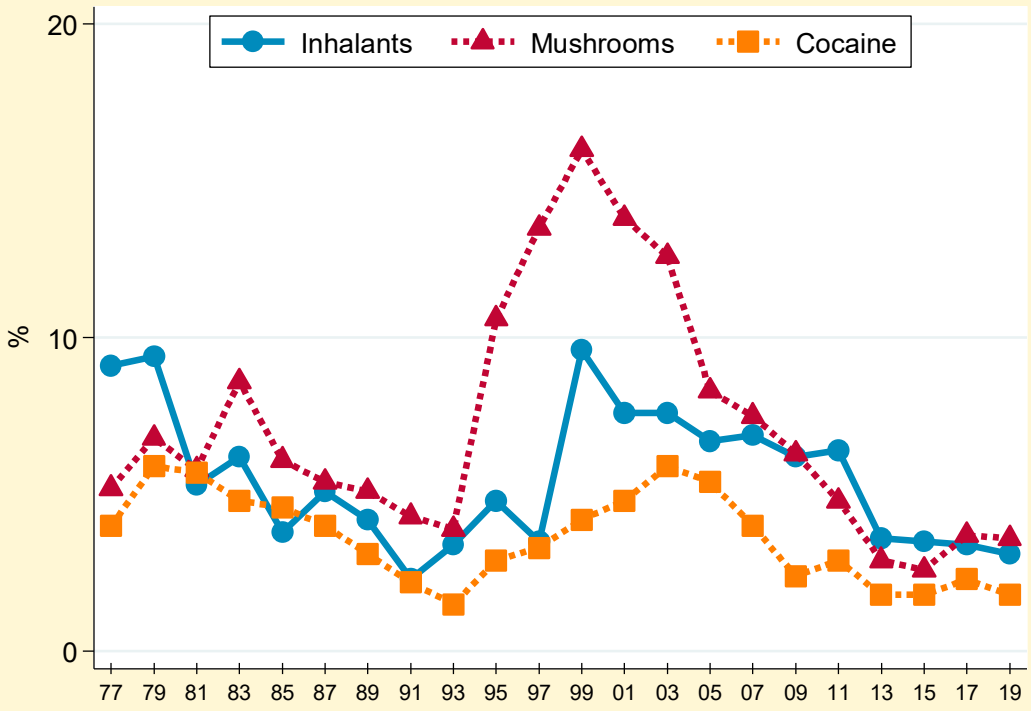
- heroin.

Figure 3.2.3
Pattern 1: Long-Term Drug Use Trends, 1977–2019 OSDUHS



Notes: (1) binge drinking refers to drinking 5 or more drinks on one occasion at least once in the past; (2) estimates for LSD and methamphetamine exclude Grade 7 students

Figure 3.2.4
Pattern 2: Long-Term Drug Use Trends, 1977–2019 OSDUHS



Note: estimates for mushrooms and cocaine exclude Grade 7 students

Figure 3.2.5
Pattern 3: Long-Term Drug Use Trends, 1977–2019 OSDUHS

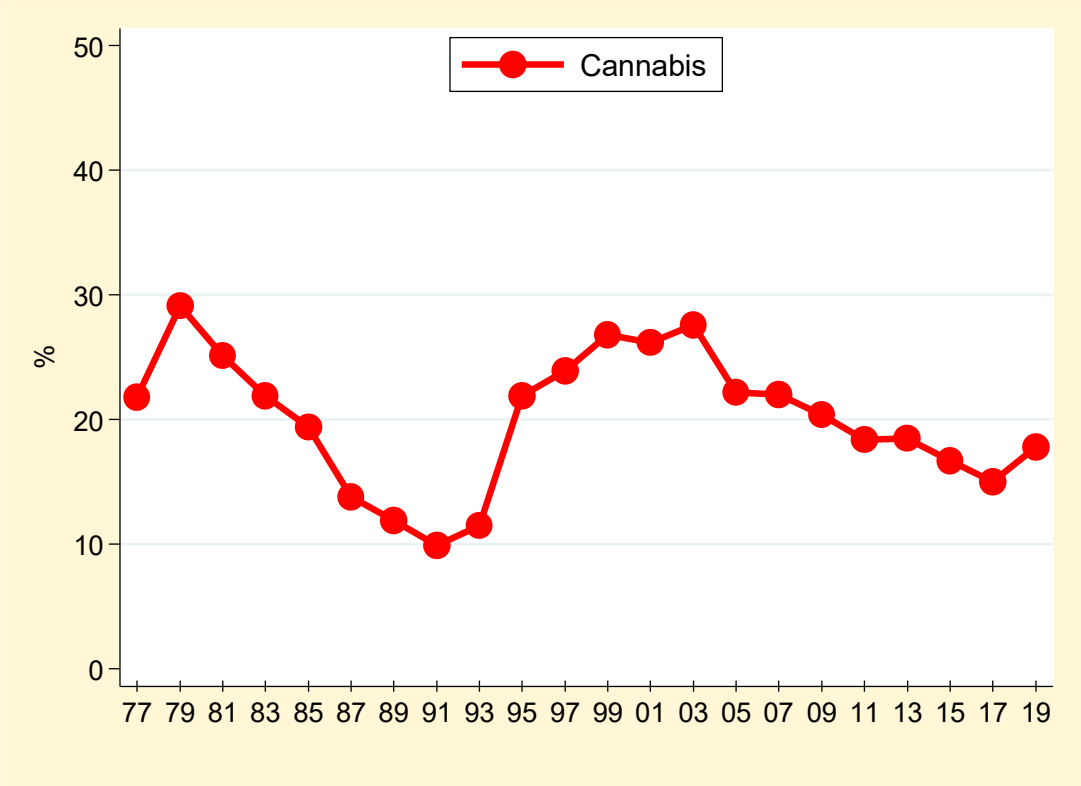
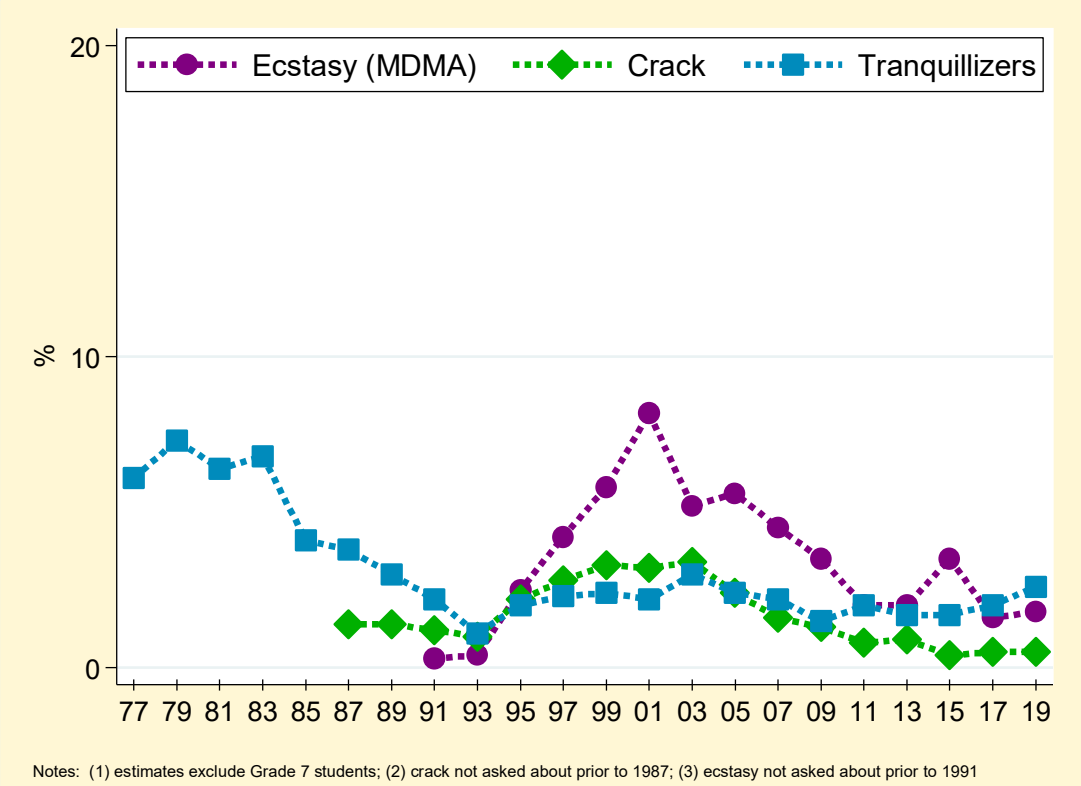


Figure 3.2.6
Pattern 4: Long-Term Drug Use Trends, 1977–2019 OSDUHS



Notes: (1) estimates exclude Grade 7 students; (2) crack not asked about prior to 1987; (3) ecstasy not asked about prior to 1991

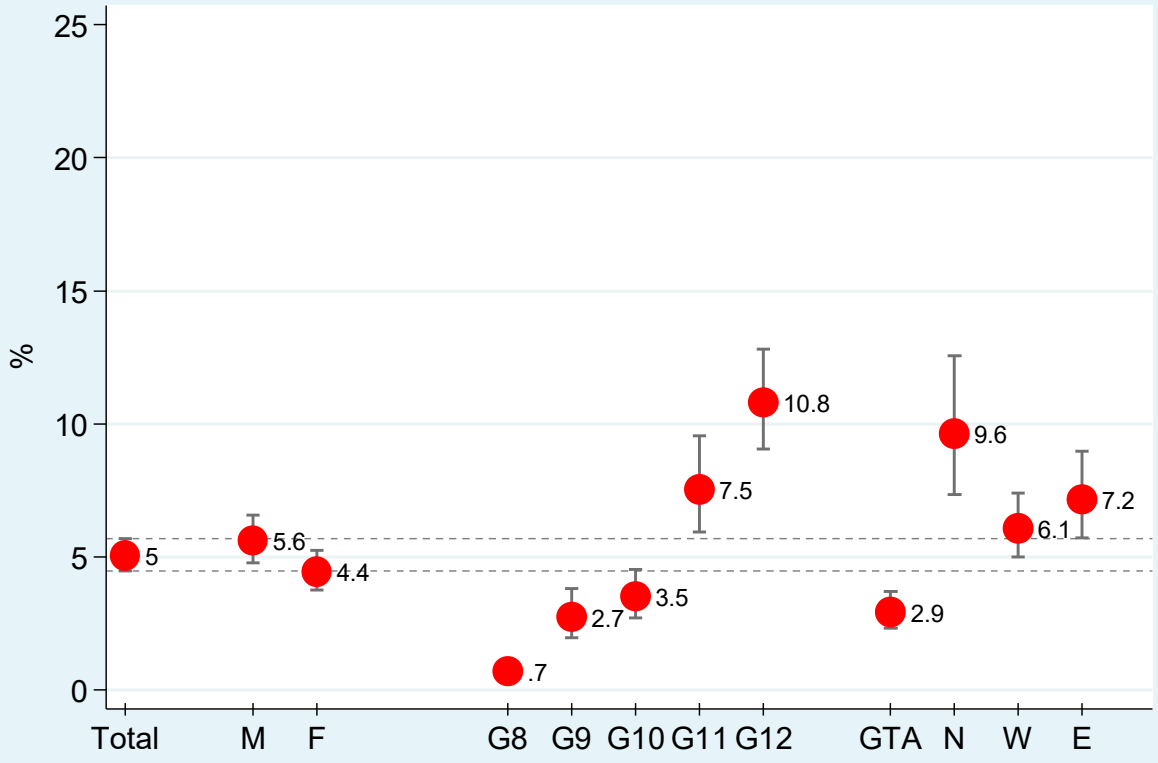
3.3 Use of Tobacco and Alternative Smoking Devices

Past Year Tobacco Cigarette Smoking

(Figures 3.3.1–3.3.3; Tables 3.3.1, A2)

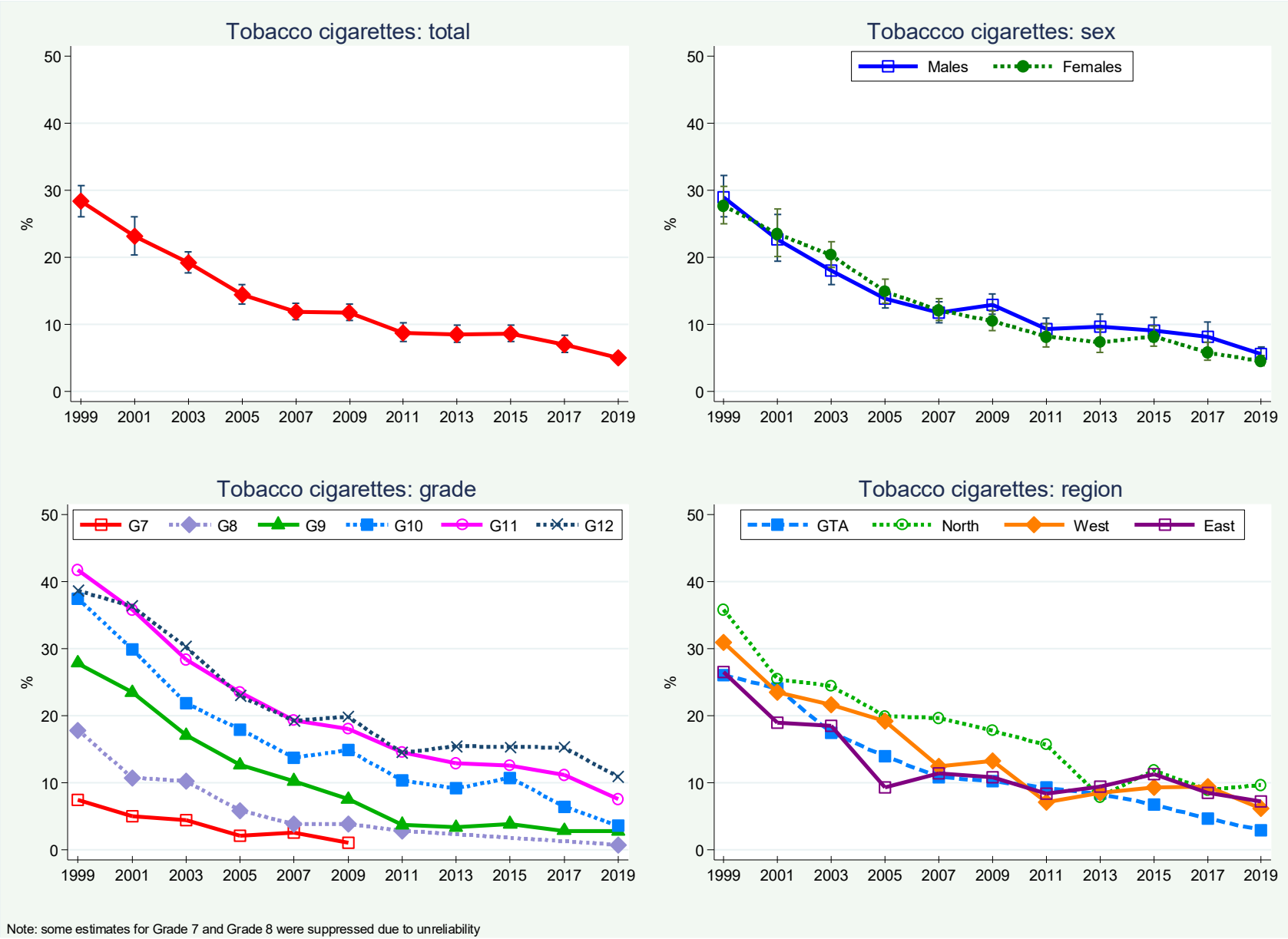
	Tobacco Cigarette Smoking in 2019 (Grades 7–12)	Trends in Tobacco Cigarette Smoking
Total	■ Overall, 5.0% of students report smoking tobacco cigarettes during the 12 months before the survey. This estimate includes daily and occasional smoking, but excludes those who only tried a few puffs of a cigarette. We estimate that the actual percentage of all students who smoke cigarettes falls between 4.5% and 5.7% (95% CI). The percentage of 5.0% represents about 45,600 Ontario students in grades 7 through 12.	☐ Past year tobacco cigarette smoking among students in grades 7–12 significantly decreased between 2017 (7.0%) and 2019 (5.0%), reaching an all-time low. There has been a dramatic decline in smoking since 1999, when the estimate was at 28.4%. ☐ Looking back over the past 40 years or so (among grades 7, 9, and 11 only), the highest smoking prevalence rate was seen in 1979, at 35%. Smoking decreased in the 1980s, but increased again in the late 1990s. Smoking began another downward trend after 1999, reaching an all-time low in 2019.
Sex	■ Males (5.6%) are significantly more like than females (4.4%) to smoke tobacco cigarettes.	☐ Between 2017 and 2019, cigarette smoking significantly decreased among males (from 8.1% to 5.6%), but remained stable among females (5.8% and 4.4%, respectively). Smoking has dramatically decreased for both sexes since 1999.
Grade	■ The prevalence of smoking is very low among students in grades 7 and 8. About 2.7% of 9th graders smoke cigarettes and the prevalence significantly increases with grade, reaching 10.8% among 12th graders.	☐ Only 10th graders show a statistically significant decrease between 2017 and 2019, from 6.4% to 3.5%. However, smoking has significantly decreased among all grades since 1999.
Region	■ Cigarette smoking significantly differs by region, with students in the GTA (2.9%) least likely to smoke and students in the North (9.6%) and East (7.2%) most likely to smoke. Students in the West fall in between.	☐ Only students in the Greater Toronto Area show a significant decrease in smoking between 2017 and 2019 (from 4.6% to 2.9%). However, smoking has significantly decreased in all regions since 1999.

Figure 3.3.1
Past Year Tobacco Cigarette Smoking by Sex, Grade, and Region, 2019 OSDUHS



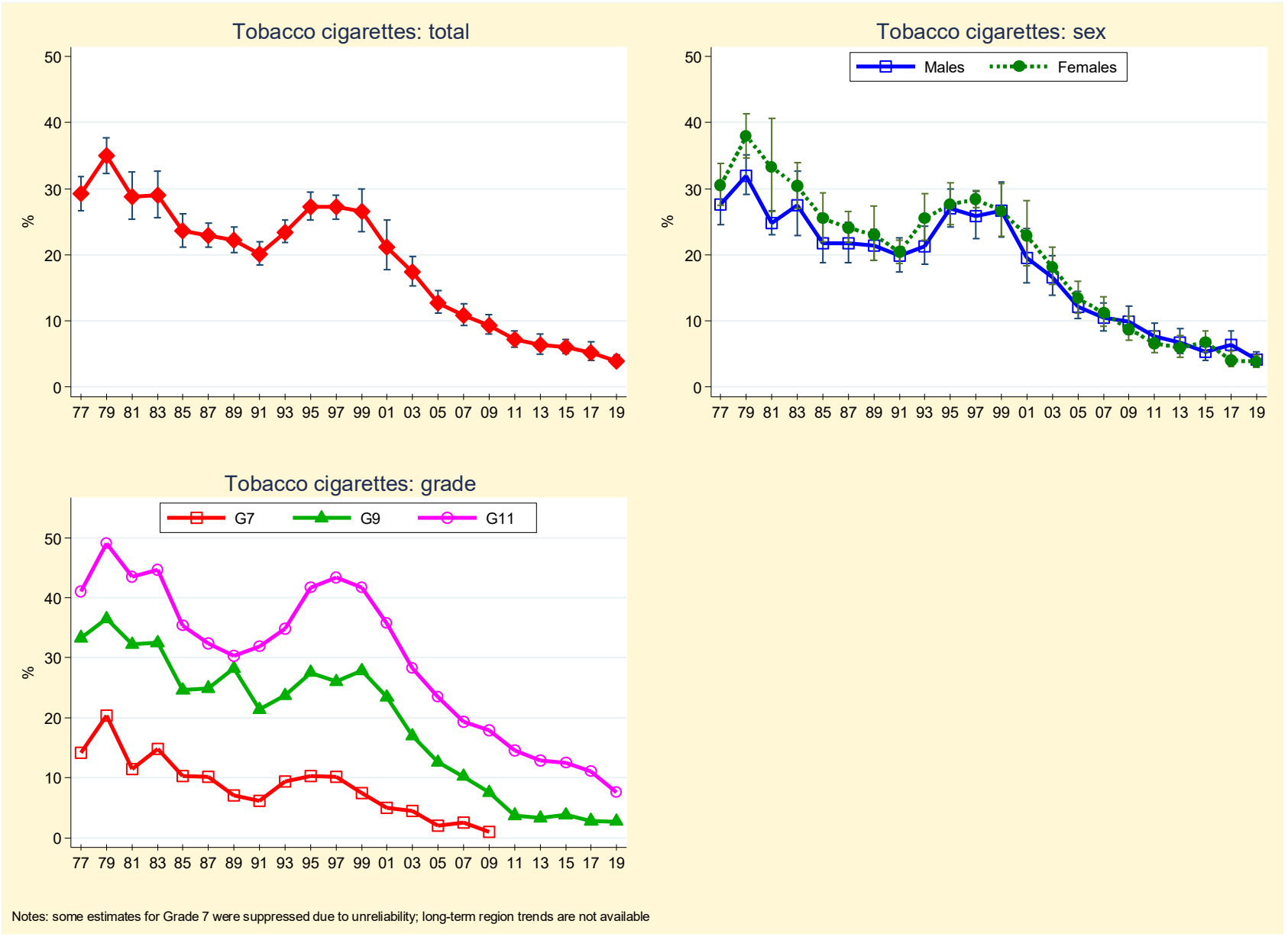
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate;
(3) estimate for Grade 7 was suppressed; (4) significant differences by sex, grade, and region (p<.05)

Figure 3.3.2
Past Year Tobacco Cigarette Smoking, 1999–2019 OSDUHS (Grades 7–12)



Note: some estimates for Grade 7 and Grade 8 were suppressed due to unreliability

Figure 3.3.3
Past Year Tobacco Cigarette Smoking, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)



Notes: some estimates for Grade 7 were suppressed due to unreliability; long-term region trends are not available

Table 3.3.1: Percentage Reporting Tobacco Cigarette Smoking in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Total	**28.4**	**23.1**	**19.2**	**14.4**	**11.9**	**11.7**	**8.7**	**8.5**	**8.6**	**7.0**	**5.0** [abcd]
(95% CI)	(26.1-30.7)	(20.4-26.1)	(17.7-20.8)	(13.0-15.9)	(10.7-13.2)	(10.6-13.0)	(7.5-10.2)	(7.2-9.9)	(7.5-9.9)	(5.8-8.4)	(4.5-5.7)
Sex											
Males	**29.0**	**22.7**	**18.0**	**13.9**	**11.7**	**12.9**	**9.3**	**9.6**	**9.1**	**8.1**	**5.6** [ab]
	(26.0-32.2)	(19.4-26.4)	(15.9-20.4)	(12.4-15.5)	(10.2-13.4)	(11.5-14.5)	(7.8-10.9)	(7.9-11.5)	(7.4-11.0)	(6.3-10.4)	(4.8-6.6)
Females	**27.7**	**23.5**	**20.3**	**14.9**	**12.1**	**10.5**	**8.2**	**7.3**	**8.2**	**5.8**	**4.4** [b]
	(25.0-30.6)	(20.1-27.2)	(18.5-22.3)	(13.1-16.8)	(10.6-13.8)	(9.1-12.0)	(6.6-10.1)	(5.8-9.3)	(6.8-9.8)	(4.6-7.3)	(3.8-5.3)
Grade											
7	**7.4**	**5.0**	**4.4**	**2.0**	**2.5**	**1.0**	†	†	†	†	† [b]
	(5.2-10.3)	(3.2-7.6)	(2.8-6.8)	(1.2-3.4)	(1.2-5.3)	(0.6-1.8)					
8	**17.8**	**10.7**	**10.2**	**5.8**	**3.8**	**3.8**	**2.8**	†	†	†	**0.7** [b]
	(14.3-21.9)	(8.3-13.8)	(7.2-14.4)	(4.3-7.7)	(2.4-6.1)	(2.5-5.8)	(1.5-5.1)				(0.4-1.1)
9	**27.8**	**23.4**	**17.0**	**12.6**	**10.2**	**7.5**	**3.7**	**3.3**	**3.8**	**2.8**	**2.7** [b]
	(23.6-32.5)	(17.5-30.6)	(13.9-20.6)	(10.4-15.1)	(8.1-12.9)	(5.5-10.2)	(2.5-5.5)	(2.3-4.7)	(2.8-5.2)	(1.7-4.5)	(2.0-3.8)
10	**37.4**	**29.9**	**21.8**	**17.9**	**13.7**	**14.8**	**10.3**	**9.1**	**10.7**	**6.4**	**3.5** [ab]
	(32.0-43.1)	(25.6-34.6)	(18.4-25.6)	(15.2-20.8)	(11.4-16.5)	(12.1-17.9)	(7.2-14.5)	(6.8-12.0)	(8.2-13.8)	(4.9-8.2)	(2.7-4.5)
11	**41.7**	**35.8**	**28.3**	**23.5**	**19.3**	**17.9**	**14.5**	**12.9**	**12.5**	**11.1**	**7.5** [b]
	(35.4-48.4)	(29.8-42.2)	(24.3-32.6)	(20.0-27.2)	(16.3-22.7)	(14.9-21.5)	(12.1-17.3)	(9.7-16.9)	(10.1-15.3)	(8.1-15.1)	(5.9-9.6)
12	**38.6**	**36.3**	**30.2**	**22.9**	**19.2**	**19.8**	**14.4**	**15.4**	**15.3**	**15.2**	**10.8** [b]
	(33.3-44.2)	(27.6-46.1)	(25.7-35.2)	(19.2-27.1)	(16.8-21.8)	(16.9-23.0)	(10.6-19.2)	(12.0-19.4)	(11.9-19.6)	(11.7-19.5)	(9.1-12.8)
Region											
GTA	**26.0**	**24.0**	**17.4**	**13.9**	**10.8**	**10.2**	**9.2**	**8.3**	**6.7**	**4.6**	**2.9** [ab]
	(22.4-30.1)	(18.8-30.2)	(15.0-20.0)	(11.7-16.3)	(8.7-13.3)	(8.5-12.9)	(7.4-11.4)	(6.2-10.9)	(5.4-8.4)	(3.5-6.1)	(2.3-3.7)
North	**35.8**	**25.4**	**24.4**	**19.9**	**19.6**	**17.7**	**15.6**	**7.9**	**11.8**	**8.9**	**9.6** [b]
	(30.3-41.6)	(20.3-31.2)	(19.7-29.7)	(16.4-24.0)	(16.4-23.2)	(15.5-20.2)	(13.5-18.1)	(5.9-10.5)	(9.1-15.3)	(6.9-11.4)	(7.3-12.6)
West	**30.9**	**23.5**	**21.6**	**19.1**	**12.4**	**13.2**	**7.1**	**8.4**	**9.3**	**9.4**	**6.1** [b]
	(26.1-36.1)	(18.6-29.2)	(18.4-25.2)	(15.7-23.1)	(9.8-15.6)	(10.5-16.5)	(4.8-10.3)	(6.2-11.3)	(6.6-13.0)	(6.9-12.8)	(5.0-7.4)
East	**26.5**	**18.9**	**18.4**	**9.3**	**11.3**	**10.8**	**8.3**	**9.4**	**11.2**	**8.5**	**7.2** [b]
	(19.6-34.9)	(14.2-24.7)	(15.1-22.2)	(7.0-12.2)	(9.1-14.0)	(8.4-13.6)	(6.4-10.6)	(7.5-11.7)	(8.7-14.4)	(5.1-13.8)	(5.7-9.0)

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you smoke tobacco cigarettes? (The definition of smoking includes occasional smoking, but excludes a few puffs or smoking less than one whole cigarette in the past 12 months.)

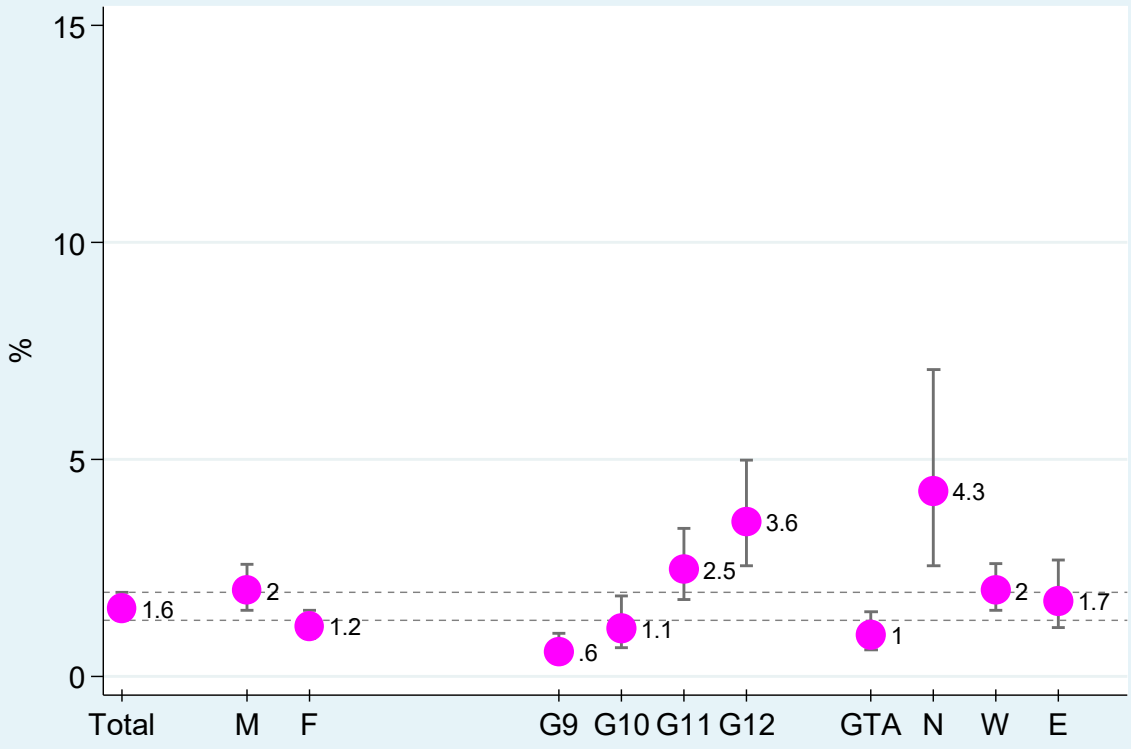
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Daily Tobacco Cigarette Smoking

(Figures 3.3.4–3.3.6; Tables 3.3.2, A3)

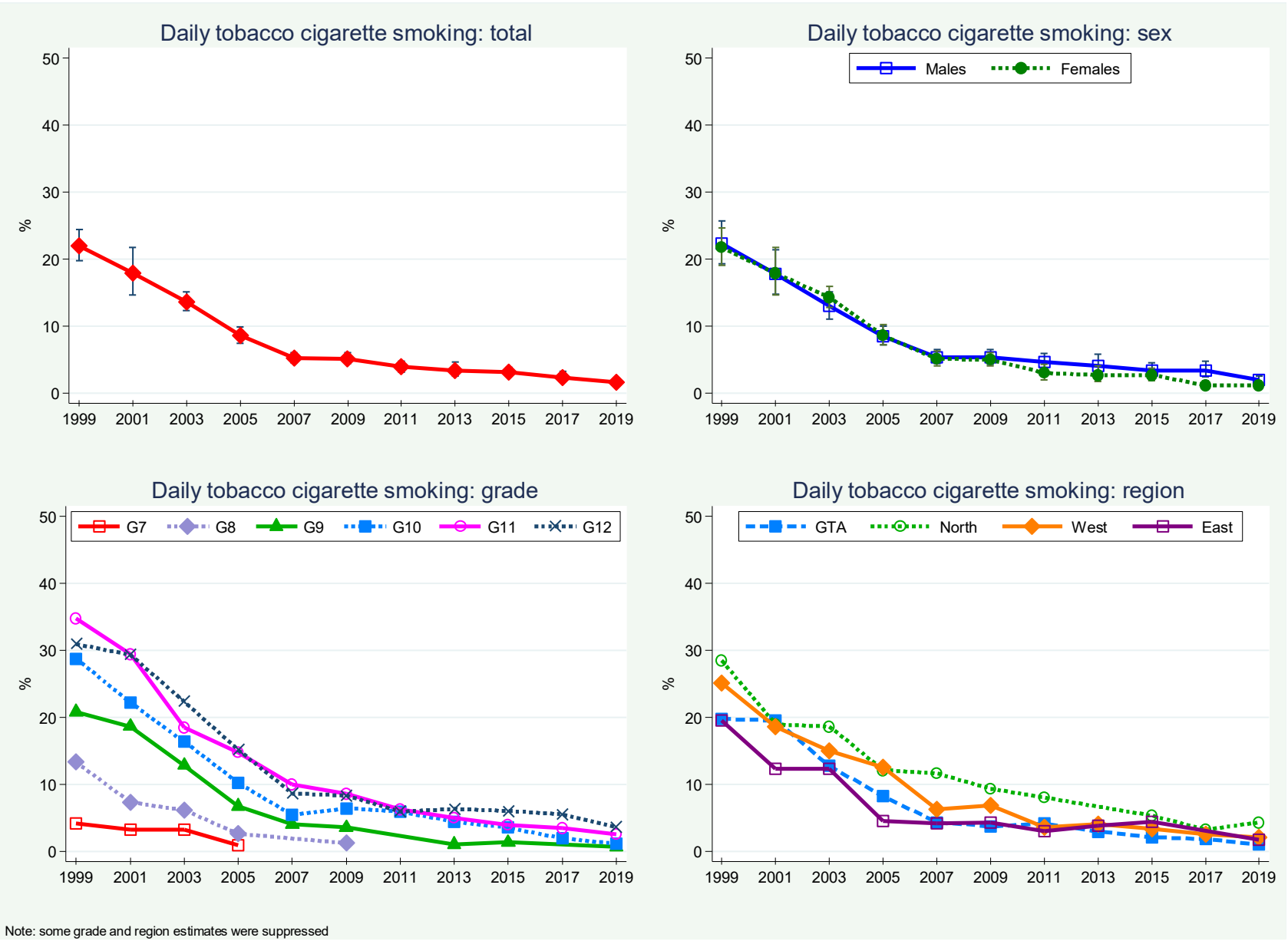
	Daily Tobacco Cigarette Smoking in 2019 (Grades 7–12)	Trends in Daily Tobacco Cigarette Smoking
Total	■ Overall, 1.6% of students report smoking one or more cigarettes on a daily basis during the past 12 months. This percentage represents about 14,200 students in grades 7 to 12 in Ontario.	☐ Daily smoking among grades 7–12 remained stable between 2017 (2.3%) and 2019 (1.6%), but the current estimate is significantly lower than estimates seen a few years ago. Daily smoking has substantially decreased since 1999 when the estimate was 22.0%. ☐ Looking back over the past 40 years or so (among grades 7, 9, and 11 only), daily smoking peaked in the late 1970s and again in the late 1990s, and has decreased dramatically since 1999.
Sex	■ Males are significantly more likely than females to smoke cigarettes daily (2.0% vs. 1.2%, respectively).	☐ Daily smoking among males and females remained stable between 2017 and 2019. Both sexes show a substantial decrease since 1999 and stability in recent years.
Grade	■ Daily cigarette smoking significantly increases with grade, from 0.6% of 9th graders to 3.6% of 12th graders.	☐ Daily smoking remained stable between 2017 and 2019 for all grade levels. All grades show a significant decrease since 1999 and stability in recent years.
Region	■ Daily cigarette smoking significantly differs by region. Students in the GTA (1.0%) are least likely to smoke daily, while students in the North region (4.3%) are most likely to smoke daily.	☐ Daily smoking remained stable between 2017 and 2019 within all four regions. All regions show a significant decrease since 1999 and stability in recent years.

Figure 3.3.4
Past Year Daily Tobacco Cigarette Smoking by Sex, Grade, and Region, 2019 OSDUHS



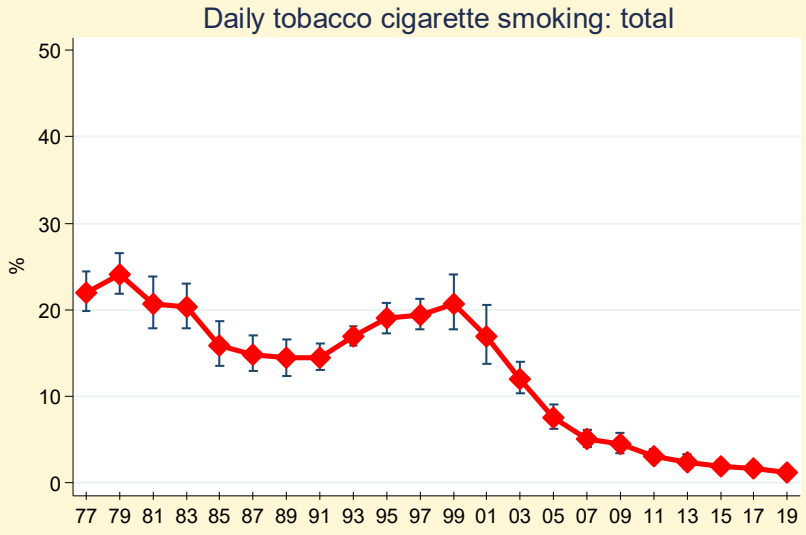
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate;
(3) estimates for Grades 7 and 8 were suppressed; (4) significant differences by sex, grade, and region (p<.05)

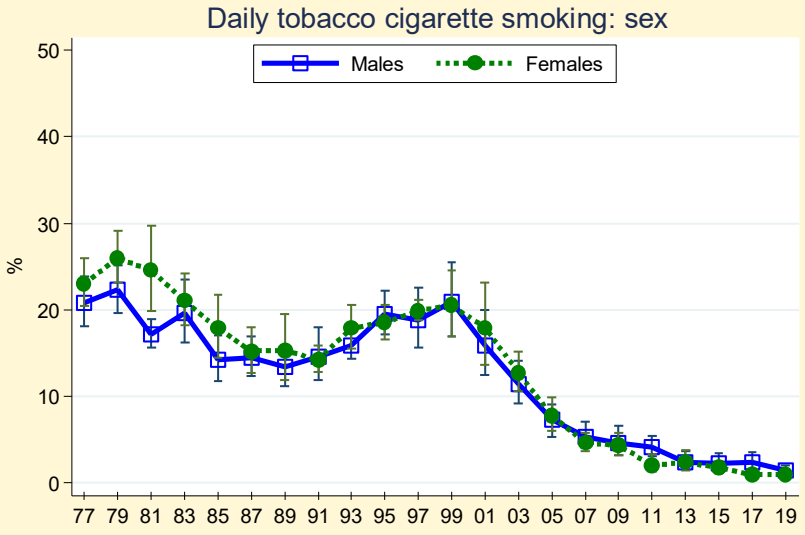
Figure 3.3.5
Past Year Daily Tobacco Cigarette Smoking, 1999–2019 OSDUHS (Grades 7–12)

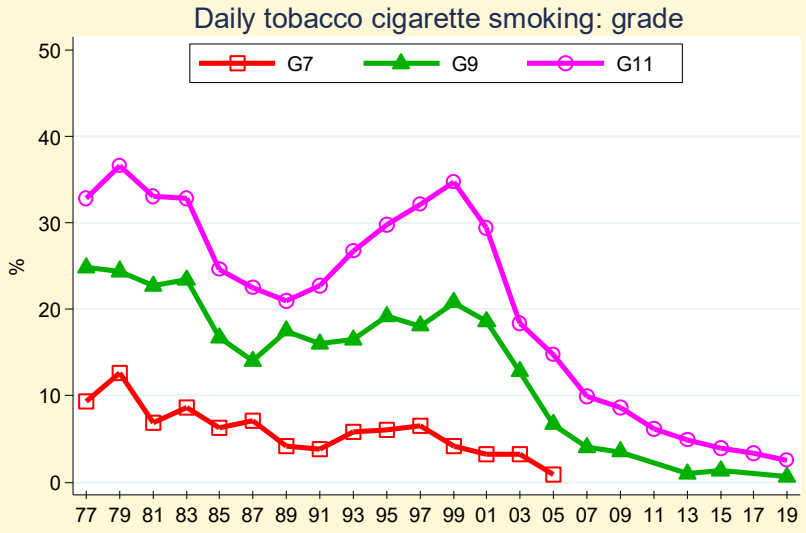


Note: some grade and region estimates were suppressed

Figure 3.3.6
Past Year Daily Tobacco Cigarette Smoking, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)







Notes: some estimates for Grades 7 and 9 were suppressed; long-term region trends are not available

Table 3.3.2: Percentage Reporting Daily Tobacco Cigarette Smoking in the Past Year, 1999–2019 OSDUHS

	(n)	1999 (4447)	2001 (3898)	2003 (6616)	2005 (7726)	2007 (6323)	2009 (9112)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (11435)	2019 (14142)	
Total		**22.0**	**17.9**	**13.6**	**8.6**	**5.2**	**5.1**	**3.9**	**3.4**	**3.1**	**2.3**	**1.6**	[bcd]
(95% CI)		(19.8-24.4)	(14.7-21.7)	(12.3-15.1)	(7.4-9.9)	(4.5-6.1)	(4.4-6.1)	(3.1-4.8)	(2.6-4.6)	(2.5-3.8)	(1.7-3.2)	(1.3-1.9)	
Sex													
Males		**22.3**	**17.8**	**13.0**	**8.5**	**5.3**	**5.3**	**4.7**	**4.1**	**3.4**	**3.4**	**2.0**	[b]
		(19.3-25.7)	(14.8-21.4)	(11.1-15.1)	(7.2-10.0)	(4.4-6.5)	(4.3-6.5)	(3.8-5.9)	(2.8-5.8)	(2.6-4.5)	(2.4-4.8)	(1.5-2.6)	
Females		**21.7**	**17.9**	**14.3**	**8.6**	**5.1**	**5.0**	**3.0**	**2.7**	**2.7**	**1.2**	**1.2**	[b]
		(19.1-24.6)	(14.7-21.7)	(12.8-15.9)	(7.2-10.2)	(4.1-6.3)	(4.1-6.1)	(2.0-4.3)	(1.8-4.1)	(1.9-3.7)	(0.8-1.9)	(0.9-1.5)	
Grade													
7		**4.2**	**3.2**	**3.2**	**0.9**	†	†	†	†	†	†	†	[b]
		(2.8-6.2)	(1.6-6.0)	(1.8-5.6)	(0.5-1.7)								
8		**13.3**	**7.3**	**6.1**	**2.6**	†	†	†	†	†	†	†	[b]
		(10.1-17.2)	(5.2-10.2)	(4.0-9.4)	(1.7-3.7)								
9		**20.8**	**18.6**	**12.8**	**6.7**	**4.0**	**3.5**	†	**1.0**	**1.3**	†	**0.6**	[b]
		(16.8-25.5)	(13.0-25.8)	(10.0-16.3)	(5.2-8.7)	(2.8-5.6)	(2.1-6.0)		(0.6-1.7)	(0.7-2.5)		(0.3-1.0)	
10		**28.7**	**22.2**	**16.3**	**10.2**	**5.4**	**6.4**	**5.9**	**4.4**	**3.5**	**1.9**	**1.1**	[b]
		(23.6-34.4)	(17.9-27.2)	(13.3-20.0)	(8.0-12.9)	(4.0-7.3)	(4.8-8.5)	(3.6-9.6)	(2.8-7.0)	(2.4-5.2)	(1.0-3.5)	(0.7-1.9)	
11		**34.7**	**29.4**	**18.4**	**14.7**	**9.9**	**8.6**	**6.2**	**4.9**	**3.9**	**3.4**	**2.5**	[b]
		(28.5-41.5)	(24.1-35.4)	(15.0-22.3)	(11.6-18.4)	(8.0-12.3)	(6.2-11.7)	(4.6-8.1)	(3.2-7.4)	(2.9-5.4)	(2.2-5.3)	(1.8-3.4)	
12		**30.9**	**29.3**	**22.3**	**15.1**	**8.6**	**8.3**	**5.9**	**6.3**	**6.0**	**5.5**	**3.6**	[b]
		(25.9-36.4)	(20.3-40.2)	(18.0-27.4)	(12.1-18.6)	(6.8-10.9)	(6.3-10.7)	(4.1-8.5)	(3.9-10.2)	(4.1-8.5)	(3.8-7.9)	(2.5-5.0)	
Region													
GTA		**19.7**	**19.5**	**12.7**	**8.2**	**4.3**	**3.7**	**4.1**	**2.9**	**2.1**	**1.8**	**1.0**	[b]
		(16.6-23.4)	(14.5-25.5)	(10.8-14.8)	(6.7-10.1)	(3.4-5.4)	(2.7-5.0)	(3.1-5.3)	(1.8-4.6)	(1.4-3.0)	(1.2-2.9)	(0.6-1.5)	
North		**28.4**	**18.9**	**18.6**	**12.1**	**11.6**	**9.3**	**8.0**	†	**5.3**	**3.2**	**4.3**	[b]
		(22.9-34.6)	(14.1-24.9)	(13.4-25.2)	(9.0-16.1)	(8.9-15.0)	(7.4-11.6)	(5.1-12.2)		(3.7-7.5)	(1.8-5.5)	(2.5-7.1)	
West		**25.1**	**18.6**	**14.9**	**12.5**	**6.2**	**6.8**	**3.5**	**4.0**	**3.3**	**2.5**	**2.0**	[b]
		(20.0-31.1)	(13.9-24.4)	(12.0-18.5)	(9.2-16.7)	(4.3-8.8)	(4.9-9.4)	(1.8-6.5)	(2.3-7.0)	(2.2-4.9)	(1.7-3.7)	(1.5-2.6)	
East		**19.5**	**12.3**	**12.3**	**4.5**	**4.1**	**4.3**	**3.0**	**3.8**	**4.4**	†	**1.7**	[b]
		(13.8-26.9)	(8.9-16.9)	(9.5-15.7)	(3.1-6.6)	(2.8-6.0)	(3.2-5.6)	(1.9-4.5)	(2.2-6.4)	(2.9-6.8)		(1.1-2.7)	

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you smoke tobacco cigarettes? (Daily smoking is defined as typically smoking one or more cigarettes per day during the past year.)

Source: OSDUHS, Centre for Addiction & Mental Health

Lifetime Tobacco Cigarette Smoking
(Figure 3.3.7)

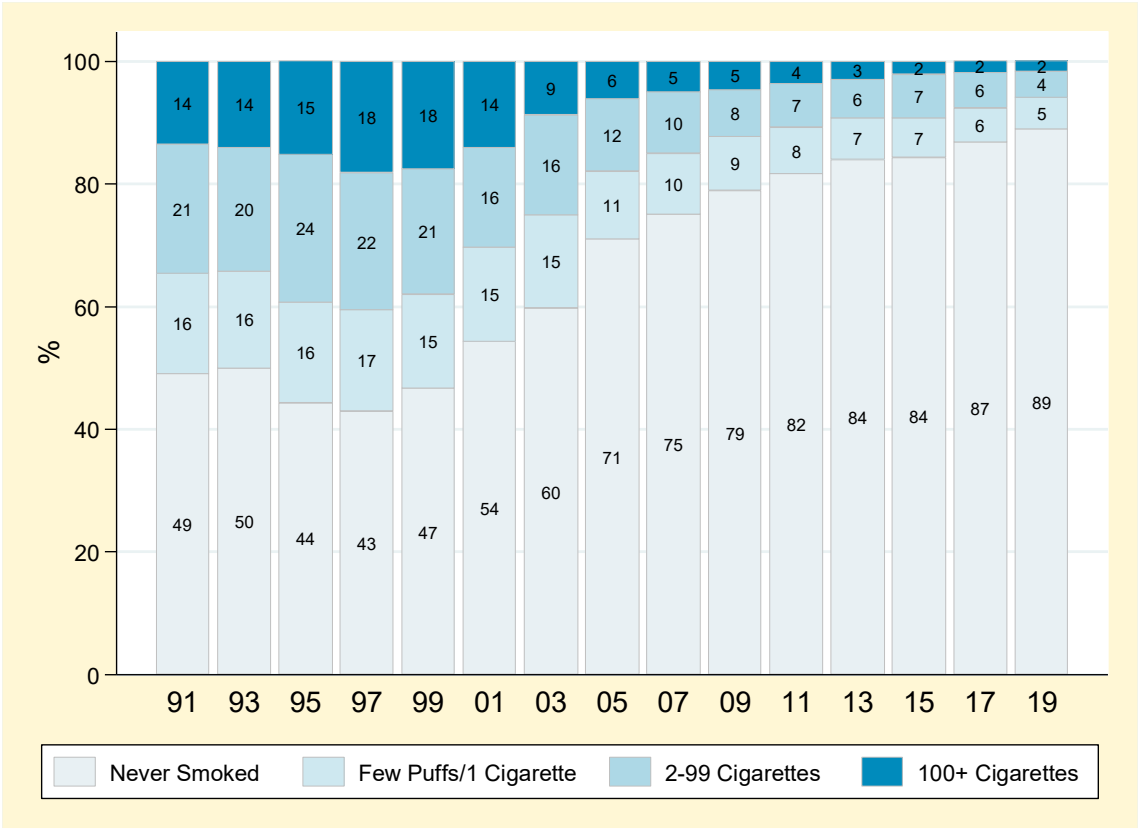
2019: Grades 7–12

■ Although 5% of all students in grades 7 to 12 are considered to be current smokers, about one-in-seven (14%) have tried a tobacco cigarette at some point in their life. Specifically, about 6% of students have smoked a few puffs or one whole cigarette, while another 6% have consumed less than 100 cigarettes, and 2% have consumed 100 or more cigarettes in their lifetime.

1991–2019: Grades 7, 9, 11 only

☐ Figure 3.3.7 displays the long-term trends in lifetime smoking status. Since 1991, there has been an increase in the percentage of students who have never smoked cigarettes in their lifetime, from about half of students in 1991 to well over three-quarters of students in 2019.

Figure 3.3.7
Lifetime Tobacco Cigarette Smoking, 1991–2019 OSDUHS (Grades 7, 9, and 11 only)



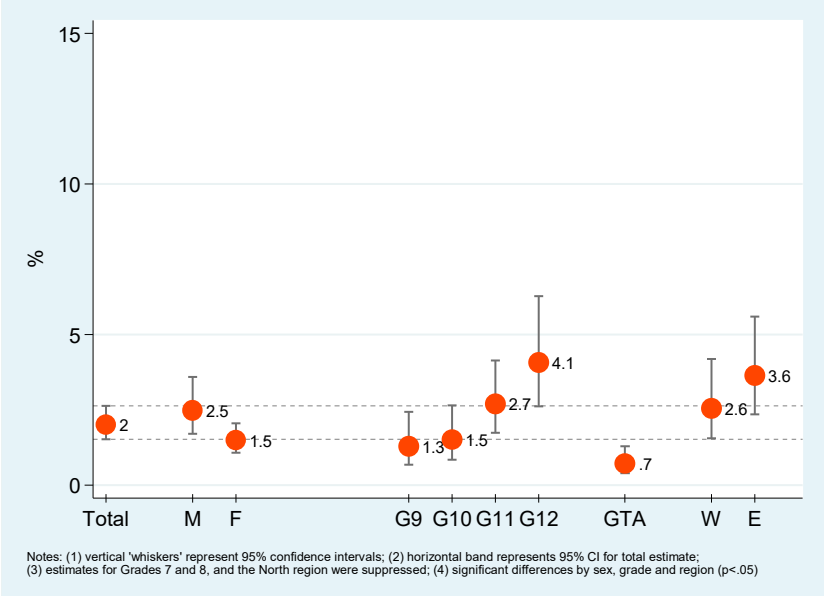
Past Year Contraband Cigarette Smoking

(Figure 3.3.8; Table 3.3.3)

Starting in 2009, we asked students whether they had smoked any contraband cigarettes originating from First Nation communities. These cigarettes usually come in clear plastic bags, although some are professionally packaged with standard health warnings. These cigarettes are sold illegally outside of the communities without payment of all requisite taxes, and their lower price makes them especially attractive to youth.

	Contraband Cigarette Smoking in 2019 (Grades 7–12)	2009–2019 Trends (Grades 7–12)
Total	■ Among the total sample, 2.0% report smoking contraband cigarettes during the past year. This percentage represents about 16,100 students in Ontario. Among past year smokers, the percentage reporting smoking contraband cigarettes is 39% (95% CI: 31%-47%).	☐ The percentage of students who smoke contraband cigarettes remained stable between 2017 (2.9%) and 2019 (2.0%). However, the current estimate is significantly lower than estimates seen a few years ago and much lower than 2009 (6.4%), the first year of monitoring.
Sex	■ Males (2.5%) are significantly more likely than females (1.5%) to report smoking contraband cigarettes.	☐ Contraband cigarette smoking remained stable between 2017 and 2019 for both sexes. Both sexes show a significant decrease since 2009.
Grade	■ There are significant grade differences, with the likelihood of smoking contraband cigarettes highest among 11th and 12th graders (about 3%-4%).	☐ No grade shows a significant change since 2017. The older grades show a significant decrease since 2009.
Region	■ GTA students are least likely, and students in the East are most likely, to smoke contraband cigarettes.	☐ No region shows a significant change since 2017. Only students in the GTA and the West region show a significant decrease since 2009.

Figure 3.3.8
Past Year Contraband Cigarette Smoking by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8, and the North region were suppressed; (4) significant differences by sex, grade and region (p<.05)

Table 3.3.3: Percentage Reporting Smoking Contraband Cigarettes in the Past Year, 2009–2019 OSDUHS

		2009	2011	2013	2015	2017	2019
	(n=)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total		**6.4**	**3.9**	**2.8**	**3.4**	**2.9**	**2.0** [b]
(95% CI)		(5.1-7.9)	(2.8-5.3)	(2.0-3.7)	(2.6-4.5)	(2.1-3.9)	(1.5-2.6)
Sex							
	Males	**6.7** (5.1-8.8)	**4.2** (3.1-5.7)	**3.2** (2.2-4.5)	**3.3** (2.3-4.8)	**3.3** (2.2-4.9)	**2.5** [b] (1.7-3.6)
	Females	**6.0** (4.6-7.7)	**3.5** (2.1-5.7)	**2.3** (1.4-3.8)	**3.6** (2.4-5.3)	**2.4** (1.6-3.8)	**1.5** [b] (1.1-2.1)
Grade							
	7	†	†	†	†	†	†
	8	†	†	†	†	†	†
	9	†	†	†	**1.1** (0.6-1.9)	†	**1.3** (0.7-2.4)
	10	**7.6** (5.2-10.9)	†	**5.2** (2.8-9.3)	**3.8** (2.4-6.0)	**3.4** (2.0-5.7)	**1.5** [b] (0.8-2.7)
	11	**11.7** (8.5-15.9)	**7.5** (4.2-12.9)	**3.1** (1.8-5.5)	**5.2** (3.2-8.2)	**5.2** (3.4-8.0)	**2.7** [b] (1.7-4.1)
	12	**9.9** (6.6-14.5)	**3.2** (1.9-5.4)	**3.5** (1.8-6.6)	**5.5** (3.4-8.7)	**5.9** (3.7-9.1)	**4.1** [b] (2.6-6.3)
Region							
	Greater Toronto Area	**4.9** (3.6-6.6)	**2.8** (1.9-4.3)	**2.0** (1.2-3.4)	**1.8** (1.1-2.9)	**1.3** (0.7-2.3)	**0.7** [b] (0.4-1.3)
	North	**8.9** (6.1-12.8)	**8.5** (6.1-11.8)	†	**8.0** (4.2-14.6)	**4.1** (2.9-5.9)	†
	West	**8.5** (5.4-13.0)	†	**2.8** (1.6-5.1)	**5.4** (3.4-8.7)	**3.9** (2.5-6.3)	**2.6** [b] (1.5-4.1)
	East	**5.3** (3.8-7.2)	**3.8** (2.6-5.6)	**4.3** (2.5-7.1)	**3.7** (2.6-4.5)	†	**3.6** (2.3-5.6)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2009 significant difference, p<.01.

Q: In the last 12 months, how often did you smoke cigarettes made on First Nations reserves (such as “DKs”, “Natives”, “Putter’s”, or unbranded cigarettes packaged in a plastic bag)? (The definition of smoking excludes a few puffs or smoking less than one whole cigarette in the past 12 months, but includes occasional smoking.)

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Electronic Cigarette Use/Vaping

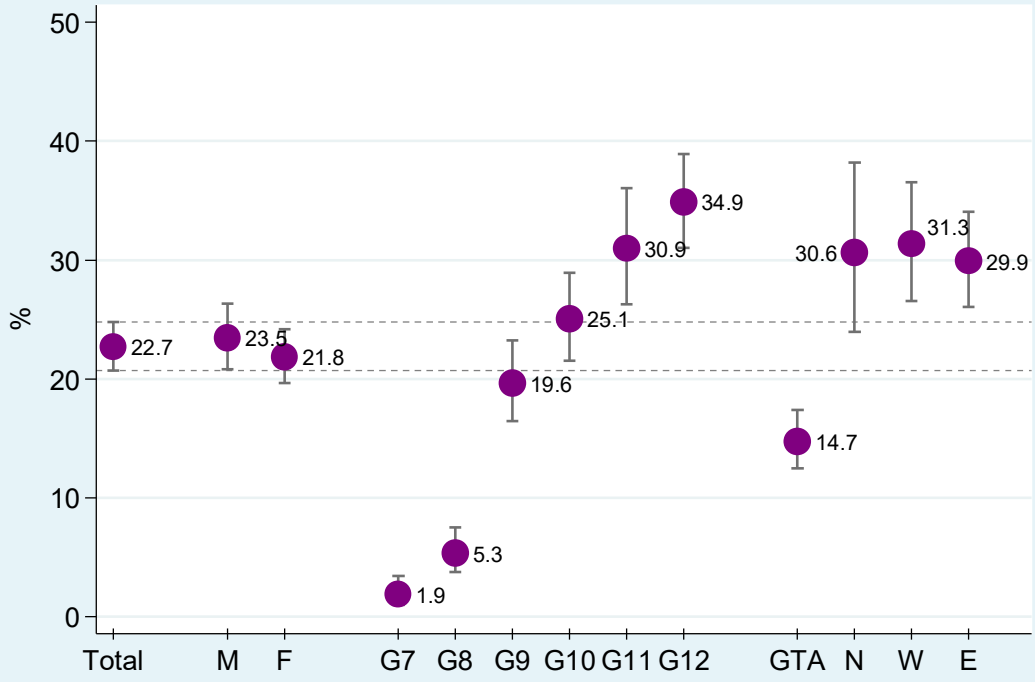
(Figures 3.3.9-3.3.12; Table 3.3.4)

An electronic cigarette (e-cigarette) is a battery-powered device that heats a liquid to produce an inhalable aerosol or vapour. Other names for an e-cigarette include "vape," "vape pen," "hookah pen," and "e-hookah," "tank," and "mod." Typically, the liquids (called "e-juice") contain nicotine, flavouring chemicals, solvents and other additives, and some contain cannabinoid products. The devices come in many shapes and sizes. Starting in 2015, we asked students in grades 7–12 how often they used e-cigarettes in the past year.[76] A follow-up question asked students whether the e-cigarettes they usually used contained nicotine.

	E-Cigarette Use/Vaping in 2019 (Grades 7–12)	2015–2019 Trends (Grades 7–12)
Total	■ Almost one-quarter (22.7%) of students report using more than just a few puffs of an e-cigarette (also known as a vape) in the past year. This percentage represents about 184,200 students in Ontario. ■ Among those who reported vaping more than a few puffs in the past year, the most common type of product used contained nicotine (56.0% of users report using nicotine e-cigarettes). About 17.8% of users report usually vaping non-nicotine products, 20.7% vaped both types, and 5.5% are not sure what they used.	☐ The percentage of students reporting using e-cigarettes in the past year in 2019 (22.7%) is significantly higher than the estimates from 2015 (11.7%) and 2017 (10.7%). ☐ There has been a significant increase in the percentage of past year users who report vaping nicotine, from 18.8% in 2015 to 56.0% in 2019.
Sex	■ Males (23.5%) and females (21.8%) are equally likely to use e-cigarettes.	☐ Males show a significant increase in e-cigarette use in 2019 (23.5%) compared to 2015 (14.5%) and 2017 (13.0%). Females also show a dramatic increase in 2019 (21.8%) compared to 2015 (8.7%) and 2017 (8.2%).
Grade	■ Use significantly increases with grade level, from 1.9% of 7th graders up to 34.9% of 12th graders.	☐ Students in grades 9 to 12 show a significant increase in use in 2019 compared with their respective estimates from 2015 and 2017.
Region	■ Students in the GTA (14.7%) are least likely to use e-cigarettes compared with students in the other regions (about 30%).	☐ All four regions show a significant increase in 2019 compared with previous estimates.

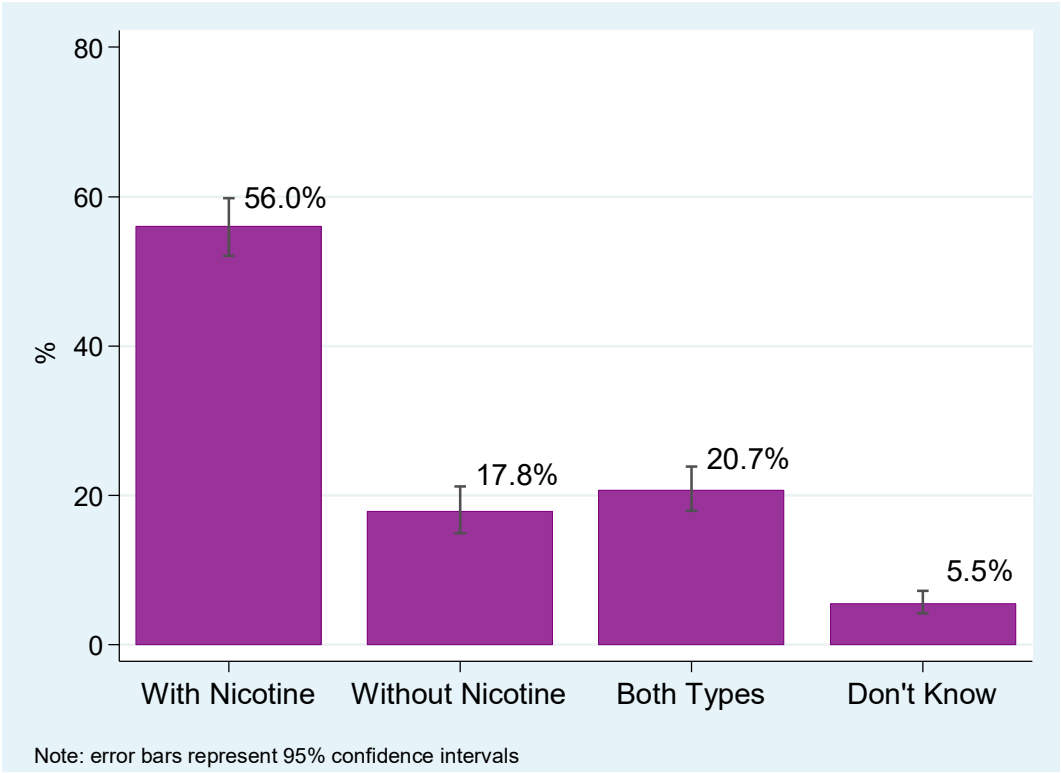
[76] In the 2013 cycle, only secondary students were asked whether they had used e-cigarettes in their *lifetime*. The 2013 data showed that 14.6% of secondary school students reported using an electronic cigarette in their lifetime (including a few puffs). Applying a similar definition to the 2019 data, we found that 38.6% of secondary students in 2019 reported using even just a few puffs of an electronic cigarette in their lifetime.

Figure 3.3.9
Past Year E-Cigarette Use/Vaping (Any Type) by Sex, Grade, and Region, 2019 OSDUHS



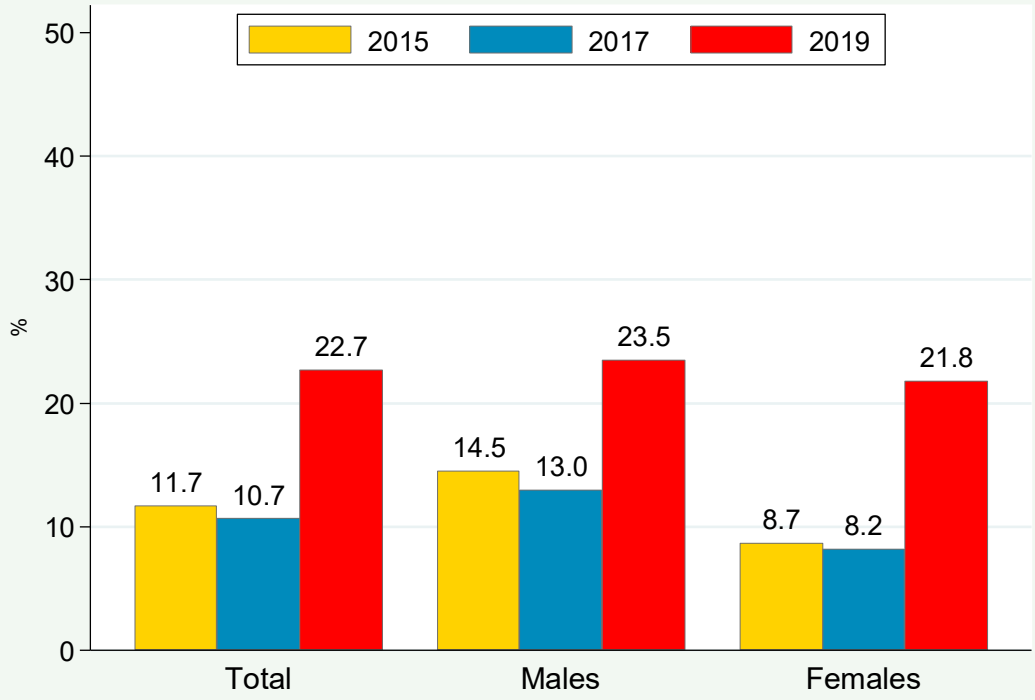
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.3.10
Usual Type of E-Cigarette/Vape Product Used (Among Past Year Users in Grades 7–12), 2019 OSDUHS



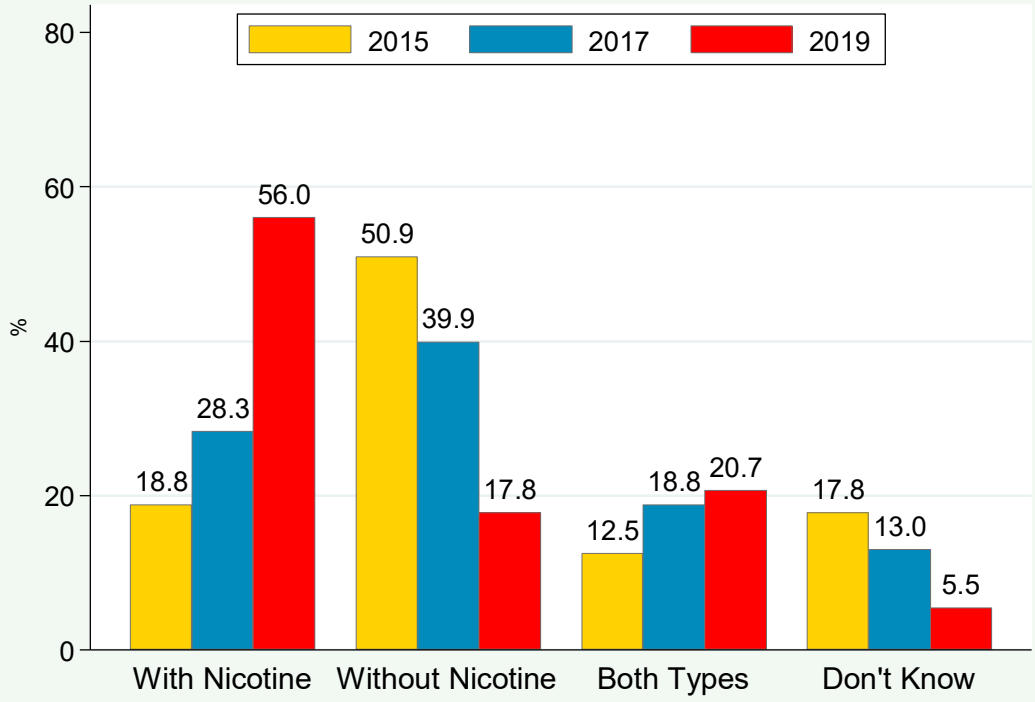
Note: error bars represent 95% confidence intervals

Figure 3.3.11
Past Year E-Cigarette Use (Vaping) by Sex, 2015–2019 OSDUHS (Grades 7–12)



Note: significant increase between 2015 and 2019 for the total sample, and for males and females (p<.01)

Figure 3.3.12
Usual Type of E-Cigarette/Vape Product Used (Among Past Year Users in Grades 7–12), 2015–2019 OSDUHS



Note: significant changes between 2015 and 2019 (p<.01)

Table 3.3.4: Percentage Reporting Electronic Cigarette Use (Vaping) in the Past Year, 2015–2019 OSDUHS

		2015	2017	2019
	(n=)	(5023)	(5071)	(6525)
Total		**11.7**	**10.7**	**22.7** [ab]
(95% CI)		(10.2-13.4)	(8.6-13.2)	(20.7-24.8)
Sex				
	Males	**14.5** (12.3-16.9)	**13.0** (10.7-15.8)	**23.5** [ab] (20.8-26.3)
	Females	**8.7** (7.2-10.4)	**8.2** (5.8-11.4)	**21.8** [ab] (19.6-24.2)
Grade				
	7	†	†	**1.9** (1.0-3.4)
	8	†	†	**5.3** (3.8-7.5)
	9	**8.8** (6.6-11.8)	**9.2** (6.4-13.1)	**19.6** [ab] (16.5-23.2)
	10	**12.3** (9.7-15.4)	**12.6** (9.4-16.7)	**25.1** [ab] (21.5-29.0)
	11	**19.7** (16.6-23.2)	**16.1** (12.1-20.9)	**30.9** [ab] (26.3-36.1)
	12	**17.2** (12.8-22.6)	**18.9** (15.0-23.6)	**34.9** [ab] (31.0-38.9)
Region				
	Greater Toronto Area	**9.3** (7.7-11.3)	**9.1** (6.1-13.4)	**14.7** [b] (12.4-17.4)
	North	**12.2** (8.6-17.0)	**13.3** (10.0-17.5)	**30.6** [ab] (24.0-38.2)
	West	**10.4** (7.2-14.7)	**12.5** (9.2-16.8)	**31.3** [ab] (26.6-36.6)
	East	**19.6** (14.8-25.4)	**9.8** (5.7-16.6)	**29.9** [ab] (26.0-34.1)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2015 significant difference, p<.01.

Q: Electronic cigarettes are battery-operated devices that look like cigarettes and create a mist which the user inhales. Some e-cigarettes contain nicotine and some do not. Other names for e-cigarettes include ″vape pipes″, ″hookah pens″, and ″e-hookahs″. In the last 12 months, how often did you smoke e-cigarettes? (Use excludes “smoked only once in the last 12 months (a few puffs to a whole e-cigarette)”.)

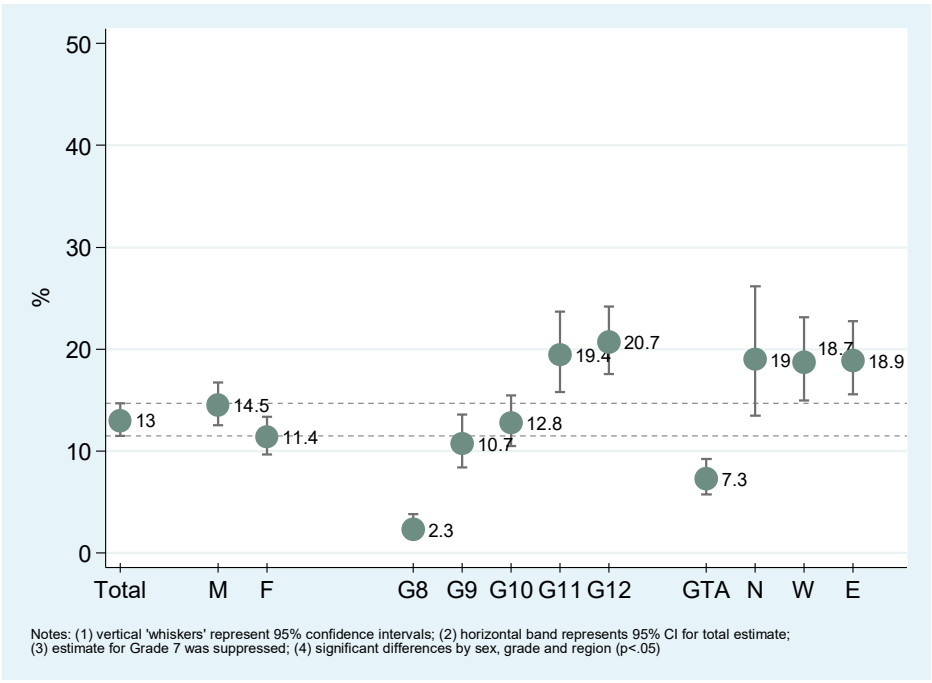
Source: OSDUHS, Centre for Addiction & Mental Health

Frequent Electronic Cigarette Use/Vaping

(Figure 3.3.13; Table 3.3.5)

	Frequent Vaping in 2019 (Grades 7–12)	Trends in Frequent Vaping (Grades 7–12)
Total	■ About 7.9% of students report vaping daily and 5.1% report vaping at least once a week (but not daily). Combining these categories, one-in-eight (13.0%) students report vaping on a weekly or daily basis in the past year. This estimate represents about 105,600 students in Ontario.	☐ The percentage reporting vaping either weekly or daily is significantly higher in 2019 (13.0%) compared to 2015 (2.0%) and 2017 (3.4%).
Sex	■ Males (14.5%) are significantly more likely than females (11.4%) to vape weekly or daily.	☐ Both males and females show a significant increase in frequent vaping during the past few years.
Grade	■ Frequent vaping increases with grade level, from 2.3% of 8th graders up to 20.7% of 12th graders.	☐ Frequent vaping significantly increased among students in grades 9–12.
Region	■ GTA students (7.3%) are least likely to vape weekly or daily compared with students in the other three regions (about 19%).	☐ Frequent vaping significantly increased in all four regions.

Figure 3.3.13
Past Year Weekly or Daily E-Cigarette Use (Vaping) by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant differences by sex, grade and region (p<.05)

Table 3.3.5: Percentage Reporting Weekly or Daily Electronic Cigarette Use (Vaping) in the Past Year, 2015–2019 OSDUHS

		2015	2017	2019
	(n=)	(5023)	(5071)	(6525)
Total (95% CI)		**2.0** (1.4-2.7)	**3.4** (2.3-5.2)	**13.0** [ab] (11.5-14.7)
Sex				
	Males	**2.7** (1.8-4.0)	**4.9** (3.2-7.4)	**14.5** [ab] (12.5-16.7)
	Females	**1.2** (0.8-1.9)	**1.9** (1.0-3.6)	**11.4** [ab] (9.7-13.4)
Grade				
	7	†	†	†
	8	†	†	**2.3** (1.4-3.8)
	9	†	**4.4** (2.3-8.1)	**10.7** [ab] (8.4-13.6)
	10	†	**5.1** (2.9-8.7)	**12.8** [ab] (10.5-15.5)
	11	**3.6** (2.1-6.2)	**5.2** (2.9-9.1)	**19.4** [ab] (15.8-23.7)
	12	†	**4.9** (2.9-8.3)	**20.7** [ab] (17.6-24.2)
Region				
	Greater Toronto Area	**1.3** (0.8-2.2)	**3.2** (1.9-5.1)	**7.3** [ab] (5.7-9.2)
	North	†	†	**19.0** [ab] (13.5-26.2)
	West	†	†	**18.7** [ab] (14.9-23.1)
	East	**3.6** (2.2-5.8)	†	**18.9** [ab] (15.6-22.7)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2015 significant difference, p<.01.

Q: Electronic cigarettes are battery-operated devices that look like cigarettes and create a mist which the user inhales. Some e-cigarettes contain nicotine and some do not. Other names for e-cigarettes include ″vape pipes″, ″hookah pens″, and ″e-hookahs″. In the last 12 months, how often did you smoke e-cigarettes? (Weekly or daily use is defined as using at least once a week, a few times a week, or daily.)

Source: OSDUHS, Centre for Addiction & Mental Health

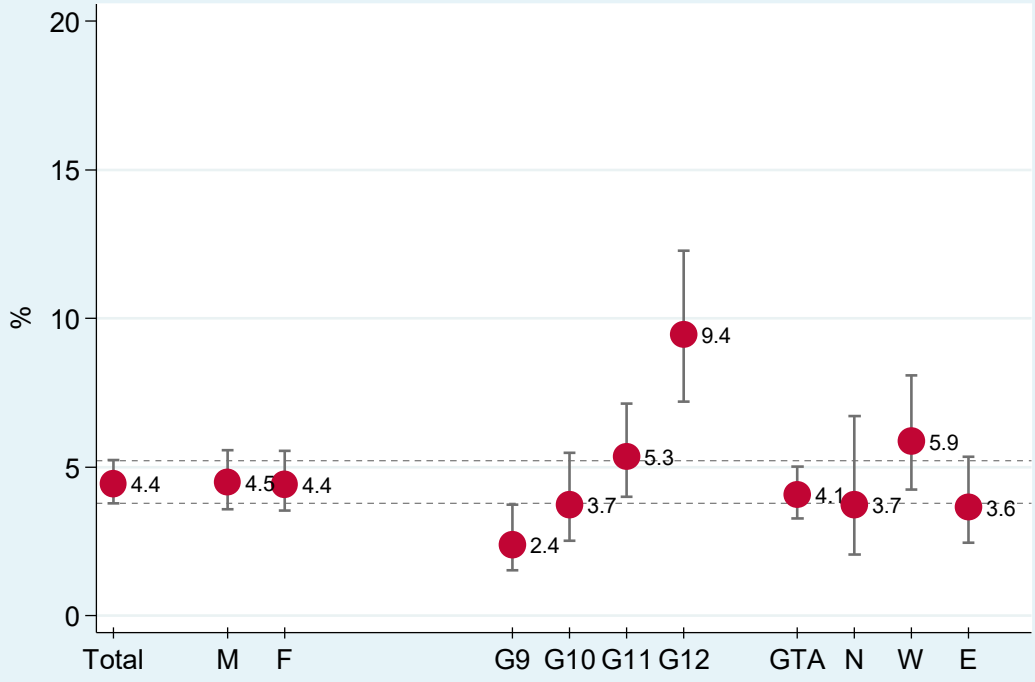
Past Year Waterpipe (Hookah) Use

(Figures 3.3.14, 3.3.15; Table 3.3.6)

Starting in 2013, students were asked about their past year use of a waterpipe, also known as a hookah, shisha, or narghile. A waterpipe is typically used to smoke a special form of flavoured tobacco (e.g., apple, mint, chocolate). A modern waterpipe comprises a head (with holes in the bottom), a metal body, a water bowl, and a flexible hose with a mouthpiece. They are typically used in groups with the mouthpiece passed from person to person. Waterpipe smoking delivers nicotine, and these smokers are at risk of developing the same diseases as those caused by tobacco cigarette smoking. Waterpipe smokers may actually inhale more tobacco smoke than do cigarette smokers because of the large volume of smoke inhaled in one smoking session, which can last as long as 60 minutes.

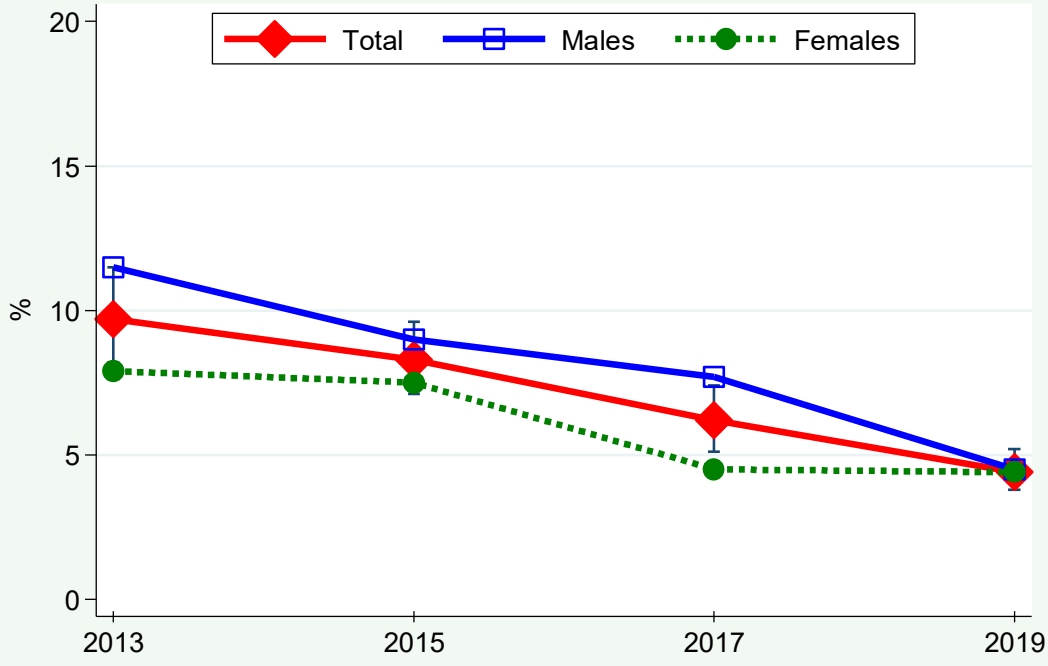
	Waterpipe (Hookah) Use in 2019 (Grades 7–12)	2013–2019 Trends (Grades 7–12)
Total	■ Among students in grades 7–12, 4.4% used a waterpipe at least once in the past year (this excludes smoking "only a few puffs"). This percentage represents about 36,100 students in Ontario.	☐ The percentage of students who report using a waterpipe in the past year significantly decreased between 2017 (6.2%) and 2019 (4.4%). The 2019 estimate is the lowest on record since the first year of monitoring in 2013, when the estimate was at 9.7%.
Sex	■ Males (4.5%) and females (4.4%) are equally likely to use a waterpipe.	☐ Males show a significant decrease in waterpipe use between 2017 (7.7%) and 2019 (4.5%). Use among females remained stable between these two years. However, both sexes show a significant decrease since 2013, the first year of monitoring.
Grade	■ Use of a waterpipe significantly increases with grade, ranging from 2.4% of 9th graders to 9.4% of 12th graders.	☐ Students in grades 10, 11, and 12 show a significant decrease in waterpipe use since 2013.
Region	■ There are no significant differences among the four regions.	☐ The GTA and the East region show a significant decrease in use since 2013. No significant changes were found among students in the North or West regions.

Figure 3.3.14
Past Year Waterpipe (Hookah) Use by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant difference by grade (p<.05), no significant differences by sex or region

Figure 3.3.15
Past Year Waterpipe (Hookah) Use by Sex, 2013–2019 OSDUHS (Grades 7–12)



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.3.6: Percentage Reporting Waterpipe (Hookah) Use in the Past Year, 2013–2019 OSDUHS

		2013	2015	2017	2019
	(n=)	(4794)	(5023)	(5071)	(6525)
Total		**9.7**	**8.3**	**6.2**	**4.4** [ab]
(95% CI)		(8.2-11.5)	(7.1-9.6)	(5.1-7.3)	(3.8-5.2)
Sex					
	Males	**11.5** (9.1-14.4)	**9.0** (7.3-10.9)	**7.7** (6.2-9.6)	**4.5** [ab] (3.6-5.6)
	Females	**7.9** (6.4-9.6)	**7.5** (6.0-9.3)	**4.5** (3.5-5.7)	**4.4** [b] (3.5-5.5)
Grade					
	7	†	†	†	†
	8	†	†	†	†
	9	**4.3** (2.9-6.3)	**5.3** (3.7-7.4)	**3.3** (1.8-6.1)	**2.4** (1.5-3.7)
	10	**8.5** (5.8-12.3)	**8.4** (5.7-12.3)	**7.2** (5.1-10.1)	**3.7** [ab] (2.5-5.5)
	11	**15.1** (11.4-19.7)	**12.6** (9.9-16.0)	**10.8** (8.0-14.6)	**5.3** [ab] (4.0-7.1)
	12	**18.8** (14.6-23.9)	**14.4** (11.3-18.1)	**12.1** (9.4-15.6)	**9.4** [b] (7.2-12.3)
Region					
	Greater Toronto Area	**10.6** (8.6-13.5)	**8.6** (7.0-10.6)	**6.9** (5.4-8.7)	**4.1** [ab] (3.3-5.0)
	North	**9.3** (5.3-15.8)	**7.3** (4.1-12.8)	**5.5** (3.9-7.8)	**3.7** (2.0-6.7)
	West	**7.6** (5.1-11.3)	**7.2** (4.9-10.4)	**6.3** (4.7-8.3)	**5.9** (4.2-8.1)
	East	**11.2** (8.2-15.0)	**9.1** (6.3-13.1)	**5.0** (3.0-8.1)	**3.6** [b] (2.5-5.3)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2013 significant difference, p<.01.

Q: In the last 12 months, how often did you smoke a waterpipe (also known as a hookah, shisha, gouza, narghile)? (Use excludes "smoked only a few puffs once in the last 12 months.")

Source: OSDUHS, Centre for Addiction & Mental Health

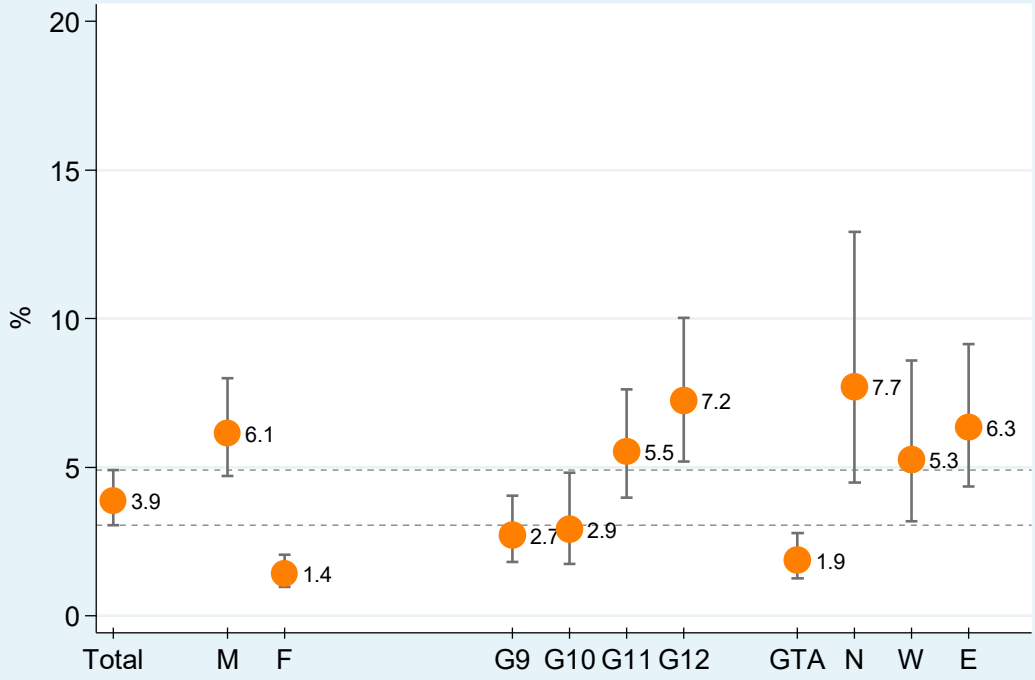
Past Year Smokeless (Chewing) Tobacco Use

(Figures 3.3.16, 3.3.17; Table 3.3.7)

Starting in 2011, we asked students whether they used smokeless tobacco during the past 12 months. Smokeless tobacco, also known as chewing tobacco or snuff, is tobacco that is used orally and is not burned. Chewing or sucking on the tobacco allows nicotine to be absorbed into the bloodstream through the tissues in the mouth. One does not need to swallow the tobacco to absorb the nicotine. Smokeless tobacco is not a safe substitute for cigarette smoking, as it is associated with numerous health problems and diseases.

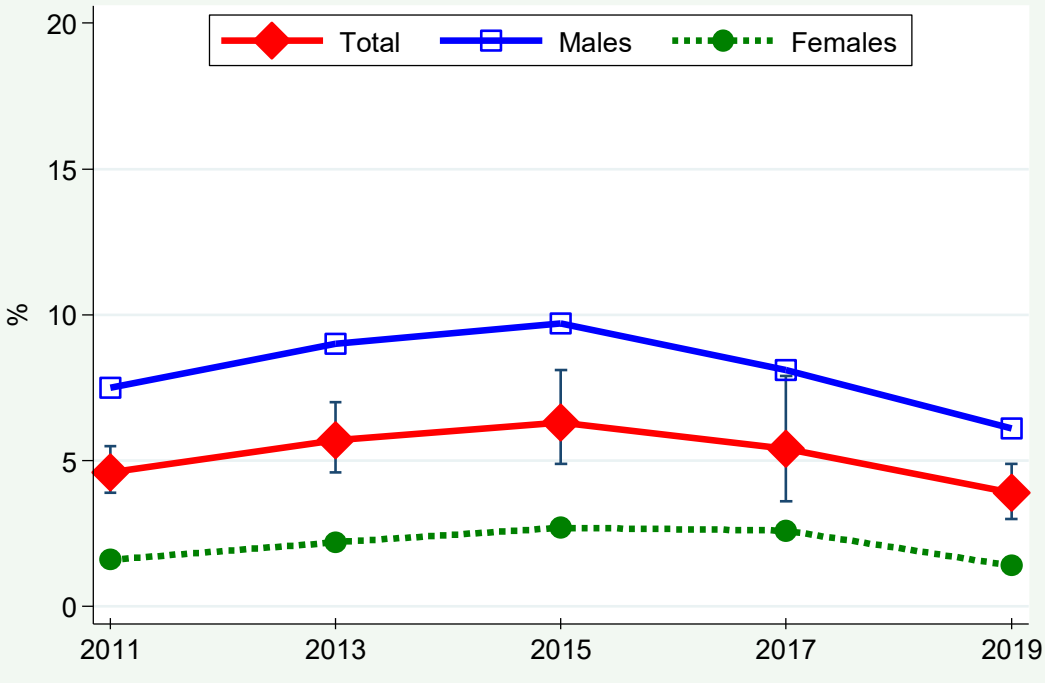
	Smokeless Tobacco Use in 2019 (Grades 7–12)	2011–2019 Trends (Grades 7–12)
Total	■ About 3.9% of students in grades 7–12 report using smokeless tobacco in the past year. This estimate represents about 31,400 students in Ontario.	☐ Past year use of smokeless tobacco has generally remained stable since 2011, the first year of monitoring (ranging from about 4%-6%).
Sex	■ Males (6.1%) are significantly more likely than females (1.4%) to use smokeless tobacco.	☐ Neither males nor females show a significant change in smokeless tobacco use since 2011.
Grade	■ There is significant grade variation, showing that students in grades 11 and 12 (about 6%-7%) are most likely to use smokeless tobacco.	☐ Only 10th graders show a significant change in use since 2011, decreasing from 7.8% to 2.9% in 2019.
Region	■ There are significant differences by region, with students in the GTA (1.9%) least likely to use chewing tobacco compared with students in the other three regions (about 5%-8%).	☐ Only GTA students show a significant change in use since 2011, decreasing from 4.3% to 1.9% in 2019.

Figure 3.3.16
Past Year Smokeless (Chewing) Tobacco Use by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant differences by sex, grade, and region (p<.05)

Figure 3.3.17
Past Year Smokeless (Chewing) Tobacco Use by Sex, 2011–2019 OSDUHS (Grades 7–12)



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.3.7: Percentage Reporting Smokeless (Chewing) Tobacco Use in the Past Year, 2011–2019 OSDUHS

		2011	2013	2015	2017	2019
	(n=)	(9288)	(4794)	(5023)	(5071)	(6525)
Total (95% CI)		**4.6** (3.9-5.5)	**5.7** (4.6-7.0)	**6.3** (4.9-8.1)	**5.4** (3.6-7.9)	**3.9** (3.0-4.9)
Sex						
	Males	**7.5** (6.2-9.0)	**9.0** (7.0-11.5)	**9.7** (7.5-12.5)	**8.1** (5.1-12.6)	**6.1** (4.7-8.0)
	Females	**1.6** (1.2-2.0)	**2.2** (1.3-3.6)	**2.7** (1.7-4.2)	**2.6** (1.5-4.3)	**1.4** (1.0-2.1)
Grade						
	7	†	†	†	†	†
	8	**1.3** (0.8-2.3)	†	†	†	†
	9	**1.4** (0.9-2.1)	**4.0** (2.3-7.1)	**2.9** (1.7-4.9)	**6.3** (3.6-10.9)	**2.7** (1.8-4.0)
	10	**7.8** (5.8-10.5)	**6.3** (3.7-10.4)	**7.1** (4.7-10.7)	**4.8** (3.3-7.0)	**2.9** [b] (1.7-4.8)
	11	**7.2** (5.4-9.4)	**9.2** (6.3-13.4)	**10.9** (8.2-14.3)	**9.7** (5.3-17.2)	**5.5** (4.0-7.6)
	12	**6.9** (4.9-9.7)	**8.7** (6.1-12.4)	**10.6** (6.6-16.6)	**8.5** (4.9-14.2)	**7.2** (5.2-10.0)
Region						
	Greater Toronto Area	**4.3** (3.1-5.9)	**4.8** (3.4-6.8)	**3.8** (2.8-5.1)	**3.5** (2.2-5.3)	**1.9** [b] (1.3-2.8)
	North	**6.2** (4.8-8.1)	†	**7.7** (5.1-11.6)	**7.3** (5.3-10.1)	**7.7** (4.5-12.9)
	West	**3.8** (2.6-5.5)	**6.7** (4.6-9.8)	**7.0** (4.6-10.5)	**5.9** (3.3-10.30	**5.3** (3.2-8.6)
	East	**6.0** (4.7-7.6)	**7.0** (4.1-11.6)	**11.6** (6.4-20.1)	†	**6.3** (4.4-9.1)

Notes: (1) based on a random half sample of grades 7-12 in each year except 2011; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2011 significant difference, p<.01.

Q: In the last 12 months, how often did you use smokeless tobacco (also known as chewing tobacco, snuff, plug, dipping tobacco)?

Source: OSDUHS, Centre for Addiction & Mental Health

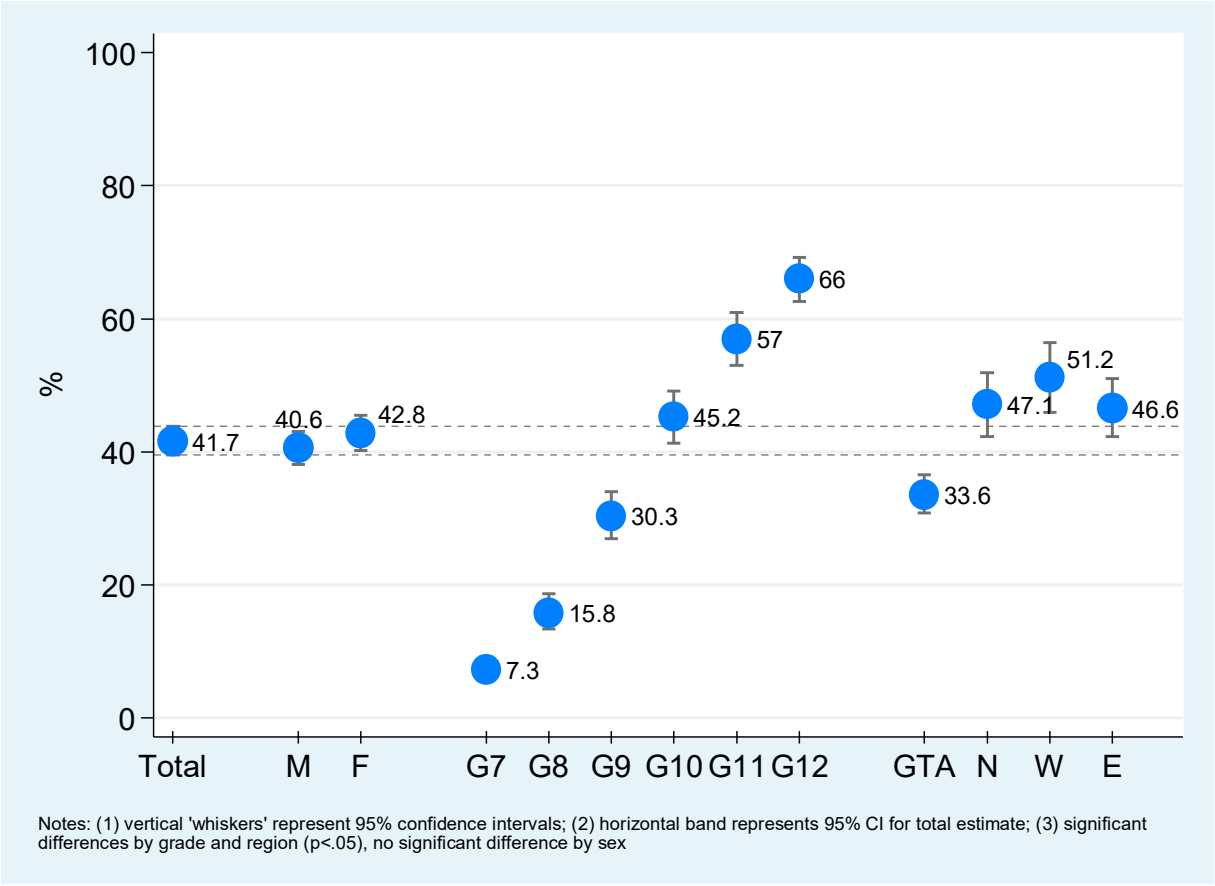
3.4 Alcohol Use

Past Year Alcohol Use

(Figures 3.4.1–3.4.3; Tables 3.4.1, A4)

	Alcohol Use in 2019 (Grades 7–12)	Trends in Alcohol Use
Total	■ Overall, 41.7% of students report drinking alcohol during the 12 months before the survey. This estimate excludes those who only had a sip of alcohol, but does include those who drank only on a special occasion. We estimate that the actual percentage of all students who drink falls between 39.5% and 43.8% (95% CI). The percentage of 41.7% represents about 374,300 students in grades 7–12 in Ontario.	☐ The percentage of students drinking alcohol in the past year did not significantly change between 2017 (42.5%) and 2019 (41.7%). Drinking has been on a significant downward trend since 1999, reaching historical lows and then remaining stable during the past few years. ☐ Looking back over the past 40 years or so, drinking among grades 7, 9, and 11 gradually decreased between 1977 and 1993. Between 1993 and the late 1990s/early 2000s drinking gradually increased, but has since decreased again, reaching historical lows in recent years.
Sex	■ The prevalence of drinking alcohol does not significantly differ between males (40.6%) and females (42.8%).	☐ Past year drinking among males and females remained stable between 2017 and 2019. Both sexes do show a significant downward trend since 1999 and stability in recent years.
Grade	■ Drinking significantly increases with grade level, from a low of 7.3% among 7th graders to a high of 66.0% among 12th graders.	☐ No grade shows a significant change in past year drinking between 2017 and 2019. However, all grades show a significant downward trend since 1999.
Region	■ There is significant regional variation showing that students in the GTA (33.6%) are least likely to drink compared with students in the other three regions (about 47%-51%).	☐ No region shows a significant change in past year drinking between 2017 and 2019. All regions show a significant downward trend since 1999.

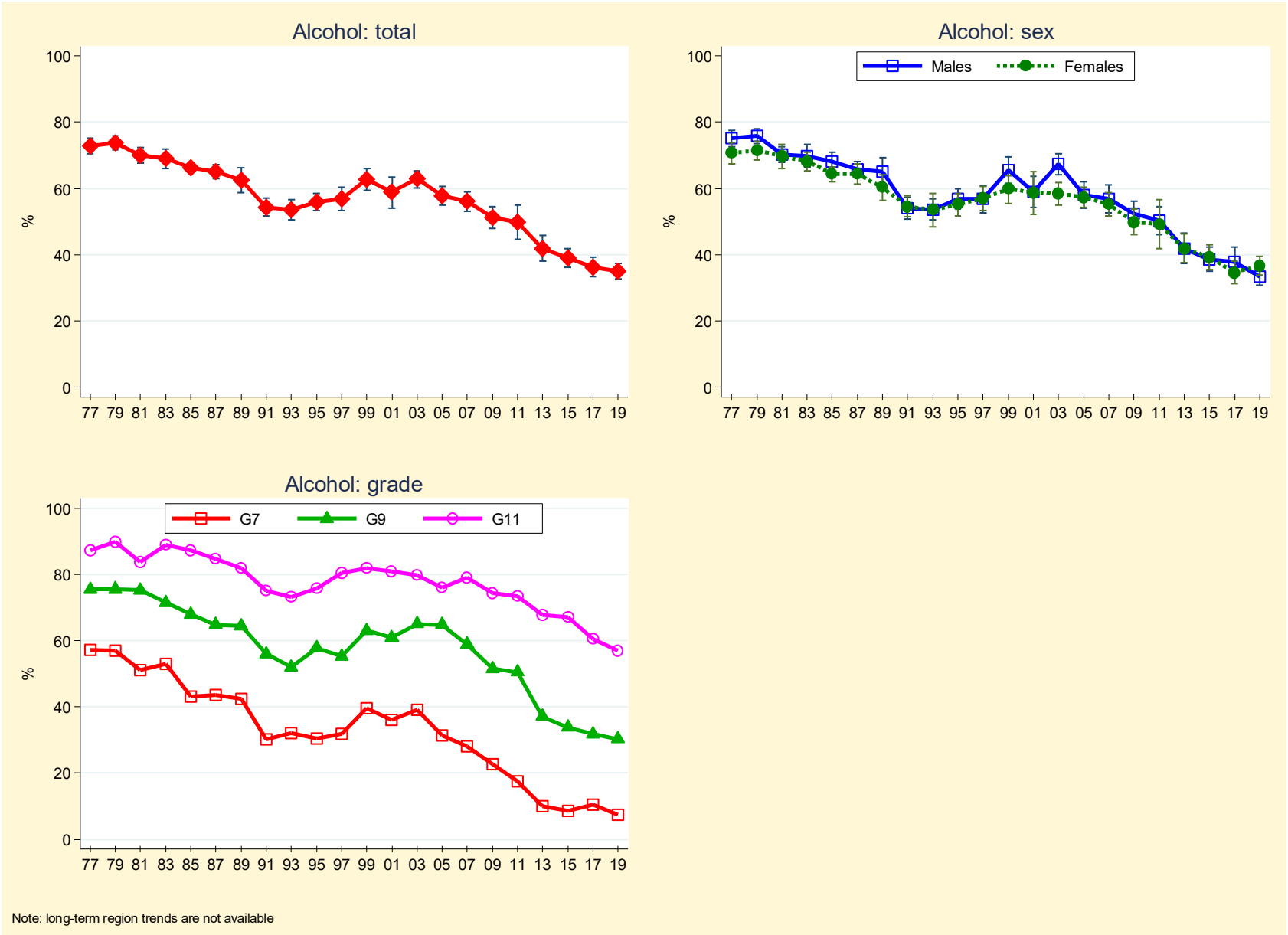
Figure 3.4.1
Past Year Alcohol Use by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.4.2
Past Year Alcohol Use, 1999–2019 OSDUHS (Grades 7–12)

Figure 3.4.3
Past Year Alcohol Use, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)



Note: long-term region trends are not available

Table 3.4.1: Percentage Reporting Drinking Alcohol in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Total	**66.0**	**63.9**	**66.2**	**62.0**	**61.2**	**58.2**	**54.9**	**49.5**	**45.8**	**42.5**	**41.7** [bcd]
(95% CI)	(63.6-68.3)	(60.8-67.0)	(64.1-68.4)	(59.4-64.6)	(58.9-63.5)	(55.7-60.6)	(52.1-57.6)	(46.4-52.5)	(42.9-48.7)	(39.5-45.5)	(39.5-43.8)
Sex											
Males	**69.7**	**64.6**	**68.3**	**62.3**	**61.7**	**60.0**	**54.6**	**49.8**	**46.6**	**42.7**	**40.6** [b]
	(66.6-72.6)	(61.1-68.0)	(65.4-71.1)	(58.7-65.7)	(58.8-64.5)	(57.2-62.8)	(52.0-57.2)	(46.7-53.0)	(43.1-50.2)	(38.6-46.9)	(38.1-43.1)
Females	**62.2**	**63.2**	**64.3**	**61.8**	**60.7**	**56.3**	**55.1**	**49.1**	**44.9**	**42.2**	**42.8** [b]
	(59.2-65.2)	(59.0-67.2)	(61.6-67.0)	(59.2-64.4)	(58.0-63.5)	(53.2-59.4)	(51.3-58.8)	(45.3-52.9)	(41.8-48.2)	(39.0-45.5)	(40.2-45.5)
Grade											
7	**39.7**	**36.1**	**39.1**	**31.4**	**28.1**	**22.7**	**17.4**	**9.9**	**8.6**	**10.5**	**7.3** [b]
	(33.8-45.9)	(29.6-43.1)	(35.0-43.4)	(28.1-35.0)	(23.7-33.1)	(18.6-27.4)	(13.5-22.1)	(7.5-13.0)	(5.6-13.0)	(8.5-12.9)	(5.8-9.1)
8	**53.7**	**52.0**	**48.9**	**44.3**	**40.1**	**36.5**	**26.4**	**24.6**	**15.5**	**11.8**	**15.8** [b]
	(49.2-58.3)	(45.5-58.4)	(44.5-53.4)	(39.4-49.4)	(34.8-45.7)	(31.5-41.7)	(22.6-30.5)	(18.2-32.3)	(12.5-19.0)	(8.9-15.4)	(13.3-18.7)
9	**63.1**	**60.9**	**65.1**	**64.8**	**58.9**	**51.6**	**50.5**	**37.1**	**33.8**	**31.8**	**30.3** [b]
	(58.0-67.9)	(54.3-67.1)	(60.5-69.3)	(60.4-68.9)	(53.8-63.8)	(46.3-56.8)	(43.8-57.2)	(32.9-41.5)	(30.6-37.2)	(28.2-35.6)	(26.9-34.0)
10	**74.9**	**76.8**	**75.1**	**69.6**	**69.6**	**64.5**	**59.6**	**53.5**	**52.4**	**49.9**	**45.2** [b]
	(69.2-79.8)	(73.0-80.2)	(71.1-78.7)	(65.7-73.3)	(65.2-73.6)	(59.8-68.9)	(54.9-64.2)	(49.0-57.9)	(47.5-57.3)	(44.2-55.5)	(41.3-49.2)
11	**82.0**	**81.0**	**79.9**	**76.1**	**79.2**	**74.3**	**73.5**	**67.9**	**67.0**	**60.6**	**57.0** [b]
	(77.7-85.6)	(75.1-85.8)	(76.3-83.1)	(72.3-79.5)	(75.5-82.4)	(70.0-78.2)	(66.8-79.3)	(62.6-72.7)	(62.1-71.6)	(56.4-64.6)	(53.0-60.9)
12	**84.6**	**80.0**	**82.5**	**81.8**	**83.0**	**82.6**	**78.4**	**74.4**	**72.4**	**68.3**	**66.0** [b]
	(80.8-87.8)	(72.5-85.9)	(77.7-86.4)	(77.7-85.4)	(79.5-86.0)	(79.0-85.8)	(74.6-81.8)	(69.9-78.4)	(66.5-77.6)	(62.8-73.4)	(62.6-69.2)
Region											
GTA	**62.9**	**62.9**	**64.8**	**59.7**	**59.2**	**54.3**	**49.6**	**43.6**	**41.9**	**38.3**	**33.6** [b]
	(58.2-67.4)	(56.4-69.0)	(60.5-69.0)	(54.9-64.3)	(53.6-64.6)	(49.1-59.4)	(44.6-54.6)	(38.3-49.0)	(37.7-46.2)	(34.7-42.0)	(30.8-36.5)
North	**75.9**	**72.3**	**70.0**	**69.0**	**70.6**	**63.6**	**59.5**	**58.9**	**52.1**	**50.6**	**47.1** [b]
	(69.3-81.5)	(68.2-76.0)	(65.7-73.9)	(64.8-73.0)	(65.1-75.6)	(58.1-68.8)	(54.0-64.7)	(52.9-64.7)	(47.9-56.3)	(46.6-54.6)	(42.3-51.9)
West	**69.4**	**63.8**	**69.5**	**67.9**	**63.3**	**59.7**	**60.3**	**51.7**	**49.0**	**46.4**	**51.2** [b]
	(64.3-74.0)	(58.4-68.9)	(64.2-74.3)	(62.6-72.8)	(57.9-68.4)	(54.8-64.4)	(52.7-67.4)	(45.4-58.0)	(41.2-56.9)	(42.3-50.7)	(45.9-56.4)
East	**63.5**	**62.4**	**64.1**	**58.9**	**60.1**	**61.5**	**57.8**	**57.5**	**49.0**	**44.4**	**46.6** [b]
	(55.4-70.9)	(54.6-69.6)	(59.5-68.4)	(51.5-66.0)	(54.5-65.4)	(56.9-65.9)	(53.0-62.3)	(52.5-62.4)	(42.1-56.0)	(33.3-56.0)	(42.3-51.0)

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you drink alcohol – liquor (rum, whiskey, etc.), wine, beer, or coolers? (Past year alcohol use includes drinking at a special event, but excludes a sip just to try.)

Source: OSDUHS, Centre for Addiction & Mental Health

Frequency of Drinking Alcohol in the Past Year

(Figure 3.4.4; Table 3.4.2)

2019: Grades 7–12

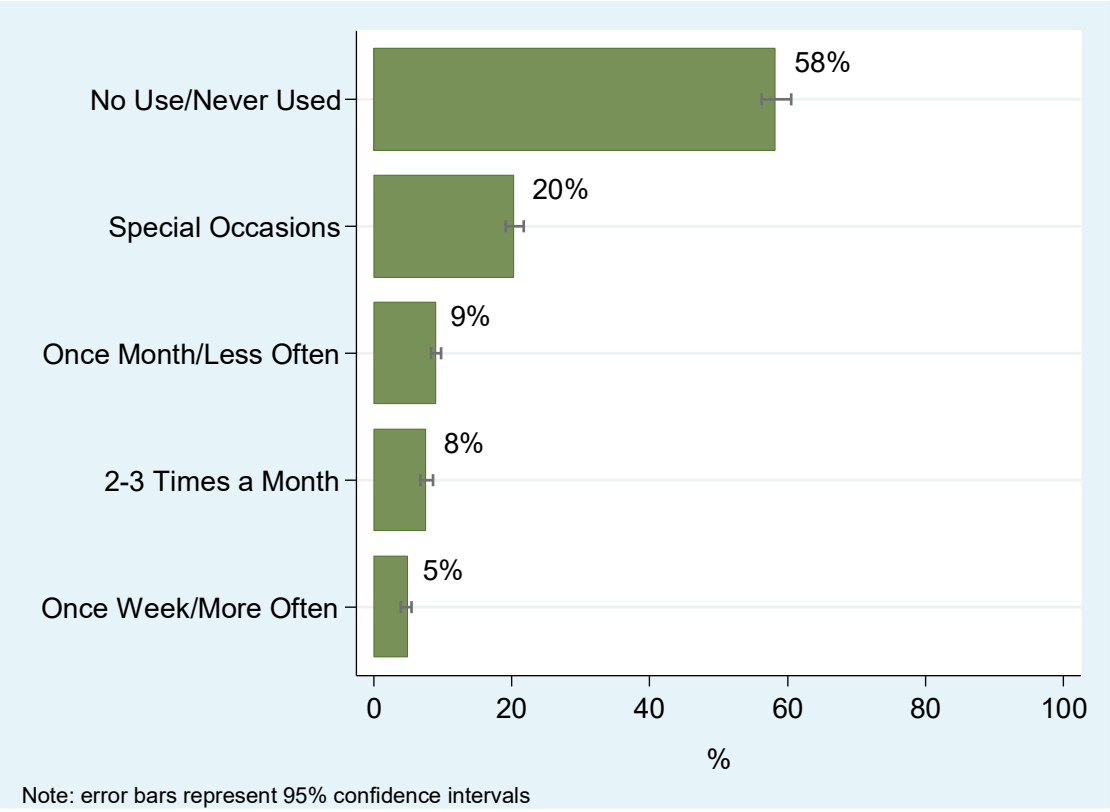
- One-in-five (20.3%) students restrict their drinking to special occasions, 8.9% drink once a month or less often, 7.5% drink two or three times a month, and about 4.6% drink at least once a week. Very few students drink on a daily basis (estimate suppressed).

- There are no significant differences between males and females in the frequency of drinking alcohol in the past year.

1999–2019: Grades 7–12

- Table 3.4.2 also presents the past year drinking frequencies since 1999. The percentage of students reporting no drinking is higher today than in 1999. The percentage reporting drinking only on special occasions has remained relatively stable over the past 20 years, while the percentage drinking frequently has decreased.

Figure 3.4.4
Frequency of Drinking Alcohol in the Past Year, 2019 OSDUHS (Grades 7-12)



Note: error bars represent 95% confidence intervals

Table 3.4.2: Frequency of Drinking Alcohol in the Past Year, 1999–2019 OSDUHS

		1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
	(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
No Drinking in Past Year												
Total		**34.0**	**36.1**	**33.8**	**38.0**	**38.8**	**41.8**	**45.1**	**54.2**	**57.5**	**50.5**	**58.3**
Sex	Males	30.3	35.4	31.7	37.7	38.3	40.0	45.4	53.4	57.3	50.2	59.4
	Females	37.8	36.8	35.7	38.2	39.3	43.7	44.9	55.1	57.8	50.9	57.2
Special Occasions Only												
Total		**23.7**	**24.6**	**25.1**	**24.3**	**23.0**	**21.5**	**23.3**	**19.8**	**18.8**	**21.7**	**20.3**
Sex	Males	23.8	22.4	25.2	24.0	23.3	22.0	23.5	20.9	18.5	21.1	19.9
	Females	23.6	26.9	24.9	24.6	22.8	21.0	23.0	18.5	19.0	22.4	20.8
Once a Month/Less Often												
Total		**16.1**	**14.7**	**16.0**	**13.9**	**15.1**	**14.0**	**12.5**	**10.2**	**9.4**	**10.6**	**8.9**
Sex	Males	16.0	14.1	14.9	12.4	13.3	13.4	11.9	8.9	9.0	10.8	8.2
	Females	16.3	15.4	17.3	15.5	17.1	14.6	13.0	11.7	9.8	10.2	9.6
2-3 Times a Month												
Total		**13.0**	**14.2**	**13.0**	**13.5**	**12.9**	**13.0**	**11.6**	**9.2**	**8.4**	**10.7**	**7.5**
Sex	Males	13.3	14.8	11.9	12.8	13.6	12.8	11.6	8.6	8.3	10.8	7.0
	Females	12.6	13.6	14.2	14.2	12.1	13.3	11.6	9.9	8.5	10.6	8.1
At Least Once a Week												
Total		**12.3**	**10.0**	**11.7**	**10.1**	**9.8**	**9.5**	**7.2**	**6.1**	**5.7**	**6.4**	**4.6**
Sex	Males	15.1	13.0	14.0	12.7	11.0	11.4	7.1	7.5	6.5	7.0	5.0
	Females	9.4	7.1	9.6	7.3	8.6	7.4	7.2	4.6	4.8	5.7	4.2
Almost Daily												
Total		**0.9**	†	†	†	†	†	†	†	†	†	†
Sex	Males	1.5	†	†	†	†	†	†	†	†	†	†
	Females	†	†	†	†	†	†	†	†	†	†	†

Notes: (1) based on grades 7-12; (2) the "No Drinking" category includes those who reported they had a sip just to try;
(3) † estimate suppressed due to unreliability.
Q: In the last 12 months, how often did you drink alcohol – liquor (rum, whiskey, etc.), wine, beer, or coolers?
Source: OSDUHS, Centre for Addiction & Mental Health

Frequency of Drinking Alcohol in the Past Month

(Figure 3.4.5; Table 3.4.3)

Students were also asked about their use of alcohol during the four weeks before the survey.

2019: Grades 7–12

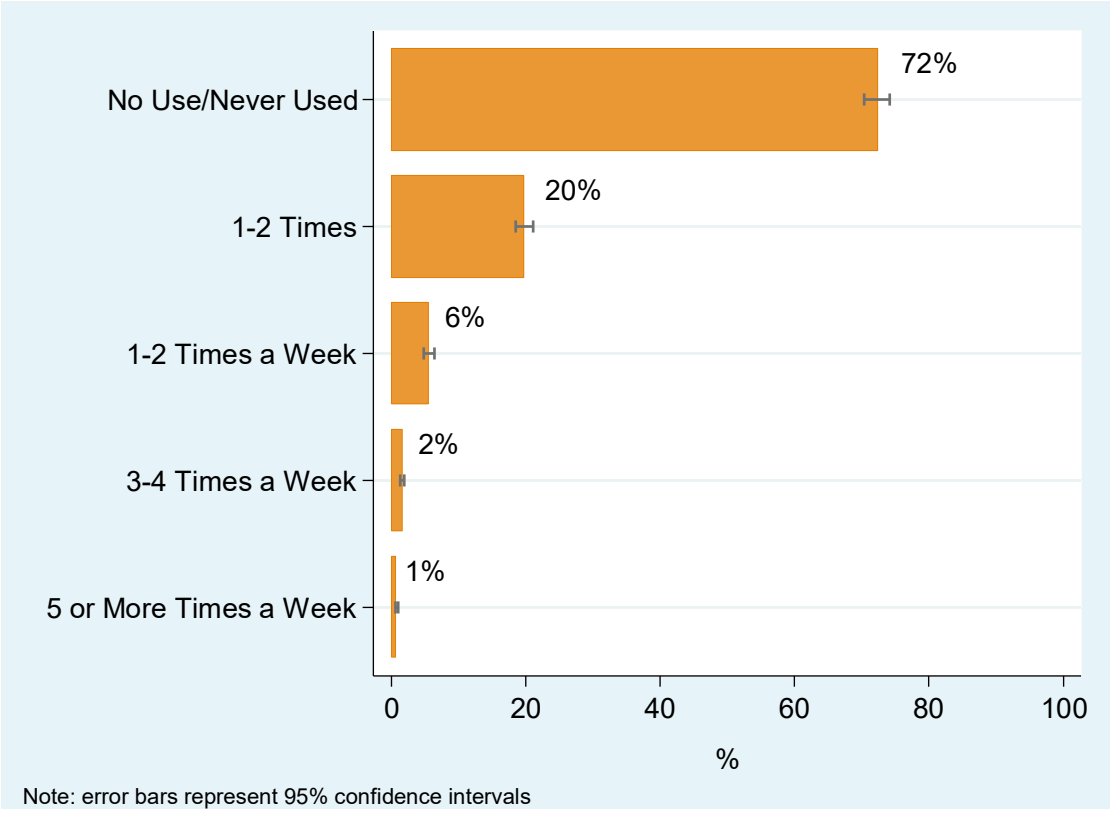
- Most students (72.4%) did not drink alcohol during the month before the survey, while 27.6% did drink. Specifically, about one-in-five (19.8%) students drank only once or twice in the past month, 5.5% drank once or twice per week, 1.6% drank three or four times per week, and less than 1% (0.7%) drank five or more times per week during the past month.

- There is no significant sex difference in the frequency of drinking in the past month.

1999–2019: Grades 7–12

☐ Table 3.4.3 presents the past month drinking frequencies since 1999. The percentage of students reporting not drinking at all in the past month in 2019 (72.4%) is similar to the estimate from 2017 (69.6%), but significantly higher than the estimate in 1999 (48.3%). The percentage reporting drinking at the higher frequencies has decreased during the past two decades.

Figure 3.4.5
Frequency of Drinking Alcohol in the Past Month, 2019 OSDUHS (Grades 7-12)



Note: error bars represent 95% confidence intervals

Table 3.4.3: Frequency of Drinking Alcohol in the Past Month, 1999–2019 OSDUHS

		1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
	(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
No Drinking in Past Month												
Total		**48.3**	**53.7**	**54.7**	**57.3**	**57.5**	**58.1**	**65.3**	**66.6**	**68.9**	**69.6**	**72.4** [b]
Sex	Males	44.3	50.7	53.4	56.0	57.5	56.2	66.1	66.1	69.1	70.1	73.0
	Females	52.5	56.6	56.0	58.7	57.4	60.1	64.4	67.2	68.7	69.1	71.6
Once or Twice												
Total		**33.5**	**30.0**	**28.7**	**28.6**	**28.6**	**28.4**	**23.3**	**24.1**	**22.1**	**21.7**	**19.8**
Sex	Males	33.9	28.6	27.6	27.3	27.2	28.2	22.2	23.7	20.6	20.4	18.6
	Females	33.1	31.4	29.7	30.1	30.1	28.7	24.5	24.6	23.6	23.1	21.0
Once or Twice a Week												
Total		**12.5**	**11.5**	**11.6**	**10.2**	**9.9**	**9.4**	**8.2**	**6.7**	**6.3**	**5.8**	**5.5**
Sex	Males	13.5	14.5	12.7	11.3	10.5	10.2	8.3	7.2	7.0	6.2	5.5
	Females	11.4	8.6	10.6	8.9	9.2	8.5	8.2	6.1	6.0	5.5	5.5
3 or 4 Times a Week												
Total		**3.5**	**3.0**	**3.3**	**2.6**	**2.7**	**2.7**	**2.2**	**1.8**	**1.8**	**1.7**	**1.6**
Sex	Males	4.6	4.1	3.8	3.6	3.3	3.2	2.1	2.2	2.1	2.2	2.0
	Females	2.3	2.0	2.8	1.6	2.1	2.2	2.3	1.4	1.6	1.1	1.2
5+ Times a Week												
Total		**2.2**	**1.8**	**1.7**	**1.2**	**1.3**	**1.3**	**0.9**	**0.8**	**0.9**	**1.2**	**0.7**
Sex	Males	3.6	2.1	2.6	1.8	1.4	2.1	1.2	0.8	1.2	1.2	0.9
	Females	0.8	1.4	0.9	0.7	1.2	†	0.6	0.7	0.6	†	0.6

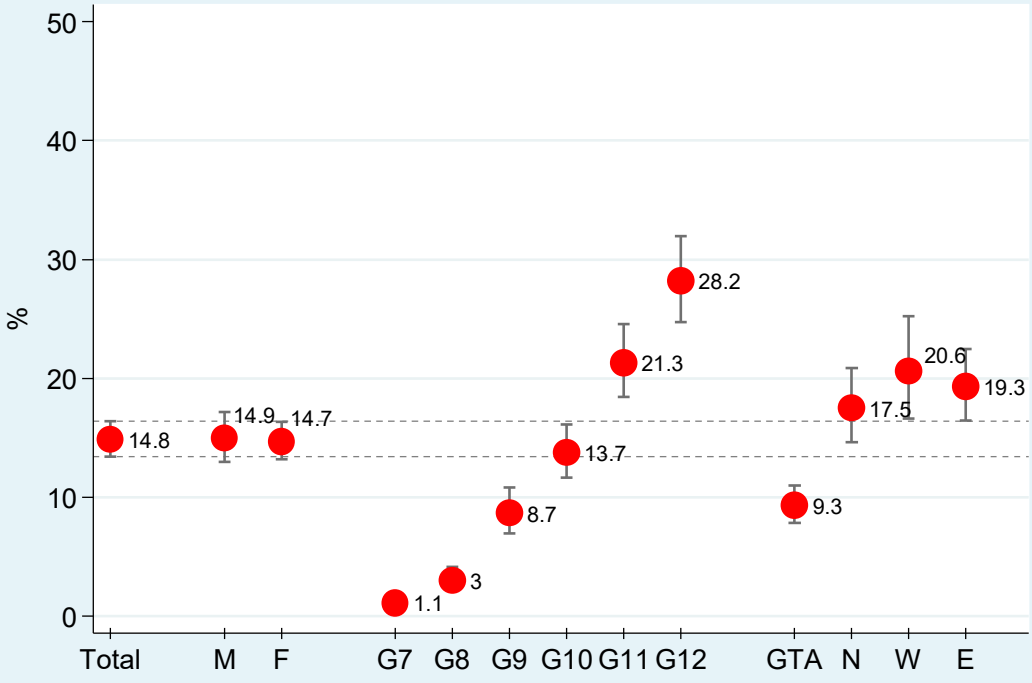
Notes: (1) based on grades 7-12; (2) † estimate suppressed due to unreliability; (3) no significant difference 2019 vs. 2017; [b] 2019 vs. 1999 significant difference p<.01.
Q: In the last 4 weeks, how often did you drink alcohol (liquor, wine, beer, or coolers)?
Source: OSDUHS, Centre for Addiction & Mental Health

Binge Drinking in the Past Month

(Figures 3.4.6–3.4.9; Tables 3.4.4, A5)

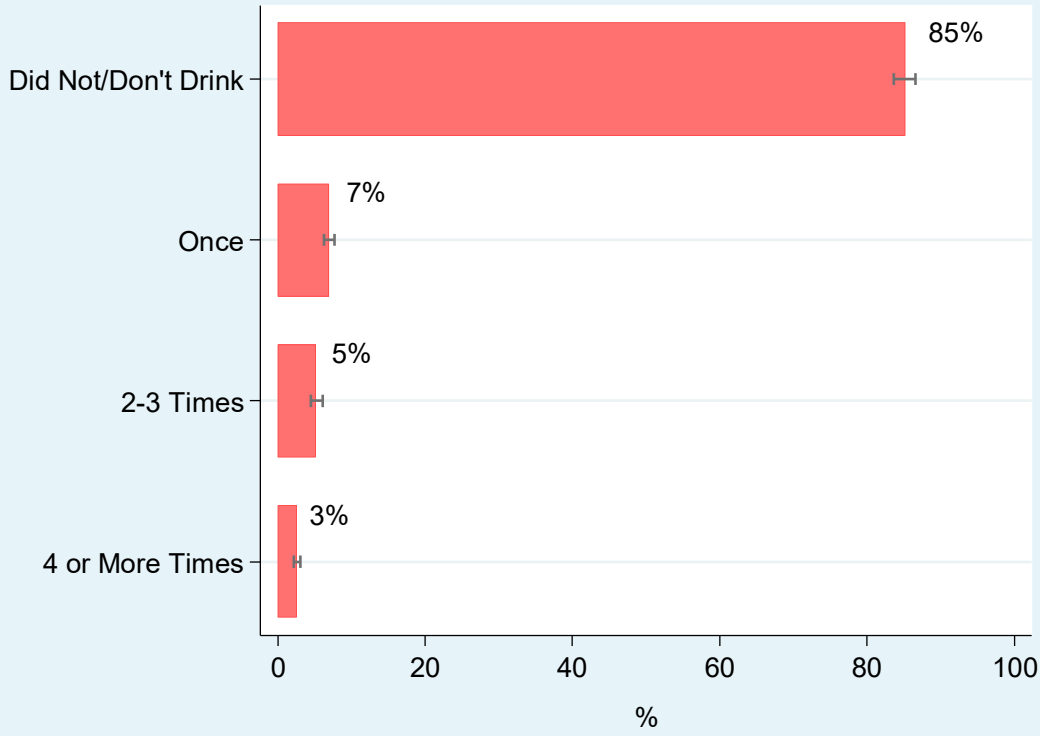
	Binge Drinking in 2019 (Grades 7–12)	Trends in Binge Drinking
Total	■ One-in-seven (14.8%) students report binge drinking at least once during the four weeks before the survey (defined as consuming five or more drinks on one occasion). This percentage represents about 133,700 students in grades 7–12 in Ontario. ■ About 7.0% of all students report binge drinking once in the past month, 5.2% report binge drinking two to three times, and 2.6% report binge drinking four or more times.	☐ The percentage of students who report binge drinking at least once in the past month in 2019 (14.8%) is not significantly different from 2017 (16.9%) or 2015 (17.6%). However, binge drinking has significantly decreased since 1999/early 2000s, when the estimate was over one-quarter. ☐ Looking back over the past 40 years or so, binge drinking among grades 7, 9, and 11 was elevated in the late 1970s, decreased in the late 1980s/early 1990s, increased again in the late 1990s/early 2000s, and has since decreased. Estimates seen in the past few cycles are the lowest on record.
Sex	■ Binge drinking does not significantly differ between males (14.9%) and females (14.7%). Further, the frequency of binge drinking in the past month does not differ by sex (data not shown).	☐ Neither sex shows a significant change in binge drinking between 2017 and 2019. Both sexes show a significant downward trend in binge drinking since 1999, and stability in recent years.
Grade	■ Binge drinking is lowest among 7th and 8th graders (1%-3%) and climbs to 28.2% among 12th graders.	☐ No grade shows a significant change in binge drinking between 2017 and 2019. All grades show a significant downward trend since 1999.
Region	■ There is a significant difference by region, with students in the GTA (9.3%) least likely to binge drink compared with students in the other three regions (about 18%-21%).	☐ Only students in the GTA show a significant decrease in binge drinking between 2017 (14.7%) and 2019 (9.3%). Students in all regions, except the East, show a significant decrease compared with their respective 1999 estimates.

Figure 3.4.6
Binge Drinking in the Past Month by Sex, Grade, and Region, 2019 OSDUHS



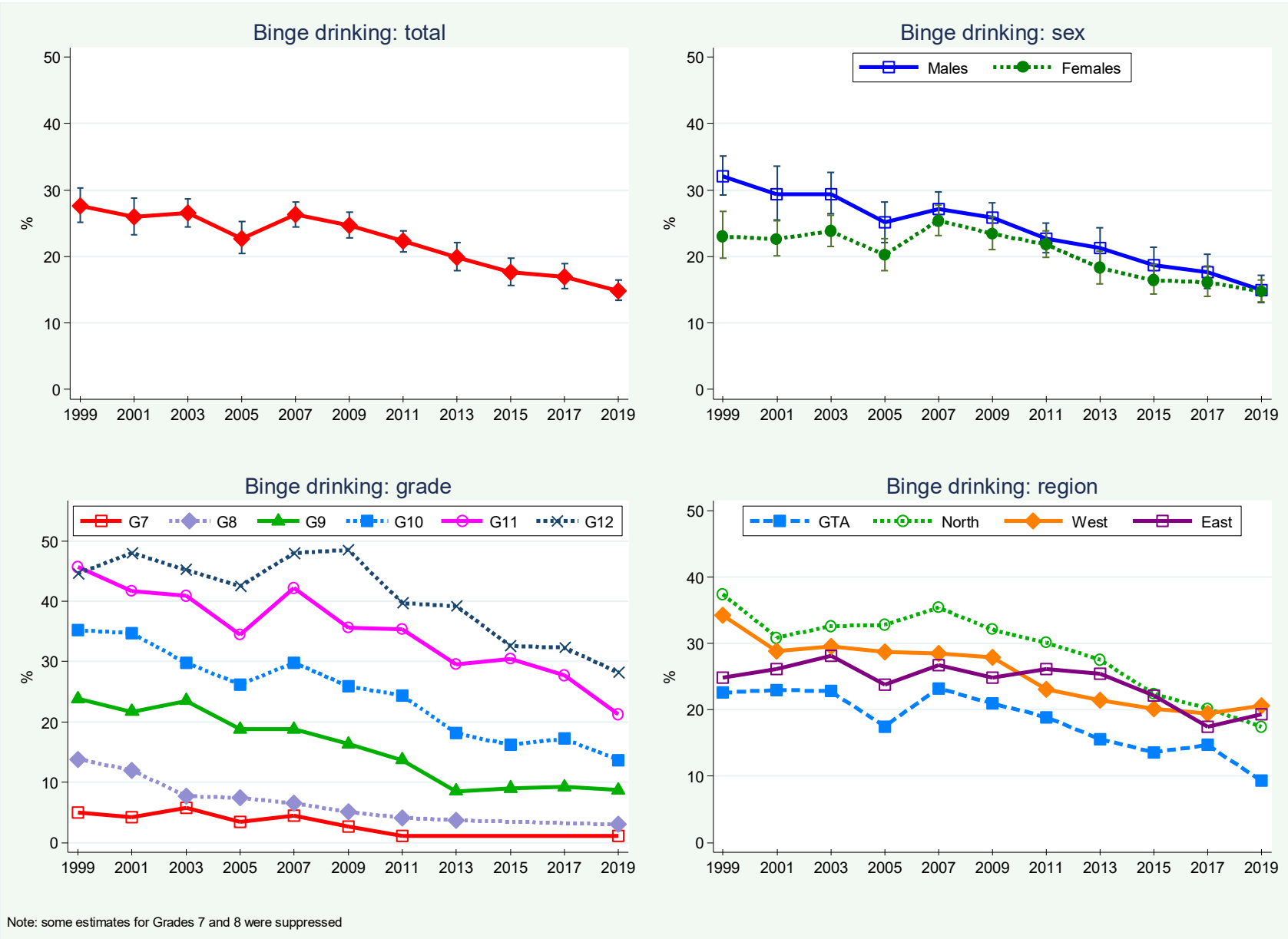
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.4.7
Frequency of Binge Drinking in the Past Month, 2019 OSDUHS (Grades 7-12)



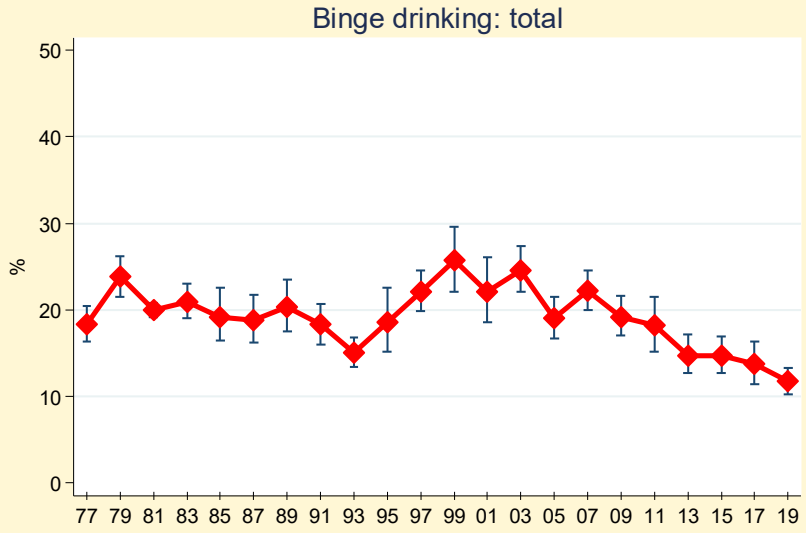
Note: error bars represent 95% confidence intervals

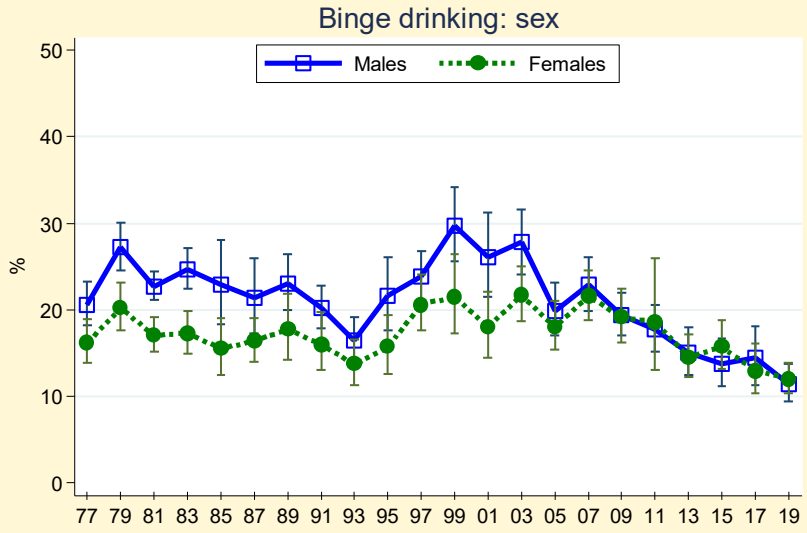
Figure 3.4.8
Binge Drinking in the Past Month, 1999–2019 OSDUHS (Grades 7–12)

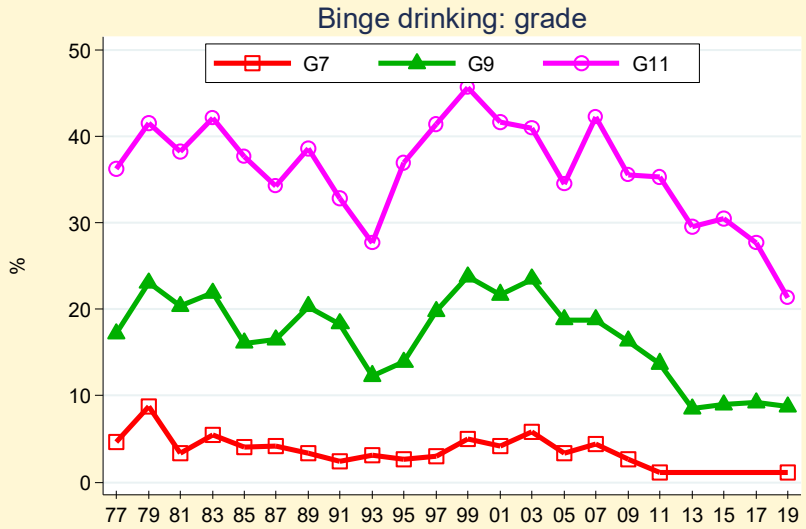


Note: some estimates for Grades 7 and 8 were suppressed

Figure 3.4.9
Binge Drinking in the Past Month, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)







Notes: some estimates for Grade 7 were suppressed; long-term region trends are not available

Table 3.4.4: Percentage Reporting Binge Drinking in the Past Month, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)	
Total	**27.6**	**26.0**	**26.5**	**22.7**	**26.3**	**24.7**	**22.3**	**19.8**	**17.6**	**16.9**	**14.8**	[bcd]
(95% CI)	(25.1-30.3)	(23.3-28.8)	(24.4-28.7)	(20.4-25.2)	(24.4-28.2)	(22.8-26.7)	(20.7-23.9)	(17.8-22.1)	(15.6-19.7)	(15.1-18.8)	(13.4-16.4)	
Sex												
Males	**32.1**	**29.4**	**29.4**	**25.1**	**27.1**	**25.9**	**22.7**	**21.3**	**18.7**	**17.6**	**14.9**	[b]
	(29.2-35.1)	(25.5-33.6)	(26.4-32.6)	(22.1-28.2)	(24.7-29.7)	(23.9-28.1)	(20.6-25.0)	(18.5-24.3)	(16.2-21.4)	(15.2-20.3)	(13.0-17.2)	
Females	**23.0**	**22.6**	**23.8**	**20.2**	**25.4**	**23.4**	**21.8**	**18.3**	**16.4**	**16.1**	**14.7**	[b]
	(19.7-26.8)	(20.1-25.4)	(21.5-26.2)	(17.9-22.7)	(23.1-27.7)	(21.0-26.0)	(19.8-23.9)	(15.9-20.8)	(14.2-18.8)	(14.0-18.5)	(13.2-16.4)	
Grade												
7	**5.0**	**4.2**	**5.8**	**3.4**	**4.4**	**2.7**	**1.1**	†	†	†	**1.1**	[b]
	(3.5-7.1)	(2.7-6.7)	(4.0-8.4)	(2.1-5.5)	(2.9-6.6)	(1.6-4.5)	(0.6-2.1)				(0.7-1.7)	
8	**13.8**	**12.0**	**7.7**	**7.4**	**6.5**	**5.0**	**4.1**	**3.7**	†	†	**3.0**	[b]
	(11.1-16.9)	(8.5-16.8)	(5.6-10.5)	(5.8-9.5)	(4.5-9.4)	(3.5-7.2)	(2.8-5.9)	(2.3-5.9)			(2.1-4.1)	
9	**23.8**	**21.7**	**23.5**	**18.8**	**18.8**	**16.3**	**13.7**	**8.5**	**9.0**	**9.2**	**8.7**	[b]
	(18.7-29.7)	(17.0-27.2)	(20.3-27.0)	(15.4-22.7)	(15.6-22.4)	(12.9-20.4)	(10.7-17.4)	(6.5-11.0)	(7.0-11.6)	(6.8-12.4)	(7.0-10.8)	
10	**35.2**	**34.7**	**29.8**	**26.2**	**29.8**	**25.9**	**24.4**	**18.1**	**16.2**	**17.2**	**13.7**	[b]
	(29.7-41.0)	(30.6-39.0)	(25.7-34.3)	(22.8-30.0)	(26.2-33.6)	(22.0-30.3)	(19.0-30.8)	(14.9-21.6)	(12.9-20.1)	(14.1-20.8)	(11.6-16.1)	
11	**45.7**	**41.7**	**40.9**	**34.5**	**42.2**	**35.6**	**35.3**	**29.5**	**30.5**	**27.7**	**21.3**	[b]
	(39.1-52.5)	(36.1-47.5)	(36.0-46.0)	(30.4-38.8)	(37.7-47.0)	(31.3-40.0)	(30.9-40.0)	(25.1-34.3)	(26.2-35.3)	(23.4-32.5)	(18.4-24.6)	
12	**44.6**	**48.0**	**45.2**	**42.5**	**48.0**	**48.5**	**39.7**	**39.2**	**32.6**	**32.3**	**28.2**	[b]
	(38.6-50.7)	(37.1-59.0)	(39.9-50.6)	(37.8-47.4)	(44.1-51.9)	(44.1-52.9)	(35.3-44.3)	(34.8-43.8)	(27.7-37.9)	(27.9-37.1)	(24.8-32.0)	
Region												
GTA	**22.6**	**23.0**	**22.8**	**17.5**	**23.2**	**21.0**	**18.9**	**15.6**	**13.6**	**14.7**	**9.3**	[ab]
	(18.8-27.1)	(17.7-29.4)	(19.5-26.3)	(14.9-20.6)	(19.7-27.3)	(17.7-24.8)	(15.5-22.8)	(12.4-19.5)	(11.2-16.4)	(12.7-16.9)	(7.8-11.0)	
North	**37.4**	**30.9**	**32.6**	**32.8**	**35.4**	**32.1**	**30.1**	**27.6**	**22.4**	**20.2**	**17.5**	[b]
	(31.1-44.2)	(26.0-36.3)	(28.2-37.3)	(28.5-37.4)	(31.3-39.6)	(28.1-36.5)	(25.3-35.4)	(23.5-32.3)	(18.9-26.4)	(17.2-23.6)	(14.6-20.9)	
West	**34.2**	**28.8**	**29.6**	**28.7**	**28.5**	**27.9**	**23.1**	**21.4**	**20.2**	**19.4**	**20.6**	[b]
	(28.2-40.8)	(24.4-33.6)	(23.8-36.0)	(23.8-34.0)	(24.0-33.4)	(23.7-32.4)	(19.9-26.6)	(16.7-26.9)	(16.0-25.3)	(15.9-23.4)	(16.6-25.2)	
East	**24.8**	**26.2**	**28.2**	**23.8**	**26.7**	**24.9**	**26.1**	**25.4**	**22.1**	**17.4**	**19.3**	
	(18.9-31.8)	(20.4-33.1)	(23.1-33.9)	(17.6-31.2)	(22.8-31.0)	(21.4-28.8)	(22.0-30.7)	(22.7-28.4)	(17.0-28.1)	(11.9-24.8)	(16.5-22.5)	

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 4 weeks, how often have you had 5 or more drinks of alcohol on the same occasion?

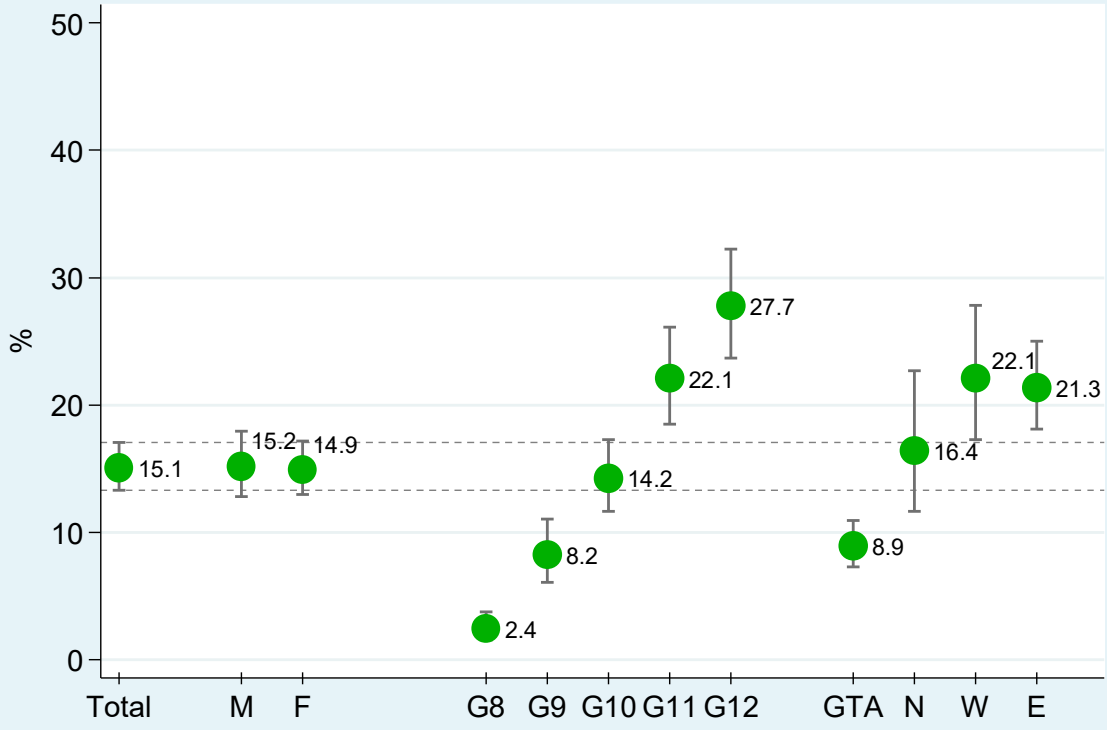
Source: OSDUHS, Centre for Addiction & Mental Health

Drunkenness in the Past Month

(Figures 3.4.10–3.4.12; Tables 3.4.5, A6)

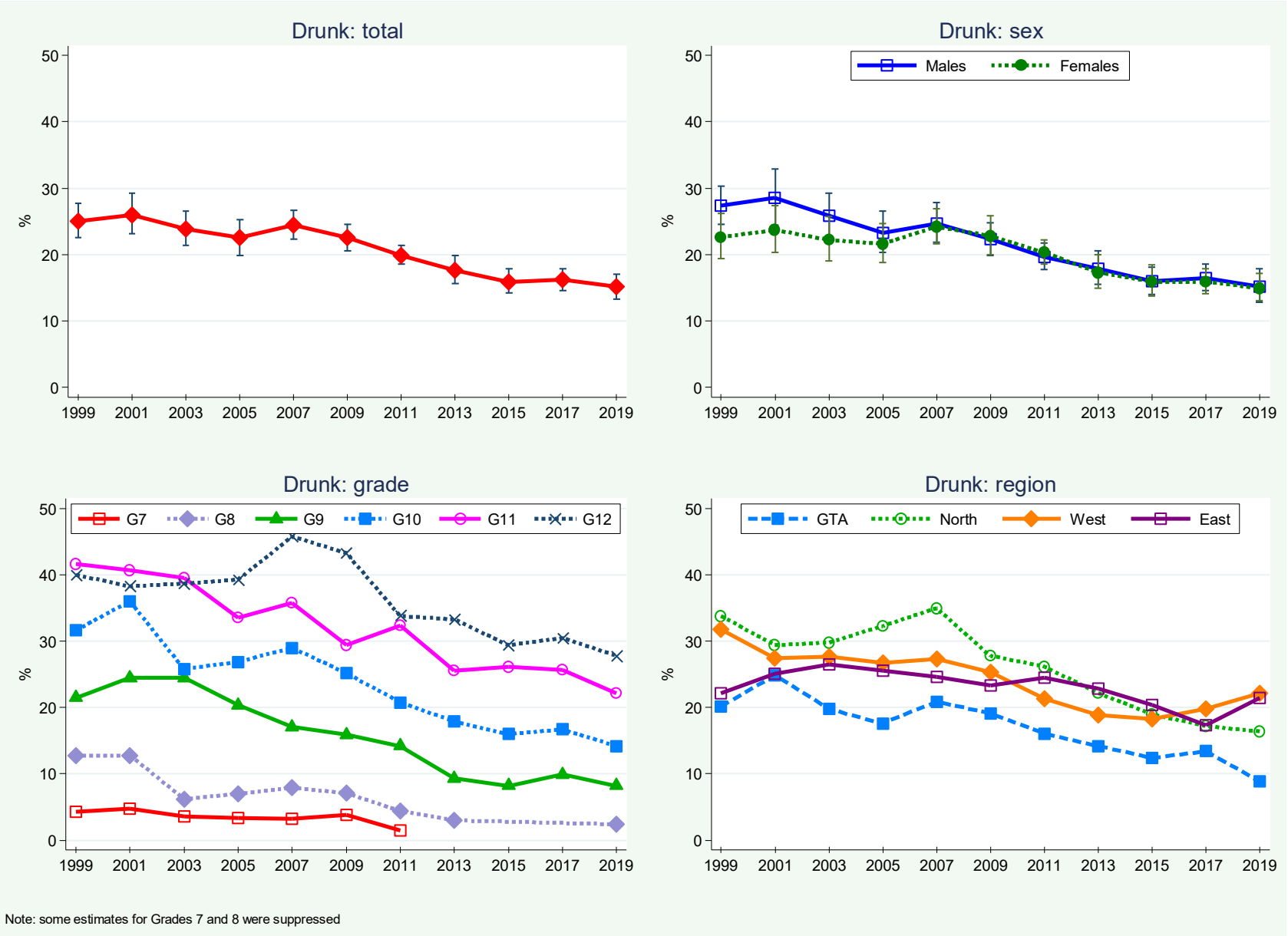
	Drunkenness in 2019 (Grades 7–12)	Trends in Drunkenness
Total	■ About 15.1% of students report becoming drunk (i.e., drinking until becoming ill or could not function properly) at least once during the four weeks before the survey.	☐ The percentage of students who report getting drunk in the past month in 2019 (15.1%) is not significantly different from the estimates found since 2013 (about 16%-18%). However, there has been a significant downward trend since 1999/early 2000s, when estimates were over one-quarter. ☐ Over the long-term, reports of drunkenness remained stable between 1977 and the early 1990s, increased during the second half of the 1990s and the early 2000s, followed by a decrease, and stability in recent years.
Sex	■ There is no significant difference in reported drunkenness between males (15.2%) and females (14.9%).	☐ Neither sex shows a significant change between 2017 and 2019. Both sexes show a significant downward trend in drunkenness since 1999 and stability in recent years.
Grade	■ Reported drunkenness climbs from a low of 2.4% of 8th graders up to 27.7% of 12th graders.	☐ No grade shows a significant change between 2017 and 2019. All grades show a significant downward trend in drunkenness since 1999 and stability in recent years.
Region	■ There is a significant difference by region, with students in the GTA (8.9%) least likely to report getting drunk in the past month compared with students in the other three regions (16%-22%).	☐ Only students in the GTA show a significant decrease between 2017 (13.4%) and 2019 (8.9%). Students in all regions, except the East, show a significant decrease compared with their respective 1999 estimates.

Figure 3.4.10
Drunkenness in the Past Month by Sex, Grade, and Region, 2019 OSDUHS



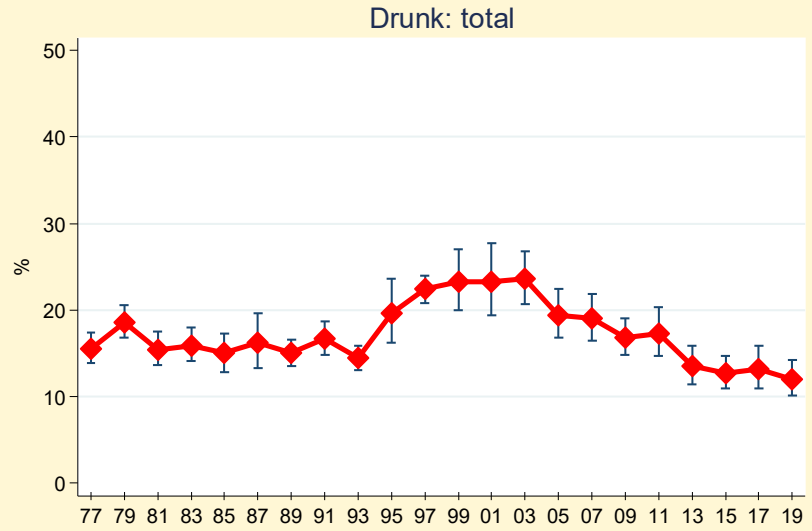
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant differences by grade and region (p<.05), no significant difference by sex

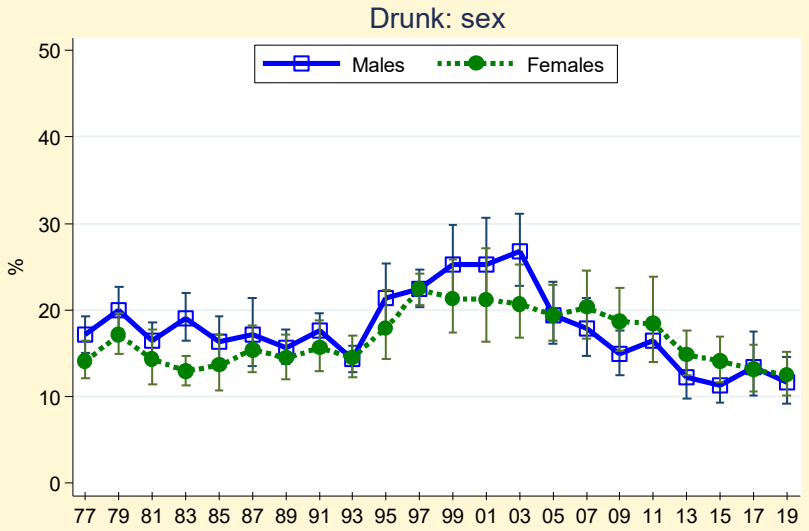
Figure 3.4.11
Drunkenness in the Past Month, 1999–2019 OSDUHS (Grades 7–12)

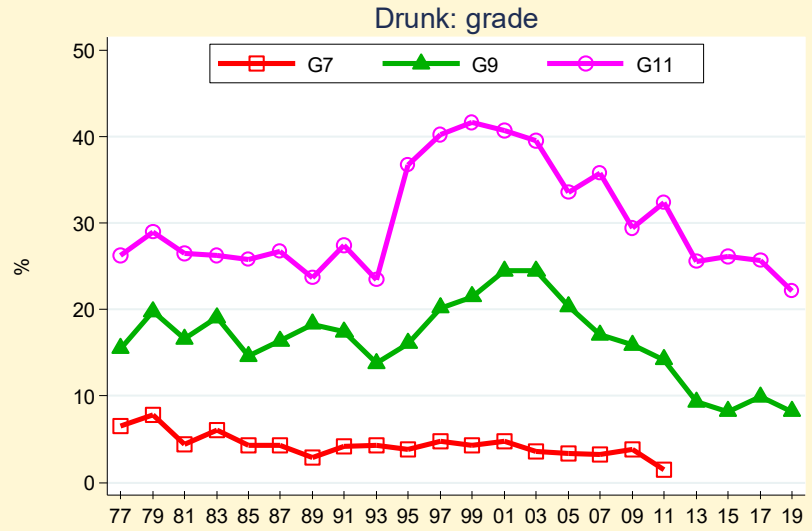


Note: some estimates for Grades 7 and 8 were suppressed

Figure 3.4.12
Drunkenness in the Past Month, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)







Notes: some estimates for Grade 7 were suppressed; long-term region trends are not available

Table 3.4.5: Percentage Reporting Drunkenness in the Past Month, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(2148)	(1837)	(3152)	(3648)	(2935)	(4851)	(9288)	(10272)	(10426)	(11435)	(6525)	
Total	**25.0**	**26.0**	**23.9**	**22.5**	**24.4**	**22.6**	**19.9**	**17.6**	**15.9**	**16.2**	**15.1**	[bc]
(95% CI)	(22.6-27.7)	(23.1-29.2)	(21.4-26.6)	(19.9-25.3)	(22.3-26.7)	(20.6-24.6)	(18.5-21.4)	(15.6-19.9)	(14.2-17.8)	(14.6-17.9)	(13.3-17.0)	
Sex												
Males	**27.4**	**28.5**	**25.8**	**23.3**	**24.7**	**22.3**	**19.6**	**17.9**	**16.0**	**16.4**	**15.2**	[b]
	(24.6-30.3)	(24.4-32.9)	(22.6-29.3)	(20.3-26.5)	(21.8-27.8)	(19.9-24.8)	(17.7-21.7)	(15.5-20.6)	(14.0-18.1)	(14.5-18.6)	(12.8-17.9)	
Females	**22.6**	**23.7**	**22.2**	**21.6**	**24.2**	**22.8**	**20.3**	**17.3**	**15.9**	**15.9**	**14.9**	[b]
	(19.4-26.2)	(20.3-27.4)	(19.0-25.7)	(18.8-24.7)	(21.6-26.9)	(20.0-25.8)	(18.5-22.2)	(14.9-20.0)	(13.6-18.4)	(14.1-17.9)	(13.0-17.2)	
Grade												
7	**4.3**	**4.8**	**3.6**	**3.4**	**3.2**	**3.8**	**1.5**	†	†	†	†	[b]
	(2.8-6.6)	(2.8-8.1)	(2.0-6.5)	(2.1-5.3)	(1.6-6.6)	(2.4-5.9)	(0.9-2.4)					
8	**12.8**	**12.8**	**6.2**	**7.0**	**7.9**	**7.1**	**4.4**	**3.0**	†	†	**2.4**	[b]
	(9.7-16.6)	(6.5-23.5)	(4.3-9.0)	(5.0-9.7)	(4.9-12.5)	(4.7-10.5)	(2.9-6.6)	(1.9-4.7)			(1.5-3.7)	
9	**21.5**	**24.5**	**24.5**	**20.4**	**17.1**	**15.9**	**14.2**	**9.3**	**8.2**	**9.9**	**8.2**	[b]
	(16.7-27.1)	(19.2-30.8)	(20.6-28.8)	(16.4-25.0)	(13.2-22.0)	(12.5-20.1)	(11.7-17.1)	(7.1-12.0)	(6.1-11.0)	(7.6-12.8)	(6.1-11.0)	
10	**31.7**	**36.0**	**25.8**	**26.9**	**29.0**	**25.2**	**20.8**	**17.9**	**16.0**	**16.7**	**14.2**	[b]
	(26.4-37.4)	(31.2-41.2)	(21.0-31.2)	(22.8-31.4)	(24.4-33.9)	(21.1-29.8)	(16.6-25.8)	(14.7-21.5)	(13.2-19.2)	(14.1-19.7)	(11.6-17.3)	
11	**41.7**	**40.7**	**39.6**	**33.6**	**35.8**	**29.4**	**32.4**	**25.6**	**26.2**	**25.7**	**22.1**	[b]
	(35.3-48.4)	(32.5-49.4)	(33.4-46.1)	(28.7-39.0)	(30.8-41.1)	(25.3-34.0)	(28.1-36.9)	(21.3-30.4)	(22.5-30.3)	(20.8-31.2)	(18.5-26.1)	
12	**40.0**	**38.3**	**38.7**	**39.3**	**45.8**	**43.3**	**33.8**	**33.3**	**29.4**	**30.5**	**27.7**	[b]
	(33.5-46.8)	(25.4-53.1)	(32.7-45.1)	(33.9-44.9)	(40.8-50.9)	(38.5-48.2)	(29.3-38.5)	(29.4-37.4)	(25.0-34.1)	(25.9-35.5)	(23.7-32.2)	
Region												
GTA	**20.2**	**24.9**	**19.8**	**17.6**	**20.9**	**19.1**	**16.1**	**14.2**	**12.4**	**13.4**	**8.9**	[ab]
	(16.6-24.2)	(19.1-31.8)	(15.6-24.8)	(14.0-21.8)	(17.2-25.2)	(15.6-23.2)	(13.5-19.1)	(10.8-18.3)	(10.2-14.9)	(12.0-14.9)	(7.3-11.0)	
North	**33.8**	**29.4**	**29.8**	**32.3**	**35.0**	**27.8**	**26.2**	**22.2**	**19.0**	**17.2**	**16.4**	[b]
	(28.6-39.3)	(25.2-33.9)	(24.2-36.0)	(27.0-38.0)	(30.0-40.4)	(22.6-33.6)	(22.3-30.4)	(19.6-25.1)	(15.8-22.7)	(14.4-20.4)	(11.6-22.7)	
West	**31.8**	**27.4**	**27.7**	**26.7**	**27.3**	**25.3**	**21.3**	**18.9**	**18.3**	**19.8**	**22.1**	[b]
	(25.6-38.7)	(22.8-32.6)	(22.2-34.0)	(22.0-32.1)	(23.0-32.1)	(21.6-29.4)	(18.4-24.6)	(14.5-24.3)	(14.3-23.0)	(16.7-23.3)	(17.2-27.8)	
East	**22.1**	**25.1**	**26.5**	**25.5**	**24.6**	**23.3**	**24.5**	**22.9**	**20.4**	**17.3**	**21.3**	
	(16.6-28.7)	(19.0-32.4)	(21.3-32.4)	(19.3-32.9)	(19.8-30.1)	(19.7-27.5)	(20.7-28.8)	(20.7-25.2)	(16.1-25.4)	(12.3-23.6)	(18.1-25.0)	

Notes: (1) based on grades 7-12; (2) question asked of a random half sample between 2001 and 2009 and again in 2019; (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 4 weeks, how often has drinking alcohol made you drunk (that is, you had so much that you could not do what you wanted to do, or you threw up)?

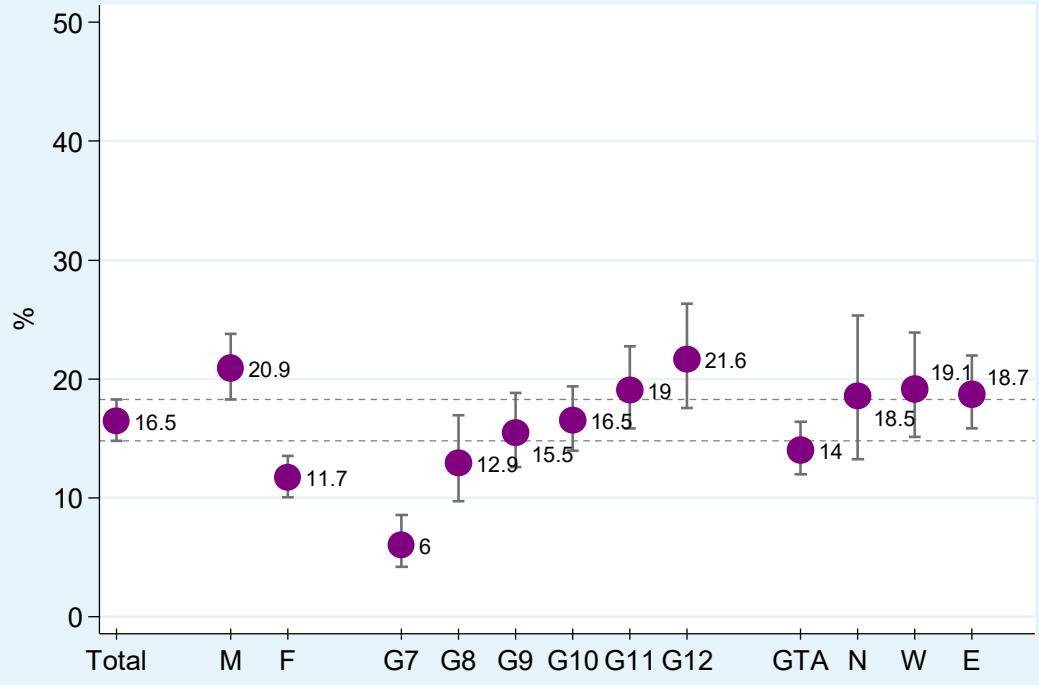
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Use of Alcohol Mixed with an Energy Drink

(Figures 3.4.13, 3.4.14, Table 3.4.6)

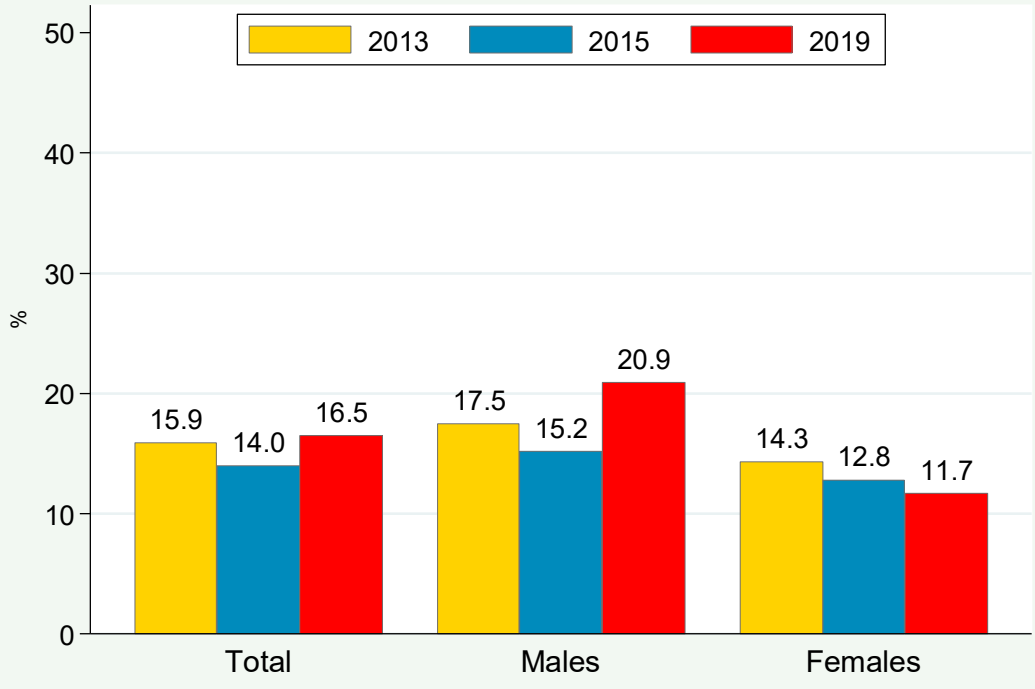
	Alcohol Mixed with an Energy Drink in 2019 (Grades 7–12)	2013–2019 Trends (Grades 7–12)
Total	■ About one-in-six (16.5%) students report drinking alcohol mixed with an energy drink at least once in the past year. This estimate represents about 132,300 students in Ontario in grades 7–12.	☐ The percentage of students who report drinking alcohol mixed with an energy drink in the past year has remained stable since 2013, ranging from about 14% to 16%.
Sex	■ Males (20.9%) are significantly more likely than females (11.7%) to drink alcohol mixed with an energy drink.	☐ Males show a significant increase between 2015 (the previous year of monitoring) and 2019, but the current estimate is similar to that seen in 2013. Females show no significant change since 2013.
Grade	■ Drinking alcohol with an energy drink significantly increases with grade, ranging from 6.0% of 7th graders up to 21.6% of 12th graders.	☐ Students in grades 8 and 9 show a significant increase between 2015 (the previous year of monitoring) and 2019, but their current estimates are similar to those seen in 2013. All other grades show no significant change since 2013.
Region	■ There is significant regional variation showing that students in the GTA (14.0%) are least likely to drink alcohol mixed with an energy drink compared with students in the other three regions (about 19%).	☐ No region shows a significant change since 2013.

Figure 3.4.13
Past Year Use of Alcohol Mixed with an Energy Drink by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

Figure 3.4.14
Past Year Use of Alcohol Mixed with an Energy Drink by Sex, 2013–2019 OSDUHS (Grades 7–12)



Notes: (1) question not asked in 2017; (2) no significant change over time for the total sample, or for females; significant increase for males between 2015 and 2019 (p<.01)

Table 3.4.6: Percentage Reporting Drinking Alcohol Mixed with an Energy Drink in the Past Year, 2013–2019 OSDUHS

		(n=)	2013 (4794)	2015 (5023)	2019 (6525)
Total (95% CI)			**15.9** (13.8-18.3)	**14.0** (12.3-15.9)	**16.5** (14.8-18.3)
Sex					
	Males		**17.5** (14.1-21.5)	**15.2** (12.8-17.8)	**20.9** [a] (18.3-23.8)
	Females		**14.3** (12.2-16.7)	**12.8** (10.8-15.1)	**11.7** (10.1-13.5)
Grade					
	7		**3.2** (1.9-5.5)	†	**6.0** (4.2-8.6)
	8		**9.5** (5.7-15.6)	**5.2** (2.9-9.0)	**12.9** [a] (9.7-17.0)
	9		**9.6** (6.6-13.7)	**9.3** (7.1-12.0)	**15.5** [a] (12.6-18.8)
	10		**15.3** (11.6-20.0)	**13.9** (11.1-17.4)	**16.5** (14.0-19.4)
	11		**19.4** (15.1-24.6)	**20.1** (16.4-24.4)	**19.0** (15.8-22.7)
	12		**28.0** (22.9-33.6)	**23.2** (18.5-28.7)	**21.6** (17.5-26.4)
Region					
	Greater Toronto Area		**14.5** (11.3-18.4)	**12.1** (10.1-14.4)	**14.0** (12.0-16.4)
	North		**15.9** (11.6-21.4)	**12.2** (9.2-16.0)	**18.5** (13.2-25.3)
	West		**16.0** (12.7-20.0)	**12.7** (9.8-16.3)	**19.1** (15.1-23.9)
	East		**20.5** (15.3-27.0)	**21.5** (15.9-28.4)	**18.7** (15.9-22.0)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) **question not asked in 2017**; (3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) [a] 2019 vs. 2015 significant difference, p<.01.

Q: In the last 12 months, how often did you drink an energy drink (such as Red Bull, Monster, Rockstar, Amp, Full Throttle, etc.) mixed with alcohol?

Source: OSDUHS, Centre for Addiction & Mental Health

Hazardous or Harmful Drinking (AUDIT Screener) Among Grades 9–12

(Figures 3.4.15-3.4.17; Tables 3.4.7, 3.4.8)

Starting in 1999, the OSDUHS included the *Alcohol Use Disorders Identification Test* (AUDIT) developed by the World Health Organization (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). This 10-item instrument identifies problem drinkers at the less severe end of the spectrum of alcohol problems. The AUDIT assesses hazardous or harmful drinking. **Hazardous drinking** refers to an established pattern of drinking that increases the likelihood of future physical, social, or mental health problems (e.g., dependence), whereas **harmful drinking** refers to a pattern of drinking that is already causing harm (e.g., alcohol-related injuries). Those with a score of eight or higher out of a maximum total of 40 are considered to be drinking at a hazardous or harmful level.

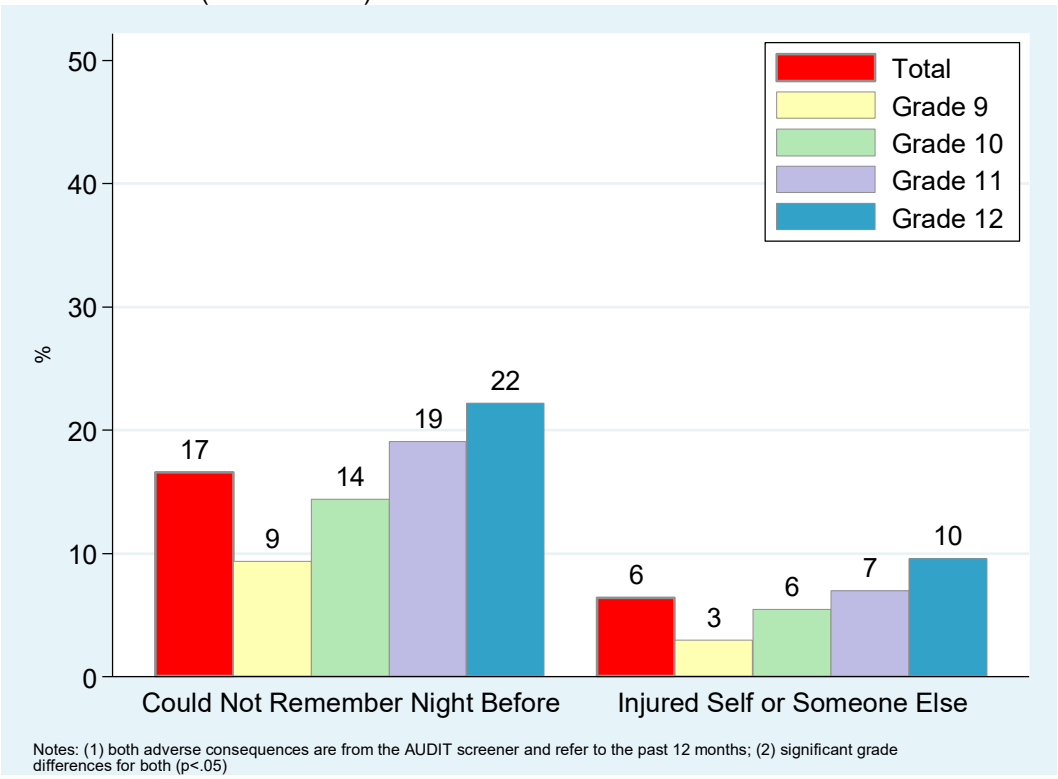
	Hazardous/Harmful Drinking in 2019 (Grades 9–12)	1999–2019 Trends (Grades 9–12)
Total	■ About one-in-six (17%) secondary students could not remember what had happened when they were drinking on at least one occasion during the past 12 months. Also worrisome is that 6% report that they were injured or someone else was injured because of their drinking, during the past 12 months. ■ About one-in seven (13.7%) secondary students report hazardous/harmful drinking (that is, scoring eight or higher of 40). This represents about 99,100 students in grades 9–12. Among past-year drinkers, about one-quarter (26.3%) drink hazardously/harmfully.	☐ Hazardous/harmful drinking remained stable between 2017 (14.1%) and 2019 (13.7%) among secondary students. However, hazardous/harmful drinking has significantly declined since monitoring first began, from about one-quarter of students twenty years ago down to about 14% in the past few years. The 2019 estimate is significantly lower than all previous estimates except that from 2017.
Sex	■ Males (12.5%) and females (14.9%) are equally likely to drink hazardously/ harmfully.	☐ Both males and females show no significant change between 2017 and 2019. Both sexes show a significant decrease over the past twenty years, and their 2019 estimates are among the lowest since monitoring first began.
Grade	■ The likelihood of hazardous/harmful drinking significantly increases with grade, from 5.0% of 9th graders to 21.8% of 12th graders.	☐ No grade shows a significant change between 2017 and 2019. All grades show a significant decrease over time, but the decrease among 12th graders only began in recent years.
Region	■ There is significant variation among the regions, showing that students in the GTA (7.9%) are significantly less likely to drink hazardously/harmfully compared with students in the other three regions (about 17%-20%).	☐ Students in the GTA show a significant decrease between 2017 and 2019. Students in the East show an increase in 2019, but the estimate resembles those from previous years. All regions show a significant decrease over time, but the decrease in the East region began later.

Table 3.4.7: Percentage of the Total Sample, and of Past Year Drinkers, Reporting AUDIT Indicators, 2019 OSDUHS (Grades 9–12)

AUDIT Item	% "yes"	
	Total (n=5,273)	Past Year Drinkers (n=2,702)
Alcohol Intake		
1. Consumed alcohol during the past 12 months	51.6	--
2. Number of drinks usually have on typical day when drink (% reporting 2+ drinks)	32.4	60.2
3. Consumed five or more drinks on one occasion during the past 12 months	28.7	54.6
Dependence Indicators (past 12 months)		
4. Were not able to stop drinking once you had started	7.8	14.4
5. Failed to do what was normally expected from you because of your drinking	10.5	19.9
6. Needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session	1.9	3.6
Adverse Consequences		
7. Had a feeling of guilt or remorse after drinking, during the past 12 months	11.5	21.5
8. Been unable to remember what happened the night before because you had been drinking, during the past 12 months	16.6	31.5
9. You or someone else been injured as a result of your drinking		
Yes, but not in the past 12 months:	4.4	7.1
Yes, in the past 12 months:	6.4	11.6
10. A relative/friend or a doctor/health worker has been concerned about your drinking or suggested that you cut down		
Yes, but not in the past 12 months:	0.6	0.9
Yes, in the past 12 months:	2.2	3.9
AUDIT 8+ Score (95% CI)	**13.7%** (11.9-15.7)	**26.3%** (23.5-29.3)

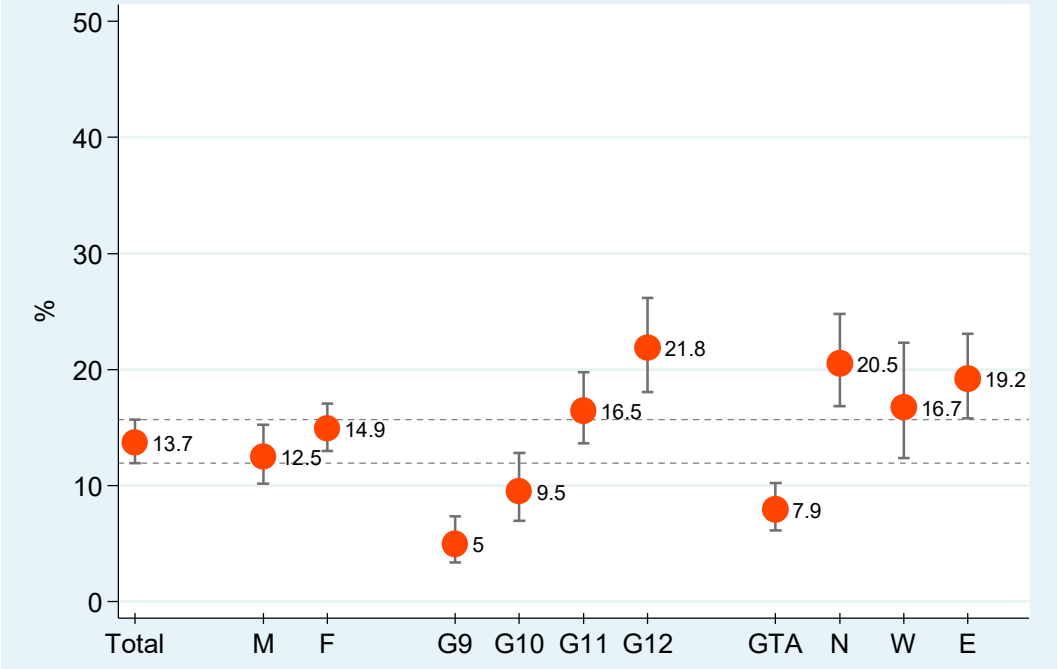
Notes: (1) The AUDIT is a screener that measures hazardous or harmful drinking as indicated by a score of 8 or more out of 40; (2) "Past Year Drinkers" are those who drank alcohol, excluding just a sip, at least once during the past 12 months; (3) based on a random half sample of secondary school students.
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.4.15
Percentage Reporting They Could Not Remember the Night Before Due to Their Drinking, and Reporting They (or Someone Else) Were Injured Due to Their Drinking by Grade, 2019 OSDUHS (Grades 9–12)



Notes: (1) both adverse consequences are from the AUDIT screener and refer to the past 12 months; (2) significant grade differences for both (p<.05)

Figure 3.4.16
Percentage Reporting Hazardous/Harmful Drinking (AUDIT 8+) by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.4.17
Hazardous/Harmful Drinking (AUDIT 8+), 1999–2019 OSDUHS (Grades 9–12)

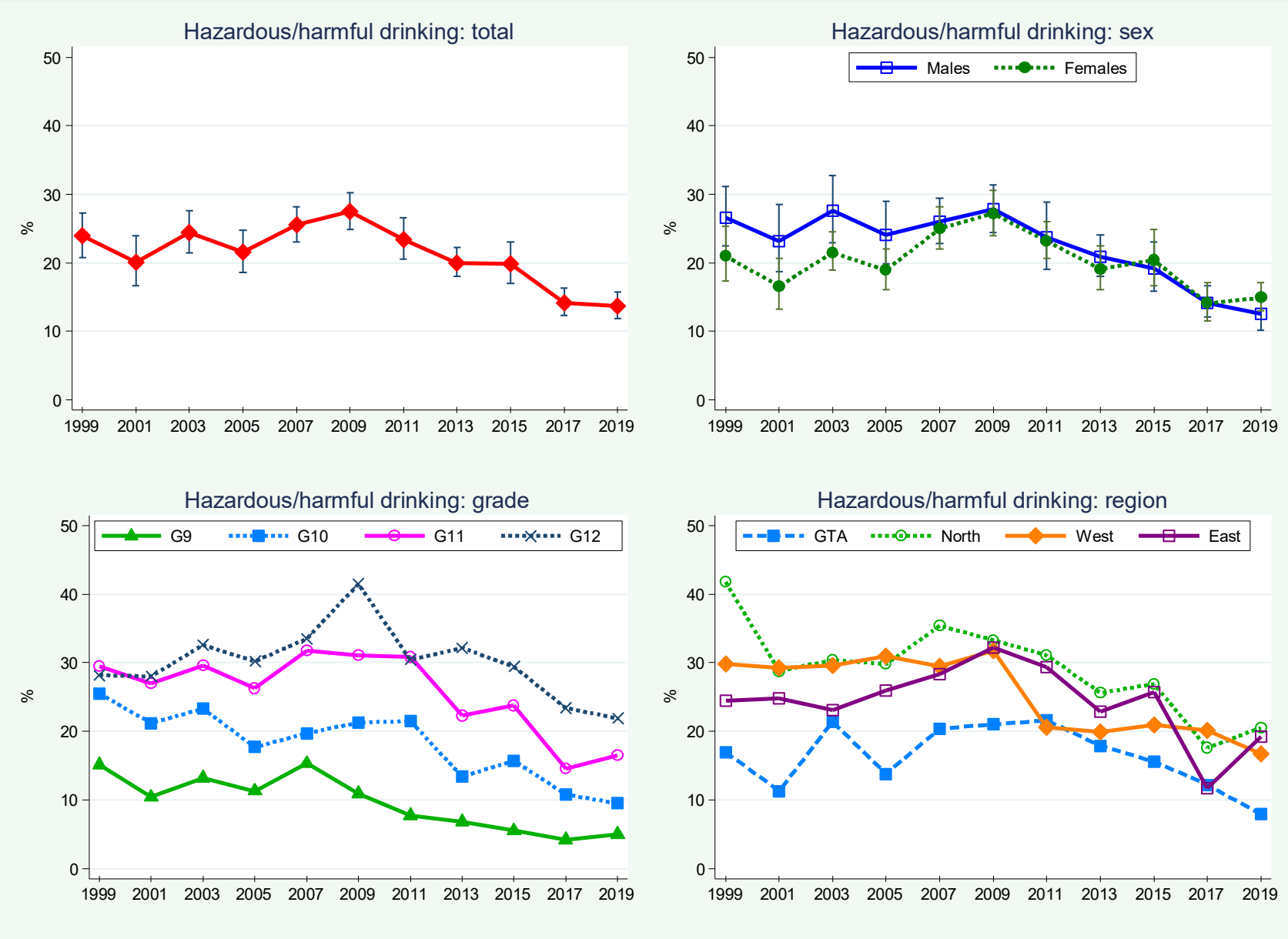


Table 3.4.8: Percentage Reporting Hazardous/Harmful Drinking (AUDIT 8+), 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(1495)	(1278)	(2455)	(3069)	(2587)	(3055)	(3358)	(3264)	(3426)	(4298)	(5273)	
Total	**23.9**	**20.1**	**24.4**	**21.6**	**25.5**	**27.5**	**23.4**	**20.0**	**19.8**	**14.1**	**13.7**	bcd
(95% CI)	(20.8-27.3)	(16.7-23.9)	(21.5-27.6)	(18.6-24.8)	(23.0-28.2)	(24.9-30.2)	(20.5-26.6)	(18.0-22.2)	(17.0-23.0)	(12.2-16.3)	(11.9-15.7)	
Sex												
Males	**26.6**	**23.2**	**27.6**	**24.1**	**26.0**	**27.8**	**23.7**	**20.9**	**19.2**	**14.2**	**12.5**	b
	(22.5-31.1)	(18.7-28.5)	(22.9-32.7)	(19.9-29.0)	(22.8-29.4)	(24.4-31.4)	(19.1-28.9)	(18.0-24.1)	(15.9-23.0)	(12.1-16.6)	(10.2-15.2)	
Females	**21.0**	**16.6**	**21.5**	**18.9**	**25.0**	**27.2**	**23.2**	**19.1**	**20.4**	**14.1**	**14.9**	b
	(17.3-25.3)	(13.2-20.7)	(18.9-24.5)	(16.1-22.0)	(22.0-28.2)	(24.0-30.6)	(20.6-26.0)	(16.1-22.5)	(16.6-24.9)	(11.5-17.1)	(13.0-17.0)	
Grade												
9	**15.1**	**10.4**	**13.2**	**11.3**	**15.3**	**10.9**	**7.7**	**6.8**	**5.5**	**4.2**	**5.0**	b
	(10.6-21.0)	(7.2-14.8)	(10.8-16.2)	(8.0-15.5)	(11.6-20.0)	(8.0-14.8)	(5.4-10.8)	(5.0-9.2)	(3.7-8.1)	(2.4-7.5)	(3.4-7.3)	
10	**25.5**	**21.2**	**23.3**	**17.7**	**19.7**	**21.3**	**21.5**	**13.4**	**15.7**	**10.8**	**9.5**	b
	(19.5-32.6)	(16.0-27.4)	(18.8-28.5)	(14.4-21.6)	(16.6-23.2)	(17.4-25.7)	(15.7-28.6)	(9.7-18.3)	(12.7-19.3)	(8.8-13.2)	(7.0-12.8)	
11	**29.5**	**27.0**	**29.6**	**26.3**	**31.8**	**31.1**	**30.8**	**22.3**	**23.8**	**14.6**	**16.5**	b
	(23.8-36.0)	(20.5-34.5)	(24.5-35.2)	(22.3-30.8)	(27.0-37.0)	(25.2-37.6)	(24.9-37.3)	(17.8-27.5)	(19.6-28.5)	(8.7-23.6)	(13.6-19.8)	
12	**28.2**	**27.9**	**32.6**	**30.2**	**33.5**	**41.5**	**30.4**	**32.2**	**29.4**	**23.4**	**21.8**	
	(21.1-36.6)	(21.9-34.9)	(27.0-38.7)	(25.2-35.6)	(28.9-38.4)	(37.2-46.1)	(23.5-38.2)	(28.2-36.5)	(22.9-36.8)	(18.7-28.9)	(18.1-26.2)	
Region												
GTA	**17.0**	**11.3**	**21.4**	**13.8**	**20.4**	**21.0**	**21.6**	**17.9**	**15.6**	**12.2**	**7.9**	ab
	(13.3-21.5)	(7.7-16.2)	(17.6-25.8)	(11.7-16.3)	(16.6-24.8)	(17.5-24.9)	(17.5-26.4)	(14.8-21.4)	(12.6-19.3)	(9.8-15.0)	(6.1-10.2)	
North	**41.8**	**28.8**	**30.4**	**29.8**	**35.4**	**33.3**	**31.1**	**25.6**	**26.9**	**17.6**	**20.5**	b
	(32.6-51.6)	(22.5-36.1)	(25.2-36.2)	(25.6-34.4)	(28.1-43.5)	(25.7-41.9)	(26.3-36.2)	(21.2-30.6)	(22.5-31.8)	(13.7-22.3)	(16.9-24.8)	
West	**29.8**	**29.3**	**29.6**	**31.0**	**29.5**	**31.8**	**20.6**	**19.9**	**20.9**	**20.1**	**16.7**	b
	(23.3-37.2)	(22.5-37.2)	(24.3-35.6)	(26.1-36.2)	(25.3-34.0)	(27.0-37.2)	(15.6-26.6)	(16.2-24.2)	(16.3-26.4)	(15.9-25.1)	(12.4-22.3)	
East	**24.5**	**24.8**	**23.1**	**25.9**	**28.4**	**32.2**	**29.4**	**22.9**	**25.7**	**11.7**	**19.2**	a
	(17.6-33.0)	(18.4-32.5)	(16.3-31.6)	(17.9-36.0)	(24.6-32.6)	(27.1-37.8)	(24.1-35.0)	(18.0-28.7)	(16.7-37.4)	(8.5-15.7)	(15.8-23.1)	

Notes: (1) based on a random half sample of grades 9-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

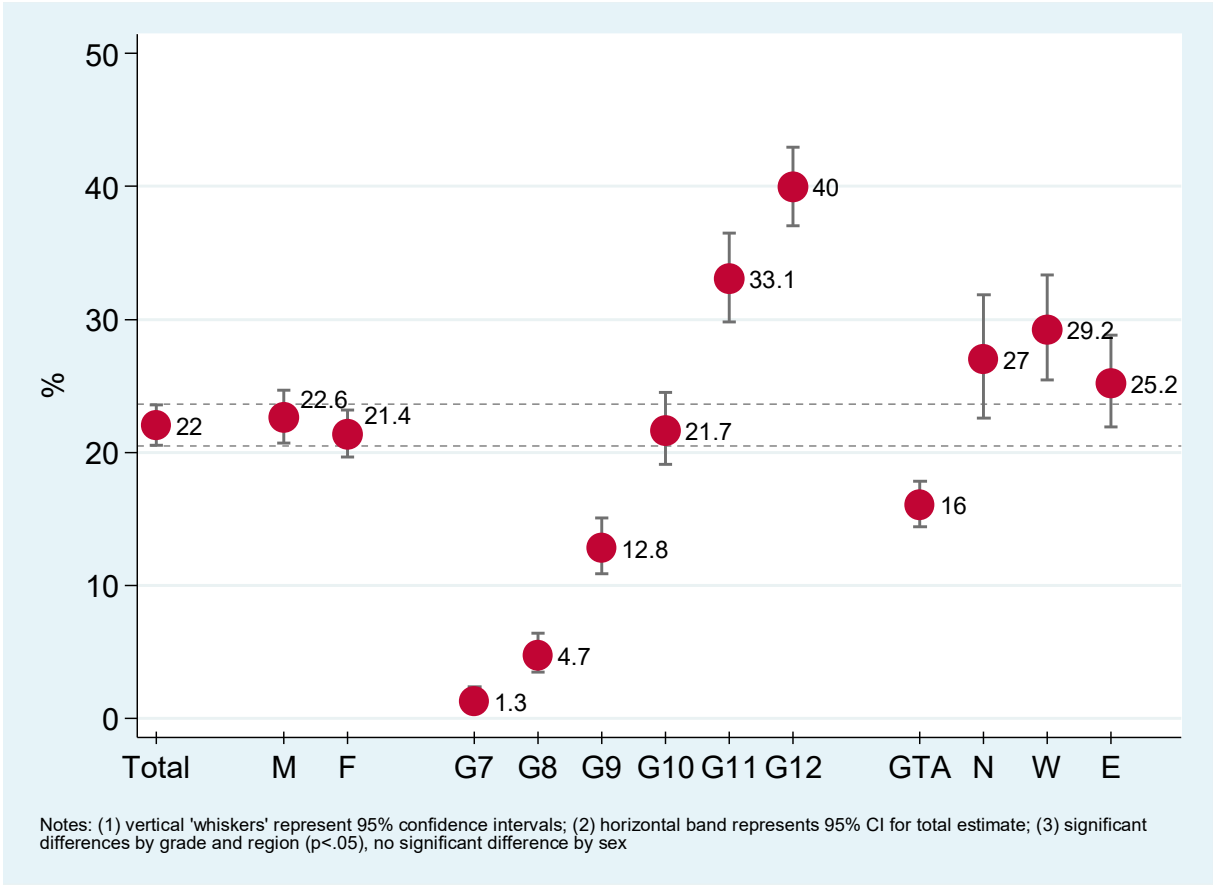
3.5 Cannabis Use

Past Year Cannabis Use

(Figures 3.5.1–3.5.3; Tables 3.5.1, A7)

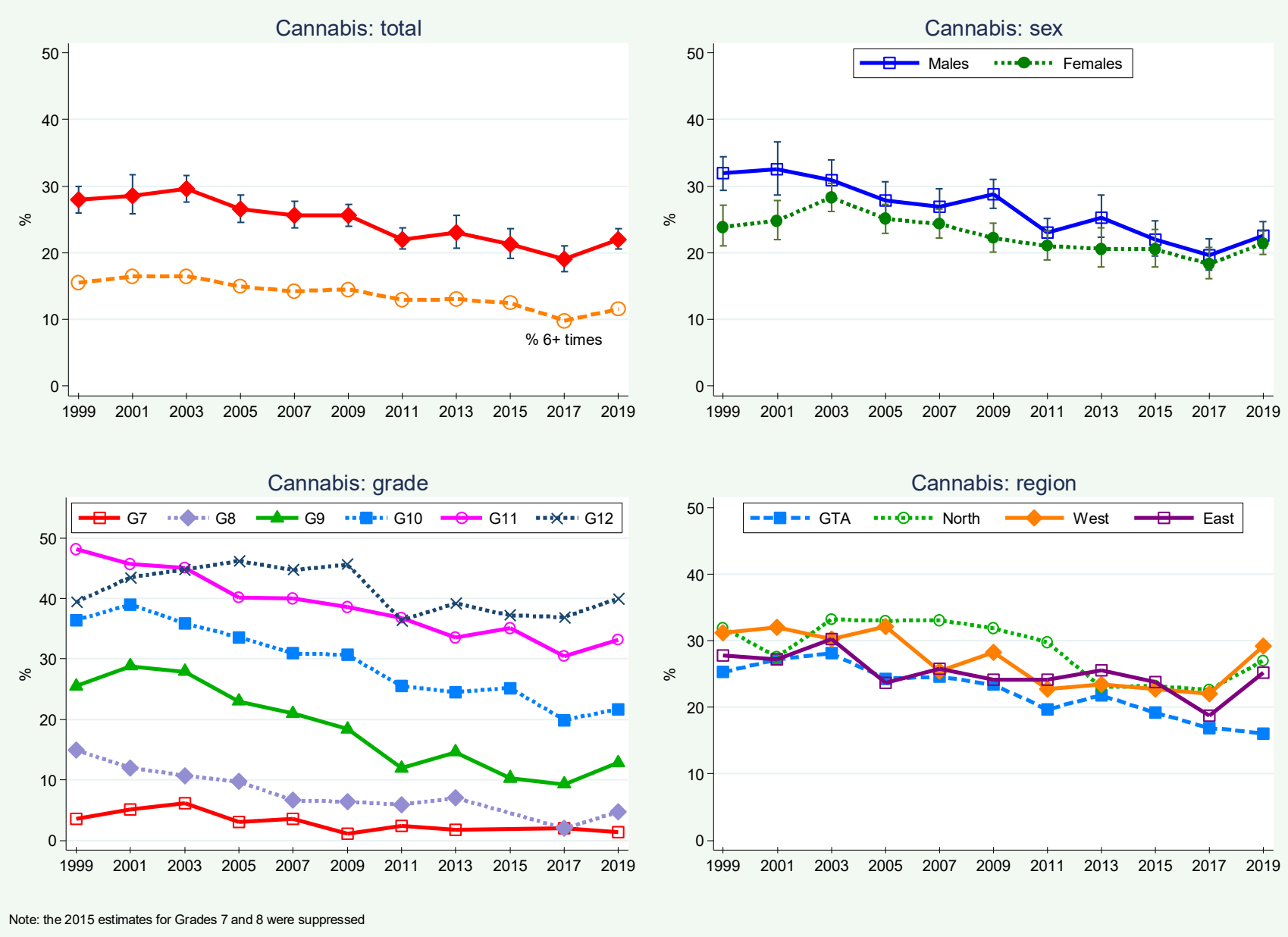
	Cannabis Use in 2019 (Grades 7–12)	Trends in Cannabis Use
Total	■ About one-in-five (22.0%) students report using cannabis at least once during the 12 months before the survey. With the sampling error, we estimate that between 20.5% and 23.6% (95% CI) of students in grades 7 through 12 use cannabis. The percentage of 22.0% represents about 198,300 students in Ontario.	☐ Among students in grades 7–12, past year cannabis use did not significantly change between 2017 (19.0%) and 2019 (22.0%), despite a numerical increase. Looking back over two decades, cannabis use significantly declined between 1999 and 2011, and has remained relatively stable since then. The current estimate remains lower than the elevated levels seen in 1999 and the early 2000s. ☐ Looking back over the past 40 years or so (grades 7, 9, and 11 only), current cannabis use is significantly lower than the historical peak years of use seen in the late 1970s and again in the late 1990s/early 2000s, but still remains higher than the historical lows seen in the late 1980s/early 1990s.
Sex	■ Males (22.6%) and females (21.4%) are equally likely to use cannabis.	☐ Neither sex shows a significant change in cannabis use between 2017 and 2019. However, both show a significant downward trend in use over time. Males show a decline from 1999 to 2011 and stability since then. Females show a decline from 2003 to 2011, and stability since then.
Grade	■ Cannabis use significantly increases with grade, from less than 2% of 7th graders reporting past year use up to 40.0% of 12th graders.	☐ Only 8th graders show a significant change between 2017 and 2019 (increasing from 2.0% to 4.7%), returning to a level seen in prior years. Students in grades 7–11 show a significant downward trend in use since 1999/2001. Students in grade 12 show an increase in use between 1999 and 2009, a decline in 2011, and stability since then.
Region	■ There is significant regional variation showing that GTA students (16.0%) are least likely to use cannabis compared with students in the other three regions (about 25%-29%).	☐ Only students in the West region show a significant change between 2017 and 2019, increasing from 22.0% to 29.2%. Only GTA students show a significant decline in use since 1999.

Figure 3.5.1
Past Year Cannabis Use by Sex, Grade, and Region, 2019 OSDUHS



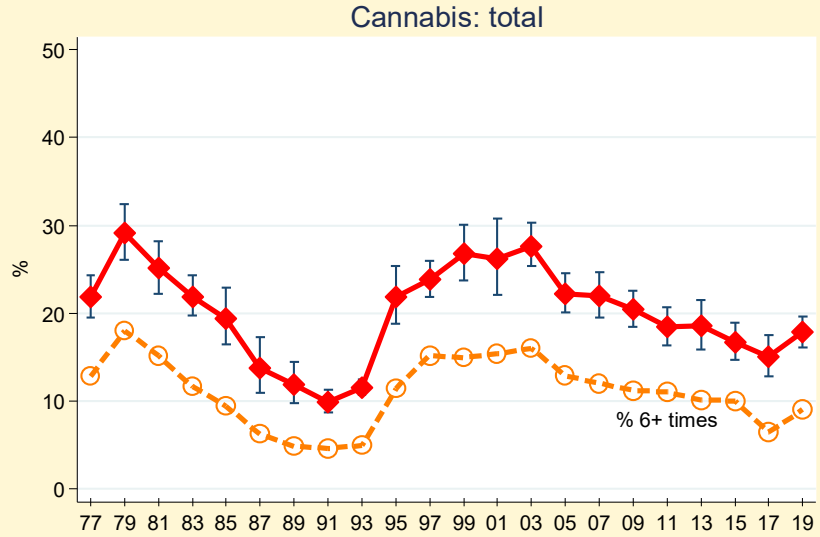
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

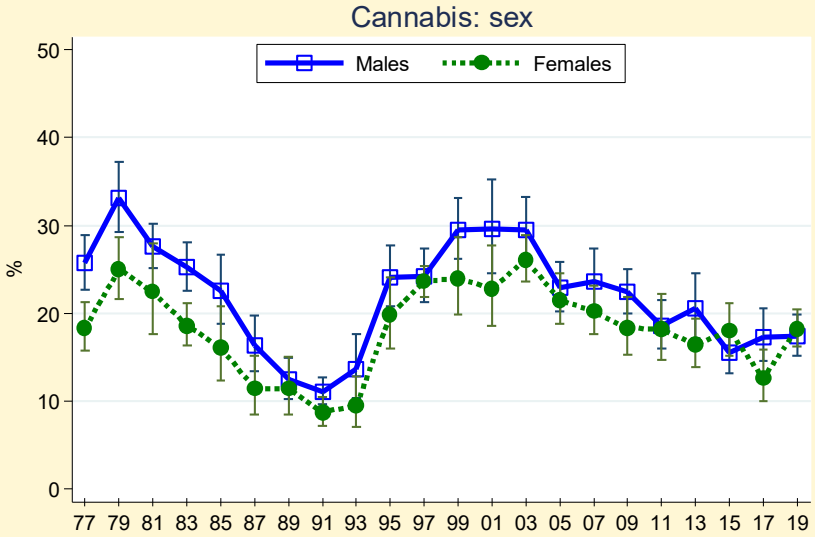
Figure 3.5.2
Past Year Cannabis Use, 1999–2019 OSDUHS (Grades 7–12)

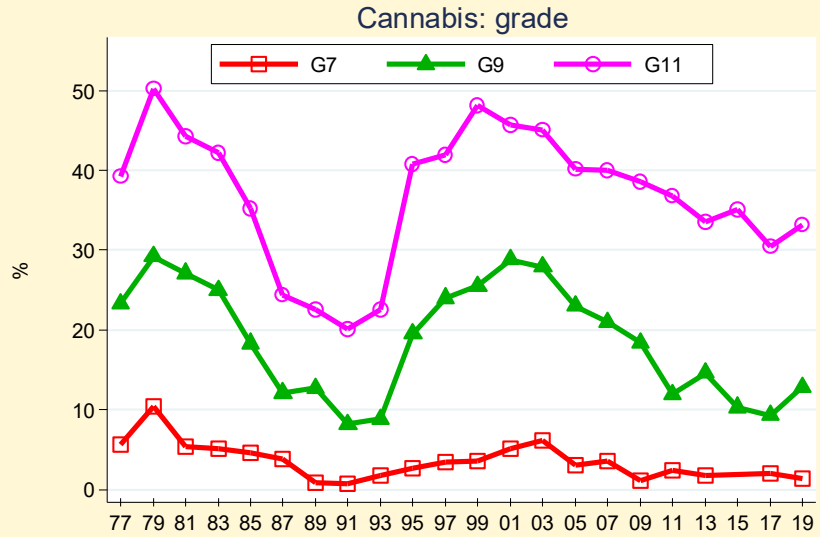


Note: the 2015 estimates for Grades 7 and 8 were suppressed

Figure 3.5.3
Past Year Cannabis Use, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)







Notes: the 2015 estimate for Grade 7 was suppressed; long-term region trends are not available

Table 3.5.1: Percentage Reporting Cannabis Use in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)	
Total	**28.0**	**28.6**	**29.6**	**26.5**	**25.6**	**25.6**	**22.0**	**23.0**	**21.3**	**19.0**	**22.0**	[bcd]
(95% CI)	(26.0-30.0)	(25.8-31.7)	(27.6-31.6)	(24.5-28.7)	(23.7-27.7)	(24.0-27.3)	(20.5-23.7)	(20.7-25.6)	(19.2-23.6)	(17.1-21.0)	(20.5-23.6)	
Sex												
Males	**31.9**	**32.5**	**30.9**	**27.9**	**26.9**	**28.8**	**23.0**	**25.3**	**22.0**	**19.6**	**22.6**	[b]
	(29.4-34.4)	(28.6-36.6)	(28.1-34.0)	(25.4-30.6)	(24.3-29.6)	(26.7-31.0)	(21.0-25.1)	(22.2-28.6)	(19.5-24.8)	(17.4-22.1)	(20.7-24.7)	
Females	**23.9**	**24.8**	**28.3**	**25.1**	**24.3**	**22.2**	**21.0**	**20.6**	**20.5**	**18.3**	**21.4**	
	(21.0-27.1)	(22.0-27.8)	(26.2-30.4)	(22.9-27.3)	(22.2-26.6)	(20.1-24.4)	(18.9-23.2)	(17.9-23.7)	(17.8-23.5)	(16.1-20.8)	(19.7-23.2)	
Grade												
7	**3.5**	**5.1**	**6.2**	**3.0**	**3.6**	**1.1**	**2.4**	**1.7**	†	**2.0**	**1.3**	[b]
	(2.2-5.6)	(3.4-7.6)	(4.3-8.7)	(1.9-4.9)	(2.2-5.8)	(0.6-1.8)	(1.3-4.4)	(1.0-3.1)		(1.1-3.6)	(0.7-2.4)	
8	**14.9**	**12.0**	**10.7**	**9.7**	**6.6**	**6.4**	**5.9**	**7.0**	†	**2.0**	**4.7**	[ab]
	(11.6-18.9)	(9.4-15.1)	(6.8-16.4)	(7.3-12.8)	(4.7-9.4)	(4.4-9.2)	(4.1-8.4)	(4.2-11.5)		(1.1-3.7)	(3.5-6.4)	
9	**25.5**	**28.8**	**27.9**	**23.0**	**21.0**	**18.4**	**11.9**	**14.6**	**10.3**	**9.3**	**12.8**	[b]
	(21.7-29.7)	(23.8-34.2)	(24.5-31.5)	(20.2-26.1)	(17.2-25.4)	(15.0-22.3)	(10.0-14.1)	(11.6-18.2)	(8.2-12.8)	(7.4-11.7)	(10.8-15.1)	
10	**36.4**	**39.0**	**35.9**	**33.6**	**30.9**	**30.7**	**25.5**	**24.5**	**25.2**	**19.9**	**21.7**	[b]
	(30.7-42.6)	(35.0-43.1)	(31.4-40.8)	(30.2-37.1)	(27.4-34.6)	(26.6-35.0)	(20.4-31.4)	(20.9-28.4)	(21.6-29.1)	(17.1-23.1)	(19.1-24.5)	
11	**48.1**	**45.7**	**45.0**	**40.1**	**40.0**	**38.6**	**36.8**	**33.5**	**35.1**	**30.4**	**33.1**	[b]
	(42.8-53.4)	(37.7-53.9)	(40.6-49.5)	(36.2-44.1)	(35.9-44.2)	(34.4-42.9)	(33.2-40.7)	(29.1-38.3)	(30.9-39.6)	(25.2-36.2)	(29.8-36.5)	
12	**39.4**	**43.5**	**44.8**	**46.2**	**44.7**	**45.6**	**36.4**	**39.2**	**37.2**	**36.9**	**40.0**	
	(33.2-45.9)	(33.1-54.5)	(39.4-50.4)	(42.0-50.5)	(40.8-48.7)	(41.9-49.3)	(31.6-41.5)	(34.2-44.4)	(32.2-42.5)	(31.5-42.7)	(37.0-43.0)	
Region												
GTA	**25.3**	**27.2**	**28.1**	**24.3**	**24.6**	**23.4**	**19.7**	**21.8**	**19.2**	**16.9**	**16.0**	[b]
	(21.9-29.1)	(21.2-34.3)	(24.7-31.8)	(20.7-28.3)	(20.6-29.0)	(20.1-27.0)	(16.6-23.2)	(17.7-26.5)	(16.4-22.5)	(14.6-19.4)	(14.4-17.8)	
North	**31.9**	**27.6**	**33.2**	**33.0**	**33.1**	**31.9**	**29.8**	**23.1**	**23.2**	**22.6**	**27.0**	
	(26.2-38.2)	(22.4-33.6)	(27.9-39.0)	(29.6-36.6)	(28.9-37.7)	(27.8-36.2)	(26.4-33.4)	(17.8-29.3)	(19.8-27.0)	(19.0-26.6)	(22.6-31.8)	
West	**31.2**	**32.0**	**30.3**	**32.1**	**25.4**	**28.3**	**22.7**	**23.4**	**22.7**	**22.0**	**29.2**	[a]
	(26.2-36.7)	(27.6-36.7)	(24.9-36.4)	(27.3-37.4)	(21.3-30.0)	(25.0-32.0)	(18.9-27.0)	(19.3-28.2)	(18.0-28.2)	(18.8-25.6)	(25.4-33.4)	
East	**27.8**	**27.2**	**30.3**	**23.7**	**25.8**	**24.1**	**24.1**	**25.6**	**23.8**	**18.7**	**25.2**	
	(20.7-36.2)	(20.5-35.0)	(26.4-34.6)	(19.0-29.1)	(21.4-30.7)	(21.4-27.1)	(21.3-27.0)	(21.2-30.6)	(18.2-30.4)	(13.4-25.3)	(21.9-28.8)	

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use cannabis (also known as marijuana, "weed", "pot", "grass", hashish, "hash", hash oil, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

Frequency of Cannabis Use in the Past Year, and in the Past Month

(Figures 3.5.2, 3.5.4, 3.5.5; Tables 3.2.2, 3.5.2, 3.5.3, A8, A9)

2019: Grades 7–12

- One-in-ten students (10.5%) report using cannabis between one and five times in the past year. Another 11.5% of students report using cannabis six or more times in the past year.

- About 14.1% (95% CI: 13.0%-15.3%) of students used cannabis at least once during the month (4 weeks) before the survey.

- About 2.3% (95% CI: 1.9%-2.8%) of students used on a daily basis during the past month – representing about 20,700 Ontario students.

- Daily cannabis use is significantly more likely among males (3.0%) than females (1.6%).

- Daily cannabis use significantly increases with grade, reaching 5.4% among 12th graders.

- There are significant regional differences as well showing that students in the GTA (1.0%) are least likely to use cannabis daily compared with students in the other three regions (about 3%-4%).

1999–2019: Grades 7–12

- Cannabis use six or more times in the past year remained stable between 2017 (9.8%) and 2019 (11.5%). The current estimate is significantly lower than the estimates seen in 1999 and in the 2000s (about 15%-17%).

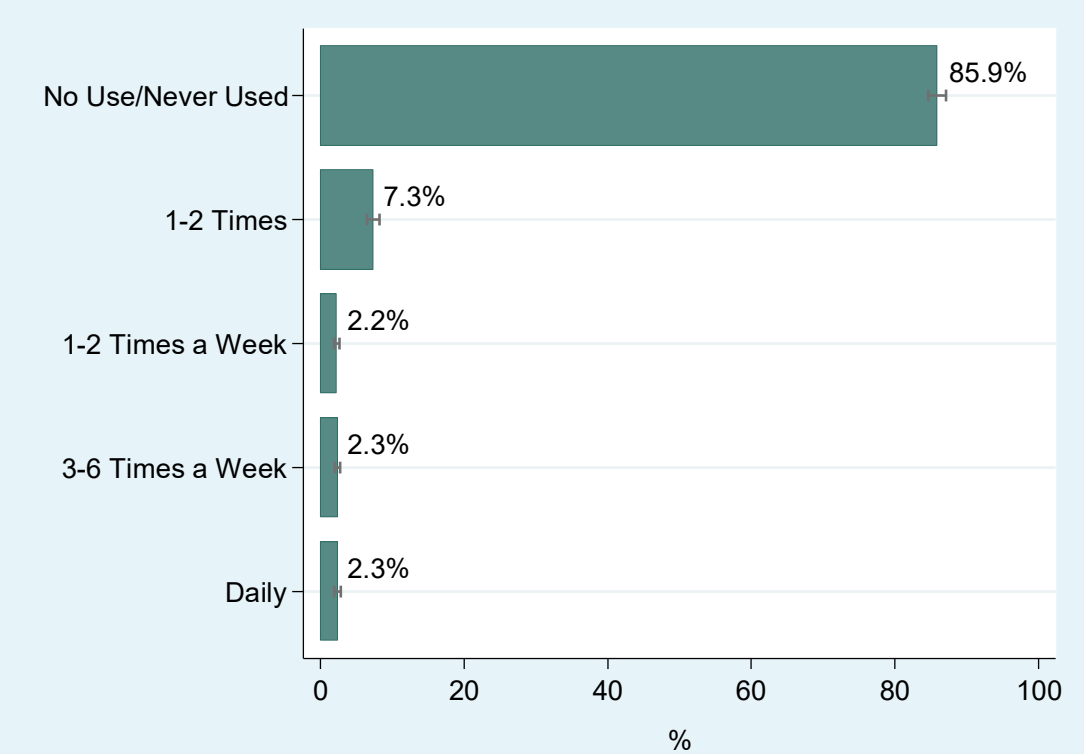
- The percentage reporting any cannabis use in the past month in 2019 (14.1%) is similar to 2017 (12.1%) and to the estimates seen in recent years, but significantly lower than estimates seen in 1999/early 2000s (about 21%-22%).

- Daily cannabis use increased significantly between 2017 (1.4%) and 2019 (2.3%), returning to a level seen in prior years.

1981–2019: Grades 7, 9, and 11

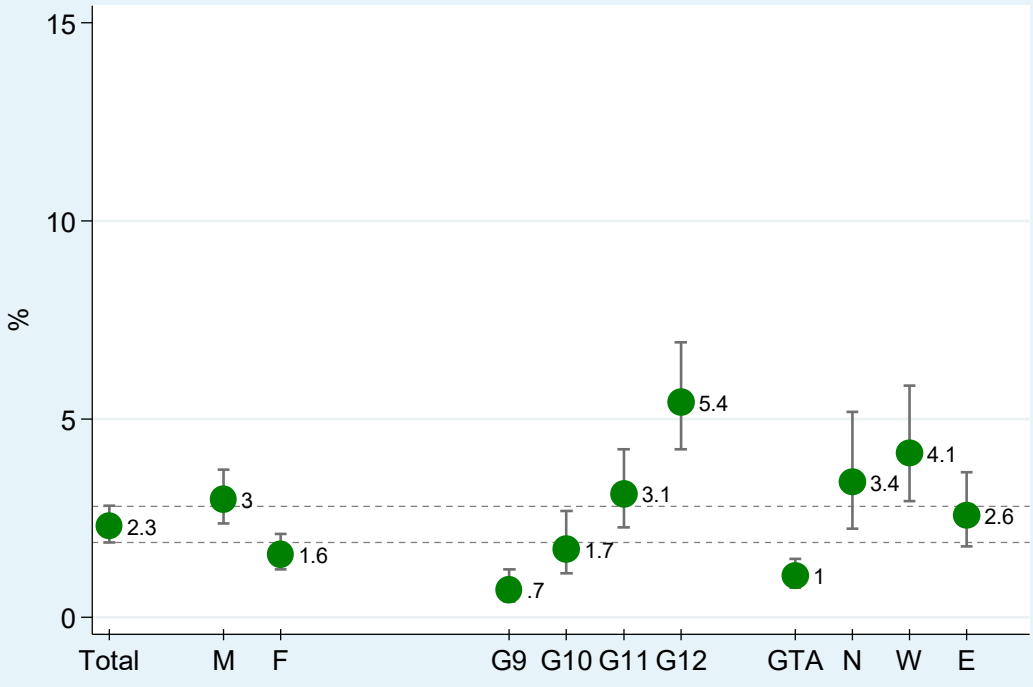
- Among students in grades 7, 9, and 11 only, cannabis use six or more times in the past year is currently lower than the peaks evident in the late 1970s and again in the late 1990s/early 2000s, but higher than the historical lows seen in the late 1980s/early 1990s.

Figure 3.5.4
Frequency of Cannabis Use in the Past Month, 2019 OSDUHS (Grades 7–12)



Note: error bars represent 95% confidence intervals

Figure 3.5.5
Daily Cannabis Use in the Past Month by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant differences by sex, grade, and region (p<.05)

Table 3.5.2: Frequency of Cannabis Use in the Past Year, 1999–2019 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Not Used Past Year	72.0	71.4	70.4	73.5	74.4	74.4	78.0	77.0	78.7	81.0	78.0
1-2 Times	8.1	7.0	8.6	7.4	6.9	6.6	5.6	6.2	5.5	5.8	6.7
3-5 Times	4.3	5.2	4.5	4.2	4.6	4.6	3.4	3.8	3.5	3.4	3.7
6-9 Times	3.6	3.5	3.4	2.6	3.0	2.7	2.6	2.3	2.5	2.0	2.5
10-19 Times	3.4	3.6	3.3	3.3	3.2	3.3	2.8	3.1	2.5	2.4	2.6
20-39 Times	2.8	2.8	2.6	2.3	2.2	2.3	1.7	2.2	2.0	1.3	2.1
40+ Times	5.8	6.6	7.2	6.7	5.7	6.2	5.8	5.4	5.3	4.0	4.4

Q: In the last 12 months, how often did you use cannabis (also known as marijuana, “weed”, “pot”, “grass”, hashish, “hash”, hash oil, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.5.3: Frequency of Cannabis Use in the Past Month, 1999–2019 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(4447)	(1837)	(3152)	(4078)	(3388)	(4851)	(4816)	(10272)	(10426)	(11435)	(14142)
Not Used Past Month	79.1	78.4	79.4	83.9	83.9	86.6	82.8	85.8	86.2	87.9	85.9
1-2 Times	10.2	10.1	8.8	7.8	8.8	7.4	8.9	7.0	6.9	6.4	7.3
1-2 Times Each Week	4.3	3.9	3.7	2.4	2.9	2.0	2.9	2.4	2.7	2.2	2.2
3-6 Times Each Week	3.8	4.5	4.0	2.8	1.9	1.7	2.5	2.1	2.1	2.0	2.3
Daily Use	2.5	3.1	4.2	3.2	2.5	2.3	2.9	2.7	2.1	1.4	2.3

Note: Question asked of a random half sample between 2001 and 2011.
Q: In the last 4 weeks, how often (if ever) did you use cannabis (also known as marijuana, “weed”, “pot”, “grass”, hashish, “hash”, hash oil)?
Source: OSDUHS, Centre for Addiction & Mental Health

Cannabis and Alcohol Use on the Same Occasion

(Figure 3.5.6)

A random half sample of students was asked if they had used cannabis and alcohol on the same occasion during the past year. The question was "*In the last 12 months, how often did you use cannabis (weed) and alcohol on the same occasion – that is, so that their effects overlapped*?" Here we present the percentage reporting that they had used both drugs on the same occasion at least once in the past year.

2019: Grades 7–12

- About one-in-seven (13.6%) students used alcohol and cannabis on the same occasion at least once in the past year. This percentage represents about 110,200 Ontario students in grades 7–12.

- Males (13.7%) and females (13.4%) are equally likely to use cannabis and alcohol on the same occasion.

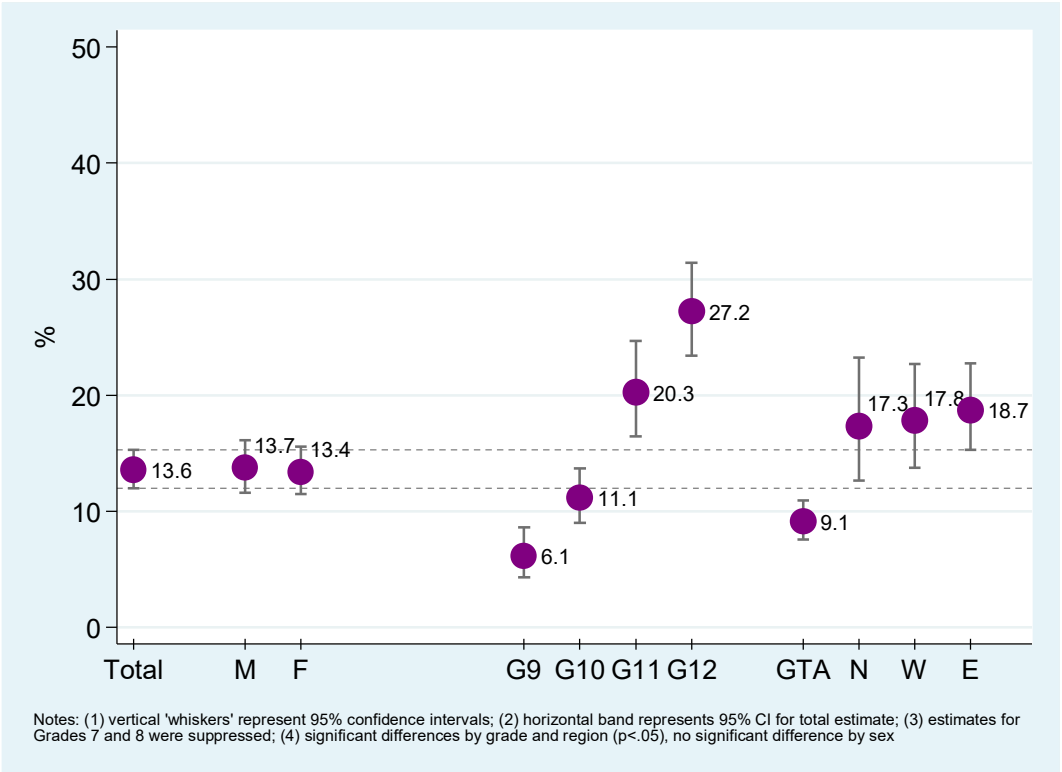
- Use of both drugs on the same occasion increases with grade, up to 27.2% of 12th graders.

- There is significant regional variation showing GTA students (9.1%) are least likely to use both drugs together than are students in the other three regions (about 17%-19%).

2013–2019: Grades 7–12

- ☐ The percentage using cannabis and alcohol on the same occasion has not changed significantly since monitoring first began in 2013 (ranging from 13%-16%). Further, no dominant changes are evident among the subgroups (data not shown).

Figure 3.5.6
Percentage Reporting Using Cannabis and Alcohol on the Same Occasion at Least Once in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant differences by grade and region (p<.05), no significant difference by sex

Cannabis and Tobacco Use on the Same Occasion

(Figure 3.5.7)

For the first time in 2019, a random half sample of students was asked if they had used cannabis and tobacco on the same occasion during the past year. The question was "*In the last 12 months, have you smoked cannabis mixed with tobacco at the same time*?" Here we present the percentage responding "yes" to the question.

2019: Grades 7–12

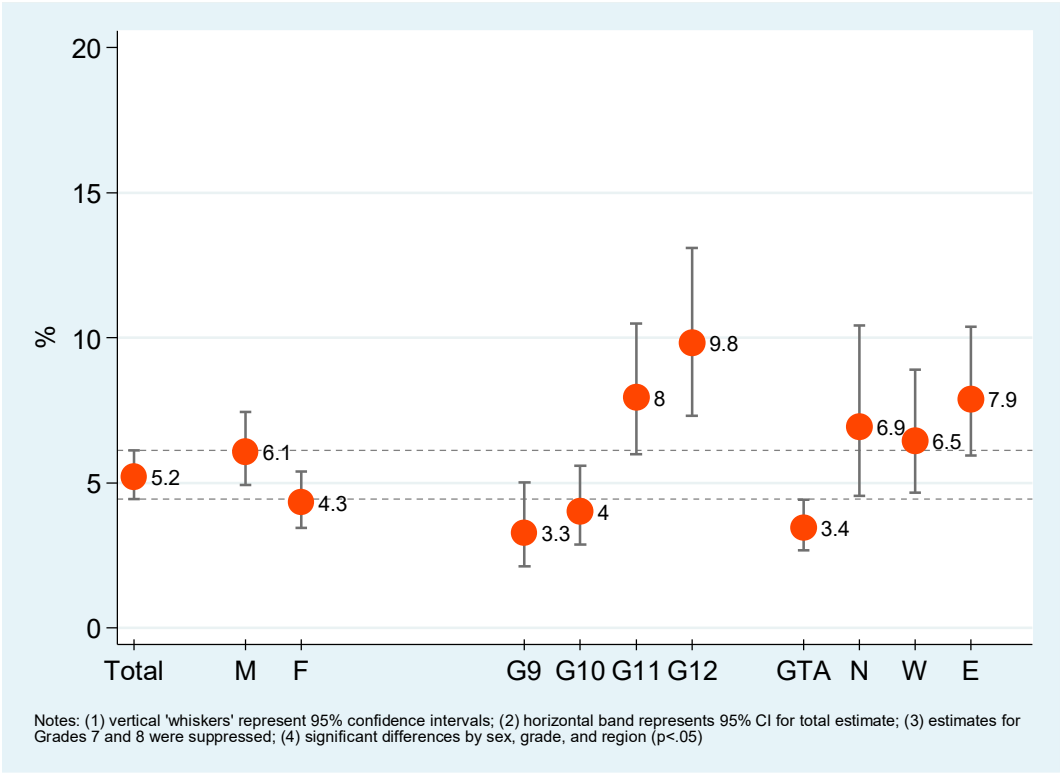
- About 5.2% (95% CI: 4.4%-6.1%) of students report smoking cannabis mixed with tobacco at least once during the past year. This estimate represents about 41,800 students in grades 7–12.

- Males (6.1%) are significantly more likely than females (4.3%) to smoke cannabis mixed with tobacco.

- Use significantly increases with grade, up to about one-in-ten (9.8%) 12th graders.

- There is significant regional variation showing GTA students (3.4%) are least likely to smoke cannabis mixed with tobacco compared with students in the other three regions (about 7%-8%).

Figure 3.5.7
Percentage Reporting Smoking Cannabis Mixed with Tobacco in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant differences by sex, grade, and region (p<.05)

Modes of Cannabis Use

(Figures 3.5.8, 3.5.9)

Starting in 2017, secondary students were asked about the ways they used cannabis in the past year. The question, asked of a random half sample, was "*In the last 12 months, what ways have you used cannabis, if at all? Please check all the ways you've used any type of cannabis.*" The response options were: *Never used cannabis in lifetime; Did not use in the last 12 months*; *Smoked cannabis in a joint*; *Smoked cannabis in a blunt (hollowed-out cigar)*; *Smoked cannabis in a pipe or a bong*; *Used cannabis in an electronic cigarette, vape pen, or vaporizer*; *Used cannabis in a waterpipe (hookah)*; *Eaten food that contained cannabis (such as a brownie, cookie, candy)*; *Had a drink that contained cannabis (such as a tea); and Used cannabis by "dabbing" (hash oil, wax, shatter).*[77]

2019: Grades 9–12

- Among secondary students, the most common mode of using cannabis is smoking it in a joint (20.9%), followed by smoking it in a pipe or bong (18.5%). About 13.9% of secondary students use cannabis edibles. One-in-ten (10.0%) vape cannabis in an e-cigarette. The least common mode is to drink cannabis, such as in a tea (1.6%).

- There are some significant differences in modes of use by sex. Males are significantly more likely than females to use cannabis by dabbing, in a waterpipe, and in a drink.

- There are significant grade differences for all modes of use, except for a waterpipe, with older students more likely than younger students to use each mode (data not shown).

2019 vs 2017: Grades 9–12

- Between 2017 and 2019, the percentage of students reporting using cannabis edibles significantly increased from 10.6% to 13.9%.

- Between 2017 and 2019, the percentage of students reporting using cannabis in a waterpipe significantly decreased from 3.9% to 2.1%.

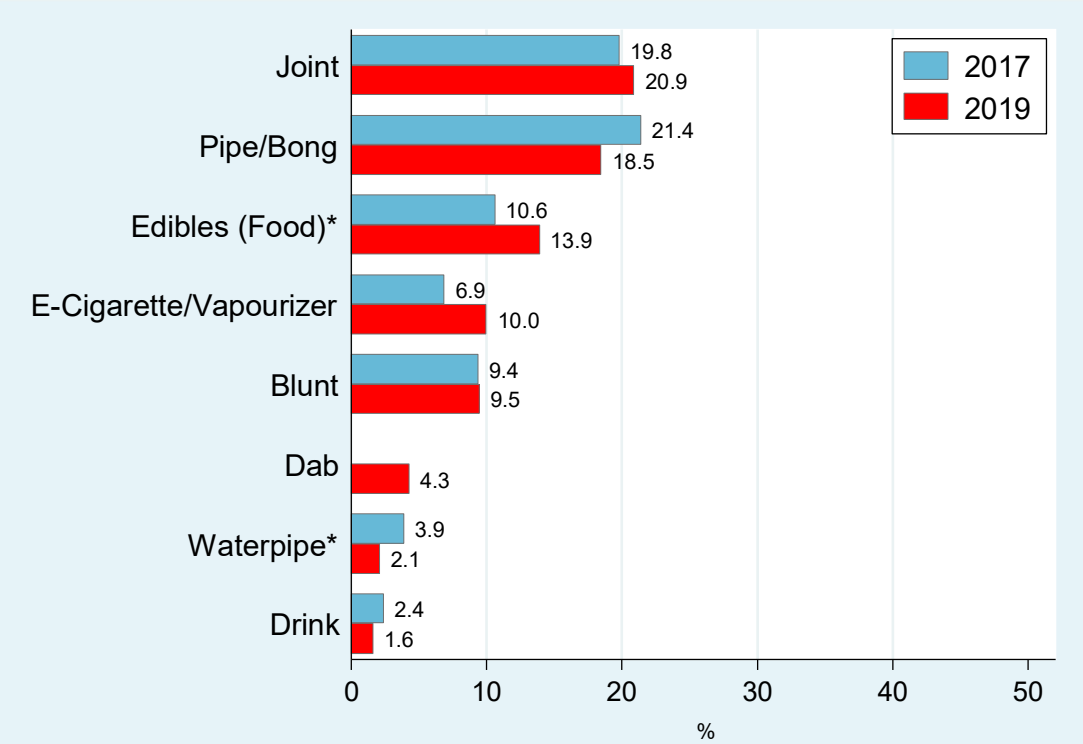
- While there was no statistically significant difference between vaping cannabis in 2017 (6.9%) and 2019 (10.0%), the current estimate is significantly higher than in 2015 (5.1%), which was based on a similar question about vaping.[78]

- There was no significant change between 2017 and 2019 in the percentage of students reporting using cannabis in a joint, a pipe/bong, a blunt, or a drink.

[77] "Dabbing" involves vapourizing concentrated cannabis by placing it on a hot object or surface and inhaling the vapours.

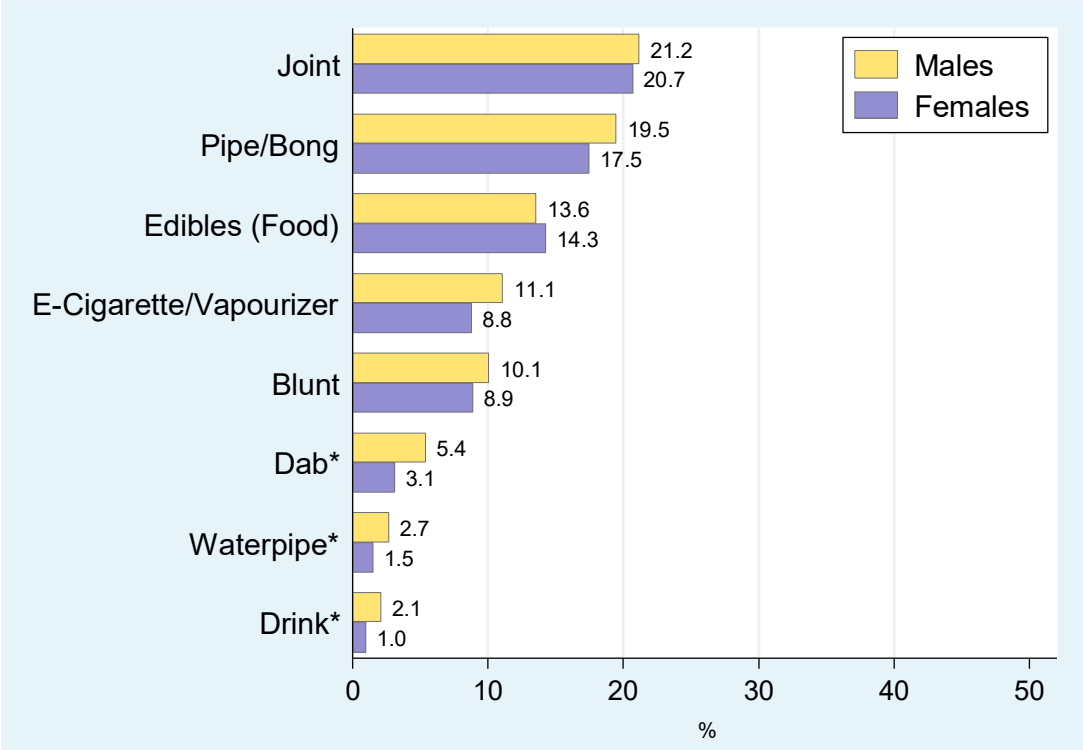
[78] The wording of the question asked in 2015 was: "*If you smoked e-cigarettes (also known as 'vape pipes,' 'hookah pens,' and 'e-hookahs') in the last 12 months, did you try smoking marijuana or hash oil, liquid, or wax in it?*"

Figure 3.5.8
Percentage Reporting Modes of Cannabis Use in the Past Year, 2017–2019 OSDUHS (Grades 9–12)



Notes: (1) dabbing cannabis not asked about in 2017; (2) * indicates a significant difference (p<.01) between the two yeas

Figure 3.5.9
Percentage Reporting Modes of Cannabis Use in the Past Year by Sex, 2019 OSDUHS (Grades 9–12)



Note: * indicates a significant difference (p<.05) between males and females

Cannabis Dependence

(Tables 3.5.4, 3.5.5)

Starting in 2007, the OSDUHS included the *Severity of Dependence Scale* (SDS) for cannabis use (Martin, Copeland, Gates, & Gilmour, 2006). The SDS is a validated 5-item scale used to screen for dependence in adolescent populations. The SDS was asked of a random half sample of grades 9–12.

The five questions were: (1) "*In the last 3 months, how often was your use of cannabis out of control?*"; (2) "*In the last 3 months, how often did the idea of missing a smoke of cannabis make you very anxious or worried?*"; (3) "*In the last 3 months, how much did you worry about your use of cannabis?*"; (4) "*In the last 3 months, how often did you wish you could stop using cannabis?*"; and (5) "*How difficult would it be for you to stop or go without using cannabis?*"

The response options for items #1, 2, and 4 were: *Never used; Did not use in the last 3 months; Never; Sometimes; Often;* or A*lways*. Responses for item #3 were: *Never used; Did not use in the last 3 months; Not at all; A little; Quite a lot;* or *A great deal*. Responses for item #5 were: *Don't use; Not difficult; Quite difficult; Very difficult;* or *Impossible*. Each item was scored on a 4-point scale and item scores were summed. A total score of four or more (of 15) indicates potential cannabis dependence.

2019: Grades 9–12 (Among the Total Sample)

- An estimated 3.4% of students in grades 9 to 12 report symptoms of cannabis dependence. This percentage represents about 20,500 Ontario secondary students. Males (4.0%) and females (2.7%) are equally likely to report dependence symptoms.

2019: Grades 9–12 (Among Cannabis Users)

- About one-in-ten (10.9%) past year cannabis users report dependence symptoms.

2007–2019: Grades 9–12

- Among the total sample, the percentage reporting symptoms of cannabis dependence has not varied significantly over time, fluctuating between about 2% and 4%.

Table 3.5.4: Percentage of the Total Sample, and of Past Year Users, Reporting Cannabis Dependence Symptoms Experienced in the Past Three Months, 2019 OSDUHS (Grades 9–12)

Severity of Dependence Scale (SDS) Symptoms	Total Sample (n=4,651)	Past Year Users (n=1,268)
1. Your cannabis use was out of control *	4.7	15.7
2. Idea of missing a smoke of cannabis made you very anxious or worried *	6.4	21.6
3. Worried about your use of cannabis †	7.2	25.2
4. Wished you could stop using cannabis *	4.8	16.6
5. Would be difficult for you to stop or go without using cannabis ‡	3.4	11.7
% SDS Score 4+ (95% CI)	**3.4%** (2.6-4.3)	**10.9%** (8.3-14.4)

Notes: based on a random half sample of grades 9-12; CI=confidence interval; * percentage reporting *sometimes, often,* or *always/nearly always*; † percentage reporting *a little, quite a lot,* or *a great deal*; ‡ percentage reporting *quite difficult, very difficult*, or *impossible*.
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.5.5: Percentage of Total Sample Reporting Symptoms of Cannabis Dependence as Measured by the *Severity of Dependence Scale* (SDS), 2007–2019 OSDUHS (Grades 9–12)

		2007	2009	2011	2013	2015	2017	2019
	(n=)	(2587)	(3055)	(3358)	(3264)	(3171)	(3289)	(4651)
Total (95% CI)		**3.5** (2.8-4.4)	**3.6** (2.7-4.7)	**2.7** (1.8-4.3)	**2.7** (1.9-3.8)	**2.2** (1.5-3.2)	**1.9** (1.3-2.8)	**3.4** (2.6-4.3)
Sex								
	Males	**4.4** (3.2-6.0)	**4.4** (3.0-6.6)	**3.6** (2.1-6.4)	**2.8** (1.8-4.2)	**1.7** (1.0-2.7)	**2.2** (1.3-3.5)	**4.0** (2.8-5.6)
	Females	**2.6** (1.8-3.8)	**2.7** (1.7-4.2)	**1.8** (1.1-2.9)	**2.5** (1.5-4.1)	**2.8** (1.6-4.6)	**1.6** (0.9-3.0)	**2.7** (1.9-3.7)
Grade								
	9	**2.3** (1.3-4.1)	†	†	†	†	†	†
	10	**3.4** (2.1-5.4)	†	†	**3.1** (1.8-5.6)	**1.2** (0.7-2.2)	†	**2.7** (1.6-4.3)
	11	**4.5** (2.9-7.1)	†	†	**3.6** (2.0-6.2)	**2.8** (1.7-4.6)	**2.7** (1.4-5.1)	**3.3** (2.0-5.2)
	12	**3.8** (2.4-5.9)	**4.5** (2.9-6.9)	**4.0** (2.4-6.7)	†	**3.3** (1.8-6.2)	**2.7** (1.5-4.6)	**5.0** (3.3-7.6)
Region								
	GTA	**3.0** (1.9-4.7)	**2.6** (1.7-3.8)	**3.4** (1.8-6.2)	**2.6** (1.7-4.0)	**2.0** (1.2-3.4)	**1.8** (1.0-3.1)	**2.6** (1.8-3.8)
	North	**7.0** (4.0-12.0)	†	**4.1** (2.4-6.7)	**3.1** (1.8-5.1)	**3.6** (2.3-5.5)	†	**5.6** (3.3-9.5)
	West	**3.6** (2.4-5.4)	†	†	**2.9** (1.3-6.4)	**2.5** (1.5-4.2)	†	**4.2** (2.5-6.9)
	East	**3.5** (2.4-5.1)	**6.6** (4.0-10.8)	**3.6** (2.0-6.1)	†	†	†	**3.5** (2.0-6.0)

Notes: (1) based on a random half sample of grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) symptoms of cannabis dependence indicated by a score of four or higher (of 15) on the SDS; (6) no significant changes over time.
Source: OSDUHS, Centre for Addiction & Mental Health

3.6 Other Drug Use

3.6.1 Other Drug Use Among Grades 7–12

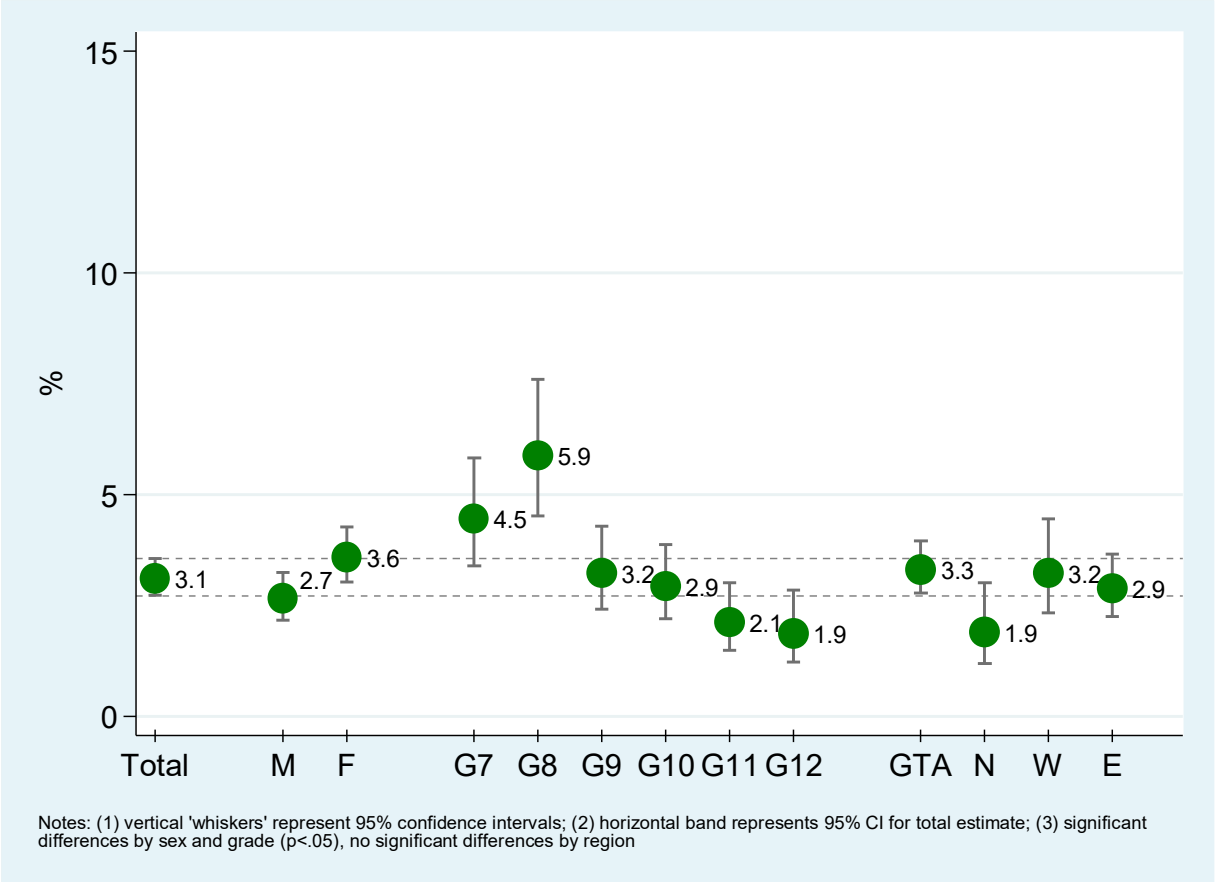
Past Year Inhalant Use: Glue or Solvents

(Figures 3.6.1–3.6.3; Tables 3.6.1, A9)

Inhalants are substances such as glue, cleaning solvents, gasoline, and aerosols with chemical vapours that produce a "high" when inhaled through the nose or mouth. Inhalants are legal, widely available, and inexpensive, all of which makes them attractive to children and young adolescents.

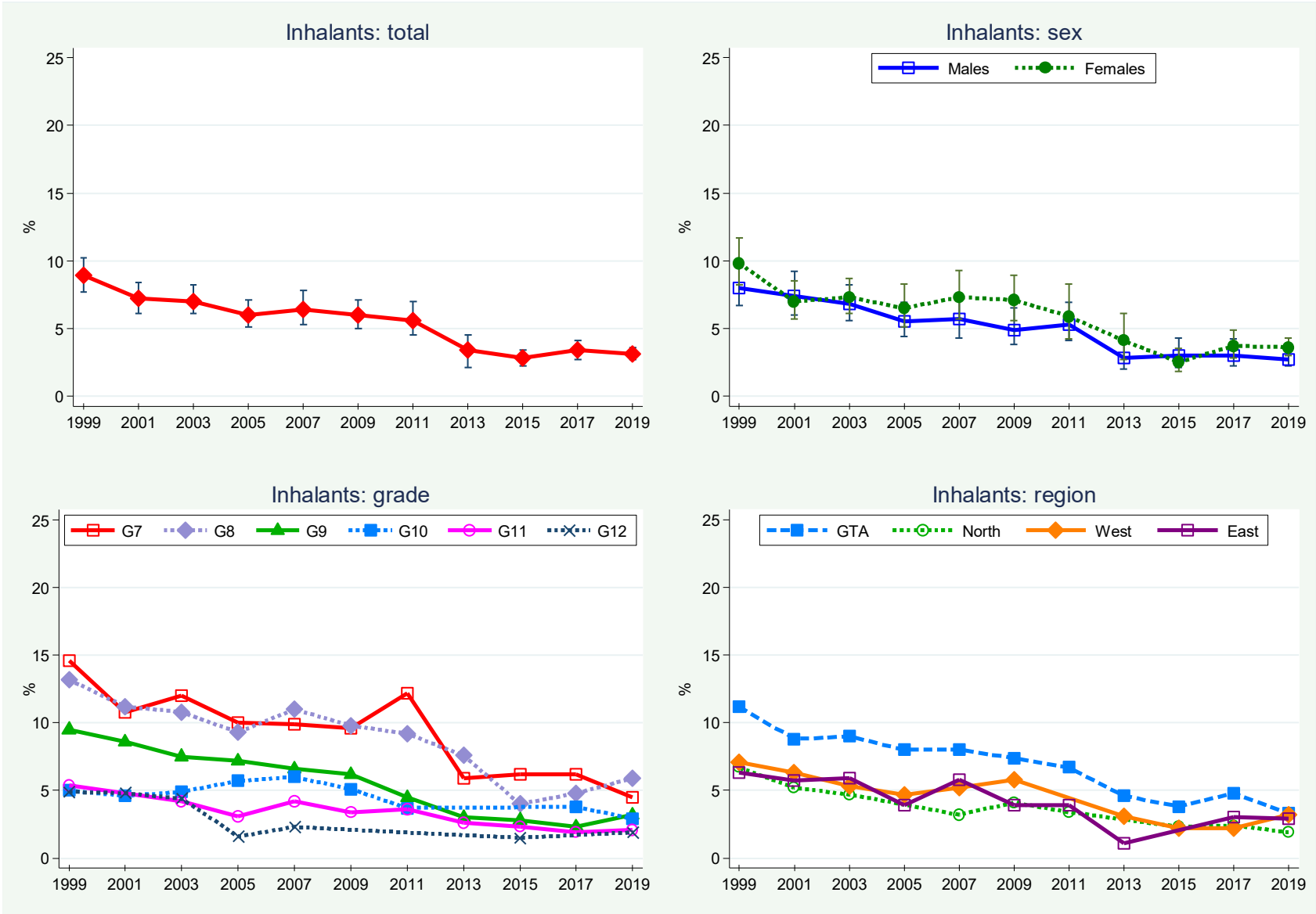
	Inhalant Use in 2019 (Grades 7–12)	Trends in Inhalant Use
Total	■ Overall, 3.1% of Ontario students report inhaling glue or solvents in order to "get high" at least once during the 12 months before the survey. With the sampling error, we estimate that between 2.7% and 3.6% (95% CI) of students inhaled glue or solvents. The current estimate of 3.1% represents about 28,100 students in grades 7 to 12 in Ontario.	☐ The percentage of students in grades 7–12 who inhale glue or solvents did not change significantly between 2017 (3.4%) and 2019 (3.1%). While the prevalence has remained stable since 2013 at about 3%, the current estimate is significantly lower than the estimates from 1999 to 2011. ☐ Looking back over the past 40 years or so (grades 7, 9, and 11 only), inhalant use decreased gradually during the 1980s, increased gradually during the 1990s peaking in 1999, and decreased again during the 2000s. Use is currently lower than the peak years seen in the late 1970s and again in 1999, and is similar to the low levels seen in the early 1990s.
Sex	■ There is a significant sex difference showing that females (3.6%) are more likely than males (2.7%) to use.	☐ Neither sex shows a significant change in use between 2017 and 2019. Both sexes show a significant decreasing linear trend from 1999 to 2013 and stability since then.
Grade	■ Inhaling glue or solvents significantly decreases with grade, from 4%-6% of 7th and 8th graders to 1.9% of 12th graders.	☐ No grade shows a significant change in use between 2017 and 2019. All grades show a significant decrease since 1999 and stability in recent years.
Region	■ There are no significant regional differences in inhalant use.	☐ No region shows a significant change in use between 2017 and 2019. All regions show a significant decrease since 1999 and stability in recent years.

Figure 3.6.1
Past Year Inhalant Use (Glue or Solvents) by Sex, Grade, and Region, 2019 OSDUHS



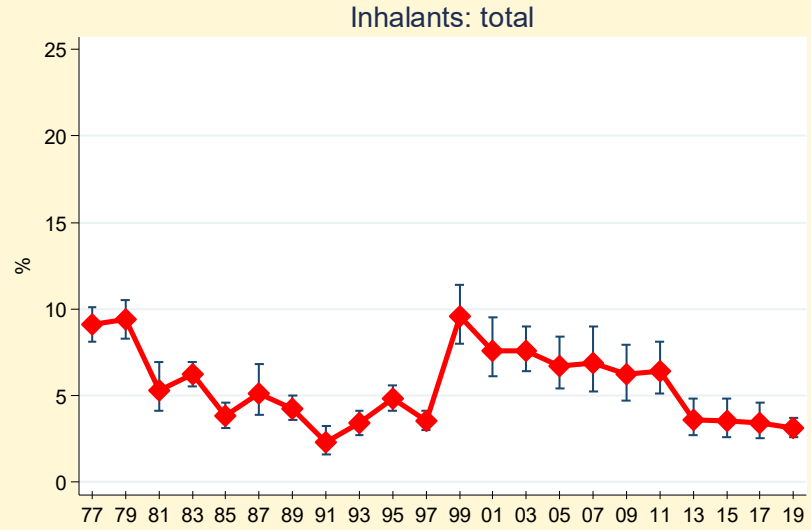
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex and grade (p<.05), no significant differences by region

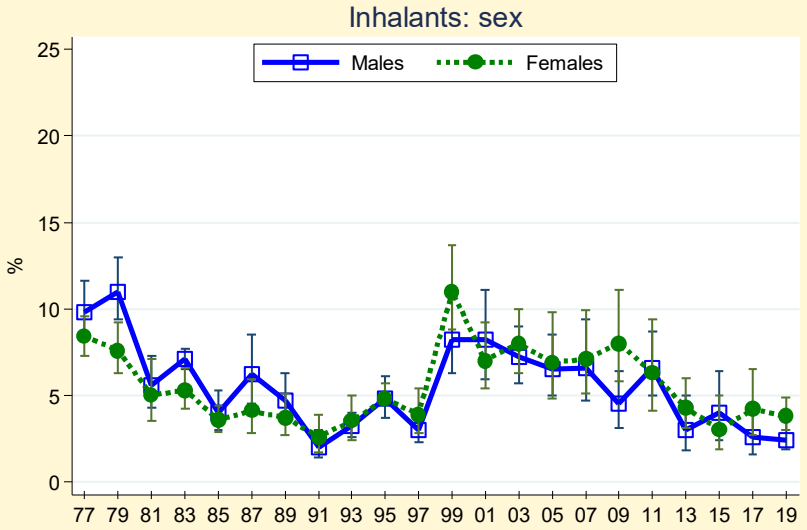
Figure 3.6.2
Past Year Inhalant Use (Glue or Solvents), 1999–2019 OSDUHS (Grades 7–12)

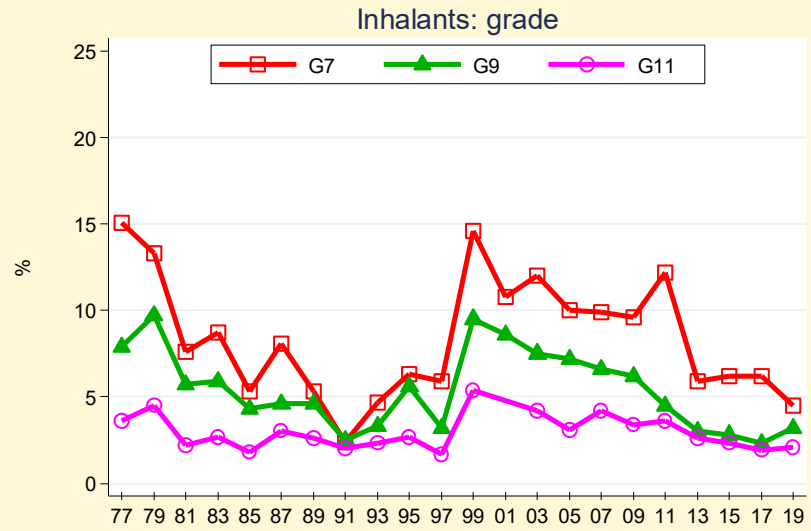


Note: some estimates were suppressed

Figure 3.6.3
Past Year Inhalant Use (Glue or Solvents), 1977–2019 OSDUHS (Grades 7, 9, and 11 only)







Notes: some estimates were suppressed; long-term region trends are not available

Table 3.6.1: Percentage Reporting Inhalant Use (Glue or Solvents) During the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(14142)
Total	**8.9**	**7.2**	**7.0**	**6.0**	**6.4**	**6.0**	**5.6**	**3.4**	**2.8**	**3.4**	**3.1** [bc]
(95% CI)	(7.7-10.2)	(6.1-8.4)	(6.1-8.2)	(5.1-7.1)	(5.3-7.8)	(5.0-7.1)	(4.5-7.0)	(2.7-4.5)	(2.2-3.4)	(2.7-4.1)	(2.7-3.6)
Sex											
Males	**8.0**	**7.4**	**6.8**	**5.5**	**5.7**	**4.9**	**5.3**	**2.8**	**3.0**	**3.0**	**2.7** [b]
	(6.7-9.5)	(6.0-9.2)	(5.6-8.2)	(4.4-6.9)	(4.3-7.5)	(3.8-6.5)	(4.1-6.9)	(2.0-4.0)	(2.1-4.3)	(2.2-4.2)	(2.2-3.3)
Females	**9.8**	**7.0**	**7.3**	**6.5**	**7.3**	**7.1**	**5.9**	**4.1**	**2.5**	**3.7**	**3.6** [b]
	(8.2-11.7)	(5.7-8.5)	(6.1-8.7)	(5.1-8.3)	(5.7-9.3)	(5.6-8.9)	(4.2-8.2)	(2.7-6.1)	(1.8-3.5)	(2.8-4.9)	(3.0-4.3)
Grade											
7	**14.6**	**10.8**	**12.0**	**10.0**	**9.9**	**9.6**	**12.2**	**5.9**	**6.2**	**6.2**	**4.5** [b]
	(11.6-18.1)	(8.4-13.8)	(8.6-16.4)	(7.0-14.2)	(6.3-15.4)	(6.4-14.1)	(8.9-16.6)	(4.1-8.4)	(3.7-10.2)	(4.5-8.6)	(3.4-5.8)
8	**13.2**	**11.2**	**10.8**	**9.3**	**11.0**	**9.8**	**9.2**	**7.6**	**4.0**	**4.8**	**5.9** [b]
	(10.5-16.5)	(8.9-14.1)	(8.1-14.3)	(7.1-12.3)	(8.4-14.5)	(7.3-13.2)	(6.6-12.8)	(4.9-11.6)	(2.5-6.3)	(2.8-8.4)	(4.5-7.6)
9	**9.5**	**8.6**	**7.5**	**7.2**	**6.6**	**6.2**	**4.5**	**3.0**	**2.8**	**2.3**	**3.2** [b]
	(7.3-12.3)	(6.3-11.6)	(6.0-9.3)	(5.1-10.1)	(4.2-10.4)	(3.9-9.8)	(3.2-6.5)	(1.9-4.7)	(1.6-4.7)	(1.3-4.0)	(2.4-4.3)
10	**5.0**	**4.6**	**4.9**	**5.7**	**6.0**	**5.1**	**3.7**	†	†	**3.8**	**2.9** [b]
	(3.3-7.6)	(2.9-7.4)	(3.6-6.6)	(4.0-8.2)	(4.1-8.7)	(3.5-7.6)	(2.2-6.2)			(2.3-6.3)	(2.2-3.9)
11	**5.4**	†	**4.2**	**3.1**	**4.2**	**3.4**	**3.6**	**2.6**	**2.3**	**1.9**	**2.1** [b]
	(3.4-8.6)		(3.0-5.9)	(1.9-5.2)	(2.6-6.8)	(2.0-5.8)	(1.9-6.6)	(1.4-4.8)	(1.3-4.1)	(1.0-3.4)	(1.5-3.0)
12	**4.9**	**4.8**	**4.4**	**1.6**	**2.3**	†	†	†	**1.5**	†	**1.9** [b]
	(3.1-7.7)	(3.0-7.5)	(3.1-6.3)	(0.8-2.9)	(1.4-4.0)				(0.8-2.7)		(1.2-2.8)
Region											
GTA	**11.2**	**8.8**	**9.0**	**8.0**	**8.0**	**7.4**	**6.7**	**4.6**	**3.8**	**4.8**	**3.3** [b]
	(9.3-13.4)	(6.8-11.3)	(7.2-11.1)	(6.5-9.8)	(6.2-10.3)	(5.6-9.6)	(5.2-8.4)	(3.5-6.1)	(3.0-4.9)	(3.6-6.4)	(2.8-4.0)
North	**6.7**	**5.2**	**4.7**	†	**3.2**	**4.1**	**3.4**	†	**2.3**	**2.4**	**1.9** [b]
	(4.5-9.9)	(3.8-7.2)	(3.6-6.2)		(1.9-5.3)	(2.3-7.2)	(1.9-5.9)		(1.2-4.2)	(1.4-4.0)	(1.2-3.0)
West	**7.1**	**6.3**	**5.3**	**4.7**	**5.2**	**5.8**	†	**3.1**	**2.2**	**2.2**	**3.2** [b]
	(5.2-9.6)	(4.7-8.5)	(3.8-7.3)	(3.2-7.0)	(3.2-8.3)	(4.2-7.8)		(1.7-5.4)	(1.3-3.8)	(1.4-3.4)	(2.3-4.4)
East	**6.3**	**5.7**	**5.9**	**3.9**	**5.8**	**3.9**	**3.9**	**1.1**	†	**3.0**	**2.9** [b]
	(4.2-9.4)	(3.8-8.6)	(4.4-8.0)	(2.6-5.7)	(3.8-8.8)	(2.6-5.8)	(2.7-5.7)	(0.6-2.0)		(1.8-4.9)	(2.3-3.7)

Notes: (1) based on grades 7-12; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) question asked of a random half sample between 2005 and 2017; (6) estimates prior to 2011 are based on two separate questions (glue use and solvent use); (7) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often did you sniff glue or solvents (for example, gasoline, butane, aerosols, paint thinner, nail polish remover, etc.) in order to get high?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Synthetic Cannabis ("Spice," "K2") Use

(Table 3.6.2)

Starting in 2013, students were asked about their use of synthetic cannabis (cannabinoids), also known as "Spice," "K2," "K3," "black mamba," or "legal weed." Synthetic cannabis refers to a wide variety of herbal mixtures that contain plant material, preservatives, fragrance, and chemicals that fall into the cannabinoid family. The texture of synthetic cannabis resembles potpourri and it is usually smoked. Synthetic cannabis has been marketed as a "safe" and legal alternative to cannabis, but is illegal in Canada because of the synthetic cannabinoid compounds. Generally, the effects are similar to those of cannabis – elevated mood, relaxation, and altered perception, with the potential for rapid heart rate, agitation, anxiety, nausea, and other adverse effects. However, because there are over 100 types of synthetic cannabinoids (and new derivatives are continuously emerging), each with differing potency, the effects from use will vary greatly.

	Synthetic Cannabis Use in 2019 (Grades 7–12)	2013–2019 Trends (Grades 7–12)
Total	■ Among students in grades 7 to 12, the percentage reporting using synthetic cannabis at least once in the past year is 1.6%. This estimate represents about 13,000 students in Ontario.	☐ Past year use of synthetic cannabis has remained stable since 2013, at about 1%-2%.
Sex	■ Males (2.0%) are significantly more likely than females (1.2%) to report use.	☐ Neither males nor females show a significant change in use since 2013.
Grade	■ There is significant variation by grade. Students in grades 7 and 8 report almost no use of synthetic cannabis in the past year (suppressed estimates). About 2% of students in the older grades report use.	☐ No grade shows a significant change since 2013.
Region	■ There is no significant regional variation.	☐ No region shows a significant change since 2013.

Table 3.6.2: Percentage Reporting Synthetic Cannabis ("Spice," "K2") Use in the Past Year, 2013–2019 OSDUHS

		2013	2015	2017	2019
	(n=)	(10,272)	(10,426)	(11,435)	(6,525)
Total		**1.8**	**1.3**	**1.5**	**1.6**
(95% CI)		(1.2-2.6)	(0.9-1.7)	(1.1-2.2)	(1.2-2.1)
Sex					
	Males	**1.9** (1.2-2.8)	**1.5** (1.0-2.3)	**1.6** (1.1-2.6)	**2.0** (1.5-2.7)
	Females	**1.7** (1.1-2.5)	**1.0** (0.7-1.6)	**1.4** (0.8-2.4)	**1.2** (0.8-1.7)
Grade					
	7	†	†	†	†
	8	†	†	†	†
	9	**0.8** (0.4-1.5)	†	†	**1.2** (0.7-2.1)
	10	**2.6** (1.7-4.0)	**1.6** (0.9-2.6)	**1.6** (1.0-2.5)	**2.7** (1.6-4.4)
	11	**2.3** (1.4-3.6)	**1.9** (1.1-3.0)	†	**2.3** (1.5-3.5)
	12	†	**2.0** (1.2-3.3)	**2.5** (1.4-4.4)	**1.8** (1.0-3.2)
Region					
	Greater Toronto Area	**2.3** (1.3-3.8)	**1.3** (0.9-1.9)	**1.9** (1.0-3.3)	**1.1** (0.7-1.7)
	North	†	**1.6** (1.0-2.5)	†	†
	West	†	**0.9** (0.6-1.5)	**1.3** (0.9-1.9)	**1.8** (1.2-2.7)
	East	**1.4** (0.9-2.3)	†	**0.9** (0.5-1.7)	**2.5** (1.5-4.2)

Notes: (1) based on grades 7-12; (2) question asked of a random half sample in 2019; (3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) no significant changes over time.
Q: In the last 12 months, how often did you use the drug 'Spice' (also known as 'K2', 'K3', 'Blaze', 'Black Mamba', 'legal weed', 'fake pot', 'IZMS')?
Source: OSDUHS, Centre for Addiction & Mental Health

3.6.2 Other Drug Use Among Grades 9–12

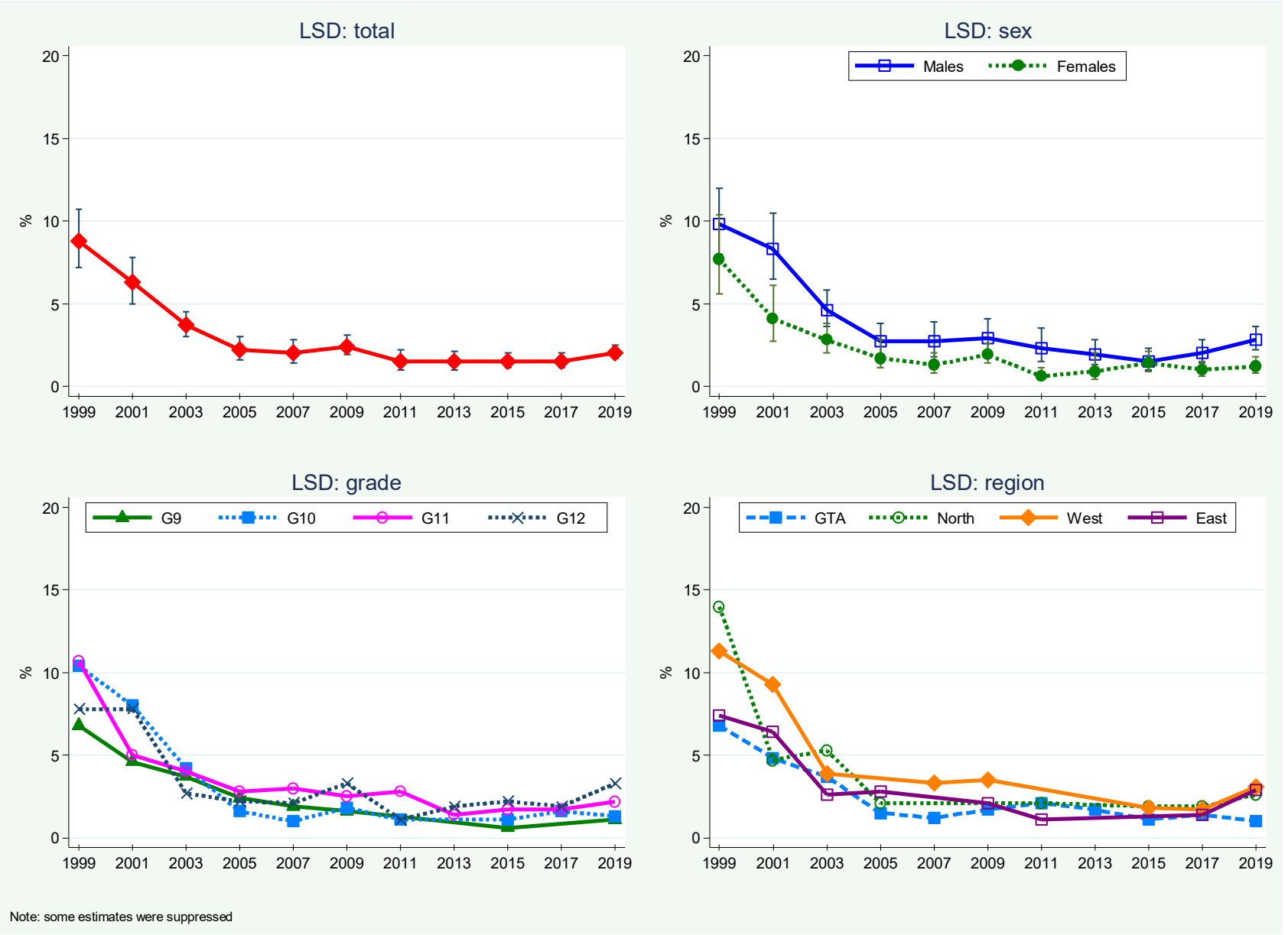
Past Year LSD Use

(Figures 3.6.4, 3.6.5; Tables 3.6.3, A10)

LSD (also known as "acid") is a semi-synthetic hallucinogenic substance. The effects include altered perceptions (e.g., visual patterns), increased heart rate, body temperature, and sleeplessness. Starting in 2013, the question about LSD use was asked of students in grades 9 through 12 only (not asked of grades 7 and 8).

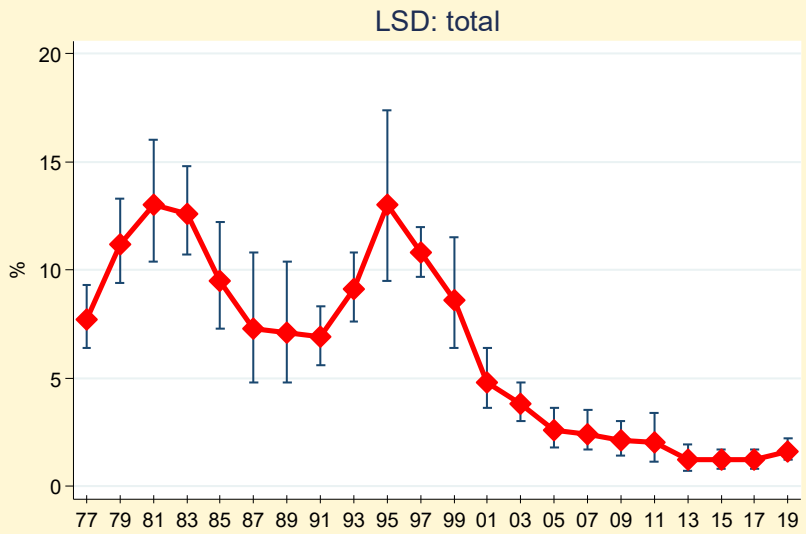
	LSD Use in 2019 (Grades 9–12)	Trends in LSD Use
Total	■ LSD use is reported by 2.0% of Ontario students in grades 9 to 12 (representing about 14,100 students). With the sampling error, we estimate that between 1.7% and 2.5% (95% CI) of secondary school students in Ontario use LSD.	☐ LSD use remained stable between 2017 (1.5%) and 2019 (2.0%). There was a significant downward trend between 1999 and 2005 (from 8.8% down to 2.2%), followed by low and stable estimates since then. ☐ Looking back over the past 40 years or so (among grades 9 and 11 only), LSD use decreased in the 1980s and early 1990s, made a brief comeback between 1991 and 1995, decreased again reaching the lowest levels on record, followed by stability in recent years.
Sex	■ Males (2.8%) are significantly more likely than females (1.2%) to use LSD.	☐ No sex shows a significant change in LSD use between 2017 and 2019. Both males and females show a significant decline in use between 1999 and 2005, followed by low and stable estimates.
Grade	■ LSD use significantly varies by grade, with older students more likely to use.	☐ No grade shows a significant change in LSD use between 2017 and 2019. All four grades show a significant decline since 1999.
Region	■ Use significantly varies by region, showing that GTA students (1.0%) are least likely to use compared with students in the other three regions (about 3%).	☐ No region shows a significant change in use between 2017 and 2019. All four regions show a significant decline since 1999.

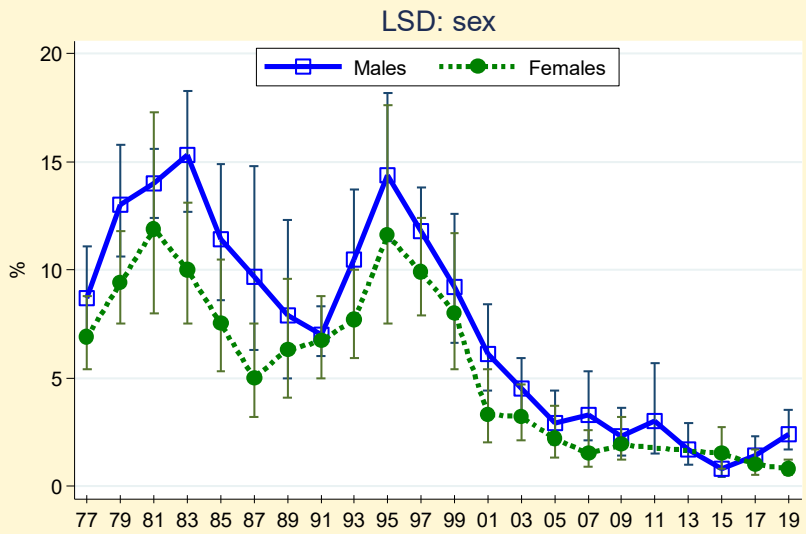
Figure 3.6.4
Past Year LSD Use, 1999–2019 OSDUHS (Grades 9–12)

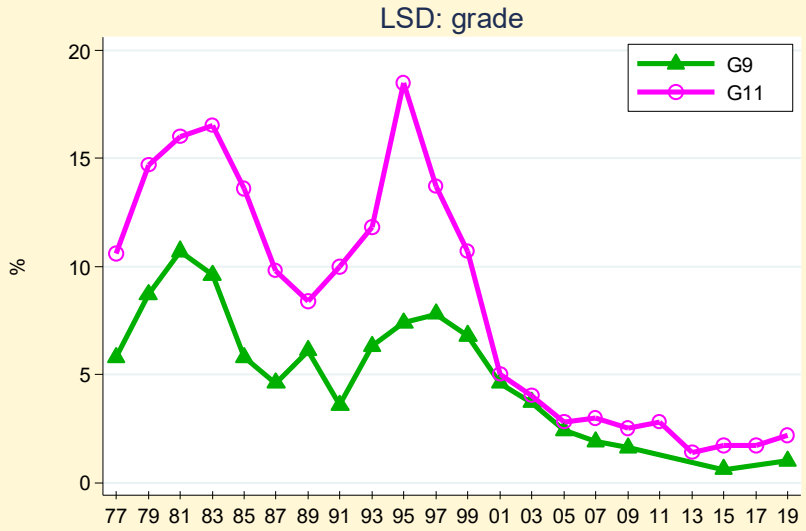


Note: some estimates were suppressed

Figure 3.6.5
Past Year LSD Use, 1977–2019 OSDUHS (Grades 9 and 11 only)







Notes: some estimates for Grade 9 were suppressed; long-term region trends are not available

Table 3.6.3: Percentage Reporting LSD Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total	**8.8**	**6.3**	**3.7**	**2.2**	**2.0**	**2.4**	**1.5**	**1.5**	**1.5**	**1.5**	**2.0** [bcd]
(95% CI)	(7.2-10.7)	(5.0-7.8)	(3.0-4.5)	(1.6-3.0)	(1.4-2.8)	(1.9-3.1)	(1.0-2.2)	(1.0-2.1)	(1.1-2.0)	(1.1-2.0)	(1.7-2.5)
Sex											
Males	**9.8** (8.0-12.0)	**8.3** (6.5-10.5)	**4.6** (3.6-5.8)	**2.7** (1.9-3.8)	**2.7** (1.8-3.9)	**2.9** (2.0-4.1)	**2.3** (1.5-3.5)	**1.9** (1.3-2.8)	**1.5** (1.0-2.3)	**2.0** (1.4-2.8)	**2.8** [b] (2.2-3.6)
Females	**7.7** (5.6-10.4)	**4.1** (2.7-6.1)	**2.8** (2.0-3.8)	**1.7** (1.1-2.8)	**1.3** (0.8-2.0)	**1.9** (1.4-2.6)	**0.6** (0.4-1.1)	**0.9** (0.4-2.0)	**1.4** (0.9-2.1)	**1.0** (0.6-1.5)	**1.2** [b] (0.8-1.7)
Grade											
9	**6.8** (4.8-9.4)	**4.6** (3.3-6.4)	**3.7** (2.6-5.2)	**2.4** (1.6-3.6)	**1.9** (1.2-3.0)	**1.7** (0.9-3.1)	†	†	**0.6** (0.3-1.2)	†	**1.0** [b] (0.6-1.7)
10	**10.4** (7.4-14.3)	**8.0** (5.7-11.2)	**4.2** (2.8-6.3)	**1.6** (1.0-2.6)	†	**1.8** (1.1-2.9)	**1.1** (0.6-2.1)	†	**1.1** (0.7-1.9)	**1.6** (0.9-2.8)	**1.3** [b] (0.8-2.2)
11	**10.7** (7.2-15.6)	**5.1** (2.9-8.6)	**4.0** (2.8-5.5)	**2.8** (1.8-4.3)	**3.0** (1.8-4.9)	**2.5** (1.5-4.1)	**2.8** (1.6-4.8)	**1.4** (0.8-2.4)	**1.7** (1.0-2.8)	**1.7** (1.1-2.7)	**2.2** [b] (1.4-3.3)
12	**7.8** (5.9-10.2)	**7.8** (4.1-14.4)	**2.7** (1.7-4.2)	**2.2** (1.2-3.9)	**2.1** (1.2-3.7)	**3.3** (2.1-5.4)	**1.1** (0.7-1.8)	**1.9** (1.0-3.7)	**2.2** (1.4-3.4)	**1.9** (1.1-3.2)	**3.3** [b] (2.5-4.3)
Region											
GTA	**6.8** (5.2-8.8)	**4.8** (3.3-6.8)	**3.7** (2.7-5.1)	**1.5** (1.0-2.3)	**1.2** (0.7-1.9)	**1.7** (1.1-2.6)	**2.1** (1.3-3.2)	**1.7** (1.1-2.8)	**1.1** (0.8-1.6)	**1.4** (0.8-2.4)	**1.0** [b] (0.6-1.4)
North	**14.0** (8.2-22.9)	**4.7** (3.0-7.2)	**5.3** (3.7-7.4)	**2.1** (1.3-3.5)	†	†	†	†	**1.9** (1.0-3.7)	**1.9** (1.2-2.9)	**2.6** [b] (1.6-4.1)
West	**11.3** (7.6-16.5)	**9.3** (6.6-12.9)	**3.9** (2.7-5.6)	†	**3.3** (1.9-5.8)	**3.5** (2.4-5.1)	†	†	**1.8** (1.2-2.8)	**1.7** (1.1-2.6)	**3.1** [b] (2.2-4.4)
East	**7.4** (5.4-9.9)	**6.4** (3.6-11.1)	**2.6** (1.4-4.8)	**2.8** (1.7-4.5)	†	**2.1** (1.2-3.9)	**1.1** (0.7-1.9)	†	†	**1.4** (0.8-2.5)	**2.9** [b] (2.1-3.9)

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use LSD or "acid"?

Source: OSDUHS, Centre for Addiction & Mental Health

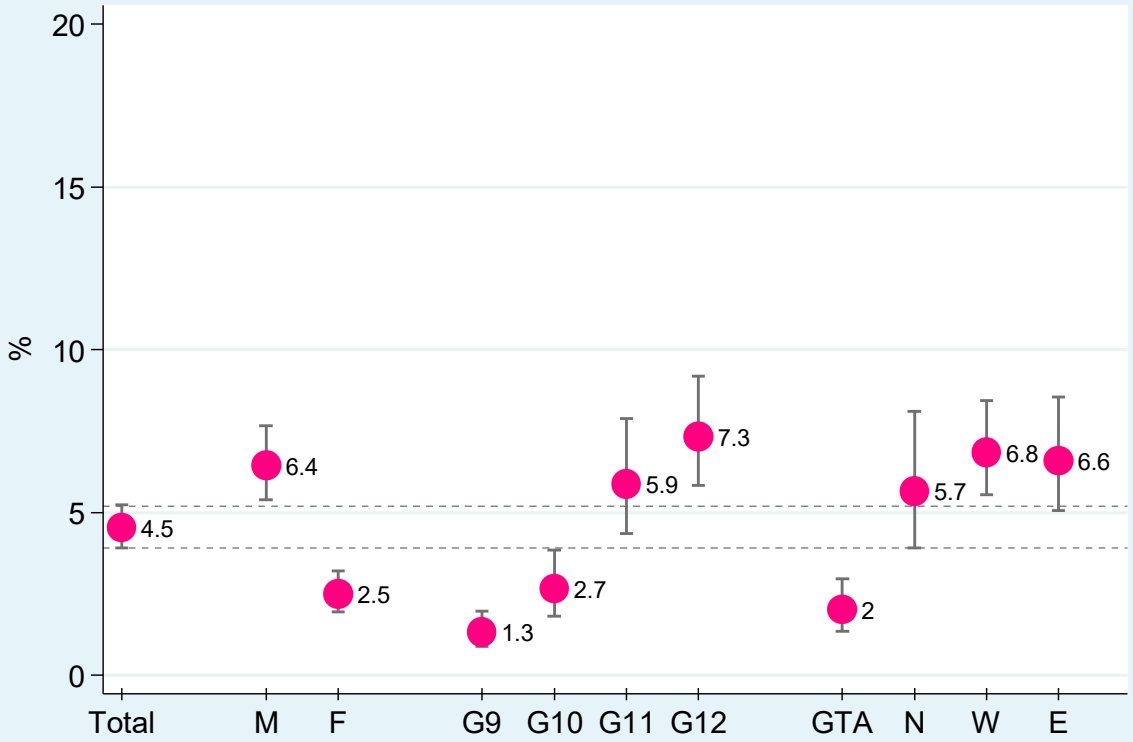
Past Year Mushroom (Psilocybin) or Mescaline Use

(Figures 3.6.6–3.6.8; Tables 3.6.4, A11)

Psilocybin (more commonly known as "magic mushrooms") is a hallucinogenic drug that comes from the psilocybe mushroom. It can be taken orally or by injection and its effects include altered perceptions, nervousness, and paranoia. Mescaline (also known as "mesc") is also a hallucinogen that comes from the peyote cactus plant, and its effects include altered perceptions. Starting in 2013, the question asking about the use of these hallucinogens was asked of students in grades 9 to 12 only (not asked of grades 7 and 8).

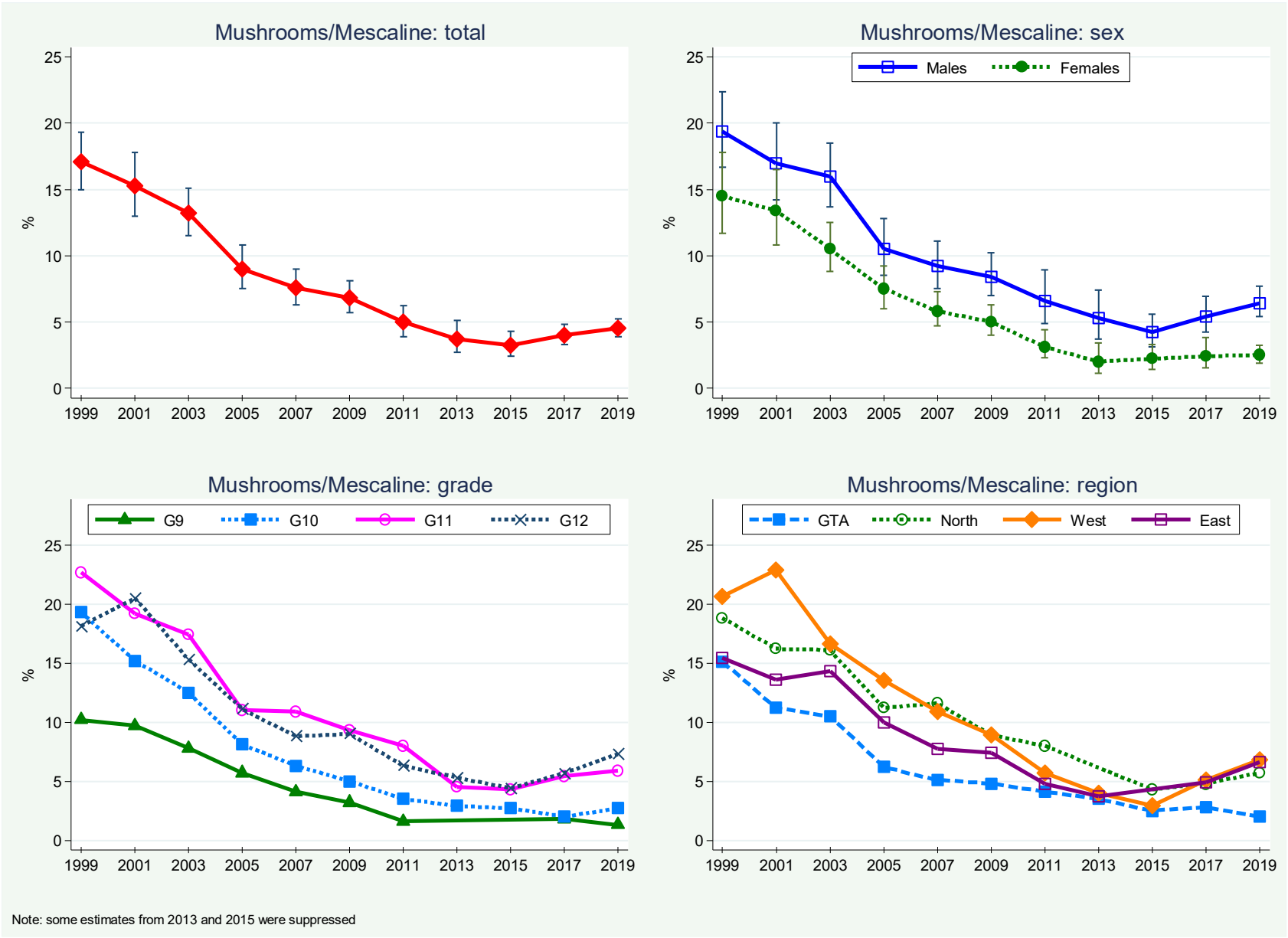
	Mushroom/Mescaline Use in 2019 (Grades 9–12)	Trends in Mushroom/Mescaline Use
Total	■ Psilocybin ("mushrooms") or mescaline use is reported by 4.5% of Ontario students in grades 9 to 12. This estimate represents about 31,200 secondary students in Ontario.	☐ Mushroom/mescaline use did not significantly change between 2017 (4.0%) and 2019 (4.5%). Use has been stable during the past decade (since 2011), but is dramatically lower today than in 1999 (17.1%). ☐ Looking back over the past 40 years or so (among grades 9 and 11 only), use was elevated in the early 1980s, decreased gradually during the late 1980s and early 1990s, increased during the late 1990s reaching an all-time peak in 1999. Use declined over the 2000s, and remained stable during the past decade. The current level remains below the two peaks, and is similar to the lows seen in the late 1980s and early 1990s.
Sex	■ Males (6.4%) are significantly more likely than females (2.5%) to use mushrooms/mescaline.	☐ No sex shows a significant change in use between 2017 and 2019. For both males and females, use has been stable since 2011, and is much lower today than in 1999.
Grade	■ Use significantly increases by grade, from 1.3% of 9th graders to 7.3% of 12th graders.	☐ No grade shows a significant change in use between 2017 and 2019. All four grades showed a significant decline since 1999.
Region	■ Use significantly varies by region, with students in the GTA (2.0%) least likely to use compared with students in the other three regions (about 6%-7%).	☐ No region shows a significant change in use between 2017 and 2019. All four regions show a significant decline since 1999.

Figure 3.6.6
Past Year Mushroom/Mescaline Use by Sex, Grade, and Region, 2019 OSDUHS



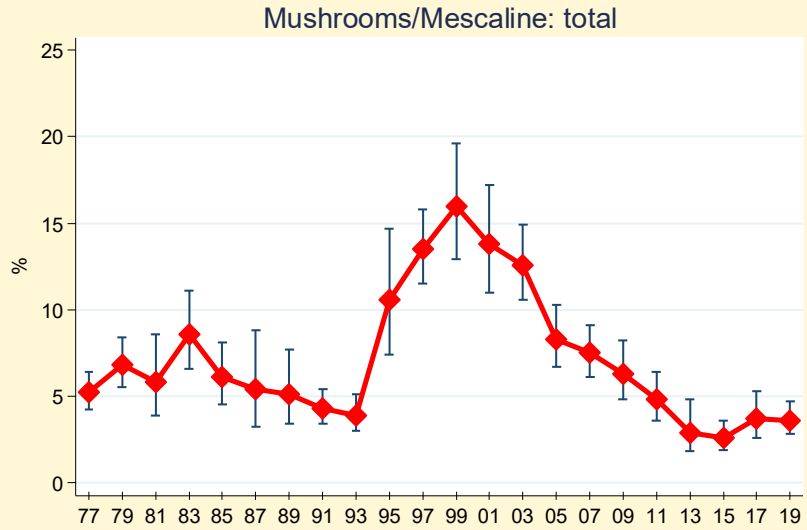
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

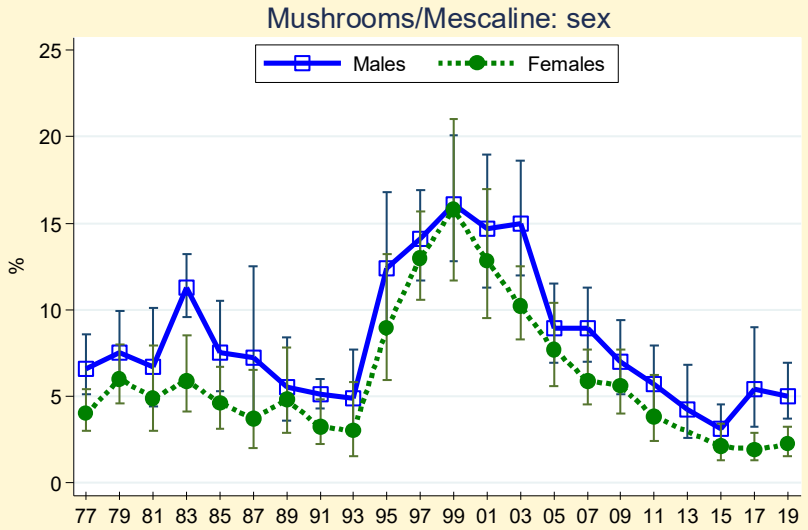
Figure 3.6.7
Past Year Mushroom/Mescaline Use, 1999–2019 OSDUHS (Grades 9–12)

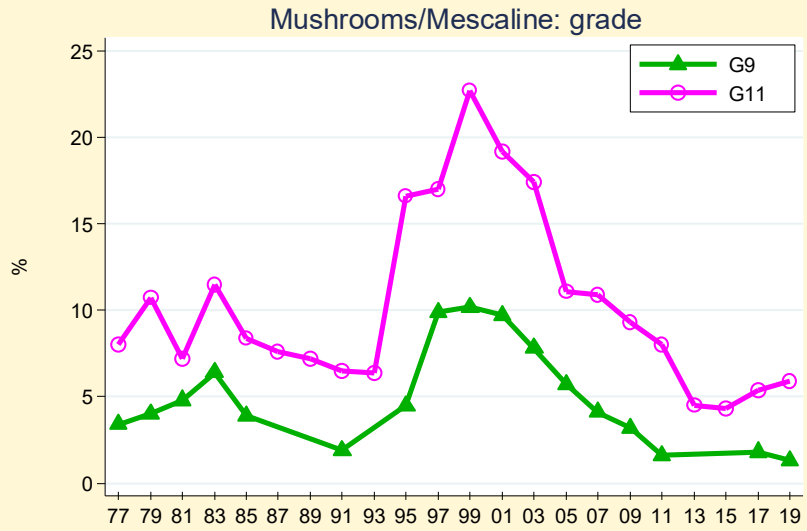


Note: some estimates from 2013 and 2015 were suppressed

Figure 3.6.8
Past Year Mushroom/Mescaline Use, 1977–2019 OSDUHS (Grades 9 and 11 only)







Notes: some estimates were suppressed; long-term region trends are not available

Table 3.6.4: Percentage Reporting Mushroom or Mescaline Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total	**17.1**	**15.3**	**13.2**	**9.0**	**7.6**	**6.8**	**5.0**	**3.7**	**3.2**	**4.0**	**4.5** [bc]
(95% CI)	(15.0-19.3)	(13.0-17.8)	(11.5-15.1)	(7.5-10.8)	(6.3-9.0)	(5.7-8.1)	(3.9-6.2)	(2.7-5.1)	(2.4-4.3)	(3.3-4.8)	(3.9-5.2)
Sex											
Males	**19.4**	**17.0**	**16.0**	**10.5**	**9.2**	**8.4**	**6.6**	**5.3**	**4.2**	**5.4**	**6.4** [b]
	(16.7-22.4)	(14.2-20.2)	(13.7-18.5)	(8.5-12.8)	(7.5-11.1)	(7.0-10.2)	(4.9-8.9)	(3.7-7.4)	(3.1-5.6)	(4.2-6.9)	(5.4-7.7)
Females	**14.5**	**13.4**	**10.5**	**7.5**	**5.8**	**5.0**	**3.1**	**2.0**	**2.2**	**2.4**	**2.5** [b]
	(11.7-17.8)	(10.8-16.5)	(8.8-12.5)	(6.0-9.2)	(4.7-7.3)	(4.0-6.3)	(2.3-4.4)	(1.1-3.4)	(1.4-3.3)	(1.5-3.8)	(1.9-3.2)
Grade											
9	**10.2**	**9.7**	**7.8**	**5.7**	**4.1**	**3.2**	**1.6**	†	†	**1.8**	**1.3** [b]
	(7.6-13.5)	(7.0-13.4)	(6.1-10.0)	(4.4-7.5)	(2.9-5.7)	(2.0-5.0)	(0.9-2.6)			(1.0-3.3)	(0.9-2.0)
10	**19.3**	**15.2**	**12.5**	**8.1**	**6.3**	**5.0**	**3.5**	**2.9**	**2.7**	**2.0**	**2.7** [b]
	(15.0-24.4)	(11.9-19.2)	(9.9-15.7)	(6.0-10.7)	(4.7-8.4)	(3.7-6.7)	(2.2-5.3)	(1.8-4.6)	(1.9-3.9)	(1.4-2.9)	(1.8-3.8)
11	**22.7**	**19.2**	**17.4**	**11.1**	**10.9**	**9.3**	**8.0**	**4.5**	**4.3**	**5.4**	**5.9** [b]
	(17.9-28.3)	(14.9-24.5)	(14.3-21.1)	(8.8-13.9)	(8.8-13.5)	(6.6-12.9)	(5.8-10.9)	(2.8-7.3)	(3.1-6.0)	(3.4-8.6)	(4.3-7.9)
12	**18.1**	**20.5**	**15.3**	**11.1**	**8.8**	**9.0**	**6.3**	**5.3**	**4.4**	**5.7**	**7.3** [b]
	(14.1-22.9)	(13.9-29.3)	(12.3-18.9)	(8.7-14.0)	(6.7-11.5)	(6.7-12.0)	(3.8-10.2)	(3.1-8.8)	(2.6-7.5)	(4.0-8.2)	(5.8-9.2)
Region											
GTA	**15.1**	**11.2**	**10.5**	**6.2**	**5.1**	**4.8**	**4.1**	**3.5**	**2.5**	**2.8**	**2.0** [b]
	(12.5-18.0)	(8.0-15.6)	(8.4-12.9)	(4.7-8.1)	(3.8-6.7)	(3.6-6.3)	(2.6-6.5)	(2.1-5.9)	(1.8-3.2)	(1.9-4.1)	(1.4-3.0)
North	**18.8**	**16.2**	**16.1**	**11.2**	**11.6**	**8.9**	**8.0**	†	**4.3**	**4.8**	**5.7** [b]
	(14.4-24.1)	(12.1-21.3)	(12.6-20.4)	(8.5-14.5)	(8.8-15.3)	(5.7-13.8)	(5.7-11.2)		(2.9-6.4)	(3.3-7.0)	(3.9-8.1)
West	**20.6**	**22.9**	**16.6**	**13.5**	**10.9**	**8.9**	**5.7**	**4.0**	**2.9**	**5.1**	**6.8** [b]
	(15.8-26.5)	(18.9-27.4)	(13.2-20.7)	(10.0-18.0)	(7.9-14.7)	(6.4-12.2)	(3.6-8.9)	(2.1-7.3)	(2.0-4.2)	(3.9-6.6)	(5.5-8.4)
East	**15.4**	**13.6**	**14.3**	**10.0**	**7.7**	**7.4**	**4.8**	**3.7**	†	**4.9**	**6.6** [b]
	(11.3-20.7)	(10.3-17.8)	(10.1-19.9)	(6.9-14.5)	(5.7-10.3)	(5.5-9.8)	(3.5-6.5)	(2.0-6.8)		(3.2-7.5)	(5.0-8.6)

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use psilocybin or mescaline (also known as “magic mushrooms”, “shrooms”, “mesc”, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

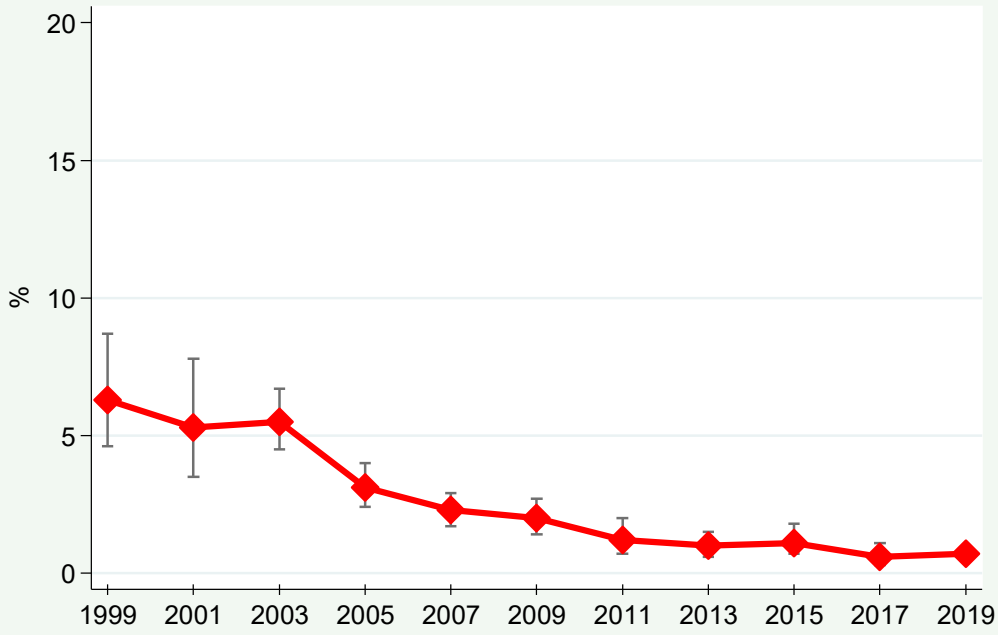
Past Year Methamphetamine or Crystal Methamphetamine Use

(Figures 3.6.9, 3.6.10; Tables 3.6.5, A12)

This section presents the past year use of methamphetamine (also known as "speed") or crystal methamphetamine (also known as "crystal meth" or "ice"). Methamphetamine comes in a powder that can be swallowed, snorted, smoked, or injected. Crystallized methamphetamine, resembling pieces of ice, is the smokeable form, although it can be used by other routes. These substances are synthetic stimulants and produce powerful "highs" similar to cocaine, but can last much longer. Crystal methamphetamine made its first appearance in Canada in 1989 and so this drug was first included in the OSDUHS in 1991. Therefore, estimates prior to 1991 are based solely on methamphetamine. Starting in 2013, methamphetamine use was asked of students in grades 9 through 12 only (not asked of grades 7 and 8).

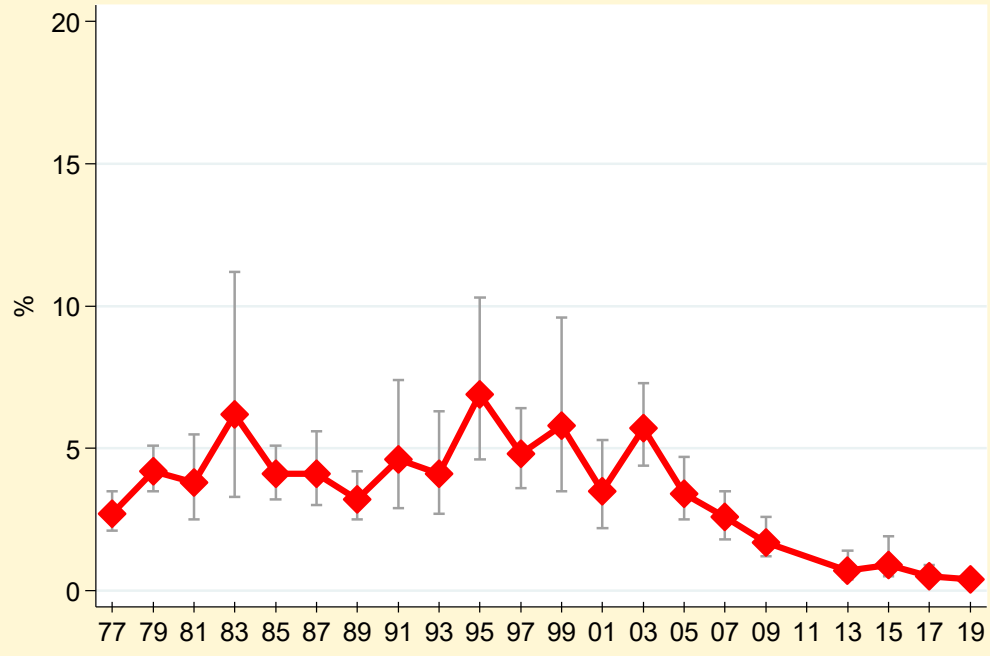
	Methamphetamine Use in 2019 (Grades 9–12)	Trends in Methamphetamine Use
Total	■ Overall, 0.7% of secondary school students report using methamphetamine at least once during the 12 months before the survey. This percentage represents about 4,500 Ontario students in grades 9 to 12.	☐ Methamphetamine use did not significantly change between 2017 (0.6%) and 2019 (0.7%). However, there has been a significant downward trend from 1999/early 2000s to 2011, and use has remained stable since then. ☐ Looking back over the past 40 years or so (among students in grades 9 and 11 only), methamphetamine use was elevated in the late 1970s/early 1980s, decreased during the late 1980s, peaked again in the late 1990s, and subsequently declined to historical lows in recent years.
Sex	■ About 0.9% of males report using methamphetamine at least once in the past year. The estimate for females was suppressed.	☐ Both sexes show a significant decline since 1999.
Grade	■ Estimates by grade were suppressed.	☐ All grades show a significant decline since 1999.
Region	■ Estimates by region were suppressed.	☐ All regions show a significant decline since 1999.

Figure 3.6.9
Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1999–2019 OSDUHS (Grades 9–12)



Note: vertical 'whiskers' represent 95% confidence intervals around the estimate

Figure 3.6.10
Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1977–2019 OSDUHS (Grades 9 and 11 only)



Note: the 2011 estimate was suppressed

Table 3.6.5: Percentage Reporting Methamphetamine Use (includes Crystal Methamphetamine) in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(1496)	(1278)	(2238)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total (95% CI)	**6.3** (4.6-8.7)	**5.3** (3.5-7.8)	**5.5** (4.5-6.7)	**3.1** (2.4-4.0)	**2.3** (1.7-2.9)	**2.0** (1.4-2.7)	**1.2** (0.7-2.0)	**1.0** (0.6-1.5)	**1.1** (0.7-1.8)	**0.6** (0.3-1.1)	**0.7** (0.5-0.9) [bc]
Sex											
Males	**7.2** (5.0-10.4)	**6.7** (4.6-9.6)	**6.6** (5.1-8.6)	**3.8** (2.7-5.4)	**2.3** (1.8-3.1)	**2.4** (1.6-3.6)	**1.5** (0.8-2.7)	**1.4** (0.8-2.5)	**1.1** (0.7-1.8)	†	**0.9** (0.6-1.4) [b]
Females	**5.4** (3.3-8.8)	†	**4.4** (3.2-6.1)	**2.3** (1.6-3.3)	**2.2** (1.5-3.1)	**1.5** (1.0-2.2)	**0.9** (0.5-1.7)	†	**1.1** (0.6-1.9)	†	[b]
Grade											
9	**3.9** (2.3-6.5)	**2.8** (1.7-4.7)	**4.5** (2.8-7.1)	**3.8** (2.5-5.8)	**1.8** (1.0-3.3)	**1.4** (0.8-2.4)	†	†	†	†	† [b]
10	**6.3** (4.1-9.6)	**8.9** (5.0-15.4)	**4.8** (3.2-7.1)	**1.7** (1.0-2.9)	**1.8** (1.1-2.8)	**0.9** (0.5-1.6)	†	†	†	†	† [b]
11	**8.1** (4.3-14.9)	†	**6.8** (4.7-9.7)	**3.0** (1.7-5.2)	**3.3** (2.3-4.7)	**2.0** (1.1-3.6)	†	†	†	†	† [b]
12	**7.9** (4.5-13.7)	†	**6.0** (3.6-9.6)	**3.7** (2.4-5.6)	**2.2** (1.4-3.4)	**3.1** (1.9-5.0)	†	**1.7** (0.9-3.2)	†	†	† [b]
Region											
GTA	**5.3** (3.4-8.3)	†	**4.2** (3.0-5.8)	**2.6** (1.7-3.8)	**1.6** (1.0-2.4)	**1.6** (1.0-2.5)	**0.9** (0.5-1.4)	**0.5** (0.3-0.9)	**0.8** (0.5-1.2)	†	† [b]
North	**5.2** (3.0-8.7)	**4.6** (2.6-8.2)	**8.9** (5.9-13.3)	**3.4** (1.9-6.1)	†	†	†	†	†	†	† [b]
West	**8.9** (4.9-15.6)	**8.4** (4.8-14.2)	**7.0** (4.7-10.2)	**3.3** (2.2-5.1)	**2.2** (1.3-3.6)	†	†	†	**0.8** (0.4-1.5)	†	† [b]
East	†	†	**5.6** (4.1-7.8)	**3.8** (2.1-7.1)	**3.1** (2.0-4.7)	†	†	†	†	†	† [b]

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) question asked of a random half sample between 1991 and 2005; (6) estimates between 1999 and 2009 are based on two separate questions (methamphetamine and crystal methamphetamine) in the questionnaire; (7) no significant differences 2019 vs. 2017; [b] significant decrease since 1999, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often did you use methamphetamine or crystal methamphetamine (also known as "speed", "crystal meth", "crank", "Ice", etc.)?

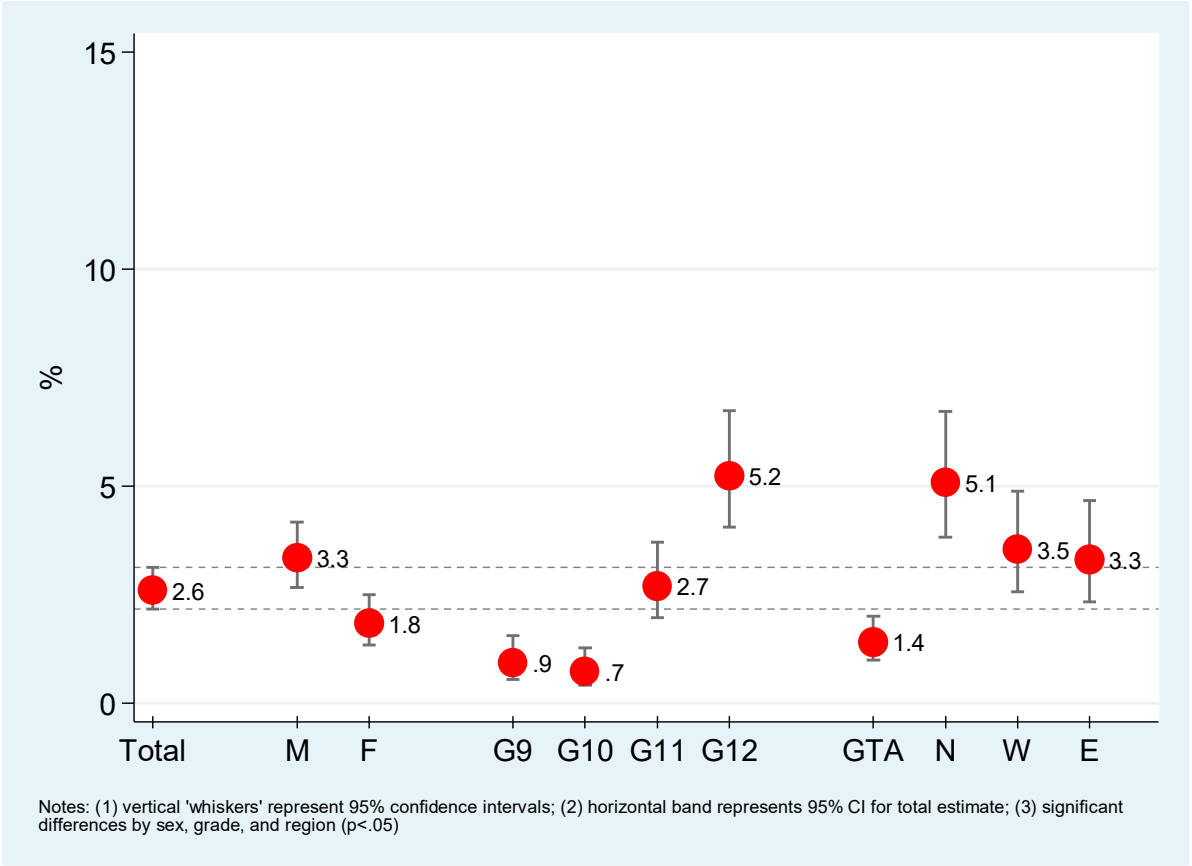
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Cocaine Use

(Figures 3.6.11–3.6.13; Tables 3.6.6, A13)

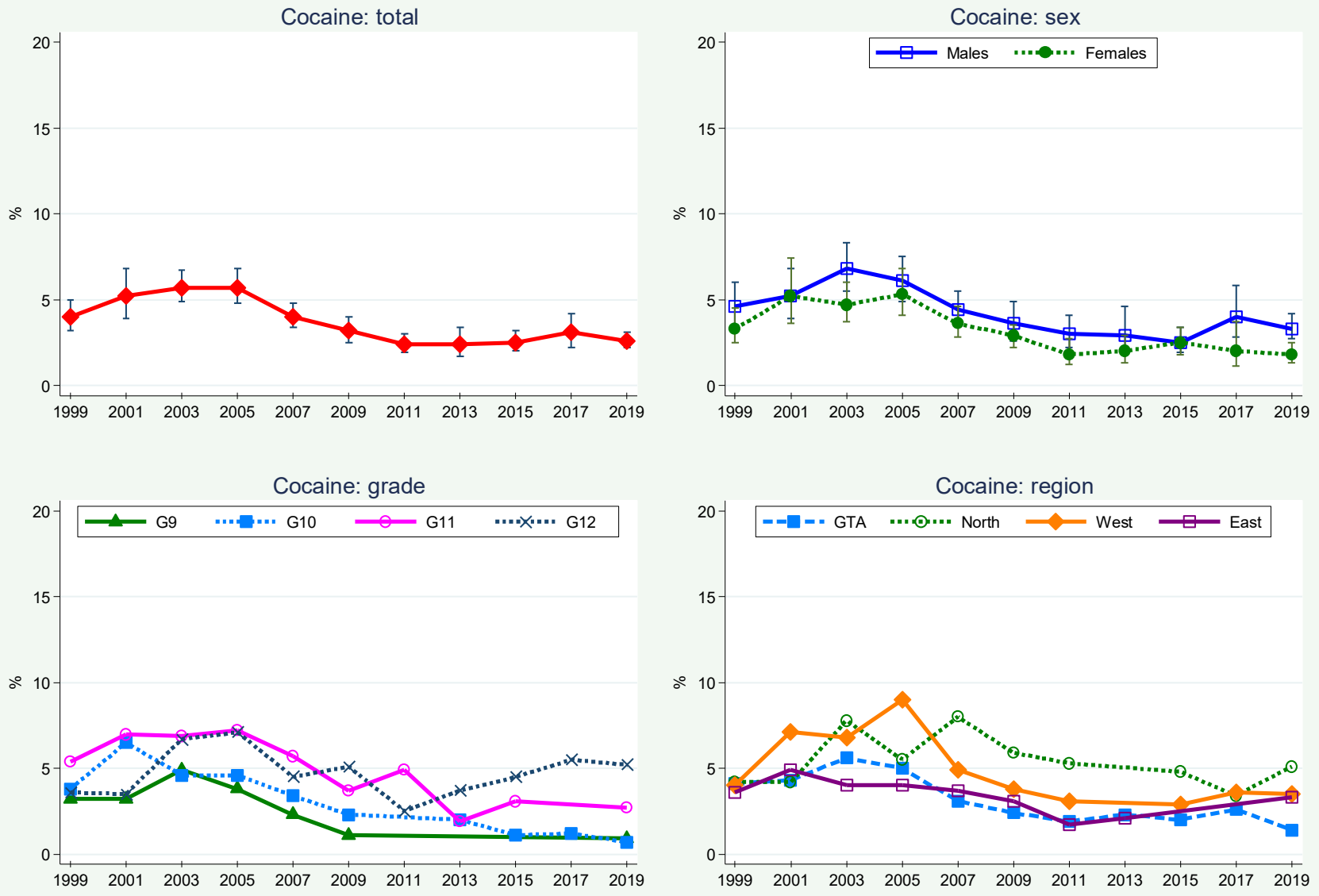
	Cocaine Use in 2019 (Grades 9–12)	Trends in Cocaine Use
Total	■ About 2.6% of secondary school students report using cocaine at least once during the 12 months before the survey. This estimate represents roughly 17,900 students in grades 9 to 12.	☐ Cocaine use did not change significantly between 2017 (3.1%) and 2019 (2.6%). There was a significant increase in use between 1999 and 2003/2005, and the level has since declined and remained stable in recent years. The 2019 estimate is significantly lower than the peak years of use seen in 2003/2005. ☐ Looking back over the past 40 years or so (among grades 9 and 11 only), cocaine use was elevated in 1979, and then gradually decreased during the 1980s and early 1990s. Use began a significant upswing in 1993, peaking again in 2003/2005, and subsequently declined. The current estimate is lower than the peak years of 1979 and 2003/2005, and similar to the lows evident in the late 1980s and early 1990s.
Sex	■ Males (3.3%) are significantly more likely than females (1.8%) to use cocaine.	☐ Neither males nor females show a significant change in cocaine use since 2017. However, both sexes show a significant decline in use since 2003/2005, followed by stability in recent years.
Grade	■ Cocaine use significantly increases with grade, from less than 1% of 9th graders up to 5.2% of 12th graders.	☐ No grade shows a change in cocaine use between 2017 and 2019. Cocaine use among students in grade 9–11 significantly declined over the past decade or so. Cocaine use among 12th graders has not significantly changed since 1999.
Region	■ There is significant regional variation showing that students in the GTA (1.4%) are least likely to use, while students in the North (5.1%) are most likely to use cocaine.	☐ No region shows a change in cocaine use between 2017 and 2019. Students in the GTA and West region show a significant decline in cocaine use over the past decade or so.

Figure 3.6.11
Past Year Cocaine Use by Sex, Grade, and Region, 2019 OSDUHS



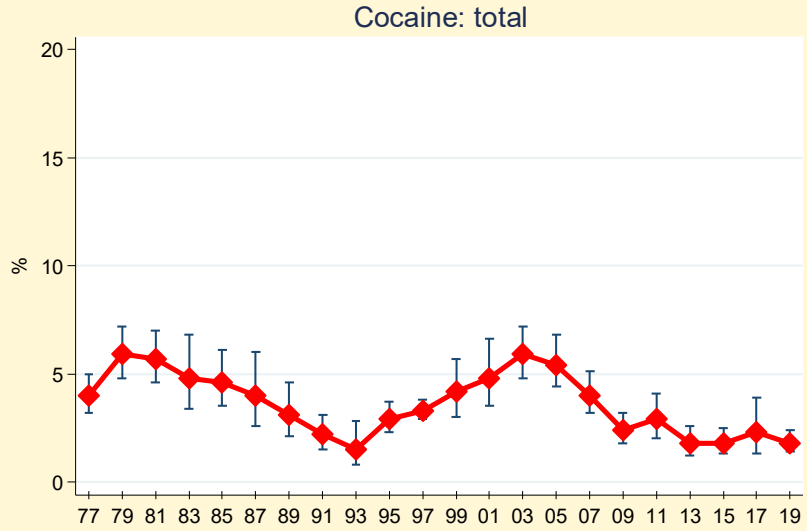
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

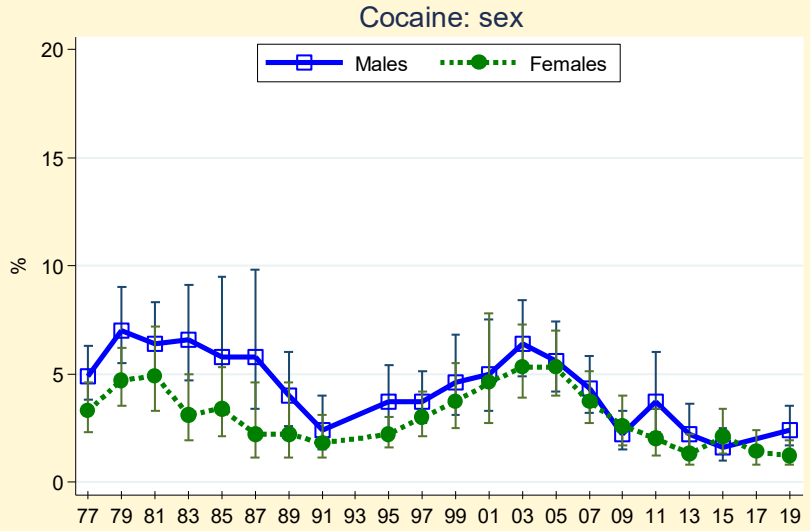
Figure 3.6.12
Past Year Cocaine Use, 1999–2019 OSDUHS (Grades 9–12)

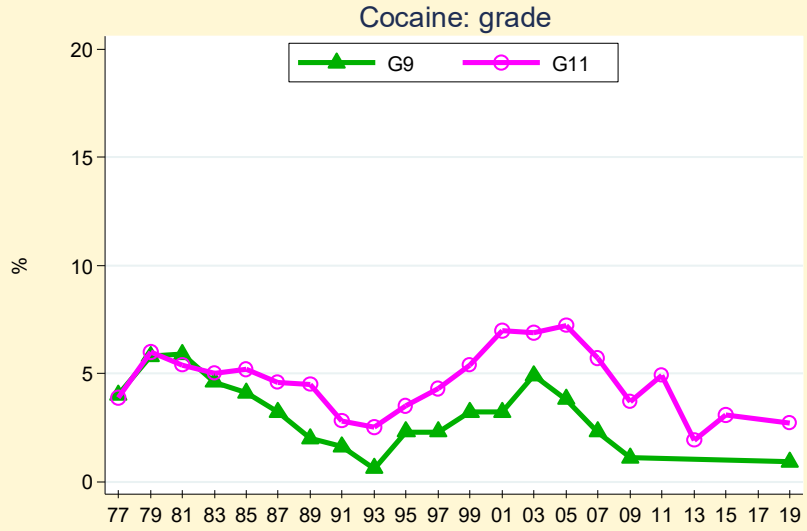


Note: some estimates were suppressed

Figure 3.6.13
Past Year Cocaine Use, 1977–2019 OSDUHS (Grades 9 and 11 only)







Notes: some estimates were suppressed; long-term region trends are not available

Table 3.6.6: Percentage Reporting Cocaine Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)	
Total	**4.0**	**5.2**	**5.7**	**5.7**	**4.0**	**3.2**	**2.4**	**2.4**	**2.5**	**3.1**	**2.6**	bcd
(95% CI)	(3.2-5.0)	(3.9-6.8)	(4.9-6.7)	(4.8-6.8)	(3.4-4.8)	(2.5-4.0)	(1.9-3.0)	(1.7-3.4)	(2.0-3.2)	(2.2-4.2)	(2.2-3.1)	
Sex												
Males	**4.6** (3.5-6.0)	**5.2** (3.9-6.8)	**6.8** (5.5-8.3)	**6.1** (4.9-7.5)	**4.4** (3.5-5.5)	**3.6** (2.6-4.9)	**3.0** (2.2-4.1)	**2.9** (1.8-4.6)	**2.5** (1.9-3.4)	**4.0** (2.8-5.8)	**3.3** (2.7-4.2)	b
Females	**3.3** (2.5-4.5)	**5.2** (3.6-7.4)	**4.7** (3.7-6.0)	**5.3** (4.1-6.8)	**3.6** (2.8-4.6)	**2.9** (2.2-3.5)	**1.8** (1.2-2.7)	**2.0** (1.3-2.9)	**2.5** (1.8-3.4)	**2.0** (1.1-3.7)	**1.8** (1.3-2.5)	b
Grade												
9	**3.2** (2.1-4.7)	**3.2** (2.0-5.2)	**4.9** (3.5-6.8)	**3.8** (2.8-5.1)	**2.3** (1.6-3.5)	**1.1** (0.6-1.9)	†	†	†	†	**0.9** (0.6-1.6)	b
10	**3.8** (2.4-5.9)	**6.5** (4.4-9.6)	**4.6** (3.3-6.2)	**4.6** (3.4-6.2)	**3.4** (2.4-4.8)	**2.3** (1.5-3.6)	†	**2.0** (1.2-3.3)	**1.1** (0.6-1.8)	**1.2** (0.7-2.2)	**0.7** (0.4-1.3)	b
11	**5.4** (3.4-8.4)	**7.0** (4.4-10.9)	**6.9** (5.1-9.2)	**7.2** (5.6-9.2)	**5.7** (4.3-7.6)	**3.7** (2.6-5.2)	**4.9** (3.3-7.2)	**1.9** (1.2-3.1)	**3.1** (2.2-4.4)	†	**2.7** (2.0-3.7)	b
12	**3.6** (2.3-5.7)	**3.5** (1.9-6.2)	**6.7** (5.1-8.8)	**7.1** (5.1-9.7)	**4.5** (3.3-6.1)	**5.1** (3.5-7.4)	**2.5** (1.4-4.4)	**3.7** (2.1-6.4)	**4.5** (3.1-6.6)	**5.5** (3.3-9.1)	**5.2** (4.0-6.7)	
Region												
GTA	**4.1** (2.9-5.6)	**4.3** (3.3-5.7)	**5.6** (4.4-7.1)	**5.0** (4.0-6.2)	**3.1** (2.4-4.1)	**2.4** (1.7-3.4)	**1.9** (1.4-2.7)	**2.3** (1.6-3.2)	**2.0** (1.4-2.7)	**2.6** (1.6-4.2)	**1.4** (1.0-2.0)	b
North	**4.2** (2.4-7.2)	**4.2** (2.4-7.2)	**7.8** (6.0-10.0)	**5.5** (3.8-7.9)	**8.0** (5.1-12.3)	**5.9** (3.6-9.5)	**5.3** (3.2-8.7)	†	**4.8** (2.8-7.9)	**3.4** (2.3-5.0)	**5.1** (3.8-6.7)	
West	**4.0** (2.4-6.5)	**7.1** (4.4-11.3)	**6.8** (5.0-9.3)	**9.0** (6.5-12.4)	**4.9** (3.3-7.1)	**3.8** (2.5-5.8)	**3.1** (2.0-4.9)	†	**2.9** (2.1-4.0)	**3.6** (2.2-6.0)	**3.5** (2.6-4.9)	b
East	**3.6** (2.4-5.4)	**4.9** (2.3-10.0)	**4.0** (2.9-5.5)	**4.0** (2.4-6.6	**3.7** (2.8-4.9)	**3.1** (1.8-5.4)	**1.7** (0.9-3.0)	**2.1** (1.2-3.6)	†	†	**3.3** (2.3-4.7)	

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. **2003 or 2005 (peak years)** significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use cocaine (also known as “coke”, “blow”, “snow”, “powder”, “snort”, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Crack Cocaine Use
(Tables 3.6.7, A14)

Crack cocaine, which first appeared in Canada in the mid-1980s, is a highly addictive and powerful stimulant derived from powdered cocaine. It is easy to produce and, therefore, inexpensive. Smoking crack cocaine will cause an immediate and intense euphoric effect. The OSDUHS began to monitor crack cocaine use in 1987, soon after its appearance in Canada. Starting in 2013, crack use was asked of students in grades 9 through 12 only (not asked of 7th and 8th graders).

	Crack Cocaine Use in 2019 (Grades 9–12)	Trends in Crack Cocaine Use
Total	■ The 2019 OSDUHS estimate for past year crack use among the total sample of secondary school students is 0.5%. This percentage represents roughly 3,400 students in grades 9 to 12.	☐ Crack use has remained low and stable during the past decade, at about 1% or less. However, current use is significantly lower than the estimates from 1999 and the early 2000s (at about 3%). ☐ Looking back over the past 30 years or so (among grades 9 and 11 only), there was a small, but significant, increase in crack use in the late 1990s/early 2000s, followed by a gradual decline, reaching historical lows in the past decade.
Sex	■ Less than 1% of males use crack. The estimate for females was suppressed.	☐ Crack use has remained low and stable for both males and females for the past decade, and current levels are significantly lower than those seen in 1999 and the early 2000s.
Grade	■ Estimates by grade were suppressed.	☐ All grades show low and stable levels in recent years, but a significant decline since 1999/early 2000s.
Region	■ Estimates by region were suppressed.	☐ All regions show low and stable levels in recent years, but a significant decline since 1999/early 2000s.

Table 3.6.7: Percentage Reporting Crack Cocaine Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total	**3.2**	**2.6**	**3.1**	**2.3**	**1.2**	**1.3**	**0.8**	**0.7**	†	**0.6**	**0.5** [bc]
(95% CI)	(2.4-4.2)	(1.9-3.5)	(2.4-4.0)	(1.9-2.8)	(0.8-1.6)	(1.0-1.7)	(0.5-1.3)	(0.5-1.1)		(0.3-1.0)	(0.4-0.7)
Sex											
Males	**3.8**	**3.0**	**3.5**	**2.6**	**1.1**	**1.6**	**1.1**	**0.9**	†	†	**0.8** [b]
	(2.7-5.3)	(1.9-4.8)	(2.6-4.6)	(2.0-3.3)	(0.7-1.7)	(1.1-2.4)	(0.6-2.0)	(0.5-1.5)			(0.5-1.2)
Females	**2.5**	**2.2**	**2.7**	**2.0**	**1.2**	**0.9**	†	**0.5**	†	†	† [b]
	(1.8-3.6)	(1.3-3.5)	(1.9-3.9)	(1.6-2.7)	(0.8-1.9)	(0.6-1.5)		(0.3-0.9)			
Grade											
9	**2.9**	**3.7**	**3.1**	**2.6**	**1.0**	†	†	†	†	†	† [b]
	(1.9-4.6)	(2.3-6.0)	(2.2-4.5)	(1.8-3.8)	(0.6-1.8)						
10	**3.7**	†	**3.0**	**2.5**	**1.1**	**0.9**	†	†	†	†	† [b]
	(2.1-6.6)		(2.0-4.5)	(1.7-3.8)	(0.6-2.0)	(0.5-1.6)					
11	**3.6**	**2.6**	**3.6**	**2.1**	**2.2**	**1.7**	†	†	†	†	† [b]
	(1.9-6.8)	(1.6-4.0)	(2.4-5.4)	(1.4-3.1)	(1.4-3.4)	(0.9-2.9)					
12	†	†	**2.5**	**2.1**	†	**1.5**	†	†	†	†	† [b]
			(1.7-3.7)	(1.3-3.3)		(0.8-2.8)					
Region											
GTA	**2.9**	**3.2**	**2.5**	**2.0**	**1.1**	**1.6**	**1.3**	**0.6**	†	†	† [b]
	(1.9-4.3)	(2.2-4.6)	(1.6-3.8)	(1.5-2.7)	(0.6-2.0)	(1.0-2.3)	(0.8-2.3)	(0.3-1.1)			
North	†	†	**5.6**	**2.7**	**3.6**	†	†	†	†	†	†
			(4.1-7.6)	(1.6-4.5)	(2.0-6.4)						
West	**3.8**	†	**4.2**	**3.1**	**0.8**	**1.0**	†	†	†	†	† [b]
	(2.1-6.7)		(2.7-6.3)	(2.1-4.6)	(0.5-1.3)	(0.6-1.7)					
East	**3.0**	†	**2.3**	**2.1**	**1.1**	**1.1**	†	†	†	†	† [b]
	(1.8-5.2)		(1.2-4.6)	(1.3-3.4)	(0.6-2.0)	(0.6-2.1)					

Notes: (1) based on grades 9-12 ; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often have you used cocaine in the form of "crack"?
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Heroin Use

(Tables 3.6.8, A15)

	Heroin Use in 2019 (Grades 9–12)	Trends in Heroin Use
Total	■ The 2019 OSDUHS estimate for past year heroin use among the total sample of secondary students was suppressed (less than 0.5%).	☐ Heroin use has remained very low and stable during the past decade, and the level of use seen in recent years is among the lowest since 1999, when the estimate was 2.1%. ☐ Looking back over the past 40 years or so (among grades 9 and 11 only), the use of heroin was low and stable for decades, gradually declining during the past decade, reaching historical lows in recent years.
Sex	■ Estimates by sex were suppressed.	☐ Heroin use among both males and females has been low and stable for the past decade, and remains significantly lower than their respective estimates from 1999.
Grade	■ Estimates by grade were suppressed.	☐ Use among the grades has been low and stable for the past decade, but significantly lower than estimates from 1999.
Region	■ Estimates by region were suppressed.	☐ Use among the regions has been low and stable for the past decade, but significantly lower than estimates from 1999.

Table 3.6.8: Percentage Reporting Heroin Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total (95% CI)	**2.1** (1.6-2.7)	**1.2** (0.8-1.7)	**1.5** (1.1-1.9)	**0.9** (0.7-1.2)	**1.0** (0.7-1.5)	**0.8** (0.6-1.2)	†	†	**0.5** (0.3-0.7)	†	† [bc]
Sex											
Males	**2.8** (2.0-3.9)	**1.8** (1.1-2.7)	**2.2** (1.6-3.0)	**1.1** (0.8-1.6)	**1.4** (1.0-2.2)	**1.2** (0.8-1.9)	†	**0.7** (0.4-1.2)	†	†	† [b]
Females	**1.3** (0.7-2.4)	†	**0.8** (0.4-1.3)	**0.8** (0.5-1.2)	†	†	†	†	†	†	†
Grade											
9	**2.5** (1.7-3.8)	**2.2** (1.3-3.6)	**1.5** (0.9-2.4)	**1.4** (0.8-2.3)	**1.0** (0.6-1.8)	†	†	†	†	†	† [b]
10	†	**1.2** (0.6-2.2)	**2.0** (1.2-3.5)	†	**0.7** (0.4-1.3)	†	†	†	†	†	†
11	†	†	**1.3** (0.7-2.2)	**0.8** (0.4-1.5)	**1.7** (1.0-2.9)	†	†	†	†	†	†
12	**2.2** (1.2-4.0)	†	**1.1** (0.6-2.0)	**1.0** (0.6-1.7)	†	**1.0** (0.5-2.0)	†	†	†	†	† [b]
Region											
GTA	**2.3** (1.5-3.3)	†	**1.6** (1.1-2.4)	**1.0** (0.7-1.4)	**0.9** (0.5-1.5)	**0.8** (0.5-1.5)	†	†	†	†	†
North	**1.4** (0.8-2.6)	†	†	**1.0** (0.6-1.7)	†	†	†	†	†	†	†
West	**1.9** (1.0-3.6)	**2.0** (1.1-3.6)	**1.2** (0.7-2.0)	**1.3** (0.9-2.1)	†	**0.9** (0.5-1.7)	†	†	**0.8** (0.4-1.5)	†	†
East	**2.1** (1.3-3.6)	†	**1.6** (1.0-2.5)	†	**1.3** (0.8-2.3)	†	†	†	†	†	† [b]

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) [b] significant decline since 1999, p<.01; [c] significant linear trend; [d] significant nonlinear trend.
Q: In the last 12 months, how often did you use heroin (also known as "H", "junk", or "smack")?
Source: OSDUHS, Centre for Addiction & Mental Health

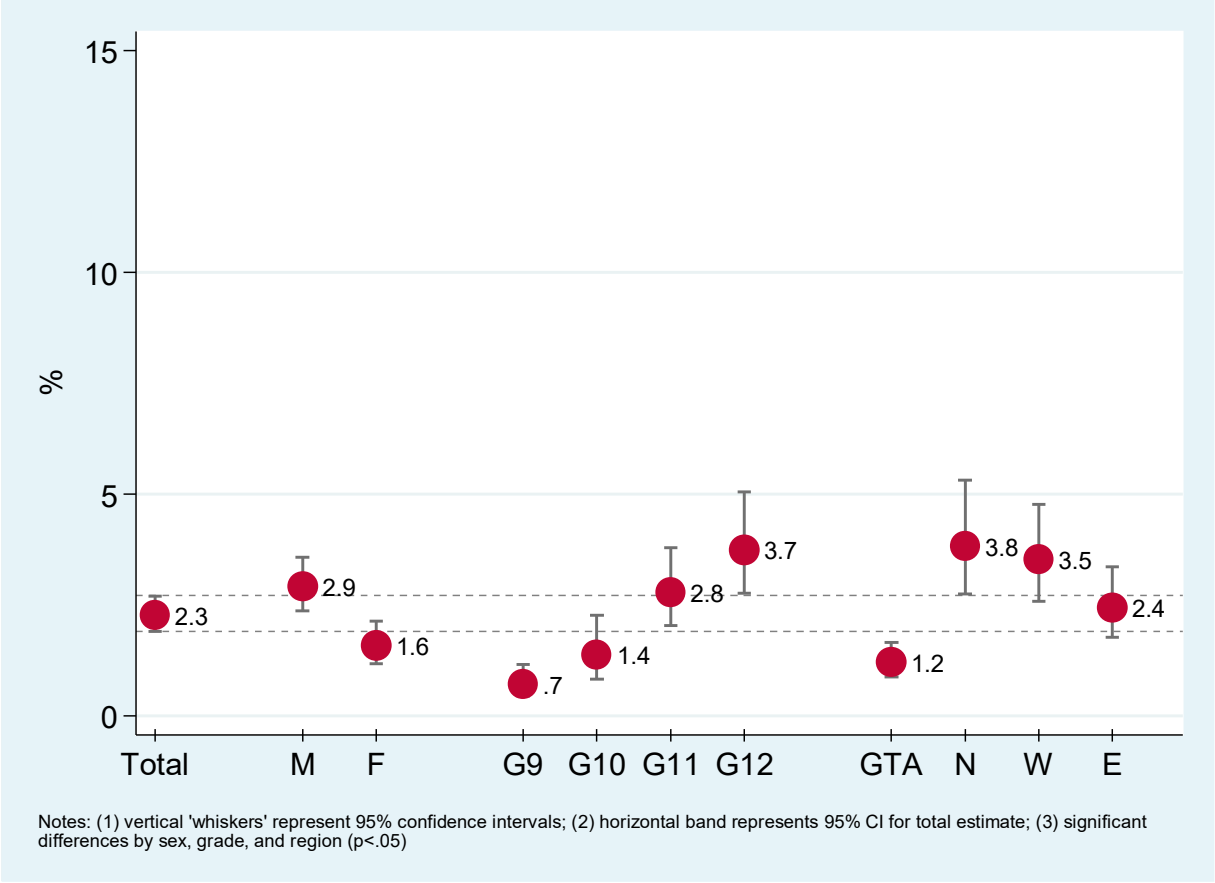
Past Year Ecstasy (MDMA) Use

(Figures 3.6.14–3.6.16; Tables 3.6.9, A16)

"Ecstasy" or "Molly" (MDMA, methylenedioxymethamphetamine), which first appeared in Canada in 1989, is a synthetic substance with both stimulant and hallucinogenic properties. Its effects include mild hallucinogenic effects, increased tactile sensitivity, empathic feelings, dehydration, and impaired memory. The OSDUHS began to monitor ecstasy use in 1991. Starting in 2013, ecstasy use was asked of students in grades 9 through 12 only (not asked of 7th and 8th graders).

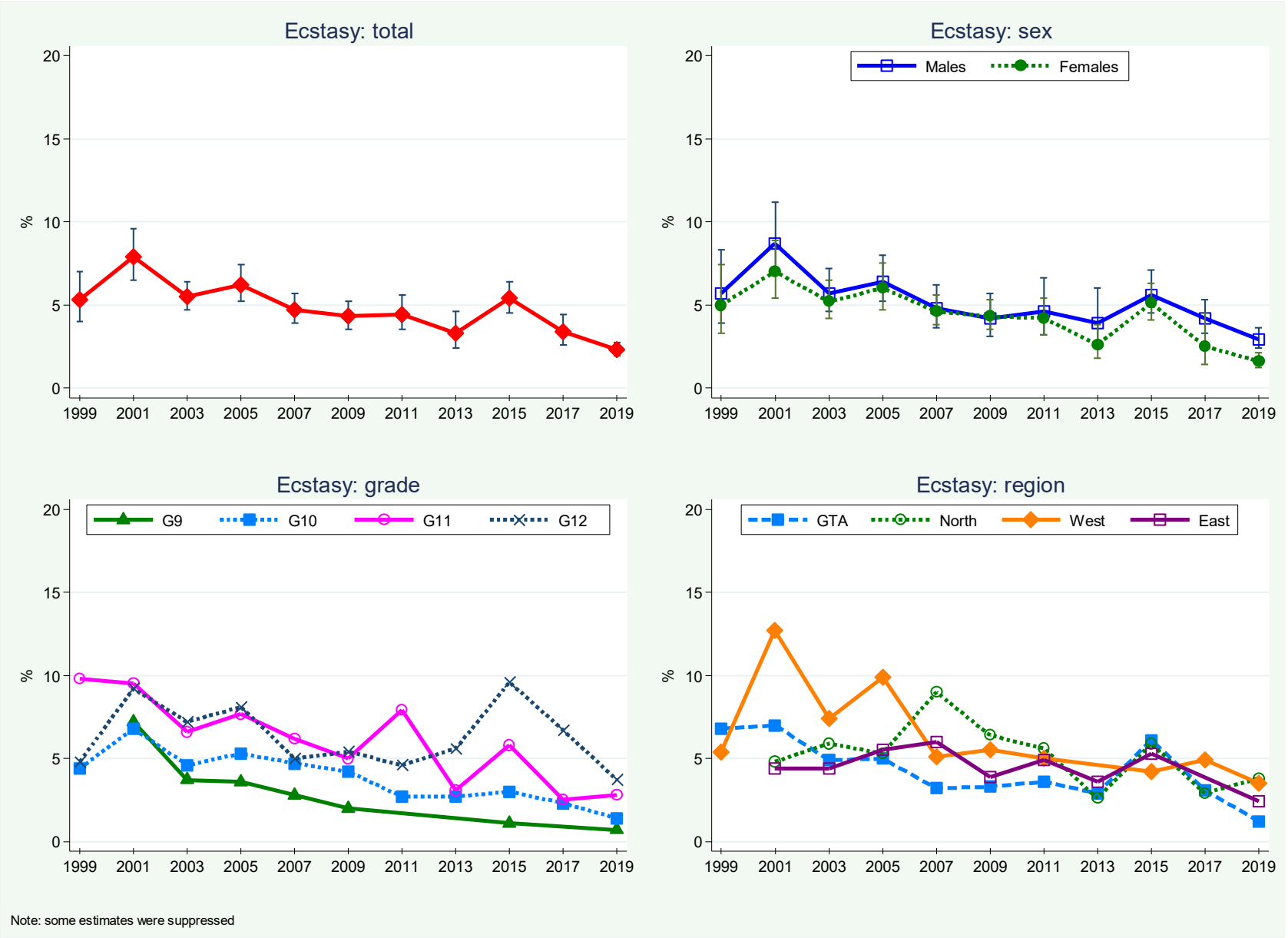
	Ecstasy (MDMA) Use in 2019 (Grades 9–12)	Trends in Ecstasy (MDMA) Use
Total	■ In 2019, 2.3% of students in grades 9 to 12 report using ecstasy at least once during the 12 months before the survey. The estimated number of secondary students in Ontario who use ecstasy is about 15,600.	☐ Ecstasy use significantly decreased between 2017 (3.4%) and 2019 (2.3%). Use has significantly decreased since the peak of 7.9% in 2001, and the 2019 estimate is among the lowest on record (apart from 2013). ☐ Since monitoring began in 1991 (among grades 9 and 11 only), ecstasy use steadily increased from below 0.5% to a peak in 2001. Use has been on a downward trend since that peak, reaching historical lows in recent years.
Sex	■ Males (2.9%) are significantly more likely than females (1.6%) to use ecstasy.	☐ Ecstasy use did not significantly change since 2017 for males or females, and current levels for both are similar to those seen during the past decade. However, both have shown a significant decrease since the peak year of use in 2001.
Grade	■ Ecstasy use significantly increases with grade, from 0.7% of 9th graders up to 3.7% of 12th graders.	☐ No grade shows a significant change since 2017. Ecstasy use among grades 9, 10, and 11 significantly declined between 2001 and 2019. Use among 12th graders has declined in the past few years and is currently lower than 2001.
Region	■ There is significant regional variation showing that GTA students (1.2%) are least likely to use, while students in the North (3.8%) and West (3.5%) are most likely to use ecstasy. Students in the East region fall in between.	☐ Only students in the GTA show a significant decrease between 2017 and 2019 (from 3.1% to 1.2%). Students in the GTA and West region show a significant decrease in use since 2001. Students in the North and East regions show a decrease since 2007.

Figure 3.6.14
Past Year Ecstasy (MDMA) Use by Sex, Grade, and Region, 2019 OSDUHS



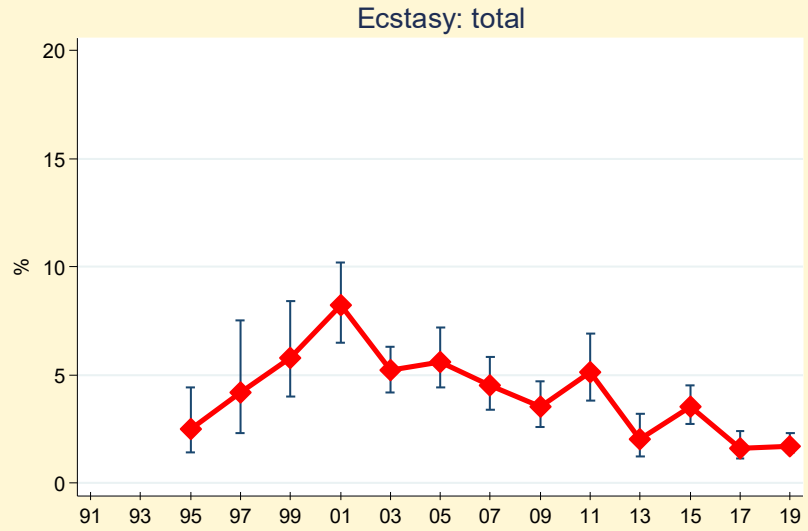
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

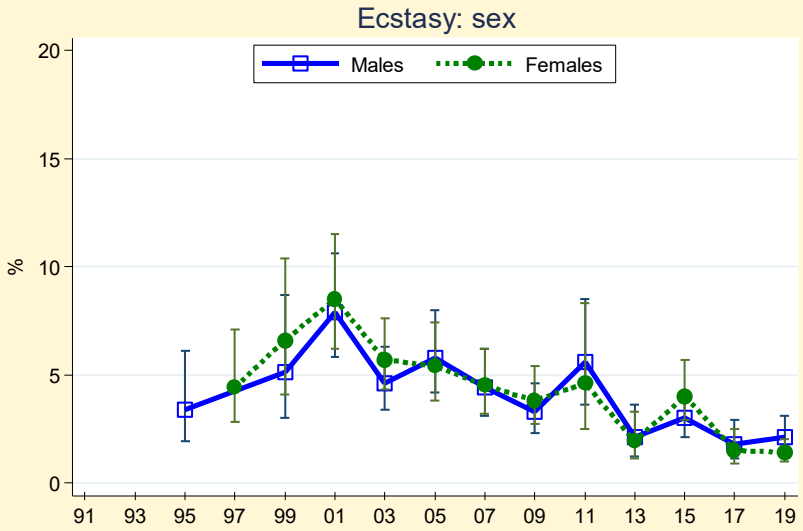
Figure 3.6.15
Past Year Ecstasy (MDMA) Use, 1999–2019 (Grades 9–12)

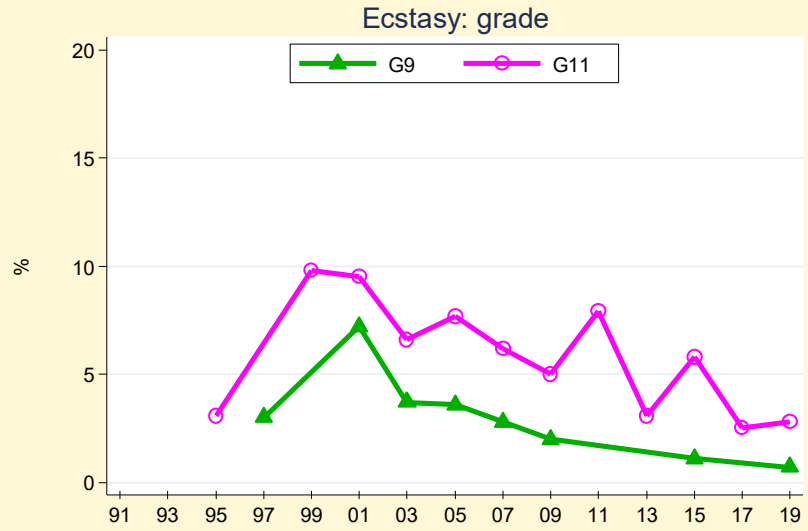


Note: some estimates were suppressed

Figure 3.6.16
Past Year Ecstasy (MDMA) Use, 1991–2019 (Grades 9 and 11 only)







Notes: some estimates, including all those from 1991 and 1993, were suppressed; long-term region trends are not available

Table 3.6.9: Percentage Reporting Ecstasy (MDMA) Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)	
Total	**5.3**	**7.9**	**5.5**	**6.2**	**4.7**	**4.3**	**4.4**	**3.3**	**5.4**	**3.4**	**2.3**	[abcd]
(95% CI)	(4.0-7.0)	(6.5-9.6)	(4.7-6.4)	(5.2-7.4)	(3.9-5.7)	(3.5-5.2)	(3.5-5.6)	(2.4-4.5)	(4.5-6.4)	(2.6-4.4)	(1.9-2.7)	
Sex												
Males	**5.7**	**8.7**	**5.7**	**6.4**	**4.8**	**4.2**	**4.6**	**3.9**	**5.6**	**4.2**	**2.9**	[b]
	(3.9-8.3)	(6.8-11.2)	(4.6-7.2)	(5.2-8.0)	(3.6-6.2)	(3.1-5.7)	(3.2-6.6)	(2.5-6.0)	(4.5-7.0)	(3.3-5.3)	(2.4-3.6)	
Females	**5.0**	**7.0**	**5.2**	**6.0**	**4.6**	**4.3**	**4.2**	**2.6**	**5.1**	**2.5**	**1.6**	[b]
	(3.3-7.4)	(5.4-8.9)	(4.2-6.5)	(4.7-7.5)	(3.8-5.6)	(3.5-5.3)	(3.2-5.4)	(1.8-3.8)	(4.1-6.3)	(1.4-4.5)	(1.2-2.1)	
Grade												
9	†	**7.2**	**3.7**	**3.6**	**2.8**	**2.0**	†	†	**1.1**	†	**0.7**	[b]
		(5.0-10.1)	(2.7-5.1)	(2.6-4.9)	(1.9-4.1)	(1.1-3.5)			(0.6-1.9)		(0.4-1.2)	
10	**4.5**	**6.8**	**4.6**	**5.3**	**4.7**	**4.2**	**2.7**	**2.7**	**3.0**	**2.3**	**1.4**	[b]
	(2.5-7.8)	(4.6-10.0)	(3.2-6.4)	(3.9-7.0)	(3.5-6.4)	(3.1-5.7)	(1.5-4.8)	(1.5-4.8)	(2.1-4.3)	(1.5-3.7)	(0.8-2.3)	
11	**9.8**	**9.5**	**6.6**	**7.7**	**6.2**	**5.0**	**7.9**	**3.1**	**5.8**	**2.5**	**2.8**	[b]
	(6.4-14.8)	(6.9-13.0)	(4.9-9.0)	(5.7-40.5)	(4.6-8.2)	(3.7-6.9)	(5.9-10.6)	(2.0-4.8)	(4.4-7.6)	(1.7-3.6)	(2.0-3.8)	
12	**4.8**	**9.2**	**7.2**	**8.1**	**5.0**	**5.4**	**4.6**	**5.6**	**9.6**	**6.7**	**3.7**	[b]
	(2.6-8.8)	(6.0-14.1)	(5.5-9.4)	(6.3-10.5)	(3.8-6.7)	(3.8-7.6)	(3.0-7.0)	(3.6-8.5)	(7.3-12.6)	(4.5-9.8)	(2.8-5.0)	
Region												
GTA	**6.8**	**7.0**	**4.9**	**5.0**	**3.2**	**3.3**	**3.6**	**2.9**	**6.1**	**3.1**	**1.2**	[ab]
	(4.8-9.7)	(5.2-9.4)	(3.8-6.3)	(3.9-6.3)	(2.2-4.8)	(2.5-4.4)	(2.2-5.8)	(1.8-4.6)	(4.8-7.7)	(2.1-4.7)	(0.9-1.7)	
North	†	**4.8**	**5.9**	**5.3**	**9.0**	**6.4**	**5.6**	†	**5.9**	**2.9**	**3.8**	
		(3.2-7.0)	(4.7-7.3)	(4.0-6.8)	(5.7-13.8)	(3.9-10.5)	(3.9-8.0)		(4.2-8.4)	(1.8-4.5)	(2.7-5.3)	
West	**5.4**	**12.7**	**7.4**	**9.9**	**5.1**	**5.5**	**5.0**	†	**4.2**	**4.9**	**3.5**	[b]
	(3.2-8.9)	(9.8-16.4)	(5.6-9.8)	(7.5-12.9)	(3.7-7.0)	(3.9-7.7)	(3.5-7.1)		(3.2-5.5)	(3.3-7.2)	(2.6-4.8)	
East	†	**4.4**	**4.4**	**5.5**	**6.0**	**3.9**	**4.9**	**3.6**	**5.3**	†	**2.4**	
		(2.3-8.3)	(3.1-6.2)	(3.5-8.5)	(4.6-7.8)	(2.3-6.3)	(3.2-7.5)	(2.0-6.3)	(3.3-8.2)		(1.8-3.4)	

Notes: (1) based on grades 9-12; (2) question asked of a random half sample in 1999; (3) entries in brackets are 95% confidence intervals; (4) GTA= Greater Toronto Area; (5) † estimate suppressed due to unreliability; (6) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. **2001 (peak)** significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use MDMA or "ecstasy" (also known as "Molly", "E", "X")?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Fentanyl Use

Starting in 2017, we asked a random half sample of secondary students (grades 9–12) whether they used fentanyl. Fentanyl is a powerful synthetic opioid prescribed for severe pain. However, non-pharmaceutical fentanyl created in clandestine laboratories has become a public health concern in recent years due to the increasing number of deaths attributed to the drug. The drug usually comes in powder form that can be made into pills or cut with other drugs, such as heroin. Fentanyl's effects resemble those of heroin and include euphoria, drowsiness, sedation, and respiratory failure. The high potency of fentanyl – many times more powerful than other strong opioids, such as morphine – greatly increases the risk of overdose and death.

To assess use, students were asked "*In the last 12 months, how often did you use fentanyl (also known as 'greenies', 'shady 80s', 'fake Oxy', 'China white')*?"

2019: Grades 9–12

- The percentage of secondary students reporting past year use of fentanyl was 0.5% (95% CI: 0.3%-0.9%). This percentage represents about 3,500 students in grades 9–12 in Ontario.

- No further breakdown by sex, grade, or region could be presented due to suppressed estimates.

2019 vs. 2017: Grades 9–12

- The 2019 estimate for fentanyl use in the past year does not significantly differ from 2017 (0.5% and 0.9%, respectively).

3.7 Nonmedical Use of Prescription Drugs and Over-the-Counter Drugs

3.7.1 Nonmedical Use of Prescription Drugs and Over-the-Counter Drugs Among Grades 7–12

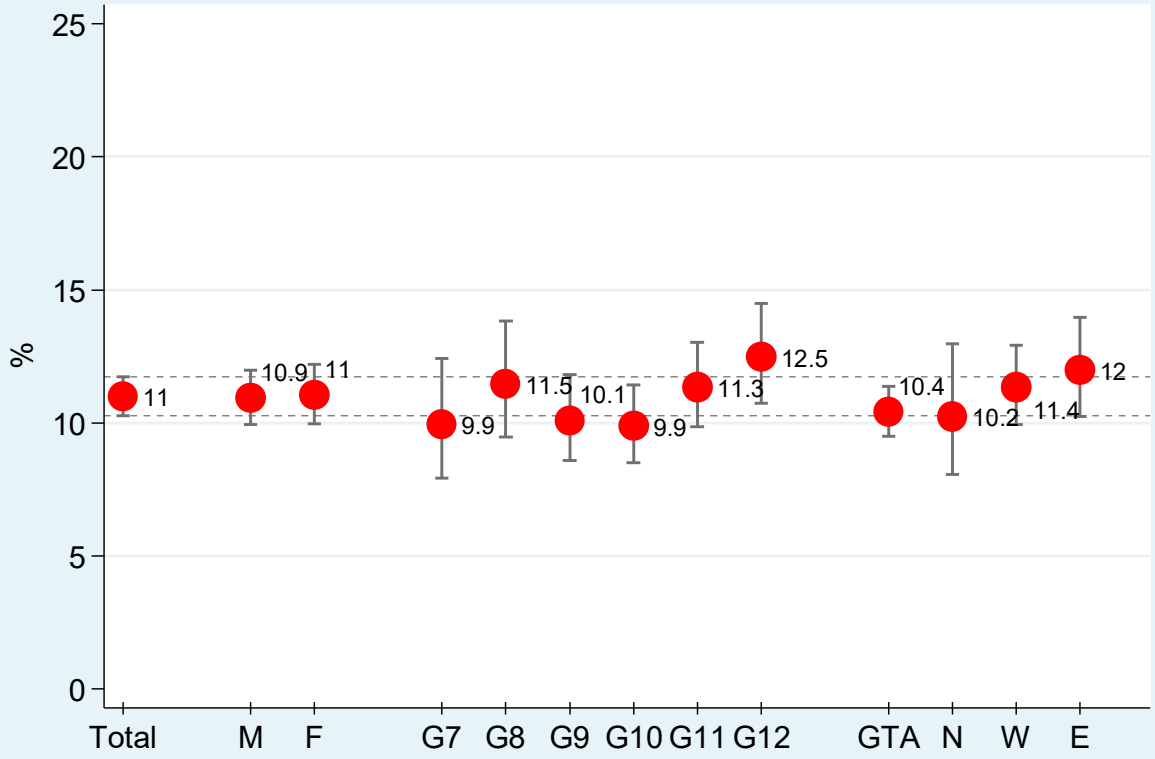
Past Year Nonmedical Use of Prescription Opioid Pain Relievers

(Figures 3.7.1, 3.7.2; Table 3.7.1)

Starting in 2007, students were asked about nonmedical (NM) use of the general class of prescription opioid pain relievers, such as Percocet and Tylenol #3. Nonmedical use is defined as use without one's own prescription, or a doctor's supervision. In addition to suppressing pain, opioids may also cause a relaxed or euphoric feeling. These drugs can be dangerous when used without medical supervision because if taken with other depressant drugs (e.g., alcohol) they can slow one's breathing. Even one single large dose can cause severe slowing of one's breathing and possibly death. Chronic misuse of opioids can lead to addiction.

	NM Use of an Opioid Pain Reliever in 2019 (Grades 7–12)	2007–2019 Trends (Grades 7–12)
Total	■ One-in-ten (11.0%) students report using a prescription opioid pain reliever nonmedically at least once during the 12 months before the survey. This estimate represents about 98,300 Ontario students in grades 7 to 12.	☐ Nonmedical prescription opioid use did not significantly change between 2017 (10.6%) and 2019 (11.0%). While use has remained stable since 2013, there has been a significant downward trend since 2007 – when monitoring began – from 20.6% down to 11.0% in 2019.
Sex	■ There is no significant difference in past year nonmedical opioid use between males (10.9%) and females (11.0%).	☐ Neither males nor females show a significant change in nonmedical prescription opioid use between 2017 and 2019. However, both sexes do show a significant decline since 2007, and stability since 2013.
Grade	■ Despite some variation among the grades, these differences are not statistically significant.	☐ No grade shows a significant change in use between 2017 and 2019. Students in all grades, except grade 7, show a significant decline since 2007, and stability in recent years.
Region	■ Despite some variation among the four regions, these differences are not statistically significant.	☐ No region shows a significant change in use between 2017 and 2019. However, all regions show a significant decline since 2007, and stability in recent years.

Figure 3.7.1
Past Year Nonmedical Use of Prescription Opioid Pain Relievers by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) no significant differences by sex, grade, or region

Figure 3.7.2
Past Year Nonmedical Use of Prescription Opioid Pain Relievers, 2007–2019 OSDUHS (Grades 7–12)

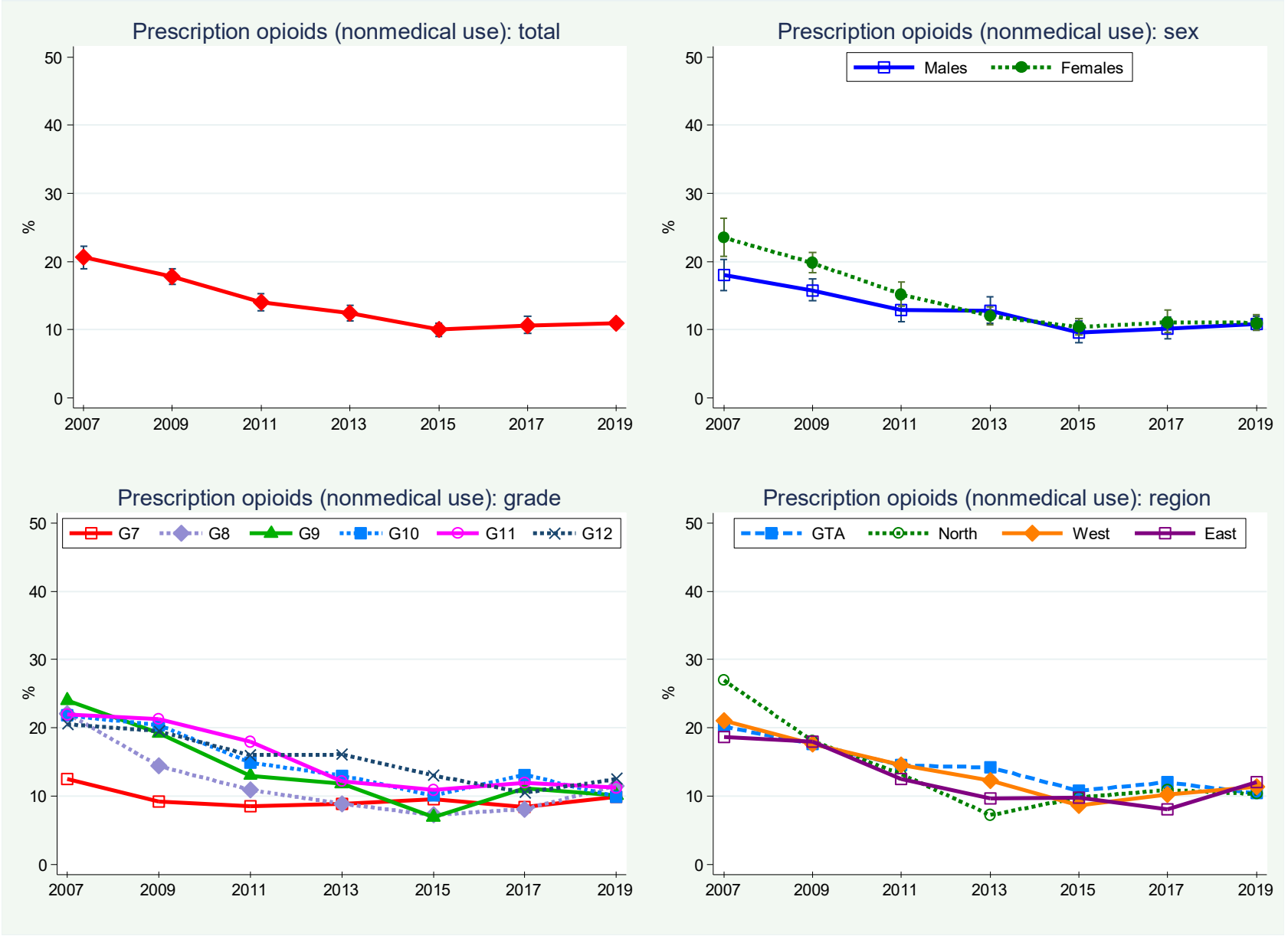


Table 3.7.1: Percentage Reporting Nonmedical Use of Prescription Opioid Pain Relievers in the Past Year, 2007–2019 OSDUHS

	2007	2009	2011	2013	2015	2017	2019
(n)	(2935)	(9112)	(9288)	(10272)	(10426)	(10435)	(14142)
Total	**20.6**	**17.8**	**14.0**	**12.4**	**10.0**	**10.6**	**11.0** [bcd]
(95% CI)	(18.9-22.3)	(16.6-18.9)	(12.8-15.3)	(11.2-13.6)	(9.0-11.0)	(9.5-12.0)	(10.3-11.7)
Sex							
Males	**18.0** (15.8-20.3)	**15.8** (14.3-17.4)	**12.9** (11.2-14.9)	**12.8** (11.0-14.8)	**9.6** (8.1-11.3)	**10.2** (8.7-11.9)	**10.9** [b] (9.9-12.0)
Females	**23.5** (20.8-26.3)	**19.8** (18.4-21.3)	**15.2** (13.5-17.0)	**12.0** (10.7-13.3)	**10.4** (9.2-11.6)	**11.1** (9.6-12.8)	**11.0** [b] (10.0-12.2)
Grade							
7	**12.5** (8.4-18.2)	**9.2** (6.9-12.2)	**8.5** (6.7-10.7)	**8.8** (6.8-11.3)	**9.5** (6.6-13.6)	**8.4** (6.1-11.4)	**9.9** (7.9-12.4)
8	**22.1** (17.7-27.2)	**14.4** (11.9-17.4)	**10.9** (8.5-13.8)	**8.9** (6.6-11.7)	**7.2** (4.8-10.6)	**8.1** (5.7-11.2)	**11.5** [b] (9.5-13.8)
9	**24.0** (19.5-29.1)	**19.2** (16.4-22.3)	**13.0** (10.7-15.6)	**11.8** (9.2-14.9)	**6.9** (5.4-8.8)	**11.1** (8.8-14.0)	**10.1** [b] (8.6-11.8)
10	**21.8** (18.1-25.9)	**20.4** (17.1-24.2)	**14.9** (12.9-17.2)	**13.0** (10.4-16.0)	**10.1** (8.3-12.3)	**13.1** (10.4-16.2)	**9.9** [b] (8.5-11.4)
11	**22.0** (18.4-26.2)	**21.3** (18.6-24.3)	**18.0** (14.6-22.0)	**12.1** (9.9-14.7)	**10.9** (8.8-13.6)	**11.9** (9.9-14.1)	**11.3** [b] (9.8-13.0)
12	**20.5** (16.6-25.1)	**19.5** (16.8-22.5)	**16.0** (13.2-19.2)	**16.1** (13.2-19.6)	**13.0** (10.4-16.2)	**10.5** (8.3-13.2)	**12.5** [b] (10.7-14.5)
Region							
Greater Toronto Area	**20.2** (17.4-23.3)	**17.6** (16.0-19.4)	**14.5** (12.5-16.8)	**14.2** (12.4-16.2)	**10.8** (9.6-12.4)	**12.0** (10.2-14.0)	**10.4** [b] (9.5-11.4)
North	**27.0** (21.6-33.1)	**18.1** (15.9-20.6)	**13.2** (9.7-17.8)	**7.2** (5.5-9.4)	**9.8** (7.5-12.8)	**10.9** (8.9-13.4)	**10.2** [b] (8.0-13.0)
West	**21.1** (18.0-24.5)	**17.6** (15.2-20.4)	**14.5** (12.0-17.4)	**12.3** (10.4-14.4)	**8.6** (6.8-10.9)	**10.2** (8.7-11.8)	**11.4** [b] (10.0-12.9)
East	**18.6** (16.1-21.4)	**18.0** (16.0-20.2)	**12.5** (10.8-14.4)	**9.6** (7.3-12.6)	**9.8** (7.6-12.4)	**8.1** (5.6-11.8)	**12.0** [b] (10.2-14.0)

Notes: (1) based on grades 7-12; (2) question asked of a random half sample in 2007; (3) entries in brackets are 95% confidence intervals; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2007 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, codeine) without a prescription or without a doctor telling you to take them? We do not mean regular Tylenol, Advil, or Aspirin that anyone can buy in a drugstore. (Note that the last sentence was added in 2009 and tested on a random half sample. An evaluation showed it had no discernible effect on responses, and it was retained in subsequent cycles.)

Source: OSDUHS, Centre for Addiction & Mental Health

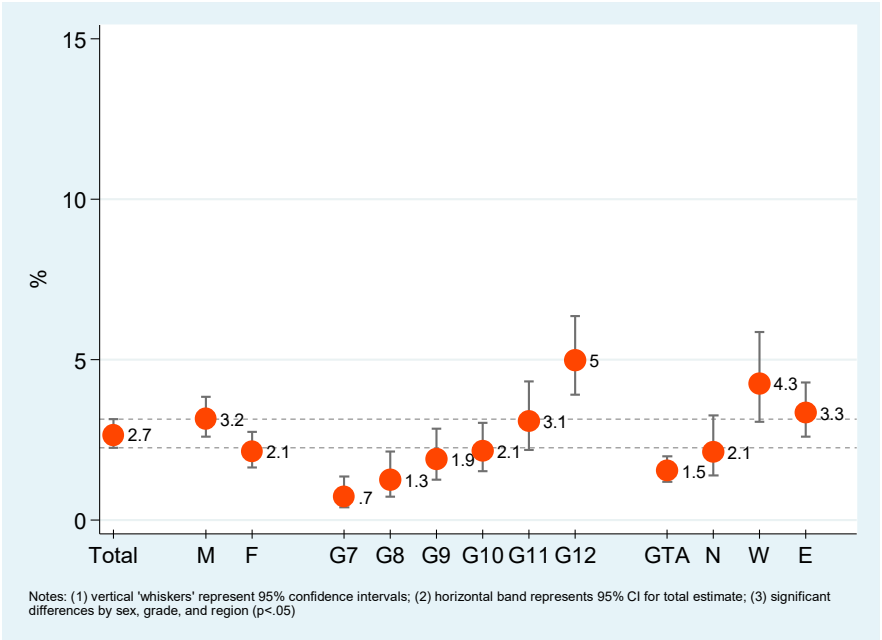
Past Year Nonmedical Use of ADHD Drugs

(Figure 3.7.3; Table 3.7.2)

Ritalin and Concerta (methylphenidate), Adderall and Dexedrine (dextroamphetamine) are stimulant drugs used to treat Attention-Deficit/Hyperactivity Disorder (ADHD) in children. However, some people take these drugs without a prescription (i.e., misuse) for various purposes including appetite suppression, wakefulness, increased focus, and euphoria. Starting in 2007, students were asked about the nonmedical (NM) use of this class of drugs.

	NM ADHD Drug Use in 2019 (Grades 7–12)	2007–2019 Trends (Grades 7–12)
Total	■ Among all students, 2.7% report using an ADHD drug for nonmedical purposes at least once in the past 12 months. This represents about 23,700 Ontario students.	☐ The nonmedical use of an ADHD drug did not significantly change between 2017 (2.3%) and 2019 (2.7%), and has remained stable since 2015. However, use is currently higher than in 2007 (1.0%), the first year of monitoring.
Sex	■ Males (3.2%) are significantly more likely than females (2.1%) to use an ADHD drug nonmedically.	☐ Neither sex shows a significant change since 2017. Both males and females show significant increases during the past decade or so.
Grade	■ There is significant grade variation showing that use increases between 7th grade (0.7%) and 12th grade (5.0%).	☐ No grade shows a significant change in use since 2017. Only students in grade 12 show a significant increase in use since 2007.
Region	■ There is significant regional variation showing that GTA students (1.5%) are least likely to use, while students in the West (4.3%) and East (3.3%) are most likely to use.	☐ No region shows a significant change in use between 2017 and 2019. Only the West and East regions show a significant increase since 2007.

Figure 3.7.3
Past Year Nonmedical Use of ADHD Drugs by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

Table 3.7.2: Percentage Reporting Nonmedical Use of ADHD Drugs in the Past Year, 2007–2019 OSDUHS

	2007	2009	2011	2013	2015	2017	2019
(n=)	(2935)	(9112)	(9288)	(10272)	(10426)	(11435)	(14142)
Total	**1.0**	**1.6**	**1.0**	**1.4**	**2.1**	**2.3**	**2.7** [bc]
(95% CI)	(0.7-1.5)	(1.3-2.1)	(0.7-1.3)	(1.0-2.0)	(1.6-2.7)	(1.7-3.1)	(2.2-3.1)
Sex							
Males	**1.1** (0.7-1.8)	**1.7** (1.2-2.4)	**1.2** (0.7-2.2)	**1.9** (1.2-2.9)	**2.1** (1.5-3.0)	**2.6** (2.0-3.5)	**3.2** [b] (2.6-3.8)
Females	**1.0** (0.5-1.9)	**1.6** (1.2-2.1)	**0.7** (0.4-1.3)	**0.9** (0.6-1.3)	**2.0** (1.4-2.9)	**1.9** (1.2-3.1)	**2.1** [b] (1.6-2.8)
Grade							
7	†	**0.8** (0.4-1.5)	†	†	†	**1.5** (0.8-2.7)	**0.7** (0.4-1.4)
8	†	**1.2** (0.7-2.3)	†	†	†	**0.9** (0.5-1.8)	**1.3** (0.7-2.1)
9	†	**1.8** (1.0-3.0)	†	†	**0.8** (0.4-1.4)	**0.8** (0.4-1.4)	**1.9** (1.3-2.8)
10	†	**1.6** (1.0-2.6)	†	**1.6** (0.8-3.0)	**1.5** (0.9-2.5)	†	**2.1** (1.5-3.0)
11	**2.2** (1.3-3.7)	**2.5** (1.5-4.1)	†	**1.4** (0.8-2.5)	**3.4** (2.3-5.0)	**3.3** (2.3-4.7)	**3.1** (2.2-4.3)
12	†	**1.7** (1.1-2.7)	†	**2.4** (1.2-4.7)	**3.8** (2.3-6.1)	**4.5** (2.7-7.3)	**5.0** [b] (3.9-6.4)
Region							
Greater Toronto Area	**1.2** (0.6-2.3)	**1.2** (0.9-1.8)	**0.6** (0.4-1.0)	**1.2** (0.7-1.9)	**1.6** (1.1-2.3)	**2.0** (1.0-3.7)	**1.5** (1.2-2.0)
North	†	**2.5** (1.4-4.4)	**1.3** (0.8-2.3)	†	**1.7** (0.9-3.1)	**2.9** (2.0-4.1)	**2.1** (1.4-3.3)
West	**1.2** (0.7-2.2)	**1.6** (1.0-2.7)	†	†	**2.1** (1.4-3.2)	**2.7** (2.0-3.7)	**4.3** [b] (3.1-5.9)
East	†	**2.1** (1.2-3.4)	**1.8** (1.2-2.7)	**1.4** (0.7-2.6)	**3.2** (1.7-5.8)	**2.3** (1.2-4.2)	**3.3** [b] (2.6-4.3)

Notes: (1) based on grades 7-12; (2) question asked of a random half sample in 2007; (3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 2007 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: Sometimes doctors give medicine to students who are hyperactive or have problems concentrating in school. This is called Attention-Deficit/Hyperactivity Disorder (ADHD). In the last 12 months, how often did you use medicine that is usually used to treat ADHD (such as Adderall, Ritalin, Concerta, Dexedrine, also known as "Addys", "Dexies") without a prescription or without a doctor telling you to take it?

Source: OSDUHS, Centre for Addiction & Mental Health

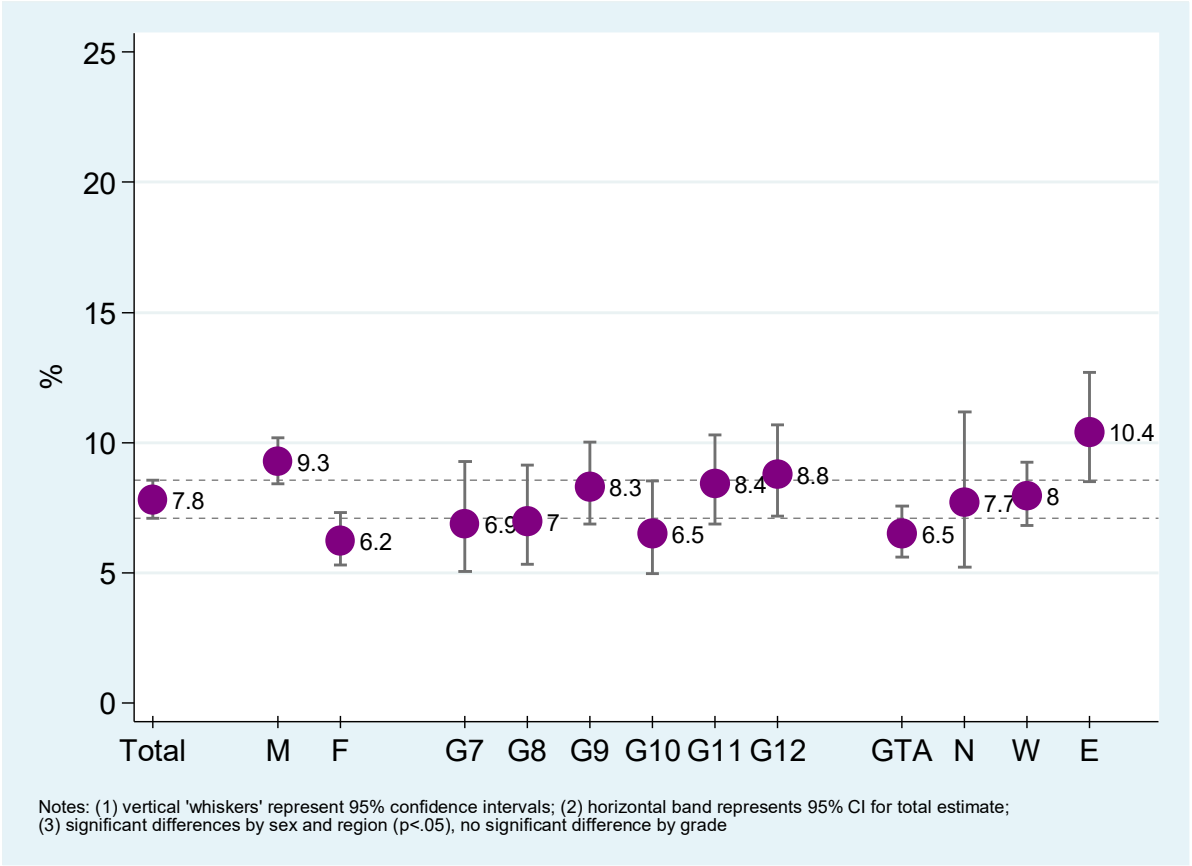
Past Year Nonmedical Use of Cough or Cold Medication

(Figures 3.7.4, 3.7.5; Table 3.7.3)

Starting in 2009, the OSDUHS asked students about using cough or cold medication in order to "get high." When misused, these medications can produce feelings of detachment from one's body, distorted perceptions of sight and sound, and impaired motor coordination.

	Use in 2019 (Grades 7–12)	2009–2019 Trends (Grades 7–12)
Total	■ About one-in-twelve (7.8%) students report using cough/cold medication to "get high" at least once in the past year. This estimate represents about 70,300 students in grades 7–12 in Ontario.	☐ The percentage of students reporting the use of cough/cold medication to "get high" did not significantly change between 2017 (9.2%) and 2019 (7.8%). The prevalence has fluctuated between 7% and 10% over the past decade, and the current estimate is similar to all prior estimates since 2009.
Sex	■ Males (9.3%) are significantly more likely than females (6.2%) to use cough/cold medication to get high.	☐ There has been no significant change in use between 2017 and 2019 for either males or females. Both sexes show fluctuations over the past decade, but no dominant change in 2019.
Grade	■ Despite some variation, there are no significant grade differences.	☐ Among the grades, only students in grades 10 show a significant decrease in use between 2017 and 2019, from 11.6% to 6.5%. All grades show fluctuations over the past decade, but no dominant change in 2019.
Region	■ There are significant regional differences showing that GTA students (6.5%) are least likely to use compared with students in the other three regions (about 8%-10%).	☐ Students in the GTA show a significant decrease between 2017 and 2019, from 11.6% to 6.5%. All regions show fluctuations over the past decade, but the 2019 (10.4%) estimate for the East region is significantly higher than in 2009 (6.5%), the first year of monitoring.

Figure 3.7.4
Past Year Nonmedical Use of Cough or Cold Medication by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex and region (p<.05), no significant difference by grade

Figure 3.7.5
Past Year Nonmedical Use of Cough or Cold Medication, 2009–2019 OSDUHS (Grades 7–12)

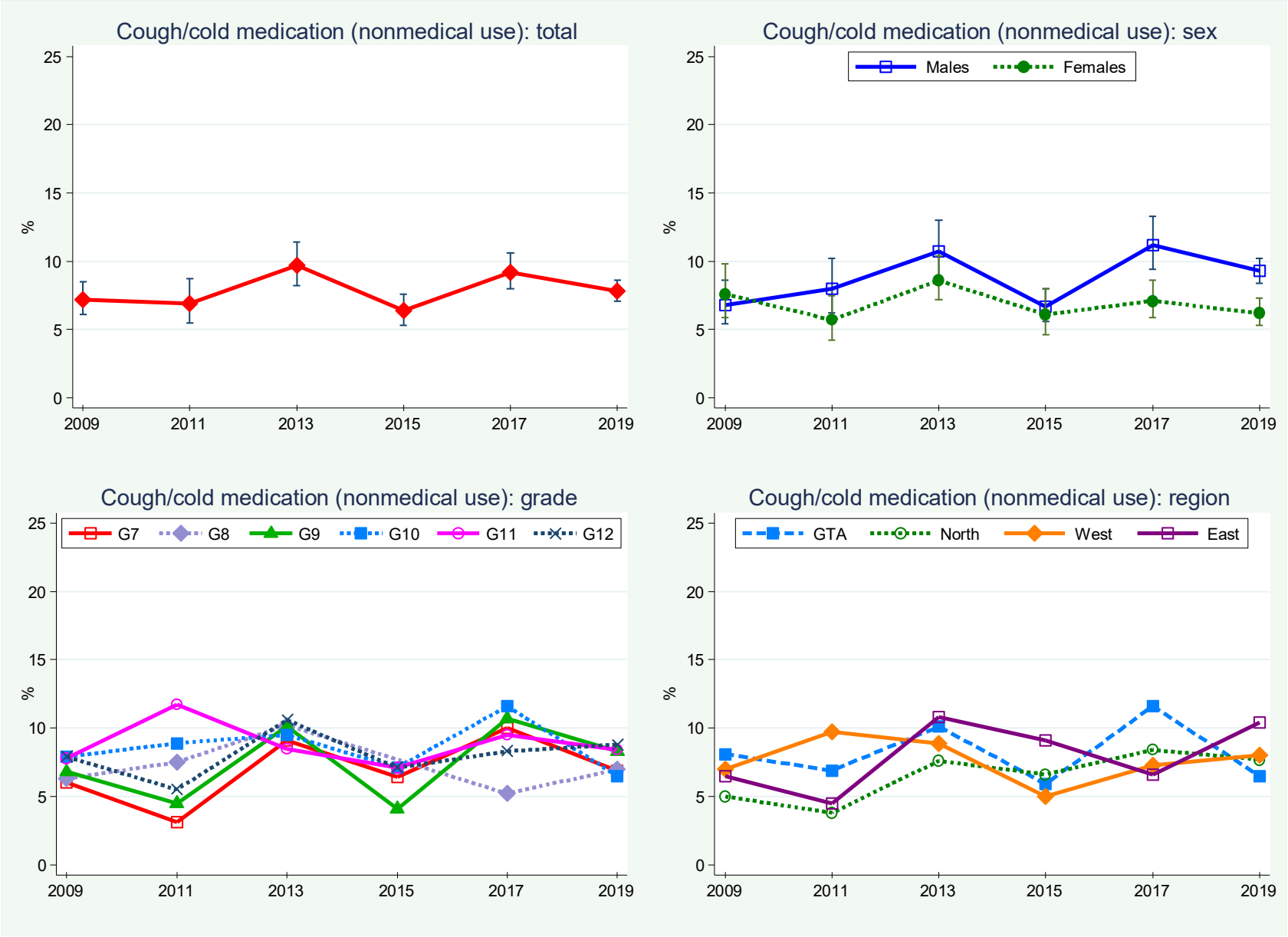


Table 3.7.3: Percentage Reporting Nonmedical Use of Cough or Cold Medication in the Past Year, 2009–2019 OSDUHS

	2009	2011	2013	2015	2017	2019
(n=)	(4220)	(4472)	(10272)	(10426)	(11435)	(14142)
Total	**7.2**	**6.9**	**9.7**	**6.4**	**9.2**	**7.8** [d]
(95% CI)	(6.1-8.5)	(5.5-8.7)	(8.2-11.4)	(5.3-7.6)	(8.0-10.6)	(7.1-8.6)
Sex						
Males	**6.8**	**8.0**	**10.7**	**6.7**	**11.2**	**9.3**
	(5.4-8.6)	(6.2-10.2)	(8.8-13.0)	(5.6-8.0)	(9.4-13.3)	(8.4-10.2)
Females	**7.6**	**5.7**	**8.6**	**6.1**	**7.1**	**6.2**
	(5.9-9.8)	(4.2-7.5)	(7.2-10.4)	(4.6-8.0)	(5.9-8.6)	(5.3-7.3)
Grade						
7	**6.0**	**3.1**	**9.1**	**6.4**	**10.0**	**6.9**
	(3.8-9.4)	(1.8-5.3)	(6.7-12.1)	(3.9-10.3)	(7.1-13.7)	(5.1-9.3)
8	**6.3**	**7.5**	**10.2**	†	**5.2**	**7.0**
	(4.1-9.6)	(5.2-10.8)	(7.0-14.4)		(3.3-8.1)	(5.3-9.1)
9	**6.8**	**4.5**	**10.1**	**4.1**	**10.7**	**8.3**
	(4.0-11.2)	(3.1-6.5)	(7.2-13.9)	(3.0-5.5)	(7.9-14.4)	(6.9-10.0)
10	**7.9**	**8.9**	**9.5**	**7.1**	**11.6**	**6.5** [a]
	(5.3-11.4)	(6.6-11.9)	(7.3-12.2)	(5.6-8.9)	(8.8-15.3)	(5.0-8.5)
11	**7.8**	**11.7**	**8.5**	**7.1**	**9.5**	**8.4**
	(5.6-10.9)	(6.1-21.5)	(6.2-11.4)	(5.7-8.7)	(6.4-14.0)	(6.9-10.3)
12	**7.9**	**5.5**	**10.6**	**7.1**	**8.3**	**8.8**
	(5.3-11.5)	(3.6-8.3)	(7.8-14.2)	(5.5-9.2)	(6.5-10.5)	(7.2-10.7)
Region						
Greater Toronto Area	**8.1**	**6.9**	**10.1**	**5.9**	**11.6**	**6.5** [a]
	(6.4-10.2)	(5.7-8.3)	(8.8-11.6)	(5.0-7.1)	(9.9-13.6)	(5.6-7.6)
North	**5.0**	**3.8**	**7.6**	**6.6**	**8.4**	**7.7**
	(2.9-8.7)	(2.4-5.9)	(4.6-12.1)	(4.9-8.9)	(6.4-10.8)	(5.2-11.2)
West	**7.0**	**9.7**	**8.9**	**5.0**	**7.3**	**8.0**
	(4.9-9.9)	(6.3-14.5)	(6.0-13.1)	(3.9-6.5)	(5.8-9.2)	(6.8-9.3)
East	**6.5**	**4.5**	**10.8**	**9.1**	**6.6**	**10.4** [b]
	(5.2-8.0)	(3.1-6.4)	(6.4-17.6)	(5.4-14.8)	(4.3-10.1)	(8.5-12.7)

Notes: (1) based on grades 7-12; (2) question asked of a random half sample in 2009 and 2011; (3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2009 significant difference, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use a cough or cold medicine such as Robitussin DM, Benylin DM (also known as “robos”, “sizzurp”, “syrup”, “purple drank”, “lean, “dex”, “DXM”) in order to get high?

Source: OSDUHS, Centre for Addiction & Mental Health

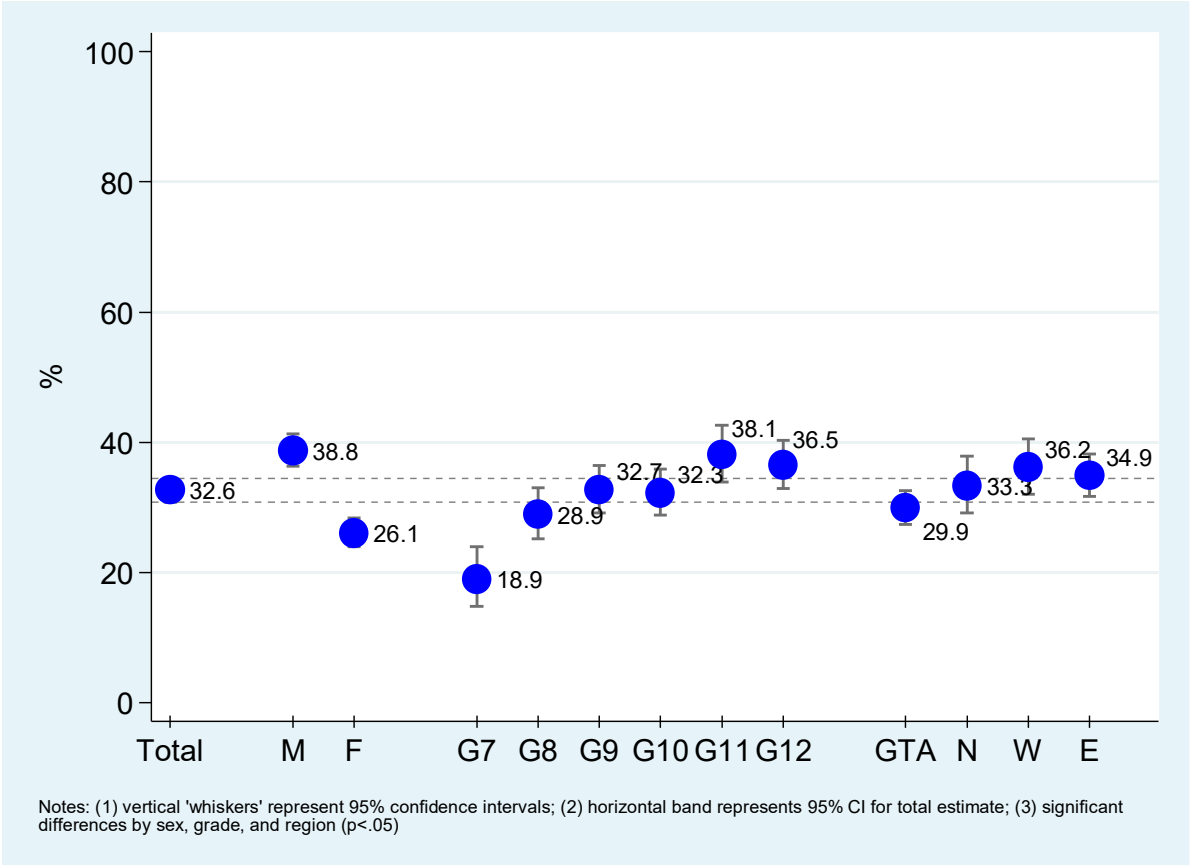
Past Year Use of High-Caffeine Energy Drinks

(Figures 3.7.6, 3.7.7; Table 3.7.4)

Starting in 2011, the OSDUHS asked students about their use of highly caffeinated energy drinks (such as Red Bull, Rockstar, Monster, Amp). The consumption of these energy drinks by children and adolescents is concerning because the stimulating effects can cause rapid heart rate, an abnormal heart rhythm, increased blood pressure, nervousness, and sleeplessness.

	Energy Drink Use in 2019 (Grades 7–12)	2011–2019 Trends (Grades 7–12)
Total	■ About one-third (32.6%) of students in grades 7 to 12 report drinking an energy drink at least once in the past year. This estimate represents about 259,500 Ontario students. ■ About 11.4% (95% CI: 10.2%-12.6%) report drinking an energy drink at least once in the week (seven days) before the survey. This estimate represents about 90,200 students. ■ About 1.0% (95% CI: 0.6%-1.4%) report drinking an energy drink daily during the week before the survey. This estimate represents about 7,500 students.	☐ Among the total sample, past year use of energy drinks did not significantly change between 2017 and 2019, and use has remained stable since 2015 at around 33%-35%. However, the current estimate is significantly lower than estimates from 2011 (49.5%) and 2013 (39.7%).
Sex	■ Males are more likely than females to report drinking an energy drink in the past year (38.8% vs. 26.1%, respectively).	☐ Use of energy drinks among both males and females did not significantly change since 2017. However, use among both males and females has significantly decreased since 2011.
Grade	■ Past year use of energy drinks significantly increases with grade, from 18.9% of 7th graders up to about 37%-38% of students in grades 11 and 12.	☐ No grade shows a significant change since 2017. However, all grades show a significant decrease since 2011.
Region	■ There is significant regional variation showing that students in the GTA (29.9%) are least likely to drink energy drinks compared with students in the other three regions (about 33%-36%).	☐ No region shows a significant change since 2017. However, all regions show a significant decrease since 2011.

Figure 3.7.6
Past Year Use of High-Caffeine Energy Drinks by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

Figure 3.7.7
Past Year Use of High-Caffeine Energy Drinks, 2011–2019 OSDUHS (Grades 7–12)

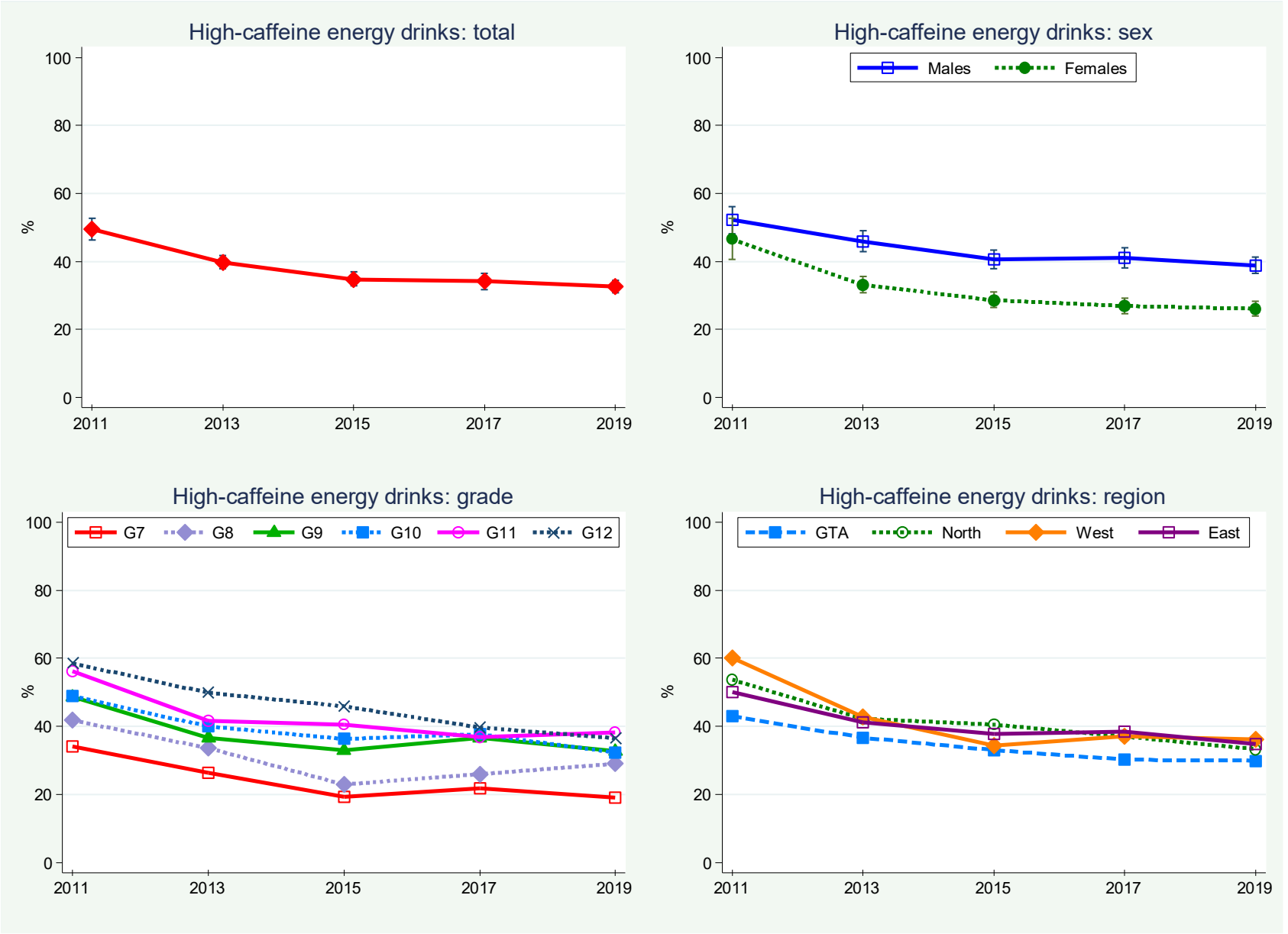


Table 3.7.4: Percentage Reporting Drinking High-Caffeine Energy Drinks in the Past Year, 2011–2019 OSDUHS

	2011	2013	2015	2017	2019	
(n=)	(4472)	(10272)	(10426)	(11435)	(6525)	
Total	**49.5**	**39.7**	**34.8**	**34.1**	**32.6**	bcd
(95% CI)	(46.3-52.7)	(37.8-41.7)	(32.8-36.9)	(31.8-36.6)	(30.8-34.5)	
Sex						
Males	**52.2**	**45.9**	**40.6**	**41.1**	**38.8**	b
	(48.1-56.2)	(42.8-49.0)	(37.9-43.3)	(38.1-44.1)	(36.4-41.3)	
Females	**46.5**	**33.1**	**28.6**	**26.9**	**26.1**	b
	(40.5-52.6)	(30.8-35.6)	(26.4-31.0)	(24.6-29.2)	(23.9-28.4)	
Grade						
7	**34.1**	**26.4**	**19.2**	**21.8**	**18.9**	b
	(27.0-42.0)	(20.2-33.8)	(14.9-24.2)	(18.6-25.3)	(14.8-23.9)	
8	**41.8**	**33.6**	**22.9**	**26.0**	**28.9**	b
	(34.8-49.3)	(29.3-38.2)	(17.6-29.3)	(22.3-30.1)	(25.2-33.0)	
9	**48.6**	**36.6**	**32.9**	**36.7**	**32.7**	b
	(42.4-54.8)	(31.7-41.7)	(30.2-35.6)	(32.4-41.1)	(29.1-36.4)	
10	**49.0**	**40.0**	**36.3**	**37.7**	**32.3**	b
	(42.5-55.6)	(35.8-44.4)	(32.7-40.1)	(31.2-44.5)	(28.8-35.9)	
11	**56.2**	**41.7**	**40.6**	**36.9**	**38.1**	b
	(47.4-64.7)	(37.8-45.6)	(36.9-44.2)	(29.0-45.6)	(33.9-42.6)	
12	**58.5**	**49.9**	**45.9**	**39.7**	**36.5**	b
	(47.6-68.6)	(46.2-53.6)	(41.5-50.4)	(35.4-44.1)	(32.9-40.3)	
Region						
Greater Toronto Area	**42.9**	**36.7**	**33.0**	**30.2**	**29.9**	b
	(39.0-46.9)	(33.4-40.4)	(31.0-35.2)	(27.5-33.0)	(27.4-32.6)	
North	**53.7**	**42.2**	**40.5**	**37.0**	**33.3**	b
	(50.2-57.2)	(36.0-48.6)	(37.2-43.9)	(32.8-41.4)	(29.1-37.8)	
West	**60.2**	**42.8**	**34.4**	**37.1**	**36.2**	b
	(54.5-65.6)	(39.8-45.9)	(29.6-39.6)	(33.3-41.0)	(32.0-40.6)	
East	**50.0**	**41.2**	**37.8**	**38.4**	**34.9**	b
	(45.3-54.6)	(35.8-46.8)	(31.2-44.9)	(30.2-47.3)	(31.7-38.2)	

Notes: (1) based on grades 7-12; (2) asked of a random half sample in 2011 and 2019; (3) entries in brackets are 95% confidence intervals; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2011 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 7 days, how often did you drink a can of a high-energy caffeine drink, such as Red Bull, Monster, Rockstar, Amp, Full Throttle, etc.? (Note that one of the response options referred to use in the past 12 months.)

Source: OSDUHS, Centre for Addiction & Mental Health

3.7.2 Nonmedical Use of Prescription Drugs Among Grades 9–12

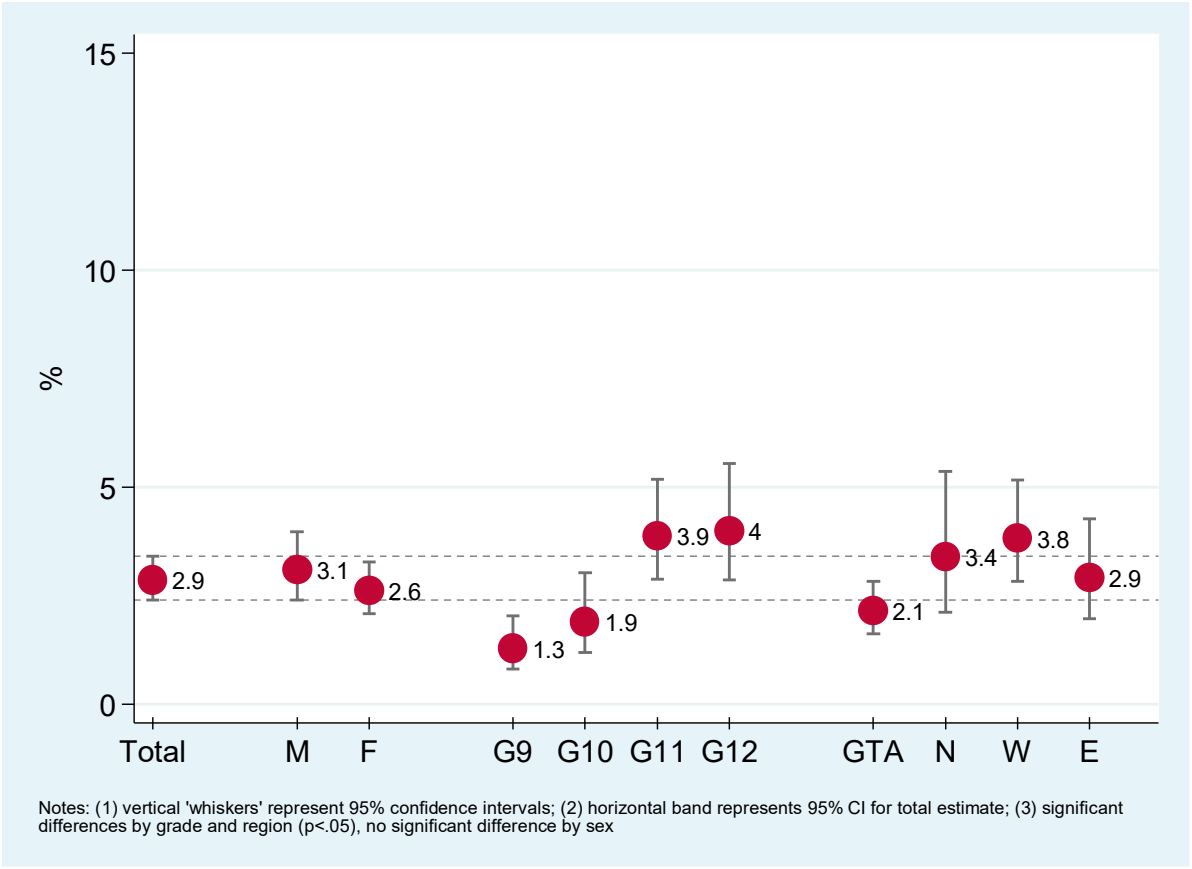
Past Year Nonmedical Use of Tranquillizers/Sedatives

(Figures 3.7.8–3.7.10; Tables 3.7.5, A17)

This section presents past year tranquilizer/sedative use (e.g., Xanax, Valium, Ativan) without a prescription or doctor's supervision. These drugs are benzodiazepines that may cause sedation, drowsiness, reduced anxiety and inhibitions, and impaired motor coordination. The OSDUHS began monitoring nonmedical use of tranquilizers/sedatives in 1977. Starting in 2013, use of this medication was asked of students in grades 9 through 12 only (not asked of 7th and 8th graders).

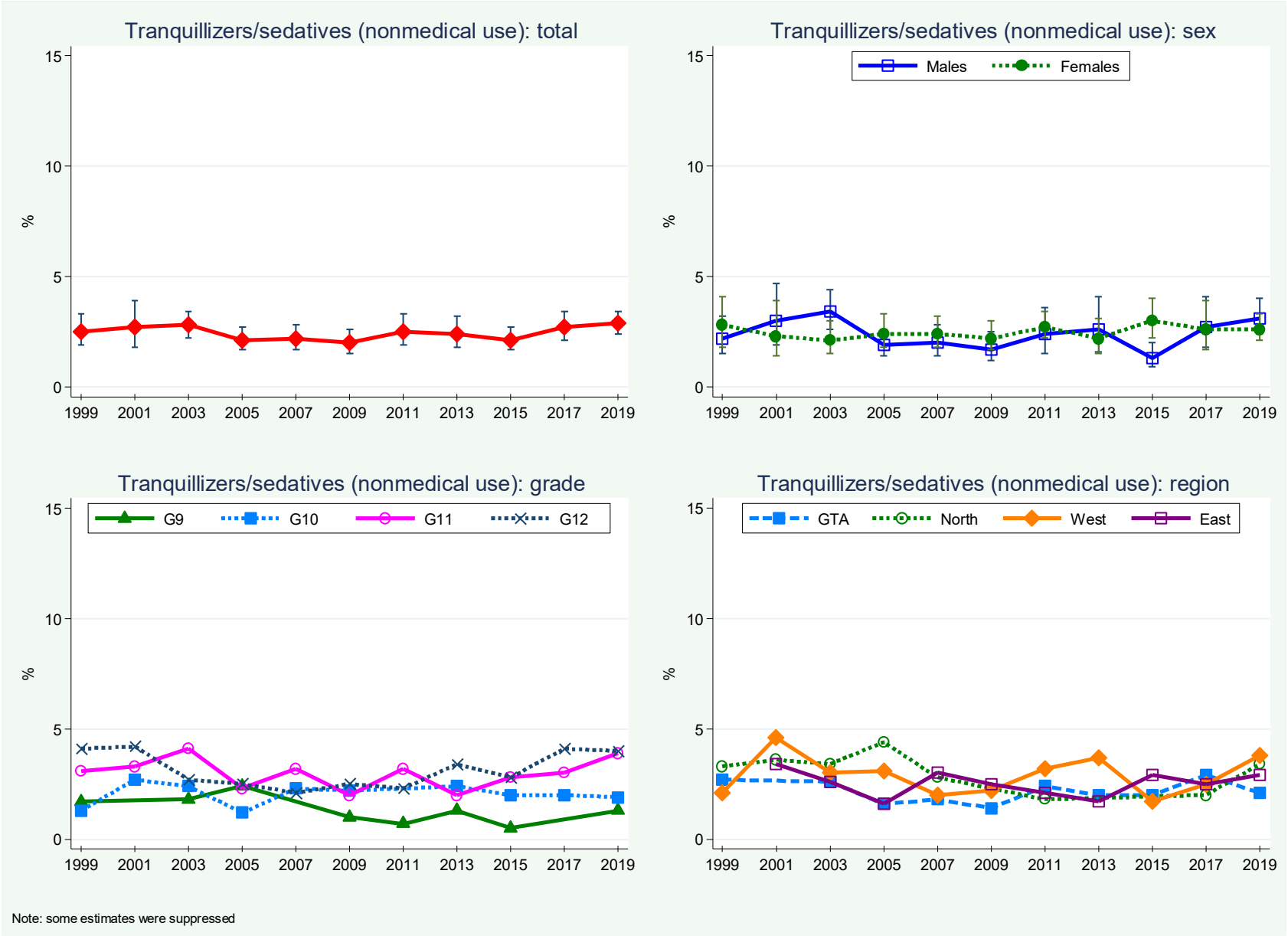
	Nonmedical Tranquillizer Use in 2019 (Grades 9–12)	Trends in Use
Total	■ Nonmedical tranquillizer/sedative use is reported by 2.9% of students in grades 9 to 12. This percentage represents about 19,700 students.	☐ Among the total sample, there has been no change in tranquillizer/sedative use between 1999 and 2019, as estimates have remained stable at about 2%-3%. ☐ Looking back over the past 40 years or so (among grades 9 and 11 only), use peaked in the late 1970s/early 1980s, and then decreased substantially over the late 1980s/early 1990s. Use has remained low and stable for over two decades.
Sex	■ Males (3.1%) and females (2.6%) are equally likely to use tranquillizers nonmedically.	☐ Neither males nor females show a significant change in tranquillizer use since 1999.
Grade	■ Nonmedical tranquillizer use significantly increases with grade, up to about 4% of 11th and 12th graders.	☐ No grade shows a significant change in tranquillizer use since 1999.
Region	■ There is significant regional variation, showing that GTA students (2.1%) are least likely to use compared with students in the other three regions (about 3%-4%).	☐ No region shows a significant change in tranquillizer use since 1999.

Figure 3.7.8
Past Year Nonmedical Tranquillizer/Sedative Use by Sex, Grade, and Region, 2019 OSDUHS



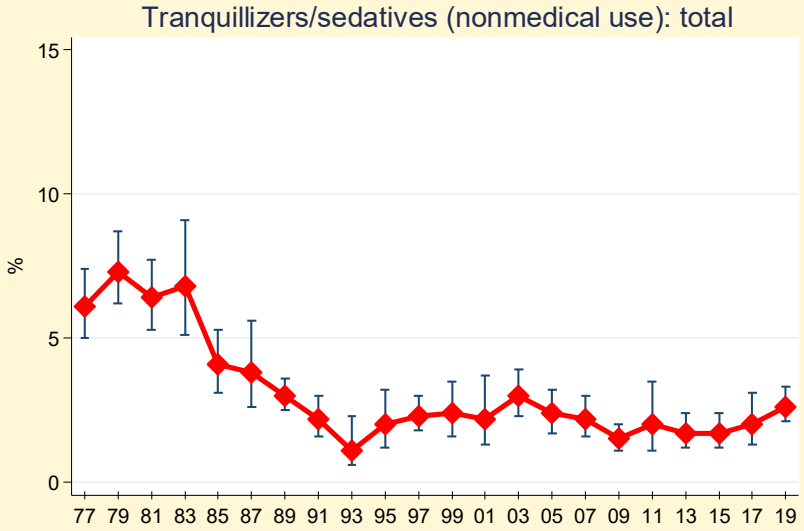
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

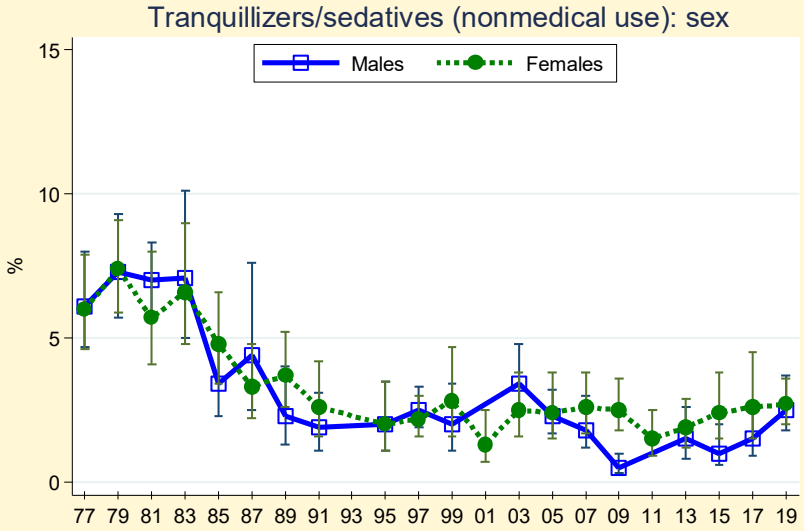
Figure 3.7.9
Past Year Nonmedical Tranquillizer/Sedative Use, 1999–2019 OSDUHS (Grades 9–12)

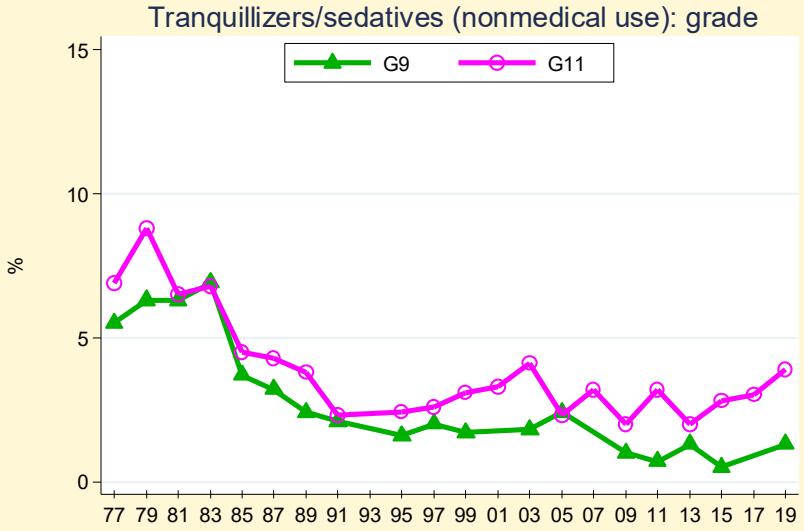


Note: some estimates were suppressed

Figure 3.7.10
Past Year Nonmedical Tranquillizer/Sedative Use, 1977–2019 OSDUHS (Grades 9 and 11 only)







Notes: some estimates were suppressed; long-term region trends are not available

Table 3.7.5: Percentage Reporting Nonmedical Tranquillizer/Sedative Use in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total	**2.5**	**2.7**	**2.8**	**2.1**	**2.2**	**2.0**	**2.5**	**2.4**	**2.1**	**2.7**	**2.9**
(95% CI)	(1.9-3.3)	(1.8-3.9)	(2.2-3.4)	(1.7-2.7)	(1.7-2.8)	(1.5-2.6)	(1.9-3.3)	(1.8-3.2)	(1.7-2.7)	(2.1-3.4)	(2.4-3.4)
Sex											
Males	**2.2**	**3.0**	**3.4**	**1.9**	**2.0**	**1.7**	**2.4**	**2.6**	**1.3**	**2.7**	**3.1**
	(1.5-3.2)	(1.9-4.7)	(2.6-4.4)	(1.4-2.6)	(1.4-2.8)	(1.2-2.5)	(1.5-3.6)	(1.6-4.1)	(0.9-2.0)	(1.8-4.1)	(2.4-4.0)
Females	**2.8**	**2.3**	**2.1**	**2.4**	**2.4**	**2.2**	**2.7**	**2.2**	**3.0**	**2.6**	**2.6**
	(1.8-4.1)	(1.4-3.9)	(1.5-3.0)	(1.8-3.3)	(1.8-3.2)	(1.7-3.0)	(2.2-3.4)	(1.5-3.1)	(2.2-4.0)	(1.7-3.9)	(2.0-3.3)
Grade											
9	**1.7**	†	**1.8**	**2.5**	†	**1.0**	**0.7**	**1.3**	**0.5**	†	**1.3**
	(1.0-2.9)		(1.1-2.9)	(1.5-3.9)		(0.6-1.8)	(0.4-1.1)	(0.8-2.1)	(0.3-0.9)		(0.8-2.0)
10	**1.3**	**2.7**	**2.4**	**1.2**	**2.3**	**2.1**	†	**2.4**	**2.0**	**2.0**	**1.9**
	(0.7-2.3)	(1.6-4.6)	(1.7-3.5)	(0.7-2.2)	(1.4-3.6)	(1.4-3.3)		(1.5-3.6)	(1.3-3.1)	(1.3-3.1)	(1.2-3.0)
11	**3.1**	**3.3**	**4.1**	**2.3**	**3.2**	**2.0**	**3.2**	**2.0**	**2.8**	**3.0**	**3.9**
	(1.8-5.2)	(1.7-6.5)	(2.9-5.9)	(1.5-3.3)	(2.2-4.6)	(1.3-3.1)	(1.6-6.3)	(1.3-3.2)	(1.9-4.2)	(1.8-4.8)	(2.9-5.2)
12	**4.1**	**4.2**	**2.7**	**2.5**	**2.1**	**2.5**	**2.3**	**3.4**	**2.8**	**4.1**	**4.0**
	(2.7-6.2)	(2.0-8.4)	(1.8-4.2)	(1.7-3.8)	(1.2-3.5)	(1.5-4.1)	(1.5-3.5)	(1.8-6.2)	(1.7-4.5)	(2.6-6.4)	(2.9-5.6)
Region											
GTA	**2.7**	†	**2.6**	**1.6**	**1.8**	**1.4**	**2.4**	**2.0**	**2.0**	**2.9**	**2.1**
	(1.8-4.0)		(1.8-3.7)	(1.2-2.2)	(1.1-3.0)	(1.0-2.0)	(1.8-3.3)	(1.3-3.0)	(1.5-2.6)	(2.0-4.2)	(1.6-2.8)
North	**3.3**	**3.6**	**3.4**	**4.4**	**2.8**	†	**1.8**	†	†	**2.0**	**3.4**
	(1.9-5.8)	(2.1-6.0)	(2.2-5.0)	(2.3-8.3)	(1.7-4.6)		(1.2-2.8)			(1.4-2.8)	(2.1-5.4)
West	**2.1**	**4.6**	**3.0**	**3.1**	**2.0**	**2.2**	**3.2**	**3.7**	**1.7**	**2.5**	**3.8**
	(1.2-3.6)	(2.6-7.9)	(2.1-4.3)	(2.1-4.6)	(1.2-3.3)	(1.3-3.9)	(1.8-5.4)	(2.2-6.1)	(1.1-2.8)	(1.7-3.7)	(2.8-5.2)
East	†	**3.4**	**2.6**	**1.6**	**3.0**	**2.5**	**2.1**	**1.7**	**2.9**	**2.5**	**2.9**
		(1.9-5.8)	(1.4-4.8)	(1.0-2.7)	(2.0-4.6)	(1.5-4.1)	(1.2-3.7)	(1.2-2.3)	(1.6-5.4)	(1.6-3.9)	(2.0-4.3)

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) † estimate suppressed due to unreliability; (5) no significant changes over time.

Q: Sedatives or tranquillizers are sometimes prescribed by doctors to help people sleep, calm them down, or to relax their muscles. In the last 12 months, how often did you use sedatives or tranquillizers (such as Xanax, Valium, Ativan, also known as "tranqs", "benzos", "xans", "bars", "downers") without a prescription or without a doctor telling you to take them? (Note that “sedatives” was added to the question in 2007.)

Source: OSDUHS, Centre for Addiction & Mental Health

3.8 Any Drug Use and No Drug Use

This chapter presents an overview of drug use by examining the following indices: (1) the percentage who used any drug during the past year excluding alcohol, tobacco/nicotine, and cannabis (among grades 9–12 only); (2) the percentage who used any prescription drug nonmedically during the past year (among grades 9–12 only); and (3) the percentage who used no drug (abstinence) during the past year (among grades 7–12).

Any Drug Use in 2019 (Excluding Alcohol, Tobacco, and Cannabis)

(Figure 3.8.1)

This composite measure captures the use of at least one of the following 14 drugs asked about in the 2019 survey: inhalants, synthetic cannabis, LSD, mushrooms/mescaline, cocaine, crack, methamphetamine, heroin, fentanyl, ecstasy, tranquillizers/sedatives (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and cough/cold medication (NM). Excluded from this index are alcohol, tobacco/nicotine, cannabis, and energy drinks. These results are among grades 9 to 12 only.

2019: Grades 9–12

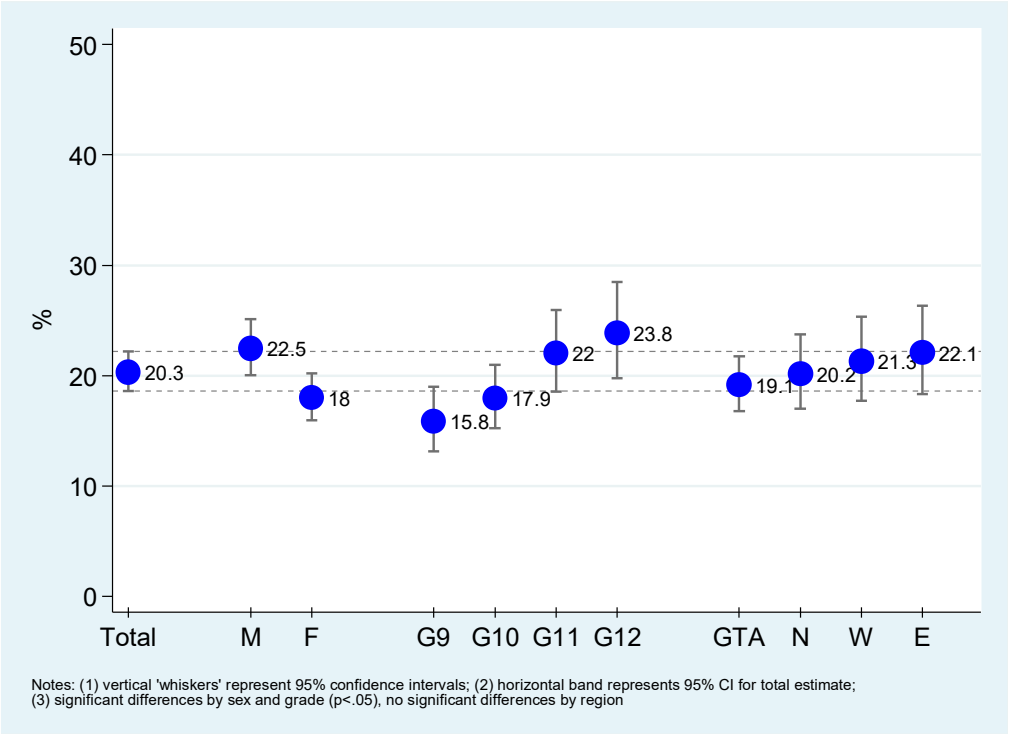
- Among secondary students, 20.3% (95% CI: 18.6%-22.2%) report using at least one drug in the past year. This estimate represents about 127,700 Ontario students in grades 9 to 12.

- Males (22.5%) are significantly more likely than females (18.0%) to report the use of at least one drug in the past year.

- Drug use significantly increases with grade, from 15.8% of 9th graders up to 23.8% of 12th graders.

- There are no significant regional differences.

Figure 3.8.1
Past Year Use of Any Drug (Excluding Alcohol, Tobacco, and Cannabis) by Sex, Grade, and Region, 2019 OSDUHS (Grades 9–12)



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex and grade (p<.05), no significant differences by region

Trends in Any Drug Use

(Figures 3.8.2, 3.8.3; Tables 3.8.1, A18)

In this section, we report on changes over time in any drug use. This estimate measures use of any of *eight* illicit drugs that are common to most OSDUHS cycles since 1977: LSD, mushrooms/mescaline, methamphetamine, cocaine, crack, heroin, ecstasy, and tranquillizers/sedatives (NM). Because crack use was not asked about before 1987, and ecstasy use was not asked about before 1991, these two drugs are excluded from the computation for those earlier years. Excluded from this measure across all years are alcohol, tobacco/nicotine, cannabis, and energy drinks.

1999–2019: Grades 9–12

☐ The estimate for any illicit drug use remained stable between 2017 and 2019 among the total sample of secondary students. Although this measure has remained stable since about 2013, there has been a significant downward trend since 1999.

☐ Neither sex shows a significant change in illicit drug use between 2017 and 2019, and there has been stability for both since about 2013. However, both males and females show a significant decline since 1999.

☐ No grade shows a significant change in use between 2017 and 2019. All grades show a significant decline since 1999.

☐ No region shows a significant change in use between 2017 and 2019. All regions show a significant decline since 1999.

1977–2019: Grades 9 and 11 only

☐ Looking back over the past 40 years or so, drug use began to decline during the 1980s after peaking in 1979. Use increased in the mid-1990s up until the early 2000s. Use declined after 2003, reaching historical lows in recent years.

Figure 3.8.2
Past Year Drug Use (Excluding Alcohol, Tobacco, and Cannabis), 1999–2019 OSDUHS (Grades 9–12)

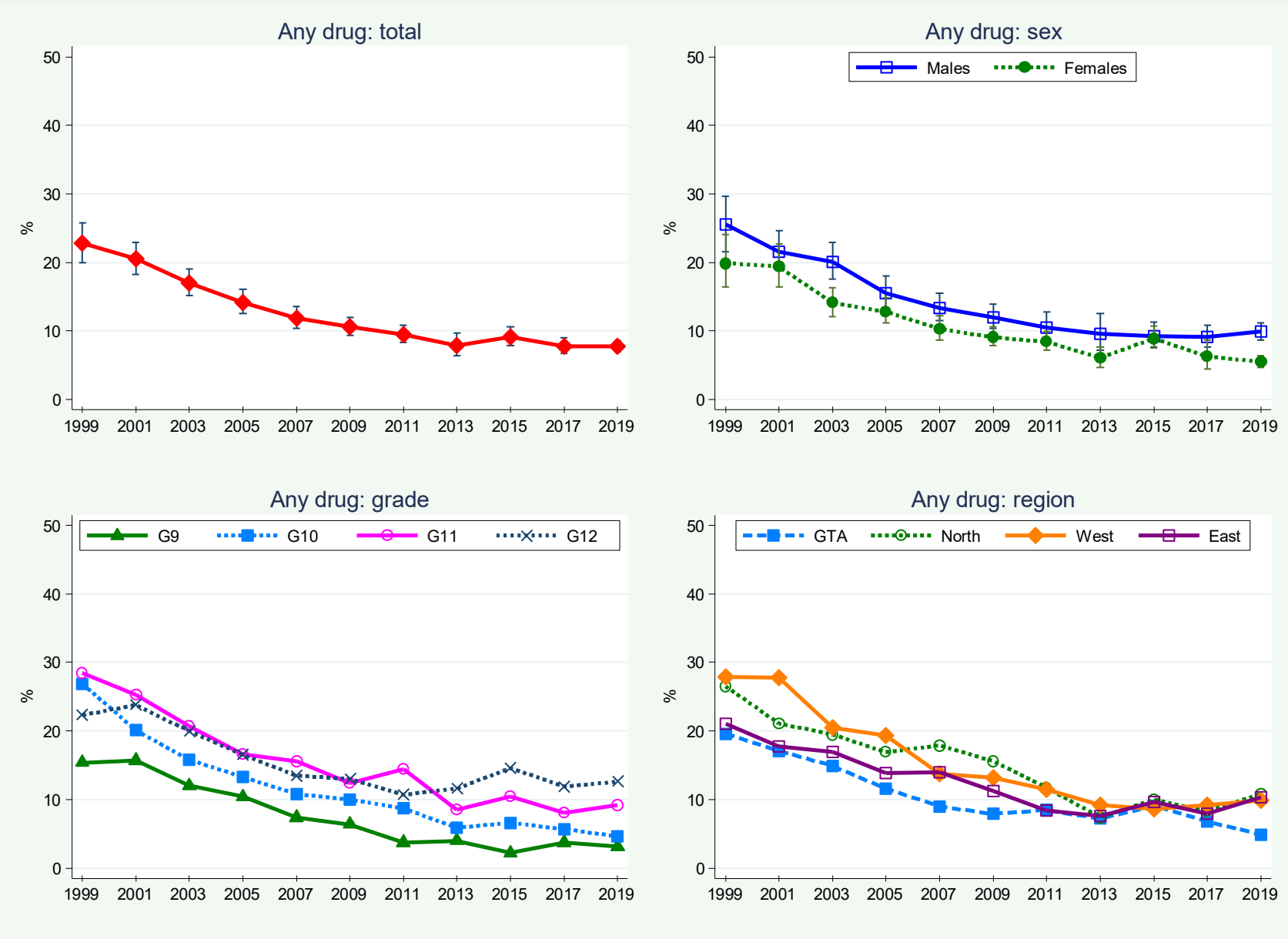
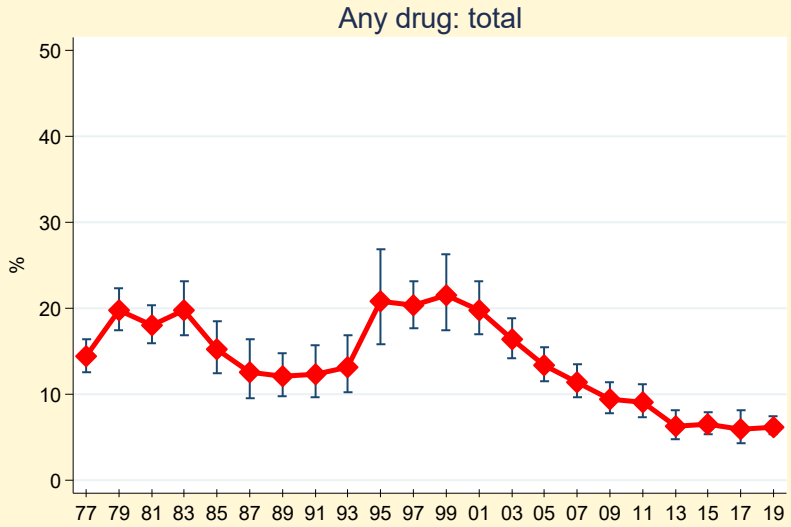
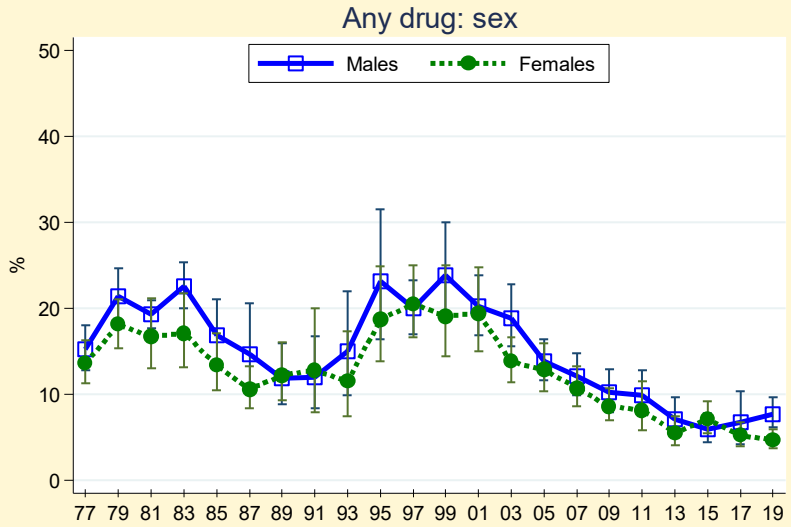
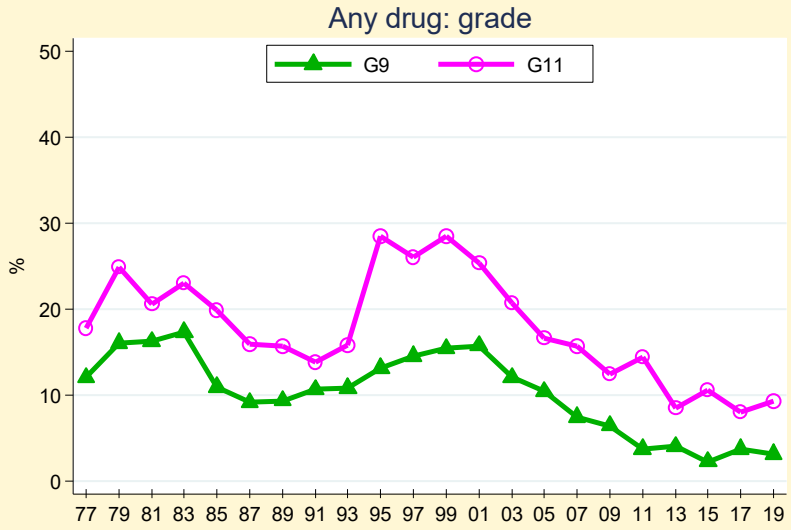


Figure 3.8.3
Past Year Drug Use (Excluding Alcohol, Tobacco, and Cannabis), 1977–2019 OSDUHS (Grades 9 and 11 only)







Note: long-term region trends are not available

Table 3.8.1: Percentage Reporting Any Drug Use (Excluding Alcohol, Tobacco, and Cannabis) in the Past Year, 1999–2019 OSDUHS (Grades 9–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)
Total	**22.8**	**20.5**	**17.0**	**14.2**	**11.9**	**10.6**	**9.5**	**7.9**	**9.1**	**7.8**	**7.8** [bcd]
(95% CI)	(20.0-25.8)	(18.3-22.9)	(15.2-19.0)	(12.5-16.1)	(10.4-13.6)	(9.4-12.0)	(8.3-10.9)	(6.4-9.7)	(7.9-10.6)	(6.6-9.0)	(7.0-8.6)
Sex											
Males	**25.5**	**21.6**	**20.1**	**15.5**	**13.4**	**12.0**	**10.5**	**9.6**	**9.3**	**9.1**	**9.9** [b]
	(21.6-29.7)	(18.8-24.6)	(17.6-22.9)	(13.3-18.0)	(11.5-15.5)	(10.4-13.9)	(8.6-12.8)	(7.2-12.6)	(7.7-11.3)	(7.7-10.8)	(8.7-11.2)
Females	**19.9**	**19.4**	**14.1**	**12.8**	**10.3**	**9.1**	**8.4**	**6.0**	**8.9**	**6.3**	**5.4** [b]
	(16.4-24.1)	(16.4-22.7)	(12.1-16.3)	(11.2-14.8)	(8.7-12.2)	(7.9-10.6)	(7.2-9.9)	(4.7-7.7)	(7.5-10.6)	(4.5-8.7)	(4.7-6.4)
Grade											
9	**15.4**	**15.7**	**12.0**	**10.4**	**7.4**	**6.4**	**3.7**	**4.0**	**2.2**	**3.7**	**3.1** [b]
	(11.1-21.0)	(12.9-19.0)	(9.8-14.8)	(8.5-12.5)	(5.6-9.6)	(4.6-8.7)	(2.5-5.4)	(2.5-6.3)	(1.5-3.3)	(2.4-5.5)	(2.3-4.3)
10	**26.9**	**20.1**	**15.8**	**13.3**	**10.8**	**10.0**	**8.7**	**5.9**	**6.6**	**5.7**	**4.6** [b]
	(21.5-33.2)	(16.9-23.8)	(12.8-19.3)	(11.1-15.9)	(8.6-13.5)	(7.8-12.7)	(6.5-11.6)	(4.1-8.4)	(5.1-8.7)	(4.3-7.5)	(3.5-5.9)
11	**28.5**	**25.3**	**20.7**	**16.6**	**15.6**	**12.4**	**14.4**	**8.5**	**10.5**	**8.0**	**9.2** [b]
	(22.5-35.2)	(20.5-30.8)	(17.2-24.6)	(13.9-19.8)	(13.0-18.6)	(9.5-15.9)	(11.2-18.3)	(6.4-11.2)	(8.5-13.0)	(5.1-12.5)	(7.4-11.4)
12	**22.3**	**23.8**	**20.0**	**16.5**	**13.5**	**13.0**	**10.7**	**11.6**	**14.6**	**11.8**	**12.6** [b]
	(17.9-27.4)	(17.2-32.0)	(16.7-23.9)	(13.5-20.0)	(10.9-16.6)	(10.4-16.1)	(7.6-15.0)	(8.1-16.3)	(11.4-18.4)	(8.8-15.7)	(10.8-14.5)
Region											
GTA	**19.6**	**17.1**	**14.9**	**11.6**	**9.0**	**7.9**	**8.5**	**7.2**	**9.1**	**6.8**	**4.9** [b]
	(15.7-24.3)	(14.0-20.8)	(12.6-17.6)	(9.9-13.6)	(7.2-11.2)	(6.6-9.4)	(6.5-10.9)	(5.4-9.5)	(7.4-11.2)	(5.1-8.8)	(4.0-6.1)
North	**26.5**	**21.1**	**19.5**	**16.9**	**17.9**	**15.6**	**11.7**	**7.4**	**10.0**	**8.3**	**10.8** [b]
	(19.2-35.4)	(15.8-27.5)	(15.8-23.8)	(14.1-20.2)	(13.5-23.3)	(11.4-21.1)	(8.4-16.1)	(5.5-9.8)	(7.5-13.3)	(6.3-10.7)	(9.0-13.0)
West	**27.9**	**27.8**	**20.5**	**19.3**	**13.7**	**13.2**	**11.5**	**9.2**	**8.6**	**9.2**	**9.9** [b]
	(22.6-33.8)	(23.6-32.6)	(16.7-24.9)	(15.1-24.3)	(10.4-17.8)	(10.1-17.0)	(9.6-13.7)	(5.6-14.8)	(6.9-10.6)	(7.2-11.7)	(8.6-11.4)
East	**21.0**	**17.8**	**17.0**	**13.9**	**14.0**	**11.2**	**8.4**	**7.6**	**9.7**	**7.9**	**10.3** [b]
	(15.1-28.4)	(13.6-23.0)	(12.8-22.1)	(10.2-18.6)	(11.6-16.9)	(9.8-12.7)	(6.3-11.0)	(6.1-9.5)	(6.2-14.9)	(6.0-10.4)	(8.3-12.6)

Notes: (1) based on grades 9-12; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) the **eight drugs** included in the index are LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), and tranquillizers/sedatives (NM); excluded from the index are alcohol, cigarettes, electronic cigarettes, waterpipes, chewing tobacco, cannabis, synthetic cannabis, inhalants, fentanyl, prescription ADHD drugs, prescription opioid pain relievers, cough/cold medication, and energy drinks; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

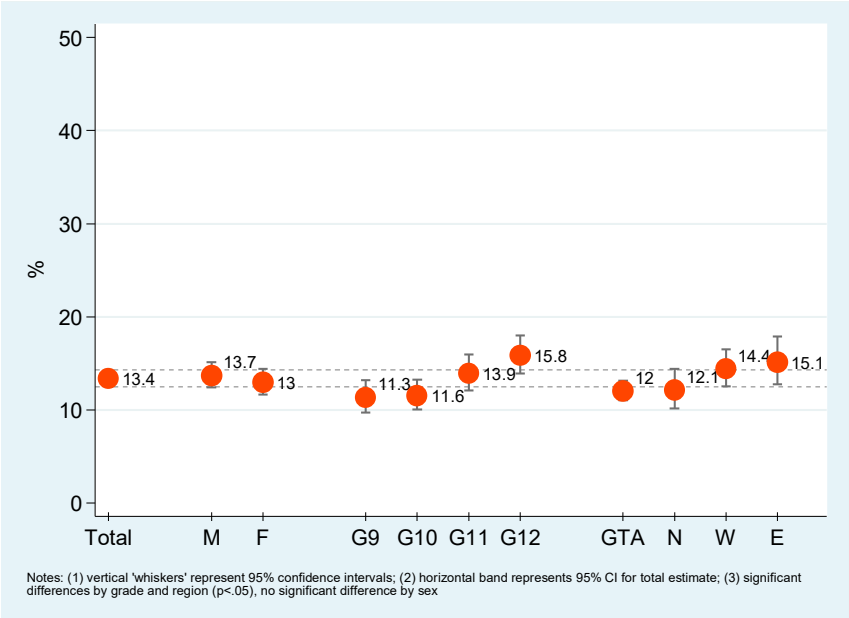
Any Nonmedical Prescription Drug Use

(Figures 3.8.4, 3.8.5; Table 3.8.2)

This section presents the nonmedical use of at least one of the following prescription drug classes once or more during the past 12 months: opioid pain relievers, ADHD drugs, or tranquillizers/sedatives. Nonmedical use is defined as use without one's own prescription. These results are among grades 9 to 12 only.

	Nonmedical Prescription Drug Use in 2019 (Grades 9–12)	2007–2019 Trends (Grades 9–12)
Total	■ One-in-seven (13.4%) secondary students report using a prescription drug nonmedically in the past year. This estimate represents about 92,400 Ontario students in grades 9 to 12.	☐ The nonmedical use of a prescription drug did not significantly change between 2017 (13.7%) and 2019 (13.4%), and has remained stable since 2015. However, there has been a decrease since 2007, the first year of monitoring, when the estimate was 23%. The decrease in this index is likely due to the corresponding decrease in nonmedical use of prescription opioids.
Sex	■ Males (13.7%) and females (13.0%) are equally likely to use a prescription drug nonmedically.	☐ Neither sex shows a significant change in use between 2017 and 2019, and estimates have been stable for both in recent years. However, both do show a significant decrease since 2007.
Grade	■ Among the grades, students in grades 11 and 12 are significantly more likely to use a prescription drug nonmedically.	☐ No grade shows a significant change between 2017 and 2019. All grades show a significant decrease since 2007.
Region	■ Use is least likely among students in the GTA.	☐ No region shows a significant change since 2017. All regions show a significant decrease since 2007.

Figure 3.8.4
Past Year Nonmedical Prescription Drug Use by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.8.5
Past Year Nonmedical Prescription Drug Use, 2007–2019 OSDUHS (Grades 9–12)

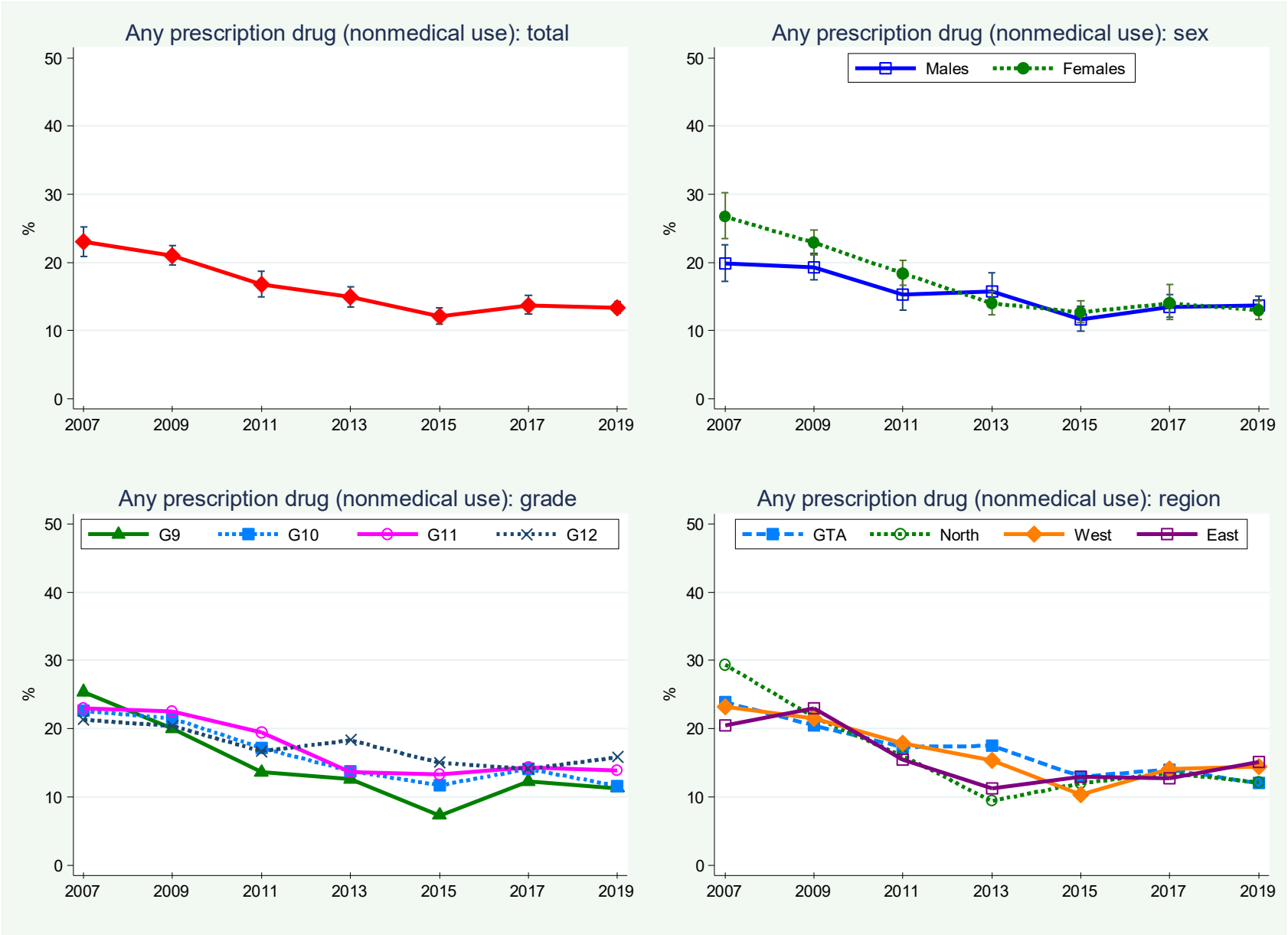


Table 3.8.2: Percentage Reporting Nonmedical Prescription Drug Use in the Past Year, 2007–2019 OSDUHS (Grades 9–12)

	2007	2009	2011	2013	2015	2017	2019	
(n=)	(2247)	(5783)	(6383)	(6159)	(6597)	(7587)	(9924)	
Total	**23.0**	**21.0**	**16.8**	**14.9**	**12.1**	**13.7**	**13.4**	bcd
(95% CI)	(20.9-25.2)	(19.6-22.5)	(15.0-18.7)	(13.5-16.4)	(11.0-13.4)	(12.4-15.2)	(12.5-14.3)	
Sex								
Males	**19.8**	**19.3**	**15.3**	**15.8**	**11.6**	**13.5**	**13.7**	b
	(17.2-22.6)	(17.5-21.3)	(13.0-17.9)	(13.5-18.5)	(9.9-13.6)	(12.0-15.3)	(12.4-15.1)	
Females	**26.7**	**22.9**	**18.4**	**14.0**	**12.7**	**14.0**	**13.0**	b
	(23.5-30.2)	(21.1-24.7)	(16.6-20.3)	(12.3-15.8)	(11.2-14.4)	(11.6-16.8)	(11.7-14.4)	
Grade								
9	**25.4**	**20.0**	**13.6**	**12.6**	**7.3**	**12.2**	**11.3**	b
	(21.0-30.4)	(17.5-23.1)	(11.2-16.5)	(9.9-16.0)	(5.8-9.1)	(9.5-15.7)	(9.7-13.2)	
10	**22.6**	**21.5**	**17.2**	**13.8**	**11.7**	**14.0**	**11.6**	b
	(18.7-27.1)	(18.0-25.4)	(14.9-19.9)	(11.1-16.9)	(9.7-14.0)	(11.4-17.2)	(10.1-13.2)	
11	**23.0**	**22.5**	**19.5**	**13.6**	**13.3**	**14.3**	**13.9**	b
	(19.2-27.4)	(19.6 -25.6)	(15.7-24.0)	(11.4-16.0)	(10.9-16.1)	(12.4-16.4)	(12.1-16.0)	
12	**21.3**	**20.4**	**16.7**	**18.3**	**15.0**	**14.1**	**15.8**	b
	(17.3-25.9)	(17.7 -23.4)	(13.9-20.0)	(15.1-22.0)	(12.1-18.4)	(11.3-17.6)	(13.9-18.0)	
Region								
Greater Toronto Area	**23.9**	**20.5**	**17.3**	**17.5**	**13.0**	**14.0**	**12.0**	b
	(21.0-27.1)	(18.7-22.5)	(14.8-20.0)	(15.3-19.9)	(11.4-14.7)	(11.5-17.0)	(11.0-13.1)	
North	**29.4**	**21.7**	**16.0**	**9.4**	**12.0**	**13.5**	**12.1**	b
	(22.6-37.3)	(19.3-24.4)	(11.4-21.8)	(7.6-11.6)	(9.0-15.8)	(10.6-17.0)	(10.2-14.4)	
West	**23.2**	**21.5**	**17.9**	**15.4**	**10.3**	**14.1**	**14.4**	b
	(19.5-27.4)	(17.9-25.5)	(14.1-22.5)	(13.0-18.2)	(7.9-13.3)	(12.1-16.3)	(12.5-16.5)	
East	**20.5**	**23.0**	**15.5**	**11.2**	**12.9**	**12.7**	**15.1**	b
	(17.0-24.5)	(20.4-25.8)	(13.4-17.8)	(8.7-14.4)	(10.5-15.7)	(11.3-14.1)	(12.7-17.9)	

Notes: (1) based on grades 9-12 only; (2) based on a random half sample in 2007; (3) entries in brackets are 95% confidence intervals; (4) the nonmedical use of a prescription drug is defined as the use of a prescription opioid, an ADHD medication, or a tranquillizer/sedative without one's own prescription, at least once in the past year; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 2007 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

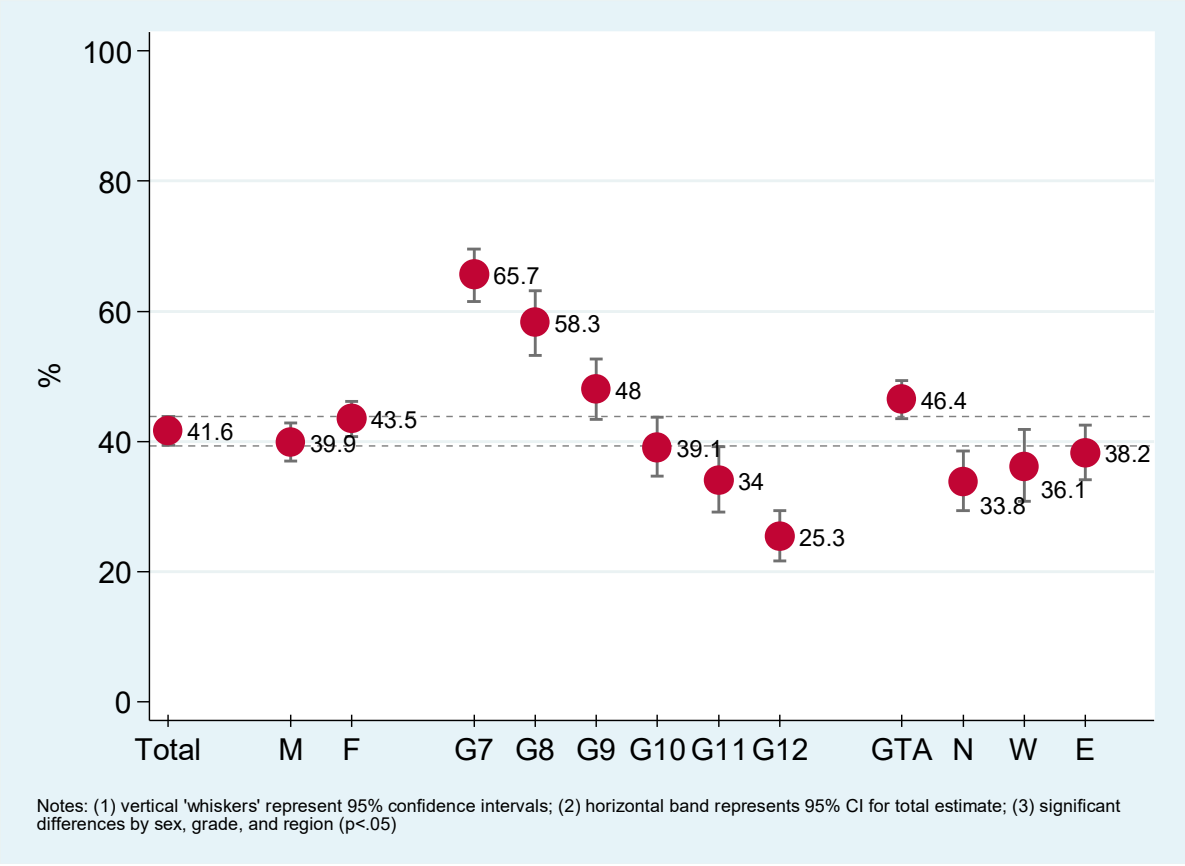
Past Year Abstinence

(Figures 3.8.6–3.8.8; Table 3.8.3)

In this section, we report trends in abstinence – no substance use at all, including tobacco/nicotine and alcohol, during the past year. Readers should note that the number of substances asked about varies from survey to survey, as new drugs emerge and other drugs wane. In general, over the course of the study the number of drugs assessed has *increased* over time, as each cycle attempts to include most of the drugs available to students at the time. These results are among grades 7 to 12.

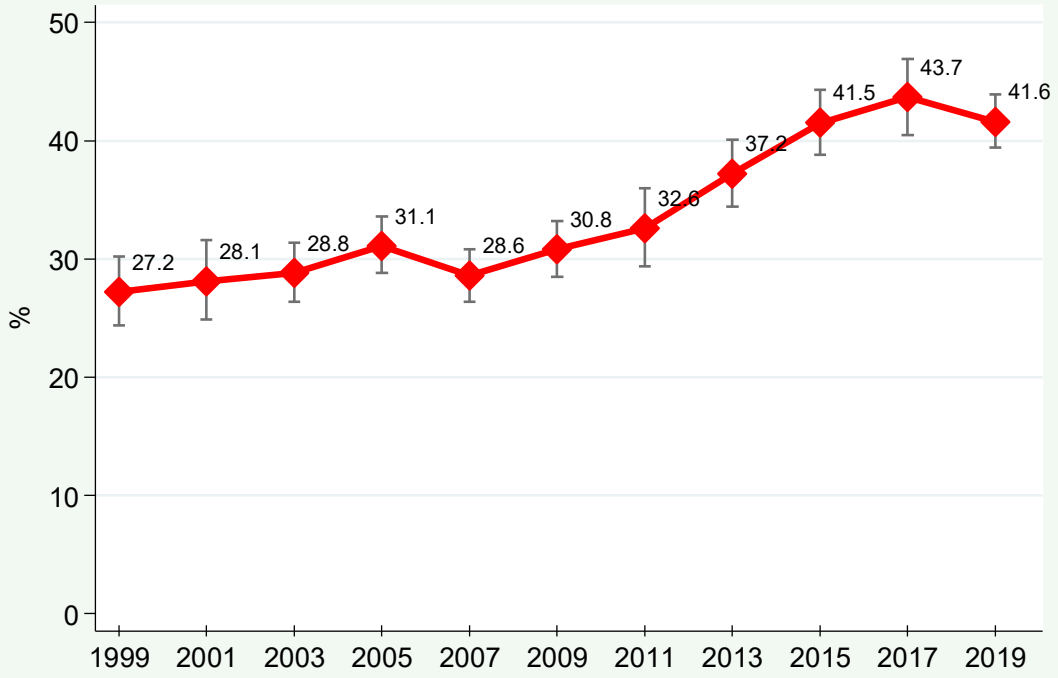
	Abstinence in 2019 (Grades 7–12)	Trends (Grades 7–12)
Total	■ Four-in-ten (41.6%) students in grades 7 to 12 report using no drug at all during the past year – this includes alcohol, cigarettes, and other smoking devices. This percentage represents about 340,600 students in Ontario.	☐ There was no significant change between 2017 (43.7%) and 2019 (41.6%) in the percentage of students reporting no drug use, and the estimate has remained stable in recent years. However, there has been a significant upward trend in abstinence since 1999. ☐ Looking back over the past 40 years or so, past year abstinence was lowest in the late 1970s and early 1980s, as only about 20%–25% of students in grade 7, 9, and 11 reported no drug use. This percentage increased during the late 1980s, peaked in 1991, decreased during the 1990s, and increased again during the 2000s. The percentage reporting past year abstinence reached all-time elevated levels during this past decade.
Sex	■ Females (43.5%) are significantly more likely than males (39.9%) to report no drug use in the past year.	☐ Neither sex shows a significant change in abstinence since 2017. However, both males and females show a significant increase since 1999.
Grade	■ Past year abstinence significantly decreases with grade, from about two-thirds of 7th graders down to one-quarter of 12th graders.	☐ Only 8th graders show a significant change in abstinence since 2017, decreasing from 71.0% to 58.3%%. All grades show a significant increase since 1999.
Region	■ Students in the GTA (46.4%) are most likely to report no drug use in the past year compared with students in the other three regions (about 34%-38%).	☐ No region shows a significant change in abstinence since 2017. Only students in the GTA, North, and West regions show a significant increase in abstinence since 1999. Abstinence among students in the East has remained relatively stable since 1999.

Figure 3.8.6
Percentage Reporting No Drug Use in the Past Year, by Sex, Grade, and Region, 2019 OSDUHS



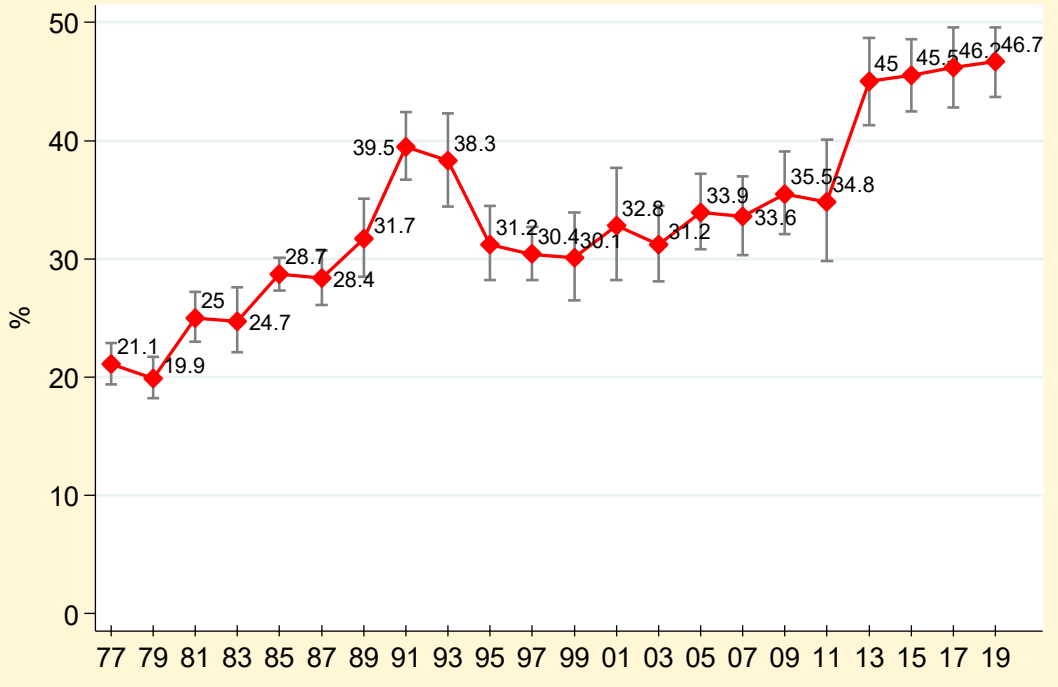
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

Figure 3.8.7
Percentage Reporting No Drug Use in the Past Year, 1999–2019 OSDUHS (Grades 7–12)



Notes: (1) error bars represent 95% confidence intervals; (2) the number of drugs asked about increased over time

Figure 3.8.8
Percentage Reporting No Drug Use in the Past Year, 1977–2019 OSDUHS
(Grades 7, 9, and 11 only)



Notes: (1) error bars represent 95% confidence intervals; (2) the number of drugs asked about increased over time

Table 3.8.3: Percentage Reporting No Drug Use in the Past Year, 1999–2019 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n=)	(2229)	(1837)	(3152)	(3648)	(2395)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)	
Total	**27.2**	**28.1**	**28.8**	**31.1**	**28.6**	**30.8**	**32.6**	**37.2**	**41.5**	**43.7**	**41.6**	bcd
.	(24.4-30.2)	(24.9-31.6)	(26.4-31.4)	(28.8-33.6)	(26.4-30.8)	(28.5-33.2)	(29.4-36.0)	(34.4-40.1)	(38.8-44.2)	(40.5-46.9)	(39.4-43.8)	
Sex												
Males	**24.7**	**27.2**	**25.7**	**29.3**	**28.9**	**28.9**	**31.9**	**35.0**	**39.6**	**43.2**	**39.9**	b
	(21.5-28.2)	(23.7-30.9)	(22.3-29.4)	(26.5-32.2)	(26.2-31.8)	(25.9-32.0)	(28.5-35.5)	(31.4-38.8)	(36.2-43.0)	(38.7-47.8)	(37.0-42.8)	
Females	**29.8**	**29.0**	**31.8**	**33.2**	**28.2**	**33.0**	**33.4**	**39.6**	**43.6**	**44.2**	**43.5**	b
	(25.7-34.3)	(24.7-33.7)	(28.7-35.0)	(30.1-36.4)	(25.4-31.2)	(30.2-35.8)	(28.7-38.5)	(36.2-42.9)	(39.5-47.8)	(40.4-48.0)	(40.7-46.2)	
Grade												
7	**47.3**	**49.4**	**47.5**	**54.5**	**54.1**	**55.5**	**56.6**	**69.5**	**68.5**	**65.0**	**65.7**	b
	(39.0-55.7)	(42.0-56.9)	(42.1-53.0)	(48.0-60.8)	(46.9-61.1)	(49.0-61.8)	(50.8-62.3)	(65.5-73.2)	(61.5-74.8)	(60.2-69.5)	(61.5-69.6)	
8	**36.0**	**37.5**	**44.2**	**48.3**	**40.2**	**42.4**	**55.0**	**55.7**	**68.7**	**71.0**	**58.3**	ab
	(31.5-40.7)	(30.1-45.5)	(39.0-49.4)	(43.8-52.8)	(34.0-46.8)	(36.9-48.0)	(49.6-60.3)	(47.2-63.9)	(62.8-74.1)	(66.0-75.5)	(53.2-63.2)	
9	**29.7**	**29.7**	**30.3**	**30.5**	**31.5**	**35.6**	**33.0**	**51.5**	**52.5**	**50.2**	**48.0**	b
	(24.5-35.4)	(22.2-38.5)	(25.4-35.8)	(26.0-35.4)	(25.6-38.0)	(29.7-42.0)	(25.7-41.3)	(45.7-57.4)	(47.8-57.1)	(45.7-54.7)	(43.3-52.7)	
10	**20.8**	**17.1**	**21.5**	**25.0**	**24.0**	**27.8**	**30.9**	**31.7**	**37.6**	**34.4**	**39.1**	b
	(14.7-28.6)	(12.8-22.4)	(16.9-26.9)	(21.0-29.3)	(19.4-29.3)	(23.1-32.9)	(25.2-37.3)	(25.3-38.8)	(33.1-42.2)	(29.3-39.9)	(34.7-43.6)	
11	**15.9**	**19.2**	**18.3**	**18.0**	**16.2**	**19.8**	**18.7**	**22.0**	**22.7**	**25.3**	**34.0**	b
	(12.0-20.8)	(12.9-27.6)	(14.5-22.9)	(14.5-22.2)	(13.2-19.8)	(15.8-24.5)	(13.9-24.6)	(17.6-27.2)	(17.8-28.5)	(20.5-30.8)	(29.1-39.2)	
12	**11.9**	**14.0**	**15.5**	**15.0**	**11.7**	**15.4**	**16.0**	**16.5**	**21.7**	**24.4**	**25.3**	b
	(8.1-17.1)	(8.1-22.9)	(11.2-21.1)	(11.3-19.7)	(9.1-14.9)	(11.4-20.6)	(12.1-20.8)	(13.0-20.7)	(16.5-27.6)	(19.7-29.8)	(21.7-29.4)	
Region												
GTA	**30.4**	**27.7**	**28.9**	**32.6**	**28.8**	**32.4**	**34.9**	**41.8**	**45.0**	**47.8**	**46.4**	b
	(25.9-35.4)	(22.0-34.3)	(24.8-33.3)	(28.6-36.9)	(24.8-33.3)	(28.3-36.8)	(30.7-39.3)	(37.4-46.3)	(41.3-48.7)	(43.3-52.4)	(43.5-49.4)	
North	**19.8**	**22.8**	**24.7**	**23.3**	**18.4**	**26.4**	**32.7**	**33.8**	**40.5**	**40.6**	**33.8**	b
	(13.4-28.2)	(17.1-29.6)	(19.3-31.0)	(18.6-28.7)	(14.7-22.8)	(21.0-32.5)	(27.9-37.8)	(26.0-42.5)	(35.5-45.7)	(34.8-46.6)	(29.4-38.5)	
West	**23.1**	**30.4**	**25.7**	**27.6**	**29.0**	**29.0**	**26.3**	**32.7**	**38.4**	**41.3**	**36.1**	b
	(17.8-29.3)	(24.7-36.7)	(20.1-32.4)	(23.1-32.8)	(24.3-34.3)	(25.2-33.0)	(18.2-36.3)	(28.3-37.5)	(32.4-44.8)	(36.4-46.4)	(30.8-41.8)	
East	**29.4**	**27.6**	**34.4**	**33.8**	**30.5**	**31.8**	**35.1**	**32.8**	**37.3**	**41.3**	**38.2**	
	(22.0-38.0)	(21.6-34.7)	(30.5-38.4)	(27.9-40.2)	(25.8-35.7)	(26.7-37.5)	(30.2-40.3)	(25.2-41.3)	(30.1-45.1)	(31.9-51.4)	(34.1-42.5)	

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) the number of drugs asked about increased over time; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

3.9 New Users and Early Initiation

Incidence: First-Time Use in the Past Year

(Figures 3.9.1, 3.9.2; Tables 3.9.1–3.9.4)

2019: Grades 7–12

Students were asked if they used certain drugs for the very first time during the past 12 months. Here we evaluate the incidence of tobacco cigarette smoking, electronic cigarette use/vaping, alcohol use, cannabis use, and other drug use in the past year. We also look at trends in incidence of use.

- About 3.8% of students smoked a whole **tobacco cigarette** for the first time during the 12 months before the survey. This estimate represents about 30,200 students in Ontario. There is significant grade variation in first-time use of cigarettes in the past year, with the extremely low estimates (suppressed) among 7th and 8th graders and higher estimates among 10th to 12th graders (about 5%).

- One-in-five (20.8%) students tried an **electronic cigarette/vape** (any type) for the first time during the 12 months before the survey. This estimate represents about 167,900 students in Ontario. First use increases substantially between 7th grade (5.5%) and 9th grade (24.1%) and then remains stable in subsequent grades.

- One-in-five (19.3%) students tried **alcohol** for the first time in the past year (representing about 155,300 students). First use of alcohol increases substantially between 7th and 10th grade (from 14.3% to 24.4%), and then decreases by 12th grade (15.2%).

- One-in-ten (10.2%) students tried **cannabis** (about 82,400 students) for the first time in the past year. First use of cannabis is not likely to occur in grade 7 (estimate suppressed), but increases substantially between 8th grade and 11th grade, from 3.6% up to 15.6%.

- About 2.7% tried **another illicit drug** such as cocaine or ecstasy for the first time (this represents about 21,600 students). This significantly increases with grade, from less than 1% of students in grades 7 and 8 up to 4.9% of 12th graders (data not tabled).

1999–2019: Grades 7–12

- The percentage who smoked a **tobacco cigarette** for the first time in 2019 (3.8%) is similar to the percentage seen in 2017 (4.9%). The incidence of cigarette smoking has remained stable during the past few years, but there has been a significant downward trend since 1999 when the estimate was 10.9%.

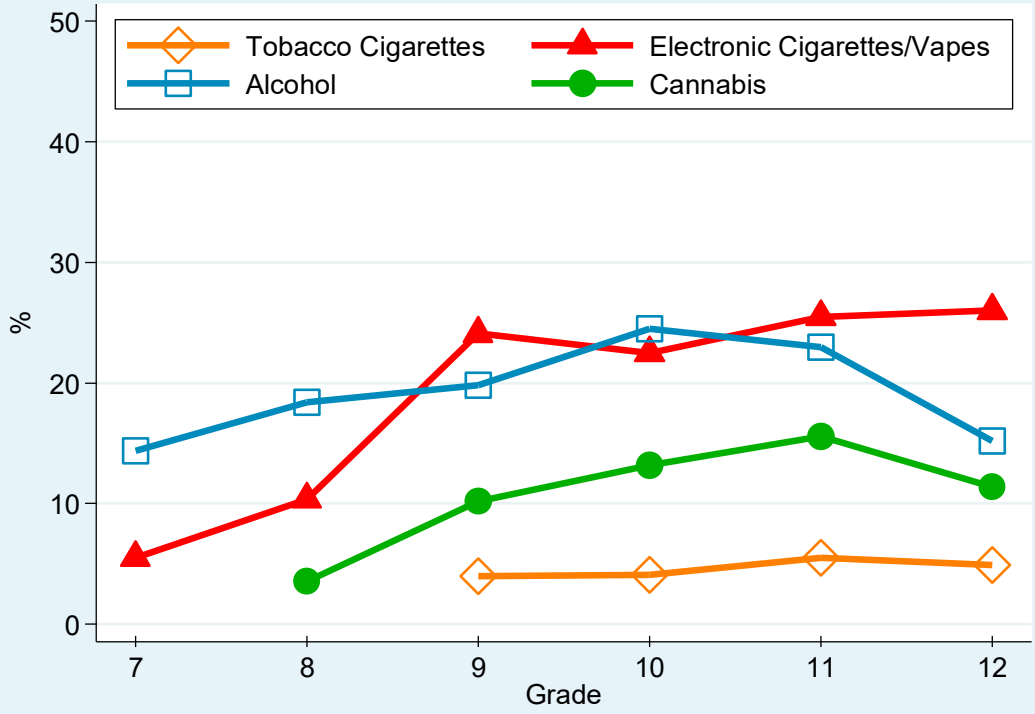
- The percentage who used an **electronic cigarette** for the first time in 2019 (20.8%) is significantly higher than 2017 (13.6%) and 2015 (15.7%), the first year of monitoring.

- The percentage who tried **alcohol** for the first time in 2019 (19.3%) is similar to the percentage seen in 2017 (20.0%). There has been no substantial change since 1999, as the incidence has varied between 16% and 20%.

- The percentage who tried **cannabis** for the first time in 2019 (10.2%) is similar to the percentage seen in 2017 (8.6%). There has been no substantial change since 1999, as the incidence has varied between 8% and 10%.

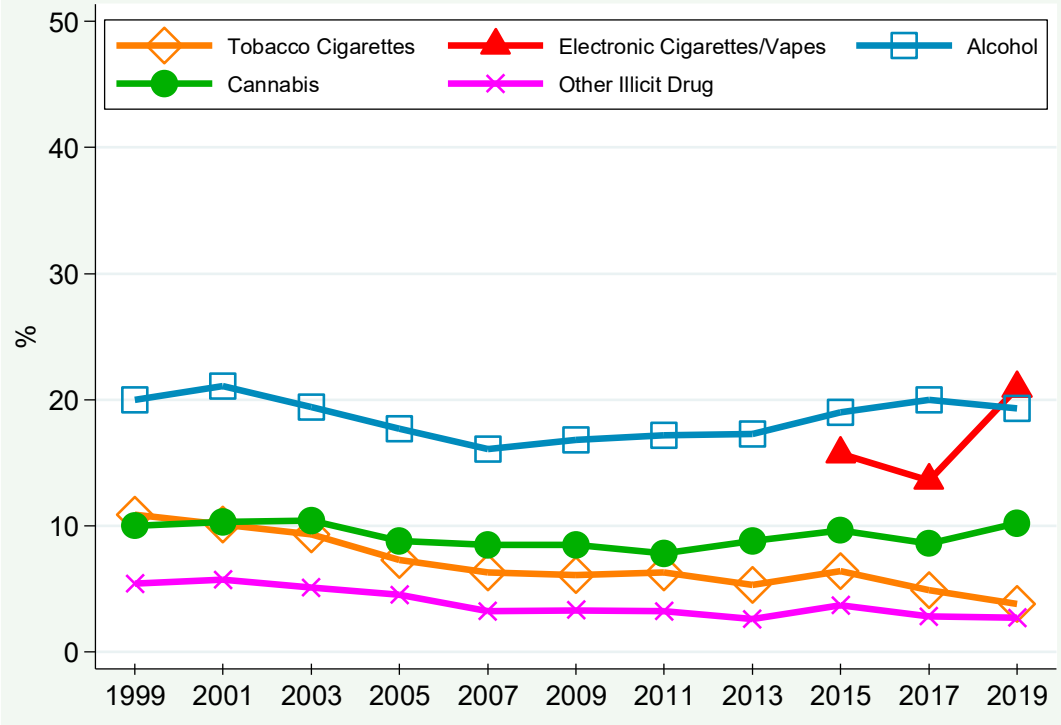
- First-time use of an **illicit drug** has been stable over the past decade at about 3% among the total sample, but is currently significantly lower than the estimates from 1999 and 2001 (about 5%-6%; data not tabled).

Figure 3.9.1
Percentage Reporting First-Time Use of the Substance in the Past Year by Grade, 2019 OSDUHS



Notes: (1) Grade 7 and Grade 8 estimates for tobacco cigarettes were suppressed; (2) Grade 7 estimate for cannabis was suppressed

Figure 3.9.2
Percentage Reporting First-Time Use of the Substance in the Past Year, 1999–2019 OSDUHS (Grades 7–12)



Note: electronic cigarettes/vapes first asked about in 2015

Table 3.9.1: Percentage Reporting Smoking a Whole Tobacco Cigarette for the First Time in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total	**10.9**	**10.1**	**9.3**	**7.3**	**6.3**	**6.1**	**6.3**	**5.3**	**6.3**	**4.9**	**3.8** [bc]
(95% CI)	(9.7-12.4)	(9.0-11.4)	(8.4-10.3)	(6.4-8.3)	(5.2-7.7)	(5.1-7.4)	(5.1-7.6)	(4.3-6.5)	(5.4-7.4)	(3.6-6.6)	(3.1-4.6)
Sex											
Males	**11.0**	**10.0**	**8.1**	**6.9**	**6.6**	**6.9**	**6.2**	**5.7**	**5.9**	**5.7**	**3.5** [b]
	(9.3-13.0)	(8.3-12.0)	(7.1-9.2)	(5.8-8.1)	(5.1-8.4)	(5.4-8.7)	(4.6-8.3)	(4.2-7.7)	(4.7-7.4)	(3.3-9.4)	(2.7-4.6)
Females	**10.8**	**10.3**	**10.5**	**7.8**	**6.1**	**5.2**	**6.4**	**4.9**	**6.8**	**4.0**	**4.0** [b]
	(9.3-12.6)	(8.5-12.3)	(9.0-12.1)	(6.4-9.4)	(4.7-7.9)	(4.0-6.9)	(4.5-9.0)	(3.8-6.2)	(5.5-8.4)	(3.1-5.2)	(3.2-5.1)
Grade											
7	**7.9**	**7.8**	**5.8**	**2.9**	†	†	†	†	†	†	† [b]
	(5.7-10.8)	(5.6-10.9)	(4.3-7.8)	(1.7-5.0)							
8	**11.2**	**8.6**	**8.1**	**5.3**	**5.2**	**3.6**	**4.5**	†	†	†	† [b]
	(9.0-13.9)	(6.7-11.0)	(5.2-12.3)	(3.2-8.6)	(2.7-9.8)	(2.0-6.5)	(2.6-7.7)				
9	**14.6**	**14.2**	**12.3**	**7.7**	**6.6**	**4.3**	**5.7**	**2.7**	**4.9**	**6.6**	**4.0** [b]
	(11.9-17.8)	(11.8-17.0)	(10.1-14.8)	(5.7-10.2)	(4.6-9.3)	(2.6-6.9)	(3.7-8.6)	(1.4-5.0)	(3.3-7.2)	(3.6-11.9)	(2.8-5.7)
10	**12.2**	**11.0**	**9.8**	**10.3**	**8.2**	**7.6**	**7.3**	**6.0**	**6.7**	**4.8**	**4.1** [b]
	(9.7-15.4)	(8.4-14.2)	(7.9-12.1)	(8.0-13.2)	(5.8-11.6)	(5.5-10.5)	(4.5-11.5)	(3.8-9.4)	(5.0-9.0)	(3.2-7.3)	(2.8-6.0)
11	**9.2**	**9.2**	**10.6**	**8.8**	**7.6**	**8.8**	**6.1**	**9.9**	**12.2**	**7.6**	**5.5**
	(7.1-11.8)	(6.5-12.9)	(9.0-12.5)	(6.5-11.8)	(5.4-10.6)	(6.3-12.2)	(3.9-9.5)	(6.5-14.8)	(9.2-16.0)	(4.6-12.3)	(4.0-7.6)
12	**9.6**	**7.5**	**8.2**	**8.1**	**8.0**	**8.6**	**9.1**	**5.6**	**7.9**	**7.6**	**4.9**
	(6.3-14.4)	(5.4-10.4)	(6.6-10.1)	(5.9-11.1)	(5.5-11.3)	(5.6-13.0)	(5.6-14.6)	(3.9-8.0)	(5.6-11.0)	(5.5-10.4)	(3.5-6.9)
Region											
GTA	**11.6**	**10.0**	**8.4**	**6.8**	**5.6**	**6.5**	**4.6**	**5.3**	**6.2**	**2.8**	**2.7** [b]
	(9.9-13.6)	(8.2-12.1)	(7.3-9.8)	(5.5-8.3)	(4.1-7.6)	(5.0-8.2)	(3.7-5.8)	(4.0-6.9)	(5.0-7.6)	(2.0-3.9)	(2.0-3.7)
North	**12.1**	**12.5**	**9.8**	**9.6**	**5.2**	**10.7**	**7.0**	**6.4**	**7.6**	**5.5**	**5.4** [b]
	(9.0-16.1)	(10.2-15.2)	(7.9-12.0)	(7.2-12.6)	(2.8-9.4)	(7.4-15.2)	(5.2-9.3)	(4.1-9.8)	(4.9-11.5)	(3.1-9.4)	(3.3-8.8)
West	**11.1**	**9.8**	**9.8**	**8.0**	**6.6**	**6.1**	**9.2**	**4.8**	**5.8**	**6.1**	**3.9** [b]
	(8.4-14.5)	(7.7-12.3)	(7.7-12.4)	(6.4-10.0)	(4.7-9.1)	(4.0-9.2)	(5.5-15.1)	(3.1-7.3)	(3.9-8.5)	(4.0-9.1)	(2.5-6.0)
East	**7.8**	**9.8**	**10.4**	**7.1**	**7.9**	**4.0**	**6.1**	**5.9**	**7.2**	**6.0**	**6.0**
	(6.2-9.8)	(7.3-12.9)	(8.7-12.3)	(5.0-9.8)	(5.2-11.7)	(2.6-6.3)	(4.8-7.8)	(3.1-10.9)	(5.5-9.4)	(2.6-13.3)	(4.1-8.7)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) no significant differences 2019 vs. 2017, [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, have you smoked one whole tobacco cigarette for the very first time?

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.9.2: Percentage Reporting Trying an Electronic Cigarette (Vape) for the First Time in the Past Year, 2015–2019 OSDUHS

	2015	2017	2019
(n=)	(5023)	(5071)	(6525)
Total (95% CI)	**15.7** (14.0-17.7)	**13.6** (10.9-17.0)	**20.8** [abc] (18.9-22.9)
Sex			
Males	**17.4** (15.1-20.0)	**14.8** (12.0-18.2)	**20.1** [a] (17.2-23.3)
Females	**14.0** (11.7-16.6)	**12.4** (9.0-16.8)	**21.7** [ab] (19.6-23.9)
Grade			
7	†	†	**5.5** (3.5-8.6)
8	**8.0** (5.0-12.5)	**5.4** (3.2-9.0)	**10.4** (7.9-13.5)
9	**14.9** (12.0-18.4)	**14.8** (11.1-19.5)	**24.1** [ab] (20.4-28.3)
10	**18.6** (15.2-22.7)	**17.0** (12.5-22.8)	**22.5** (19.2-26.0)
11	**21.3** (17.5-25.8)	**20.0** (15.0-26.1)	**25.5** (22.0-29.3)
12	**21.6** (16.5-27.6)	**19.2** (14.4-25.2)	**26.0** (22.2-30.1)
Region			
GTA	**14.2** (12.4-16.1)	**12.5** (8.9-17.4)	**16.5** (14.6-18.6)
North	**9.8** (7.1-13.4)	**14.0** (10.8-17.9)	**27.4** [ab] (22.4-32.9)
West	**13.4** (10.1-17.4)	**15.6** (12.2-19.6)	**26.1** [ab] (20.8-32.1)
East	**24.8** (18.6-32.3)	**12.5** (5.7-25.2)	**23.4** (19.8-27.4)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2015 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, have you smoked any type of electronic cigarette (also known as a "vape pipe", "hookah pen", "e-hookah") for the very first time (even just a few puffs)?

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.9.3: Percentage Reporting Trying Alcohol for the First Time in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total	**20.0**	**21.1**	**19.4**	**17.7**	**16.1**	**16.8**	**17.2**	**17.3**	**19.0**	**20.0**	**19.3**
(95% CI)	(18.3-21.8)	(19.1-23.3)	(18.1-20.8)	(16.2-19.3)	(14.3-18.0)	(15.2-18.6)	(15.1-19.5)	(15.3-19.4)	(17.2-20.8)	(17.9-22.3)	(18.0-20.7)
Sex											
Males	**20.1**	**21.9**	**20.4**	**17.5**	**16.1**	**16.3**	**15.9**	**15.7**	**18.4**	**20.2**	**18.6**
	(17.9-22.6)	(19.4-24.7)	(18.4-22.5)	(15.4-19.8)	(13.6-18.8)	(13.7-19.1)	(13.5-18.6)	(13.4-18.2)	(16.3-20.6)	(17.4-23.3)	(16.9-20.5)
Females	**19.8**	**20.3**	**18.4**	**17.8**	**16.0**	**17.5**	**18.6**	**19.0**	**19.6**	**19.9**	**20.0**
	(17.5-22.4)	(17.7-23.2)	(17.0-20.0)	(15.8-20.0)	(13.9-18.4)	(15.4-19.7)	(15.9-21.6)	(15.9-22.4)	(17.2-22.2)	(17.1-23.0)	(18.0-22.1)
Grade											
7	**20.3**	**21.5**	**21.4**	**17.9**	**15.0**	**14.8**	**14.4**	**11.6**	**10.4**	**12.3**	**14.4**
	(16.2-25.0)	(17.2-26.5)	(18.1-25.0)	(14.2-22.4)	(10.8-20.6)	(11.9-18.1)	(10.9-18.8)	(7.8-16.8)	(6.6-16.1)	(7.8-18.7)	(10.9-18.6)
8	**23.4**	**24.7**	**21.7**	**20.2**	**19.0**	**19.4**	**20.6**	**17.3**	**17.2**	**13.0**	**18.4**
	(20.5-26.6)	(21.7-28.0)	(18.6-25.1)	(16.2-24.8)	(13.7-25.7)	(16.1-23.2)	(17.3-24.4)	(12.8-23.0)	(13.5-21.7)	(10.1-16.6)	(15.5-21.6)
9	**25.6**	**25.6**	**23.4**	**20.1**	**19.0**	**23.0**	**21.6**	**21.1**	**24.1**	**25.5**	**19.8**
	(22.4-29.1)	(21.3-30.3)	(20.9-26.0)	(17.0-23.7)	(15.8-22.8)	(18.8-27.8)	(17.8-25.8)	(16.6-26.4)	(20.1-28.7)	(21.8-29.7)	(16.7-23.4)
10	**20.7**	**22.5**	**20.4**	**19.9**	**17.9**	**18.9**	**21.6**	**23.1**	**21.7**	**28.6**	**24.4**
	(16.9-25.1)	(18.6-26.8)	(17.3-23.9)	(16.6-23.6)	(14.2-22.3)	(15.1-23.5)	(16.5-27.6)	(18.1-29.0)	(17.3-26.9)	(22.9-35.1)	(21.5-27.6)
11	**13.5**	**15.1**	**16.1**	**16.5**	**14.0**	**15.4**	**15.4**	**20.0**	**20.0**	**24.6**	**23.0** [b]
	(10.6-16.9)	(10.6-21.2)	(13.7-18.9)	(13.3-20.3)	(10.9-17.7)	(12.4-18.9)	(11.7-19.9)	(15.7-25.2)	(16.9-23.6)	(20.5-29.3)	(19.7-26.8)
12	**15.0**	**12.4**	**13.5**	**12.2**	**12.4**	**11.5**	**11.7**	**11.6**	**18.1**	**17.5**	**15.2**
	(10.6-20.8)	(8.2-18.5)	(10.9-16.6)	(9.3-15.9)	(8.9-17.0)	(8.7-15.2)	(8.1-16.5)	(8.6-15.5)	(14.3-22.5)	(14.4-21.1)	(12.6-18.3)
Region											
GTA	**21.8**	**22.4**	**18.8**	**18.6**	**16.5**	**18.4**	**16.8**	**16.6**	**18.2**	**20.2**	**19.3**
	(19.7-24.2)	(18.7-26.5)	(16.8-21.0)	(16.2-21.1)	(13.6-19.8)	(16.0-21.1)	(13.8-20.3)	(14.2-19.4)	(16.1-20.6)	(17.9-22.7)	(17.5-21.2)
North	**18.5**	**19.4**	**22.2**	**19.2**	**14.8**	**19.2**	**16.5**	**24.1**	**23.7**	**18.9**	**20.6**
	(14.6-23.2)	(17.2-21.8)	(18.8-26.1)	(15.7-23.3)	(10.3-20.9)	(14.4-25.2)	(14.3-19.1)	(17.7-31.8)	(18.9-29.2)	(15.0-23.6)	(16.8-25.0)
West	**19.7**	**19.0**	**19.3**	**17.1**	**14.2**	**14.5**	**16.0**	**15.6**	**19.4**	**20.7**	**19.8**
	(15.9-24.1)	(16.0-22.5)	(16.6-22.4)	(14.8-19.7)	(11.8-16.9)	(11.8-17.8)	(11.3-22.3)	(11.4-20.8)	(16.1-23.2)	(18.3-23.5)	(16.6-23.4)
East	**15.4**	**22.2**	**19.6**	**16.0**	**18.0**	**16.6**	**19.4**	**20.6**	**19.0**	**18.9**	**18.3**
	(12.1-19.3)	(18.3-26.8)	(17.3-22.2)	(12.8-19.9)	(14.2-22.4)	(12.6-21.6)	(15.6-23.9)	(16.9-24.8)	(14.3-24.9)	(12.7-27.2)	(16.2-20.7)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01.
Q: In the last 12 months, have you tried alcohol (beer, wine or liquor) for the very first time?
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.9.4: Percentage Reporting Trying Cannabis for the First Time in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total	**10.0**	**10.3**	**10.4**	**8.8**	**8.5**	**8.5**	**7.8**	**8.8**	**9.6**	**8.6**	**10.2**
(95% CI)	(9.1-11.1)	(9.2-11.4)	(9.6-11.2)	(7.6-10.2)	(7.3-9.9)	(7.3-9.9)	(6.4-9.4)	(7.4-10.5)	(8.2-11.1)	(7.2-10.1)	(9.2-11.4)
Sex											
Males	**10.7** (9.3-12.2)	**11.2** (9.4-13.3)	**10.8** (9.5-12.2)	**8.8** (7.3-10.6)	**8.8** (7.2-10.8)	**9.7** (8.1-11.6)	**7.2** (5.6-9.2)	**9.2** (7.1-11.9)	**9.2** (7.5-11.1)	**7.7** (5.4-10.7)	**9.2** (8.0-10.6)
Females	**9.4** (8.0-11.0)	**9.3** (7.9-11.0)	**10.0** (8.9-11.1)	**8.8** (7.2-10.6)	**8.2** (6.7-10.0)	**7.2** (5.7-9.1)	**8.5** (6.7-10.7)	**8.4** (6.8-10.3)	**10.0** (8.2-12.2)	**9.5** (8.1-11.2)	**11.3** (9.6-13.1)
Grade											
7	†	**4.2** (2.6-6.5)	**3.2** (2.1-4.9)	**2.9** (1.8-4.8)	**2.9** (1.5-5.3)	†	†	†	†	†	†
8	**7.6** (5.8-10.1)	**6.0** (4.2-8.4)	**5.4** (3.4-8.5)	**4.2** (2.5-7.1)	**4.5** (2.7-7.4)	**3.7** (1.9-6.8)	**5.5** (2.9-9.9)	**6.5** (3.9-10.8)	**1.8** (1.0-3.2)	†	**3.6** [b] (2.3-5.4)
9	**15.3** (13.3-17.5)	**14.9** (12.7-17.3)	**13.1** (11.2-15.4)	**11.8** (8.8-15.6)	**9.5** (6.9-13.0)	**11.8** (8.6-15.9)	**7.9** (5.5-11.3)	**9.2** (6.3-13.2)	**7.8** (5.9-10.3)	**7.2** (4.7-10.7)	**10.2** [b] (8.2-12.8)
10	**11.2** (8.4-14.9)	**12.6** (10.5-15.1)	**14.8** (12.7-17.3)	**12.8** (10.2-16.0)	**10.2** (7.7-13.2)	**12.7** (9.8-16.4)	**10.0** (7.6-13.2)	**11.5** (8.4-15.5)	**15.0** (12.2-18.3)	**13.4** (10.7-16.6)	**13.2** (10.7-16.1)
11	**13.5** (11.1-16.4)	**11.4** (8.4-15.3)	**12.8** (11.0-14.8)	**9.1** (6.7-12.2)	**13.2** (10.3-16.8)	**9.8** (7.0-13.4)	**10.8** (7.7-15.0)	**13.1** (9.5-17.9)	**14.9** (12.2-18.2)	**12.5** (8.1-18.9)	**15.6** (12.5-19.4)
12	**8.2** (5.9-11.1)	**10.7** (6.6-16.9)	**10.4** (8.6-12.4)	**11.1** (8.1-15.0)	**10.0** (7.6-13.0)	**10.1** (7.6-13.5)	**8.4** (5.0-13.6)	**8.8** (6.4-12.0)	**11.7** (8.7-15.6)	**13.2** (10.4-16.6)	**11.4** (9.2-14.0)
Region											
GTA	**10.2** (8.5-12.1)	**10.6** (8.9-12.6)	**9.0** (7.8-10.2)	**8.6** (6.5-11.3)	**7.2** (5.6-9.3)	**8.8** (7.1-10.8)	**7.0** (5.2-9.5)	**8.1** (6.2-10.5)	**9.3** (7.3-11.7)	**8.2** (6.8-10.0)	**7.8** (6.6-9.2)
North	**11.5** (9.8-13.5)	**9.2** (7.8-10.9)	**13.2** (10.9-15.8)	**10.4** (8.3-13.0)	**12.2** (8.6-17.1)	**10.8** (6.9-16.3)	**8.1** (5.7-11.3)	**9.2** (6.3-13.4)	**7.5** (5.1-10.8)	**10.9** (8.6-13.7)	**11.6** (8.0-16.6)
West	**9.6** (7.8-11.8)	**10.4** (8.1-13.2)	**10.2** (8.7-11.9)	**8.5** (6.5-11.0)	**7.8** (5.8-10.3)	**9.8** (7.4-12.8)	**8.6** (5.8-12.5)	**9.5** (6.7-13.4)	**10.4** (7.7-13.8)	**8.8** (6.7-11.4)	**13.3** (10.8-16.3)
East	**9.6** (7.6-12.2)	**9.8** (8.0-11.9)	**12.4** (10.4-14.8)	**9.3** (7.3-11.6)	**11.2** (8.2-15.0)	**5.3** (3.6-7.8)	**8.4** (6.0-11.6)	**9.6** (7.3-12.5)	**9.8** (7.2-13.1)	**8.4** (4.8-14.0)	**12.0** (9.6-14.9)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01.

Qs: In the last 12 months, have you tried cannabis (marijuana or hashish, “weed”) for the very first time?

Source: OSDUHS, Centre for Addiction & Mental Health

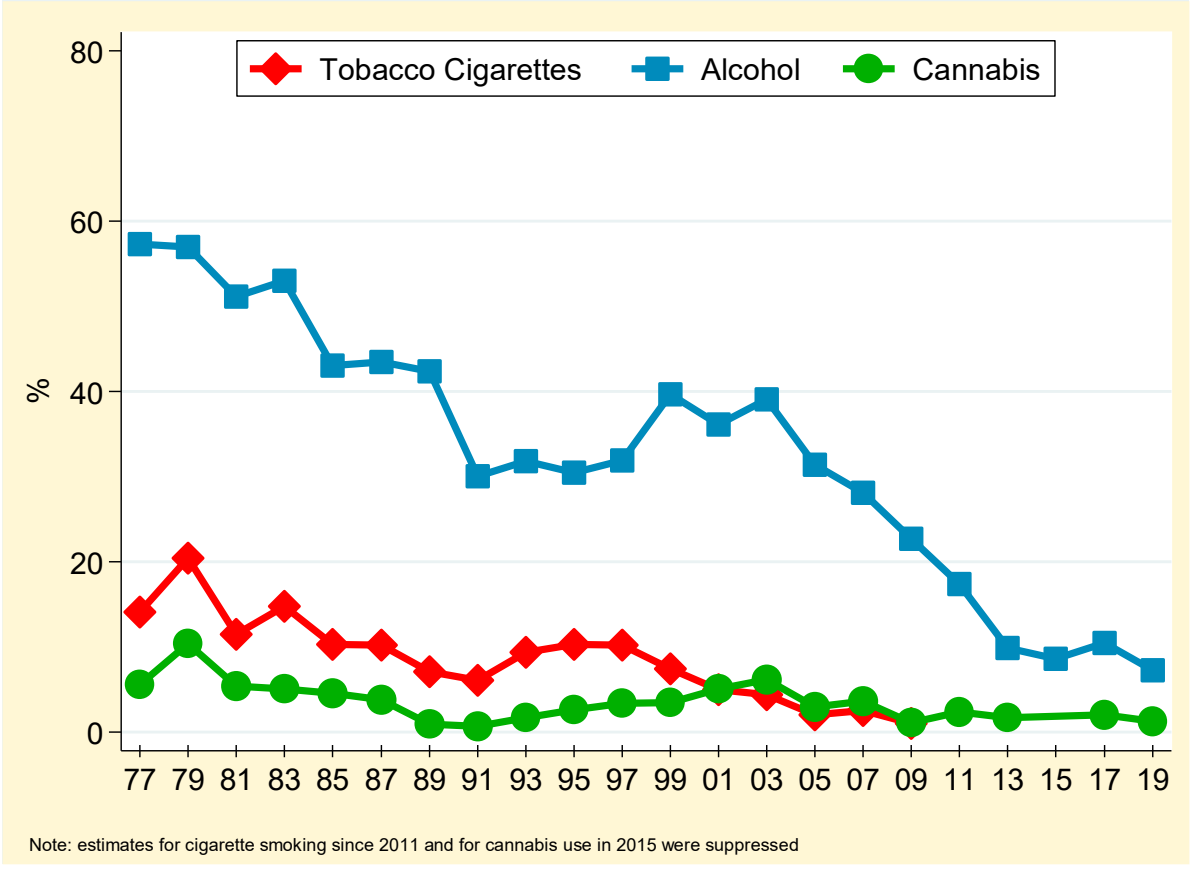
Drug Use Among 7th Graders, 1977–2019

(Figure 3.9.3)

Perhaps one of the most consistent and robust predictors of future substance use problems is the early initiation of use. Much research has shown that those who begin using substances at an early age (i.e., typically defined as before age 13 or 14) are more likely to develop substance use problems and other related problems later on in life (Agrawal et al., 2006; Behrendt et al., 2009; Dawson et al., 2008; Fergusson, et al., 2015; Hingson, et al., 2006; Jacobus et al., 2015; Meier et al., 2012; Moss et al., 2014).

One way of monitoring trends in early initiation of substance use is to look at past year use among the youngest cohort of students in our sample, namely the 7th graders (ages 12/13). Figure 3.9.3 presents the past year prevalence rates for tobacco cigarettes, alcohol, and cannabis among 7th graders from 1977 to 2019. An overview of these data shows that use of these substances is currently less prevalent compared with use during the late 1970s (the peak years of use on record), and compared with the elevated rates seen again in the late 1990s and early 2000s.

Figure 3.9.3
Percentage of 7th Graders Reporting Tobacco Cigarette Smoking, Alcohol Use, and Cannabis Use in the Past Year, 1977–2019 OSDUHS



Note: estimates for cigarette smoking since 2011 and for cannabis use in 2015 were suppressed

Age at Initiation of Smoking, Drinking, and Cannabis Use, 1981–2019

(Figures 3.9.4, 3.9.5)

As previously mentioned, early initiation of substance use is a risk factor for substance use disorders and other problems later in life. We asked students in which grade did they first smoke a whole cigarette, drink an alcoholic drink, and try cannabis. In this section, we present the average age at initiation for cigarette, alcohol, and cannabis use *among grade 12 users* (ages 17/18). We select 12th graders because this is the oldest grade in the study and thus this group is nearing the end of adolescence. We restrict our analysis to past year users because our focus is on ongoing use rather than experimental behaviour. Trends in age of initiation for 12th graders are also presented for the years since 1999.

In addition, we present long-term findings since 1981 among *grade 11 users* (ages 16/17) because it is the oldest grade for which we have data spanning back the furthest.

2019 OSDUHS: Mean Ages

- As seen in Figure 3.9.3, in 2019 the average age at first cigarette smoking (smoking one whole tobacco cigarette) among grade 12 smokers was age 15.2. The average age at first alcoholic drink among grade 12 drinkers was 14.7, and the average age at first drunkenness among grade 12 drinkers was 15.4. The average age at first cannabis use among grade 12 users was 15.4.

1999–2019

- The average initiation age for cigarette smoking has remained relatively stable over the past decade, but it is currently significantly older compared to 1999 and the early 2000s, when the average age was about 13 years.

- The average initiation age for drinking alcohol has remained relatively stable over the past decade, but it is currently older than in 1999/early 2000s.

- The average initiation age for cannabis use has remained relatively stable in recent years, but is currently slightly older than in 1999/early 2000s.

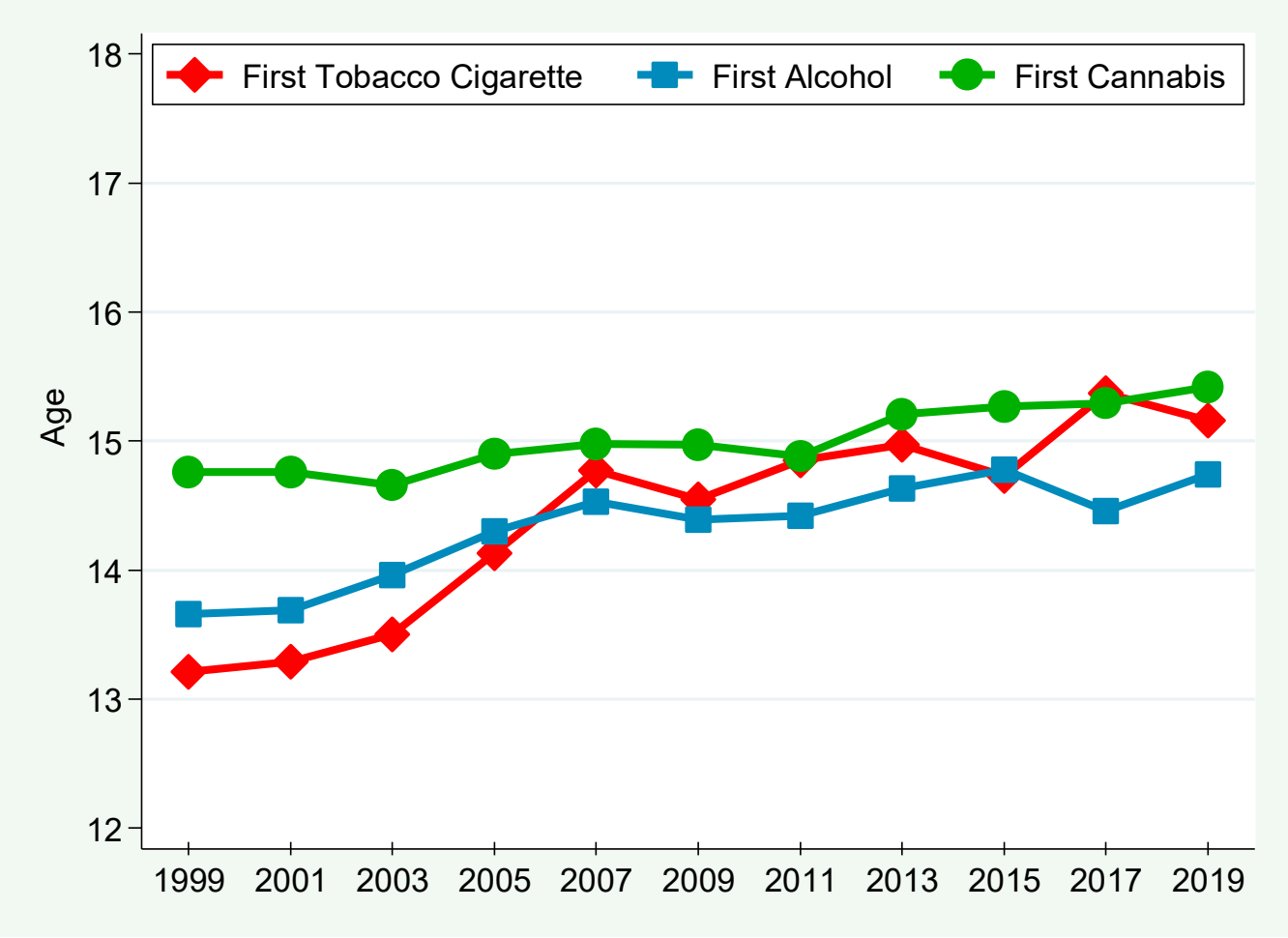
Long-Term Trends, 1981–2019

- Looking back over the past four decades, the average initiation age for cigarette smoking increased between 1981 and 1993, decreased slightly in the late 1990s, and has increased considerably since 1999/2001.

- The average initiation age for drinking was stable during the 1990s, followed by an increase since 1999/2001.

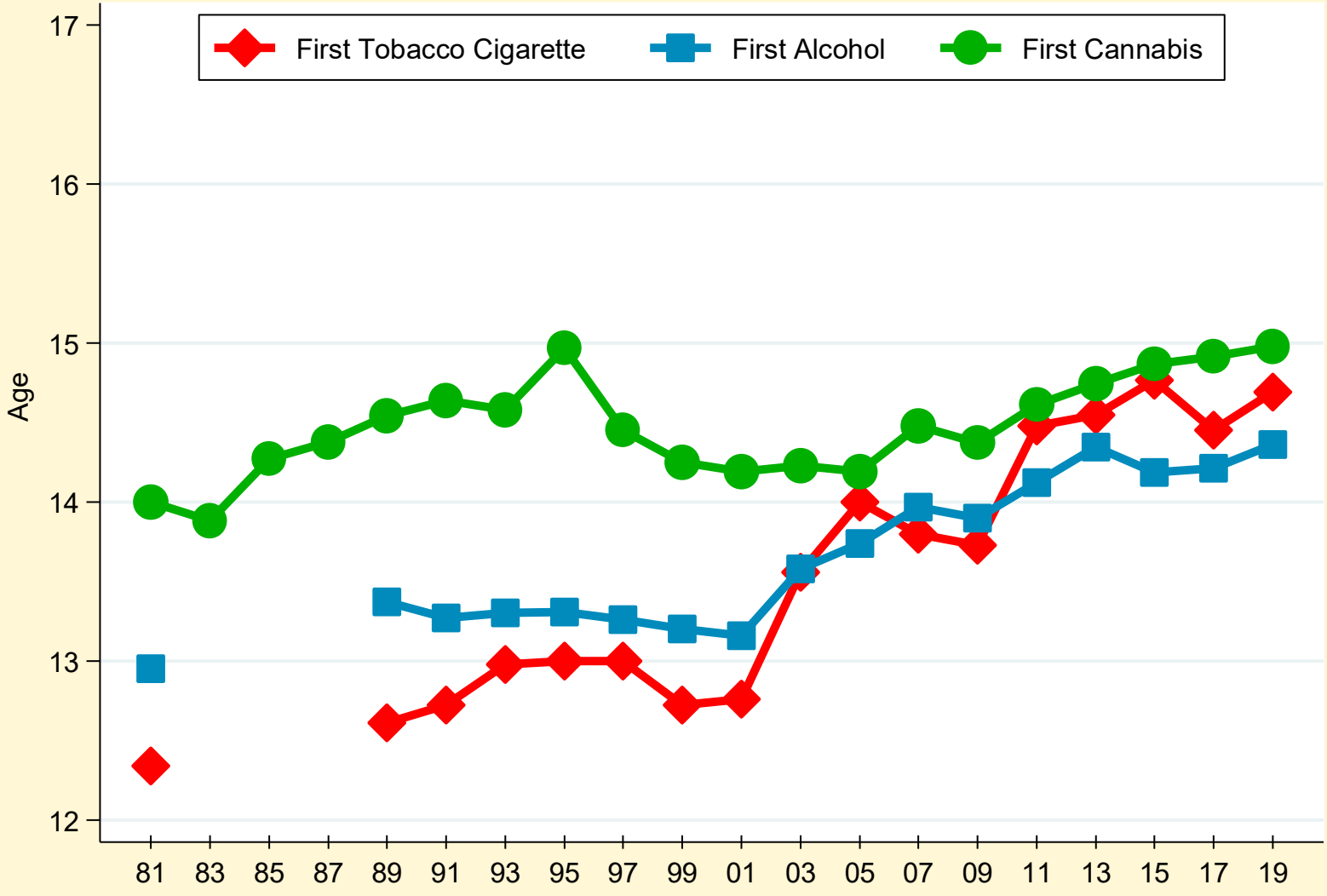
- The average initiation age for cannabis use increased between 1981 and 1995, decreased during the late 1990s/early 2000s, and increased slightly since then.

Figure 3.9.4
Average Age at First Tobacco Cigarette Among 12th-Grade Smokers, First Alcoholic Drink Among 12th-Grade Drinkers, and First Cannabis Use Among 12th-Grade Users, 1999–2019 OSDUHS



	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Cigarette	13.21	13.29	13.50	14.13	14.77	14.55	14.85	14.97	14.73	15.37	15.16
Alcohol	13.66	13.69	13.96	14.30	14.53	14.39	14.42	14.63	14.78	14.46	14.74
Cannabis	14.76	14.76	14.66	14.90	14.98	14.97	14.88	15.21	15.27	15.29	15.42

Figure 3.9.5
Average Age at First Tobacco Cigarette Among 11th-Grade Smokers, First Alcoholic Drink Among 11th-Grade Drinkers, and First Cannabis Use Among 11th-Grade Users, 1981–2019 OSDUHS



Note: age (grade) at first cigarette and first alcoholic drink not asked between 1983 and 1987

3.10 Consequences and Harms

Been a Passenger with a Driver Who Had Been Using Alcohol or Drugs

(Figures 3.10.1-3.10.4; Tables 3.10.1, 3.10.2)

All students in grades 7 to 12 were asked how often they rode in a vehicle driven by someone who had been drinking alcohol, and how often they rode with a driver who had been using drugs. Both questions refer to the past 12 months before the survey.

2019: Grades 7– 12

- One-in-seven (14.6%) students rode in a vehicle at least once in the past year with a driver who had been drinking. This represents roughly 131,300 students in Ontario. One-in-ten (10.3%) students rode with a driver who had been using drugs at least once in the past year. This estimate represents roughly 92,200 students in Ontario.

- Females (16.2%) are significantly more likely than males (13.1%) to ride with a driver who had been drinking alcohol. Males (9.9%) and females (10.6%) are equally likely to ride with a driver who had been using drugs.

- The likelihood of riding in a vehicle with a driver who had been drinking or using drugs significantly increases with grade level, reaching about 20% of 12th graders.

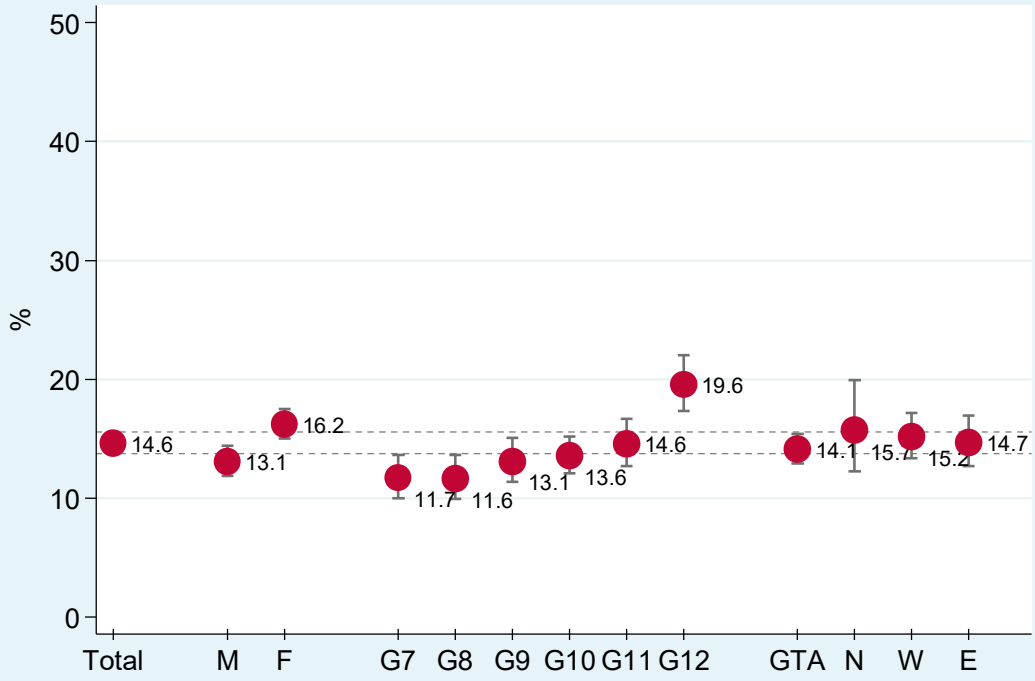
- There are no significant regional differences regarding the likelihood of riding with a driver who had been drinking alcohol. Students in the GTA (8.3%) are least likely to ride with a driver who had been using drugs compared with students in the other three regions (about 11%-14%).

2001–2019: Grades 7– 12

- The percentage of students who report riding with a driver who had been drinking alcohol in 2019 is similar to the percentages from 2017 (15.9%) and 2015 (15.3%). However, the current estimate is significantly lower than all estimates seen between 2001 and 2013.

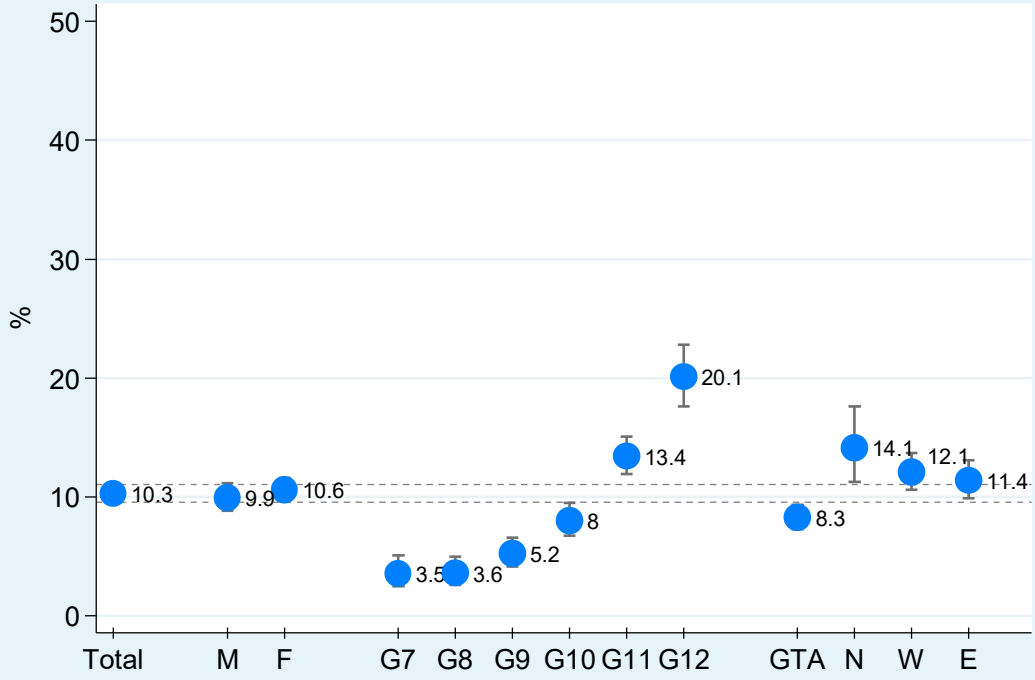
- The percentage of students who report riding in a vehicle with a driver who had been using drugs did not significantly change between 2017 (9.9%) and 2019 (10.3%). However, the current estimate is significantly lower than all the estimates seen between 2003 and 2015.

Figure 3.10.1
Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Drinking Alcohol (at Least Once in the Past Year) by Sex, Grade, and Region, 2019 OSDUHS



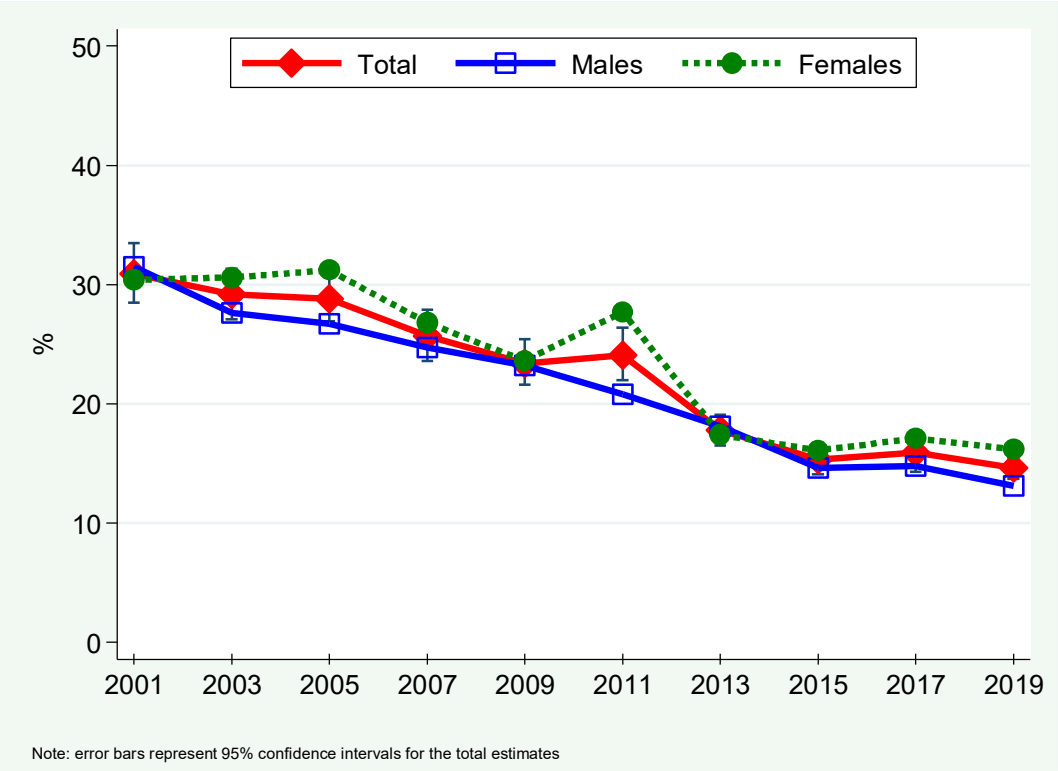
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex and grade (p<.05), no significant differences by region

Figure 3.10.2
Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Using Drugs (at Least Once in the Past Year) by Sex, Grade, and Region, 2019 OSDUHS



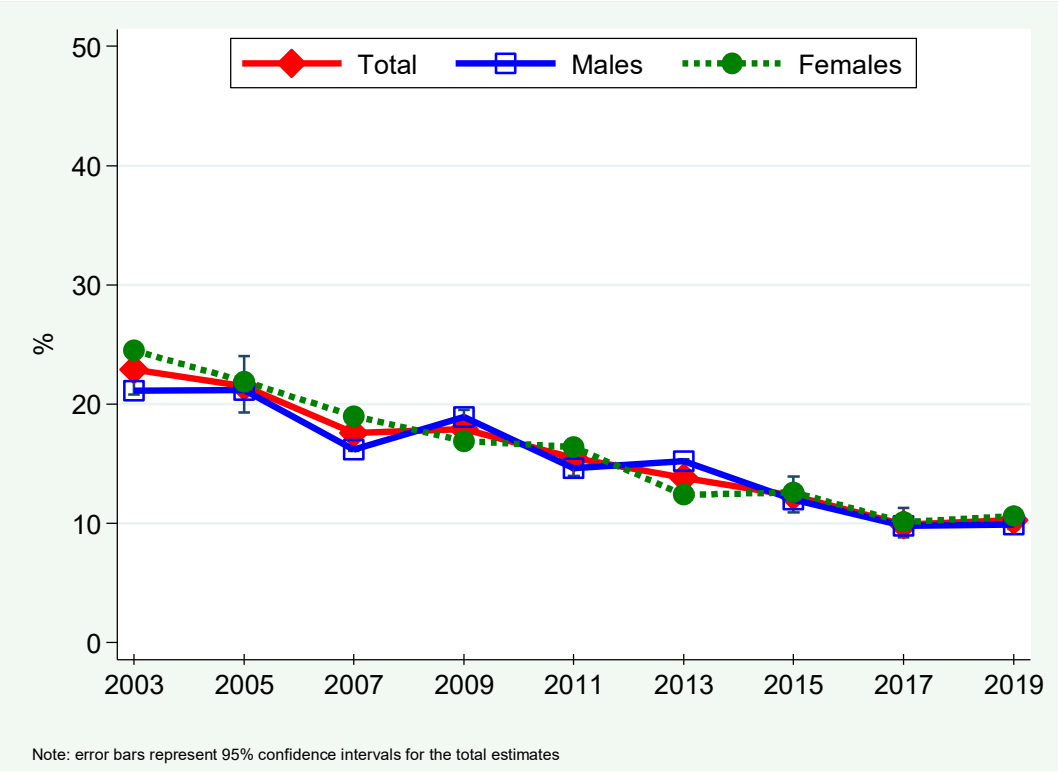
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.10.3
Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Drinking Alcohol by Sex, 2001–2019 OSDUHS



Note: error bars represent 95% confidence intervals for the total estimates

Figure 3.10.4
Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Using Drugs by Sex, 2003–2019 OSDUHS



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.10.1: Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Drinking Alcohol, 2001–2019 OSDUHS

	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(1837)	(3152)	(3648)	(2935)	(4261)	(9288)	(10272)	(10426)	(11435)	(14142)
Total	**30.9**	**29.2**	**28.8**	**25.7**	**23.4**	**24.1**	**17.8**	**15.3**	**15.9**	**14.6** [bcd]
(95% CI)	(28.5-33.5)	(27.1-31.3)	(26.9-30.8)	(23.6-27.9)	(21.6-25.4)	(22.0-26.4)	(16.5-19.1)	(14.1-16.7)	(14.3-17.7)	(13.7-15.5)
Sex										
Males	**31.5**	**27.6**	**26.7**	**24.7**	**23.2**	**20.8**	**18.1**	**14.6**	**14.8**	**13.1** [b]
	(28.2-34.9)	(25.0-30.5)	(24.3-29.2)	(22.2-27.5)	(20.5-26.2)	(18.7-23.2)	(16.3-20.0)	(13.1-16.3)	(12.8-17.0)	(11.8-14.4)
Females	**30.4**	**30.6**	**31.2**	**26.8**	**23.6**	**27.7**	**17.4**	**16.1**	**17.1**	**16.2** [b]
	(26.7-34.3)	(27.7-33.6)	(28.5-33.9)	(23.9-29.9)	(21.1-26.3)	(23.6-32.2)	(15.8-19.2)	(14.3-18.0)	(15.1-19.3)	(15.0-17.5)
Grade										
7	**17.5**	**21.2**	**17.7**	**14.0**	**10.0**	**10.7**	**10.4**	**10.2**	**10.9**	**11.7** [b]
	(12.9-23.4)	(16.6-26.8)	(14.1-22.0)	(10.8-18.0)	(6.6-14.8)	(8.7-13.2)	(8.3-12.8)	(7.4-13.9)	(9.2-13.0)	(10.0-13.6)
8	**23.2**	**25.2**	**19.9**	**17.3**	**14.8**	**18.6**	**10.7**	**10.2**	**11.5**	**11.6** [b]
	(16.5-31.5)	(21.1-29.8)	(16.7-23.5)	(13.9-21.4)	(11.4-19.2)	(14.5-23.4)	(8.4-13.6)	(8.2-12.6)	(9.9-13.2)	(9.9-13.6)
9	**31.5**	**24.0**	**27.3**	**22.0**	**23.3**	**23.8**	**16.3**	**14.2**	**14.3**	**13.1** [b]
	(25.1-38.6)	(20.1-28.4)	(23.2-31.9)	(18.4-26.0)	(18.9-28.3)	(20.3-27.8)	(13.5-19.5)	(11.7-17.1)	(10.9-18.4)	(11.4-15.0)
10	**36.0**	**30.2**	**28.9**	**24.9**	**23.0**	**24.7**	**19.9**	**15.7**	**15.5**	**13.6** [b]
	(30.8-41.7)	(25.5-35.4)	(24.5-33.7)	(21.2-29.0)	(19.4-27.0)	(21.8-27.9)	(17.0-23.2)	(13.5-18.3)	(13.0-18.4)	(12.1-15.2)
11	**40.0**	**38.3**	**36.5**	**33.1**	**26.5**	**26.8**	**20.6**	**17.8**	**18.8**	**14.6** [b]
	(33.4-46.9)	(33.9-42.8)	(31.9-41.2)	(29.0-37.4)	(22.0-31.6)	(21.6-32.6)	(18.1-23.4)	(15.3-20.6)	(16.0-22.0)	(12.7-16.7)
12	**36.2**	**34.1**	**39.4**	**37.4**	**34.1**	**32.7**	**22.6**	**19.9**	**20.8**	**19.6** [b]
	(28.9-44.1)	(30.1-38.2)	(34.8-44.3)	(31.8-43.4)	(28.0-40.8)	(29.4-36.3)	(19.9-25.5)	(16.8-23.4)	(16.3-26.2)	(17.3-22.0)
Region										
GTA	**28.4**	**27.7**	**24.6**	**23.5**	**22.0**	**21.2**	**18.1**	**15.3**	**14.7**	**14.1** [b]
	(23.9-33.3)	(24.4-31.1)	(22.6-26.7)	(19.8-27.7)	(19.0-25.3)	(19.6-22.8)	(16.2-20.2)	(13.4-17.3)	(12.3-17.5)	(12.9-15.4)
North	**34.7**	**29.8**	**31.7**	**27.2**	**27.3**	**24.6**	**15.9**	**14.8**	**12.8**	**15.7** [b]
	(30.9-38.8)	(26.0-33.8)	(26.7-37.2)	(22.8-32.1)	(21.7-33.6)	(22.8-26.5)	(13.1-19.2)	(11.2-19.3)	(10.7-15.2)	(12.3-19.9)
West	**33.7**	**34.9**	**33.1**	**30.0**	**24.8**	**28.1**	**18.2**	**16.0**	**16.2**	**15.2** [b]
	(29.3-38.4)	(31.5-38.5)	(28.6-38.0)	(26.6-33.7)	(21.2-28.8)	(23.0-33.9)	(15.6-21.1)	(13.2-18.6)	(13.7-19.0)	(13.4-17.2)
East	**30.8**	**24.7**	**32.1**	**24.2**	**23.0**	**25.1**	**16.6**	**14.8**	**19.1**	**14.7** [b]
	(26.5-35.4)	(20.3-29.7)	(27.7-36.9)	(20.6-28.1)	(20.4-25.7)	(21.7-28.9)	(14.9-18.6)	(11.9-18.2)	(14.3-25.1)	(12.7-16.9)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in each year between 2001 and 2009; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017: [b] 2019 vs. 2001 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months how, often did you ride in vehicle driven by someone who had been drinking alcohol?

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.10.2: Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Using Drugs, 2003–2019 OSDUHS

	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n=)	(3464)	(4078)	(3388)	(4851)	(9288)	(10272)	(10426)	(11435)	(14142)	
Total (95% CI)	**22.9** (20.8-25.0)	**21.5** (19.3-24.0)	**17.6** (16.1-19.2)	**17.9** (16.4-19.5)	**15.5** (14.0-17.0)	**13.8** (12.4-15.4)	**12.3** (10.9-13.9)	**9.9** (8.8-11.2)	**10.3** (9.5-11.0)	[bc]
Sex										
Males	**21.1** (18.3-24.1)	**21.2** (18.3-24.5)	**16.2** (14.2-18.2)	**18.9** (16.4-21.6)	**14.6** (12.9-16.5)	**15.2** (13.0-17.7)	**12.0** (10.5-13.8)	**9.8** (8.3-11.5)	**9.9** (8.8-11.1)	[b]
Females	**24.5** (21.8-27.3)	**21.9** (19.3-24.7)	**19.0** (16.8-21.4)	**16.9** (14.9-19.1)	**16.4** (14.1-19.0)	**12.4** (11.0-14.0)	**12.6** (10.4-15.2)	**10.1** (8.8-11.6)	**10.6** (9.7-11.6)	[b]
Grade										
7	**9.4** (6.1-14.1)	**6.1** (3.6-10.0)	**2.8** (1.6-4.9)	**1.5** (0.9-2.5)	**2.2** (1.2-3.7)	**1.7** (1.0-2.8)	**3.8** (2.0-6.9)	**2.7** (1.9-4.0)	**3.5** (2.5-5.1)	[b]
8	**11.1** (8.0-15.3)	**9.2** (6.3-13.2)	**5.6** (3.5-9.1)	**5.1** (3.5-7.5)	**4.4** (3.2-6.1)	**5.5** (3.7-8.1)	**3.6** (2.4-5.6)	**2.6** (1.7-4.1)	**3.6** (2.6-5.0)	[b]
9	**17.4** (14.0-21.3)	**15.2** (11.8-19.2)	**13.9** (10.6-18.1)	**10.0** (7.9-12.7)	**9.0** (6.3-12.6)	**7.0** (5.2-9.4)	**5.6** (4.3-7.2)	**4.4** (3.1-6.1)	**5.2** (4.1-6.6)	[b]
10	**23.3** (19.0-28.3)	**23.6** (20.0-27.7)	**17.9** (14.8-21.6)	**16.7** (13.6-20.4)	**14.8** (11.7-18.5)	**13.2** (11.0-15.8)	**10.9** (8.8-13.4)	**7.9** (6.1-10.1)	**8.0** (6.8-9.5)	[b]
11	**33.8** (28.7-39.3)	**34.7** (31.2-38.3)	**25.0** (21.6-28.7)	**25.9** (20.2-32.6)	**21.4** (18.8-24.2)	**18.2** (15.5-21.2)	**18.3** (15.3-21.8)	**12.1** (9.3-15.6)	**13.4** (11.9-15.1)	[b]
12	**37.0** (31.4-43.0)	**38.0** (33.7-42.5)	**34.0** (29.3-39.1)	**37.1** (23.8-41.6)	**30.4** (26.4-34.7)	**26.3** (22.9-29.9)	**23.3** (18.7-28.5)	**22.4** (18.6-26.6)	**20.1** (17.6-22.8)	[b]
Region										
GTA	**21.8** (19.4-24.4)	**19.3** (16.5-22.6)	**16.6** (14.0-19.5)	**15.5** (13.4-17.9)	**13.6** (10.8-17.0)	**11.8** (10.1-13.8)	**11.2** (9.4-13.1)	**9.5** (7.9-11.2)	**8.3** (7.3-9.3)	[b]
North	**27.0** (21.7-33.2)	**27.2** (23.6-31.3)	**22.3** (18.1-27.2)	**22.2** (16.8-28.8)	**20.6** (17.8-23.8)	**15.6** (12.9-18.7)	**14.7** (10.9-19.4)	**9.9** (8.0-12.2)	**14.1** (11.3-17.6)	[b]
West	**22.9** (18.6-27.9)	**26.8** (22.5-31.6)	**20.0** (16.7-23.6)	**19.8** (16.8-23.4)	**17.6** (14.3-21.4)	**14.3** (11.1-18.2)	**12.7** (9.6-16.5)	**11.7** (9.5-14.3)	**12.1** (10.6-13.7)	[b]
East	**23.4** (18.1-29.8)	**19.2** (13.8-26.1)	**16.0** (12.8-19.8)	**18.3** (14.9-22.2)	**15.5** (12.8-18.7)	**17.6** (15.2-20.4)	**14.0** (10.1-19.0)	**8.5** (5.8-12.2)	**11.4** (9.9-13.1)	[b]

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in each year between 2003 and 2009; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2003 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often did you ride in a vehicle driven by someone who had been using drugs (other than alcohol)?

Source: OSDUHS, Centre for Addiction & Mental Health

Driving a Motor Vehicle After Drinking Alcohol

(Figures 3.10.5, 3.10.6; Table 3.10.3)

2019: Drivers in Grades 10–12

- In 2019, 4.0% of drivers (with a G-Class licence) in grades 10 through 12 drove within an hour of consuming *two or more* alcoholic drinks at least once during the past 12 months. This estimate represents about 10,900 drivers in grades 10, 11, and 12.

- Male drivers (5.2%) are significantly more likely than female drivers (2.6%) to drink and drive.

- Drivers in 12th grade are most likely to drink and drive (6.0%).

- There are no significant regional differences.

1999–2019: Drivers in Grades 10–12

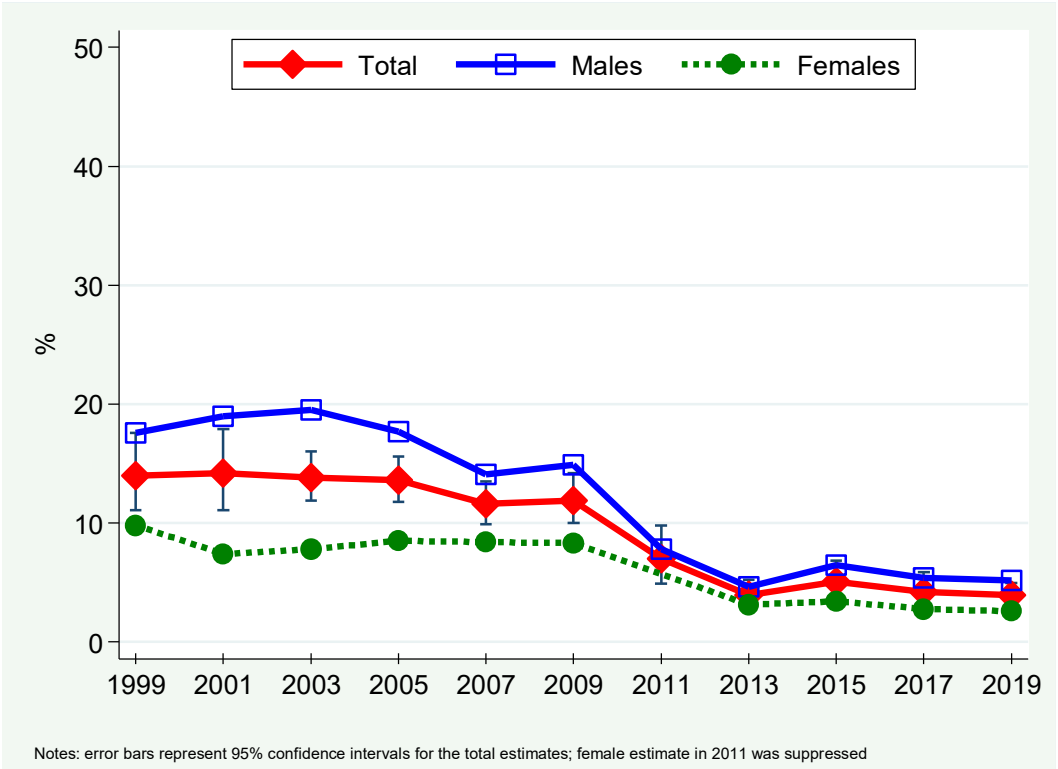
- Drinking and driving among adolescent drivers has been stable since 2013, at about 4%-7%. However, the current estimate is significantly lower than estimates seen in 1999 and the early 2000s, when the prevalence was about 12%-14%.

- Estimates among the subgroups have been stable over the past few cycles. However, all subgroups do show a significant decrease since 1999.

1977–2019: Drivers in Grade 11 only

- Figure 3.10.6 shows trends in drinking and driving among grade 11 licensed drivers. Drinking and driving has significantly declined over the long-term among 11th graders, especially since the late 1970s when monitoring first began.

Figure 3.10.5
Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year by Sex, 1999–2019 OSDUHS



Notes: error bars represent 95% confidence intervals for the total estimates; female estimate in 2011 was suppressed

Figure 3.10.6
Percentage of 11th-Grade Drivers Reporting Drinking and Driving in the Past Year, 1977–2019 OSDUHS

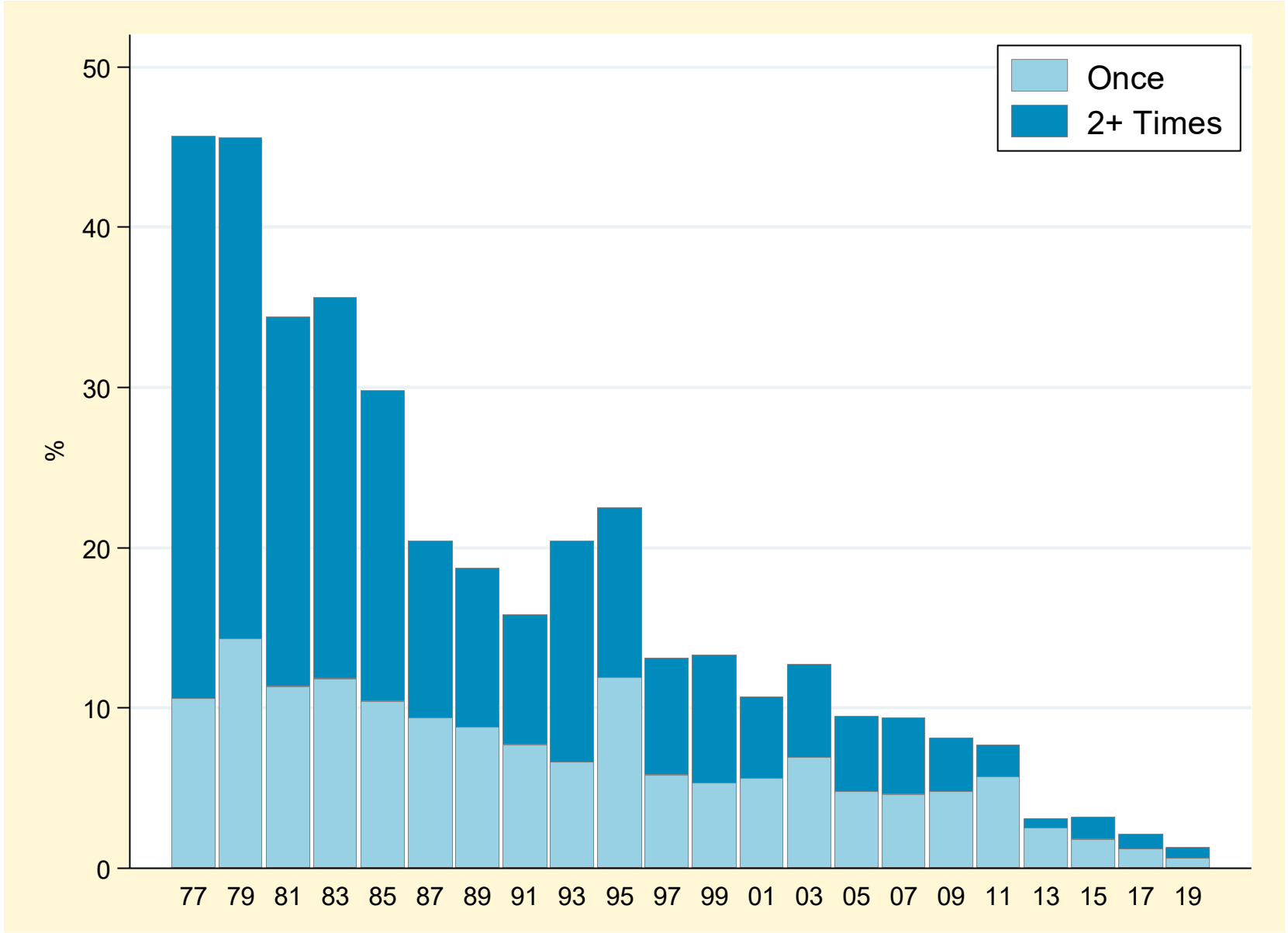


Table 3.10.3: Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n=)	(1009)	(847)	(1973)	(2280)	(1897)	(2219)	(2486)	(2433)	(2443)	(2698)	(3693)
Total (95% CI)	**14.0** (11.1-17.6)	**14.2** (11.1-17.9)	**13.8** (11.9-16.0)	**13.6** (11.8-15.6)	**11.6** (9.9-13.5)	**11.9** (10.0-14.2)	**7.0** (4.9-9.8)	**4.0** (3.0-5.2)	**5.1** (3.7-6.8)	**4.2** (3.0-5.8)	**4.0** (3.1-5.0) [bcd]
Sex											
Males	**17.6** (14.0-21.8)	**19.0** (14.2-25.1)	**19.5** (16.5-22.9)	**17.7** (15.0-20.7)	**14.1** (11.5-17.2)	**14.9** (12.3-18.0)	**7.8** (5.8-10.6)	**4.6** (3.2-6.7)	**6.4** (4.6-8.9)	**5.4** (3.4-8.4)	**5.2** (3.8-7.0) [b]
Females	**9.8** (6.4-14.7)	**7.4** (4.6-11.8)	**7.8** (6.0-10.0)	**8.5** (6.7-10.7)	**8.4** (6.5-10.9)	**8.3** (6.3-10.7)	†	**3.1** (2.1-4.6)	**3.4** (2.2-5.2)	**2.8** (1.6-4.6)	**2.6** (1.7-3.9) [b]
Grade											
10	**8.1** (4.0-15.5)	**9.8** (4.4-20.6)	**9.8** (6.1-15.4)	**7.6** (4.2-13.3)	**9.0** (5.0-15.8)	**3.8** (1.7-8.2)	†	†	†	†	† [b]
11	**13.4** (9.1-19.4)	**10.7** (8.0-14.2)	**12.7** (10.3-15.6)	**9.5** (7.3-12.4)	**9.3** (6.9-12.6)	**8.1** (5.4-12.0)	**7.8** (2.9-19.4)	**3.1** (1.7-5.6)	**3.2** (2.1-5.0)	**2.1** (1.4-3.3)	**1.3** (0.8-2.2) [b]
12	**16.3** (11.4-22.8)	**20.9** (15.4-27.7)	**16.2** (13.1-19.8)	**17.4** (14.7-20.6)	**13.4** (11.2-15.9)	**15.1** (12.3-18.5)	**7.0** (5.0-9.8)	**4.9** (3.4-7.1)	**6.2** (4.0-9.6)	**5.6** (3.5-9.0)	**6.0** (4.7-7.7) [b]
Region											
GTA	**13.5** (9.5-18.9)	**11.7** (8.2-16.5)	**12.5** (10.2-15.2)	**10.8** (8.8-13.3)	**9.5** (6.7-13.3)	**9.3** (6.5-13.2)	**4.4** (3.3-5.9)	**2.7** (1.7-4.1)	**4.8** (3.5-6.6)	**4.7** (2.8-7.7)	**2.7** (1.8-3.9) [b]
North	**26.0** (17.3-37.1)	**12.5** (9.0-17.0)	**16.8** (12.0-23.0)	**16.8** (12.9-21.5)	**12.7** (8.4-18.8)	**12.5** (8.9-17.2)	**9.8** (5.8-16.1)	†	†	†	† [b]
West	**12.8** (8.1-19.6)	**20.5** (13.6-29.8)	**14.4** (9.7-20.9)	**18.6** (14.9-22.9)	**13.6** (10.8-16.9)	**10.4** (6.8-15.8)	†	**5.3** (3.2-8.6)	**6.3** (4.4-9.0)	**4.2** (2.6-6.8)	**4.8** (3.0-7.5) [b]
East	**9.2** (4.2-18.8)	**9.3** (5.2-16.2)	**14.8** (11.5-18.8)	**12.4** (8.6-17.6)	**12.4** (9.8-15.4)	**17.6** (14.0-21.8)	**9.0** (5.6-14.1)	**4.3** (2.7-6.8)	†	†	**5.4** (3.9-7.3) [b]

Notes: (1) based on grades 10-12 with a driver's licence; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often have you driven a vehicle within an hour of drinking 2 or more drinks of alcohol?
Source: OSDUHS, Centre for Addiction & Mental Health

Driving a Motor Vehicle After Using Cannabis

(Figures 3.10.8, 3.10.9; Table 3.10.4)

Starting in 2001, the OSDUHS asked secondary students how often, if at all, they had driven a vehicle within an hour of using cannabis during the past 12 months. Here we present the percentage of students in grades 10 to 12 with a licence who report doing so at least once in the past 12 months.

2019: Drivers in Grades 10–12

- In 2019, 6.8% of students in grades 10–12 with a driver's licence report driving after using cannabis at least once in the past 12 months. This estimate represents about 18,900 adolescent drivers in Ontario.

- Male drivers (8.6%) are significantly more likely than female drivers (4.9%) to drive after using cannabis.

- Twelfth graders (9.6%) are most likely to drive after using cannabis.

- GTA students (3.9%) are least likely to drive after using cannabis compared with students in the other three regions (8%-10%).

2001–2019: Drivers in Grades 10–12

☐ Self-reported driving after using cannabis remained stable between 2017 (8.8%) and 2019 (6.8%). However, there has been a significant decrease since monitoring first began in 2001 (about 20%). The current estimate is significantly lower than all previous estimates except for 2017.

☐ All subgroups show stable estimates between 2017 and 2019. However, all show a significant decrease since 2001 or 2003.

Opinions About the Safety of Driving Under the Influence of Cannabis Versus Alcohol

(Figure 3.10.7)

For the first time in 2019, secondary students were asked the question "*How much do you agree or disagree with the following statement: It is safer to drive under the influence of cannabis than under the influence of alcohol*." Response options were *strongly agree, somewhat agree, somewhat disagree, strongly disagree*, or *not sure*. Here we present the combined percentages showing those who agree, disagree, or are unsure about the statement.

2019: Grades 9–12

- One-quarter (24.8%) of secondary students believe that it is safer to drive under the influence of cannabis than under the influence of alcohol, 42.3% of students disagree with the statement, and 32.8% are unsure.

Figure 3.10.7
Percentage Agreeing/Disagreeing with the Statement: "It is safer to drive under the influence of cannabis than under the influence of alcohol." 2019 OSDUHS (Grades 9-12)

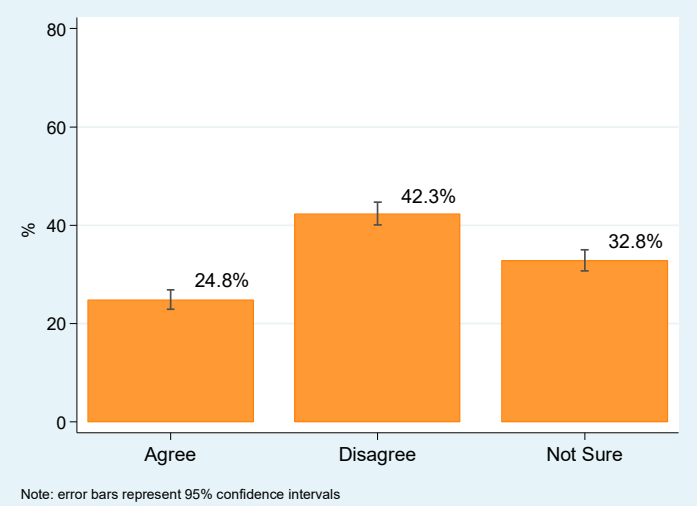
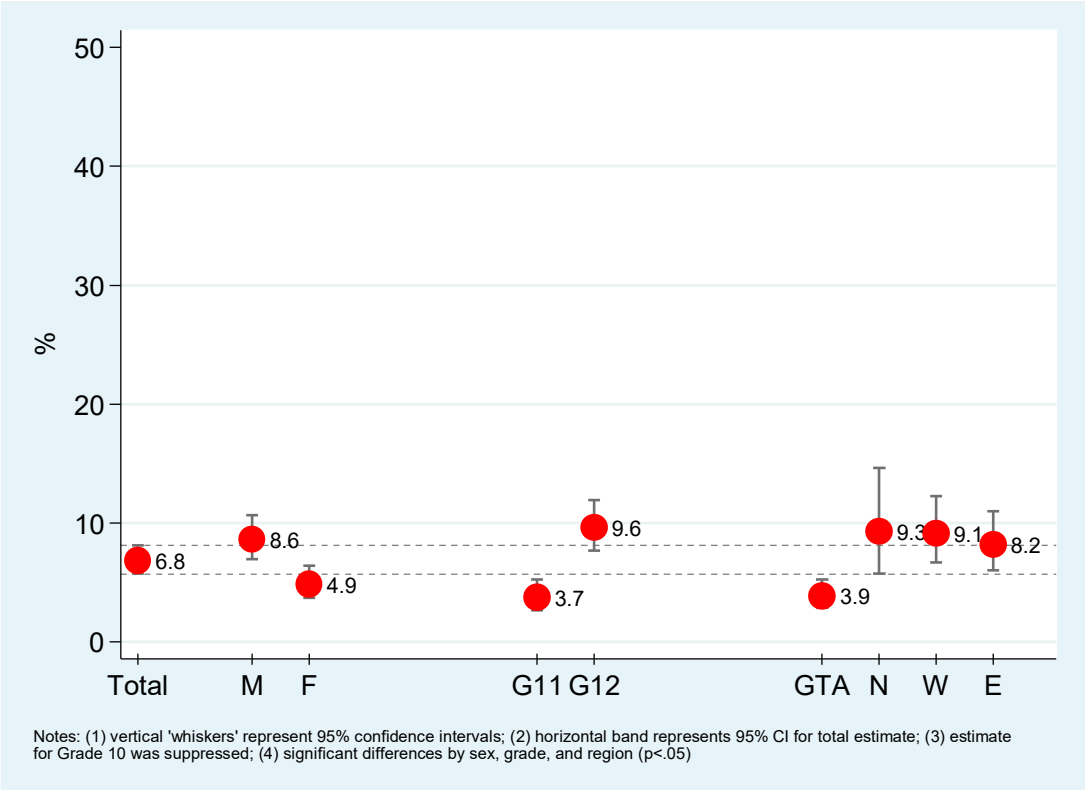
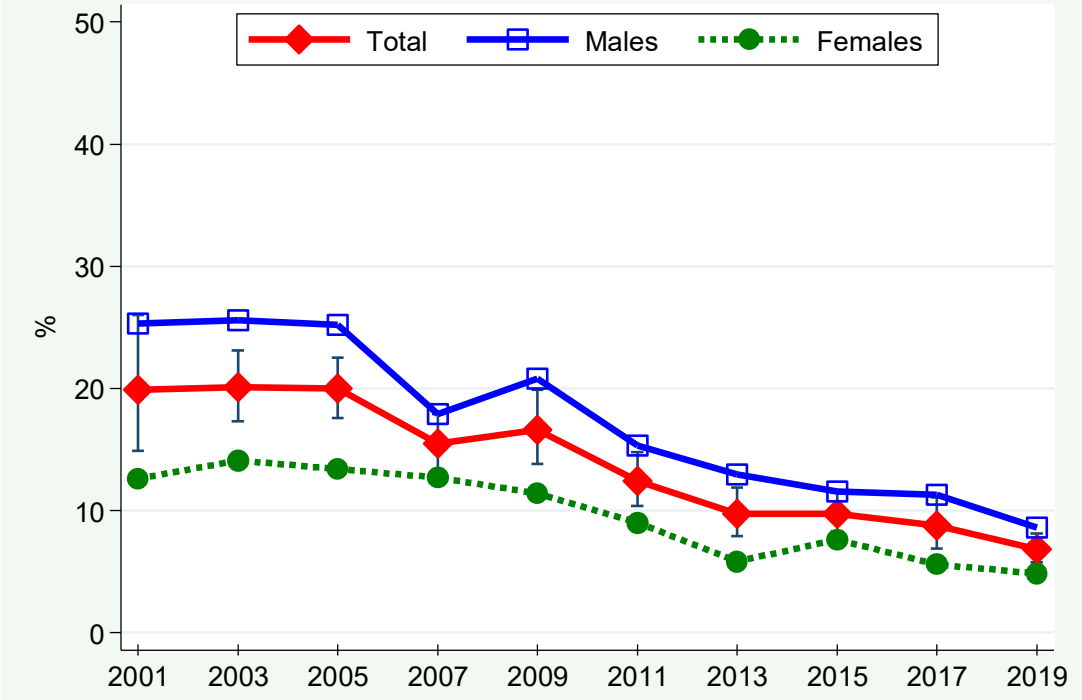


Figure 3.10.8
Percentage of Drivers in Grades 10–12 Reporting Driving After Using Cannabis at Least Once in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 10 was suppressed; (4) significant differences by sex, grade, and region (p<.05)

Figure 3.10.9
Percentage of Drivers in Grades 10–12 Reporting Driving After Using Cannabis at Least Once in the Past Year by Sex, 2001–2019 OSDUHS



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.10.4: Percentage of Drivers in Grades 10–12 Reporting Driving After Using Cannabis at Least Once in the Past Year, 2001–2019 OSDUHS

	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n=)	(400)	(1973)	(2280)	(1897)	(2219)	(2468)	(2433)	(2443)	(2698)	(3693)	
Total	**19.9**	**20.1**	**20.0**	**15.5**	**16.6**	**12.4**	**9.7**	**9.8**	**8.8**	**6.8**	[bc]
(95% CI)	(14.9-26.0)	(17.3-23.1)	(17.6-22.5)	(13.4-17.9)	(13.8-19.9)	(10.4-14.8)	(7.9-11.9)	(8.3-11.4)	(6.9-11.1)	(5.7-8.1)	
Sex											
Males	**25.3**	**25.6**	**25.2**	**17.9**	**20.8**	**15.3**	**13.0**	**11.6**	**11.3**	**8.6**	[b]
	(17.3-35.5)	(21.4-30.2)	(22.1-28.7)	(15.0-21.2)	(16.9-25.4)	(12.2-19.0)	(10.2-16.3)	(9.4-14.1)	(8.8-14.4)	(6.9-10.6)	
Females	**12.6**	**14.1**	**13.4**	**12.7**	**11.4**	**9.0**	**5.8**	**7.6**	**5.6**	**4.9**	[b]
	(8.5-18.4)	(11.3-17.6)	(10.8-16.4)	(9.8-16.4)	(8.9-14.6)	(6.9-11.7)	(4.3-7.8)	(5.5-10.5)	(3.9-8.0)	(3.7-6.4)	
Grade											
10	**18.9**	**15.9**	**15.1**	†	**7.8**	†	†	**6.0**	†	†	[b]
	(9.6-33.8)	(11.3-21.9)	(9.7-22.6)		(4.1-14.4)			(3.4-10.2)			
11	**18.9**	**18.0**	**15.4**	**12.8**	**10.8**	**12.3**	**8.0**	**8.6**	**6.5**	**3.7**	[b]
	(12.7-27.3)	(14.4-22.3)	(12.3-19.1)	(10.0-16.3)	(8.1-14.3)	(8.9-16.7)	(5.7-11.3)	(6.8-11.0)	(3.6-11.6)	(2.6-5.3)	
12	**21.6**	**23.3**	**23.9**	**18.9**	**21.1**	**13.0**	**11.6**	**10.9**	**10.6**	**9.6**	[b]
	(14.1-31.6)	(18.9-28.3)	(20.5-27.6)	(16.2-21.8)	(17.0-25.7)	(9.9-16.8)	(8.5-15.7)	(8.7-13.7)	(8.1-13.8)	(7.7-12.0)	
Region											
GTA	**20.8**	**17.5**	**17.5**	**13.5**	**13.8**	**10.8**	**8.0**	**8.7**	**8.7**	**3.9**	[ab]
	(14.9-28.4)	(14.4-21.0)	(10.8-23.1)	(10.3-17.6)	(10.8-17.5)	(7.9-14.8)	(6.2-10.1)	(6.4-11.6)	(5.6-13.3)	(2.9-5.2)	
North	**17.5**	**24.7**	**21.6**	**19.0**	**21.1**	**20.2**	**7.2**	**15.8**	**8.2**	**9.3**	
	(10.9-27.1)	(16.3-35.6)	(17.0-27.0)	(12.5-27.7)	(13.9-30.6)	(15.5-25.9)	(3.9-12.8)	(10.8-22.7)	(4.6-14.5)	(9.3-14.6)	
West	**21.0**	**22.7**	**26.7**	**15.9**	**20.0**	**14.2**	**10.8**	**10.6**	**9.2**	**9.1**	[b]
	(12.2-33.7)	(17.1-29.5)	(22.2-31.8)	(12.3-20.4)	(14.2-27.4)	(10.1-19.7)	(6.7-16.8)	(8.2-13.6)	(6.9-12.2)	(6.7-12.3)	
East	†	**20.4**	**16.8**	**17.6**	**15.3**	**10.6**	**11.9**	**8.9**	**8.4**	**8.2**	
		(14.0-28.8)	(12.4-22.3)	(13.9-22.0)	(9.2-24.4)	(8.4-13.5)	(9.8-14.4)	(6.1-12.7)	(4.7-14.6)	(6.0-11.0)	

Notes: (1) based on grades 10-12 with a driver's licence; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) question asked of a random half sample in 2001; (6) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2001 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often have you driven a vehicle within an hour of using cannabis (marijuana or hashish)?

Source: OSDUHS, Centre for Addiction & Mental Health

Drug Use Problem (CRAFFT Screener) Among Grades 9–12

(Figures 3.10.10, 3.10.11; Tables 3.10.5, 3.10.6)

Starting in 2003, the OSDUHS included the six-item "CRAFFT" screener in order to gauge drug use problems experienced by students (Knight et al., 1999). The six items (shown in Table 3.10.5) pertain to problems stemming from any drug use other than alcohol, including prescription drugs, experienced during the past 12 months. A total score of two or more problems is used as a criterion to identify adolescents with a potential drug use problem – that is, those who may be in need of further assessment or treatment.

2019: Grades 9–12

- About one-in-seven (15.4%) secondary students report at least two of the six CRAFFT symptoms, and, therefore, meet the criterion for a drug use problem. This percentage represents about 115,000 Ontario students in grades 9–12.

- Males are significantly more likely than females to meet the criterion for a drug use problem (17.0% vs. 13.7%, respectively).

- There is a significant increase in the likelihood of indicating a drug use problem as grade level increases, from a low of 6.3% of 9th graders to 21.9% of 12th graders.

- GTA students (11.0%) are least likely to indicate a drug use problem, whereas students in the North region are most likely (22.2%). Students in the West and East fall in between.

2003–2019: Grades 9–12

- The percentage of secondary students who meet the CRAFFT criterion for a drug use problem has been stable since 2011 (about 14%-17%). However, there has been a decrease since monitoring first began, as the current estimate is significantly lower than those seen between 2003 and 2009 (about 20%-22%).

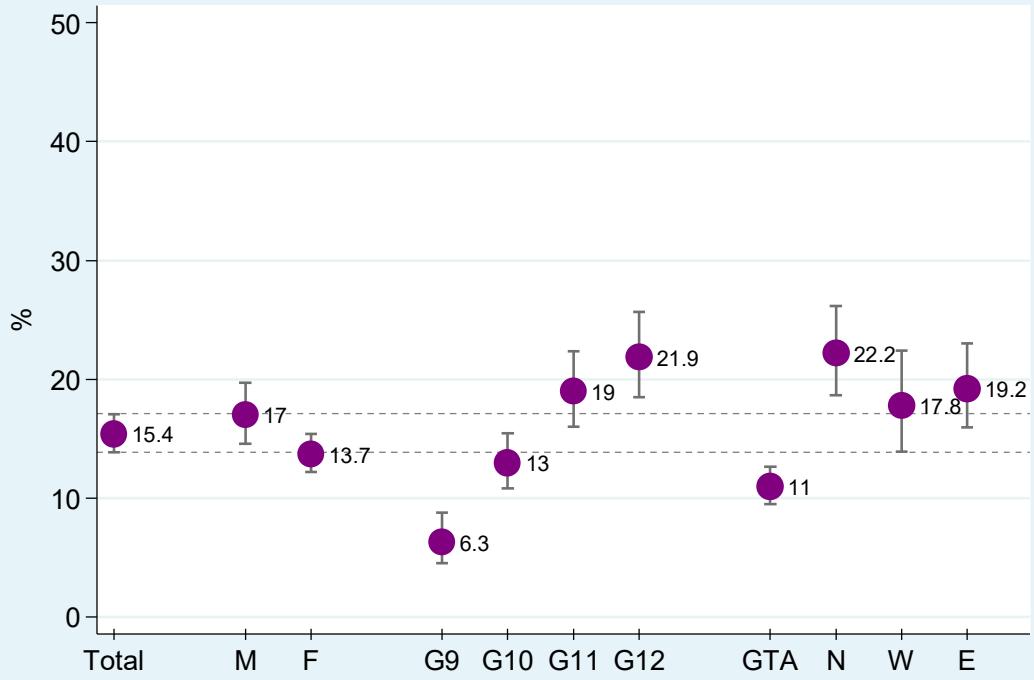
- Significant declines since 2003 are evident for males, females, grades 9, 10, and 11, and students in the GTA.

Table 3.10.5: Percentage Reporting Drug Use Problems Experienced in the Past Year, 2019 OSDUHS (Grades 9–12)

CRAFFT Item	% "yes" among the total sample
"In the last 12 months…."	
1. did you ride in a **c**ar or other vehicle driven by someone (or you) who had been using drugs?	9.4
2. did you use drugs to **r**elax, feel better about yourself, or fit in?	18.1
3. did you use drugs while you were by yourself (**a**lone)?	12.4
4. did you **f**orget things you did while using drugs?	9.0
5. did your **f**amily or friends tell you that you should cut down on your use of drugs?	5.0
6. did you get into **t**rouble while using drugs?	4.3
% CRAFFT 2+ Score (95% CI)	**15.4%** (13.8-17.1)

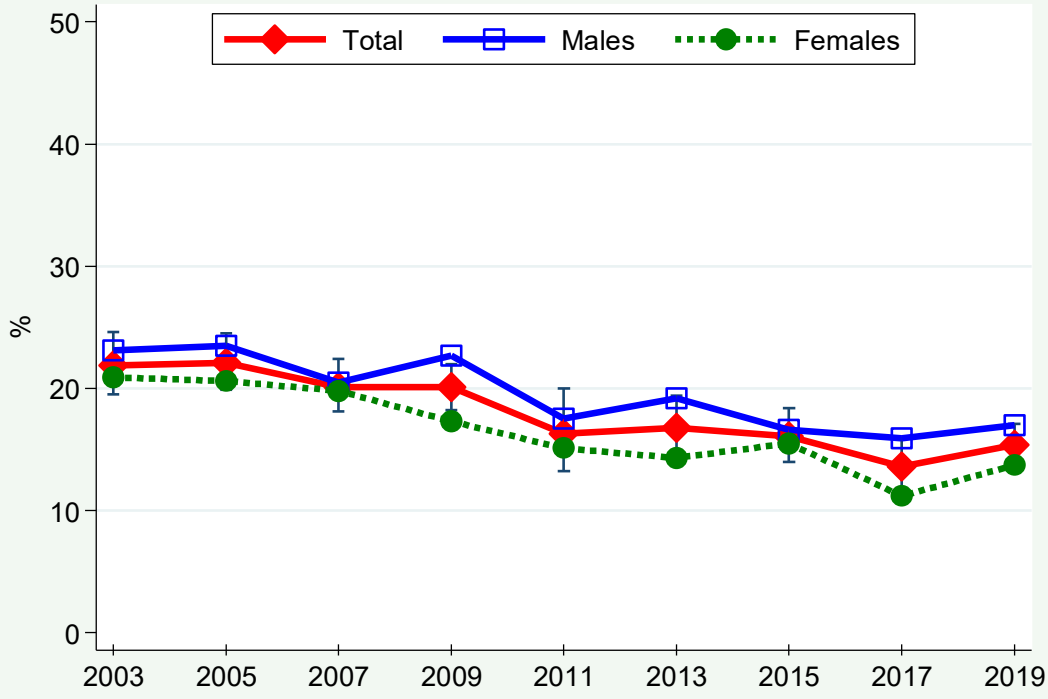
Notes: (1) those responding "yes" to two or more problems on the CRAFFT screener may have a drug use problem that requires treatment; (2) based on a random half sample (n=5,273).
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.10.10
Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, Grade, and Region, 2019 OSDUHS (Grades 9–12)



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex, grade, and region (p<.05)

Figure 3.10.11
Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, 2003–2019 OSDUHS (Grades 9–12)



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.10.6: Percentage Indicating a Drug Use Problem (CRAFFT 2+), 2003–2019 OSDUHS

	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n=)	(2455)	(3069)	(2587)	(3055)	(3358)	(3264)	(3426)	(4298)	(5273)	
Total	**21.9**	**22.1**	**20.1**	**20.1**	**16.3**	**16.8**	**16.1**	**13.6**	**15.4**	[bc]
(95% CI)	(19.5-24.6)	(19.9-24.5)	(18.1-22.4)	(18.2-22.0)	(13.2-20.0)	(14.5-19.4)	(14.0-18.4)	(11.6-16.0)	(13.8-17.1)	
Sex										
Males	**23.1**	**23.5**	**20.5**	**22.7**	**17.5**	**19.2**	**16.6**	**15.9**	**17.0**	[b]
	(19.5-27.2)	(20.6-26.8)	(17.7-23.6)	(19.9-25.8)	(14.0-21.6)	(15.8-23.1)	(14.0-19.6)	(13.3-18.9)	(14.6-19.7)	
Females	**20.9**	**20.6**	**19.8**	**17.3**	**15.1**	**14.3**	**15.5**	**11.2**	**13.7**	[b]
	(18.2-23.8)	(18.0-23.4)	(17.4-22.4)	(15.2-19.7)	(12.0-18.8)	(11.7-17.3)	(12.9-18.4)	(9.0-13.9)	(12.2-15.4)	
Grade										
9	**14.1**	**13.4**	**14.0**	**11.7**	**7.5**	**7.5**	**6.4**	**4.8**	**6.3**	[b]
	(11.4-17.2)	(10.4-17.1)	(10.3-18.8)	(8.8-15.5)	(4.8-11.5)	(5.0-11.2)	(4.6-9.0)	(3.1-7.4)	(4.5-8.8)	
10	**20.5**	**21.0**	**18.0**	**18.4**	**15.8**	**13.9**	**13.7**	**10.9**	**13.0**	[b]
	(16.1-25.8)	(17.6-24.8)	(14.8-21.7)	(14.8-22.8)	(12.2-20.3)	(10.2-18.7)	(10.5-17.6)	(8.4-14.0)	(10.8-15.5)	
11	**27.0**	**25.4**	**23.0**	**19.4**	**18.4**	**18.8**	**17.6**	**14.1**	**19.0**	[b]
	(22.2-32.4)	(21.5-29.6)	(19.2-27.2)	(15.1-24.7)	(15.4-21.8)	(16.1-22.0)	(13.5-22.6)	(9.1-21.3)	(16.0-22.4)	
12	**26.7**	**28.3**	**24.7**	**28.2**	**21.7**	**24.0**	**23.2**	**21.6**	**21.9**	
	(21.8-32.2)	(24.3-32.7)	(20.8-29.0)	(24.5-32.2)	(15.1-30.1)	(18.9-30.0)	(18.5-28.6)	(18.0-25.6)	(18.5-25.7)	
Region										
GTA	**20.9**	**19.2**	**18.3**	**18.8**	**17.1**	**15.6**	**15.6**	**12.5**	**11.0**	[b]
	(17.7-24.6)	(16.4-22.3)	(14.9-22.3)	(16.4-21.4)	(12.2-23.4)	(12.0-20.1)	(12.8-19.1)	(9.5-16.2)	(9.5-12.6)	
North	**26.3**	**26.1**	**26.0**	**28.0**	**23.0**	**17.1**	**20.0**	**17.0**	**22.2**	
	(20.4-33.1)	(21.4-31.5)	(20.0-33.0)	(22.2-34.6)	(17.7-29.3)	(13.5-21.4)	(15.9-24.9)	(12.0-23.4)	(18.6-26.2)	
West	**21.3**	**27.4**	**20.5**	**21.9**	**13.6**	**19.9**	**14.7**	**14.5**	**17.8**	
	(17.2-26.1)	(22.0-33.6)	(16.7-24.8)	(18.1-26.2)	(8.9-20.2)	(15.4-25.4)	(11.6-18.5)	(11.3-18.3)	(13.9-22.4)	
East	**23.0**	**21.6**	**21.7**	**18.3**	**17.3**	**14.8**	**17.7**	**14.9**	**19.2**	
	(16.8-30.6)	(18.0-25.7)	(18.2-25.6)	(14.6-22.7)	(13.3-21.1)	(11.0-19.4)	(12.2-25.0)	(12.1-18.2)	(15.9-23.0)	

Notes: (1) based on a random half sample of grades 9-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 2003 significant difference, p<.01; [c] significant linear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

Alcohol and Other Drug Treatment (Grades 9–12)

In addition to asking students about alcohol and drug use problems, we asked secondary students about their treatment experience. Specifically, the question was "*Were you in a treatment program at any time in the last 12 months because of your alcohol or drug use?"*

- In 2019, 0.7% (95% CI: 0.5%-0.9%) of secondary students report that they had received treatment for their alcohol and/or drug use (data not tabled). This estimate represents about 4,600 Ontario students in grades 9–12.

1999–2019: Grades 9–12

- ☐ The 2019 percentage of students who report receiving treatment is similar to estimates since 2011 (about 0.6%-1.0%). However, the current estimate is significantly lower than most estimates seen between 1999 and 2009 (about 2%).

Legal Warning or Arrest for Cannabis Use (Grades 9–12)

Starting in 2017, a random half sample of secondary students was asked about experiences with the law regarding their drug use. The question was "*Have you ever been arrested or warned by the police because of your use of cannabis or any other drug?*"

- In 2019, the percentage of secondary students who report having been arrested or warned by police for using cannabis is 1.4 (95% CI: 0.9%-2.2%). This estimate represents about 8,400 Ontario students in grades 9–12. The percentage of students who report having been arrested or warned for using drugs other than cannabis is suppressed due to a low value.

2019 vs. 2017: Grades 9–12

- ☐ The 2019 estimate (1.4%) is similar to the 2017 estimate of 1.3% (95% CI: 0.8%-2.3%).

3.11 Attitudes and Perceptions

Perceived Risk

(Figures 3.11.1–3.11.3; Tables 3.11.1, A19)

Research has shown that drug-related attitudes and beliefs strongly correlate with drug using behaviour (Bachman et al., 2014; Miech et al. 2019b). Because the OSDUHS is a cross-sectional study, we cannot attribute attitudes and beliefs as causal factors in the changing rates of drug use. We can, however, examine the extent to which beliefs and drug use co-vary over time. In this section, we present the percentage of students who believe there is a "great risk" that people will harm themselves physically or in other ways if they used various drugs. Note that the risk questions regarding cocaine and ecstasy (MDMA) use were asked of 9th to 12th graders only.

2019

- Students in grades 7 and 8 believe that the greatest risk of harm is associated with regular marijuana use, followed by using prescription opioid pain relievers nonmedically (NM), whereas the least risk is associated with regular electronic cigarette use. Students in grades 9–12 believe the greatest risk is associated with trying cocaine, followed by NM prescription opioid use, whereas the least risk is associated with trying marijuana.

- Perceptions of risk of harm associated with trying marijuana and regular use of marijuana significantly decrease with grade. Perceptions of risk of harm associated with daily tobacco cigarette smoking and NM prescription opioid use significantly increase with grade. No grade variation is evident for perceived risk of regular use of e-cigarettes, binge drinking, trying cocaine, or trying ecstasy.

1999–2019

- The perceived risk of harm associated with **trying marijuana** has remained stable since 2013, but is currently lower than estimates seen between 1999 and 2011.

- The perceived risk of harm associated with **regular marijuana use** remained stable between 2017 and 2019, but is currently lower than all prior estimates since 1999.

- The perceived risk of harm associated with **daily tobacco cigarette smoking** remained stable between 2017 and 2019. Although the perceived risk has fluctuated over the past decade or so, and the current estimate is similar to those seen in 2003, the first year of monitoring.

- The perceived risk of harm associated with **regular electronic cigarette use** is significantly higher in 2019 than 2017 and 2015, the first year of monitoring.

- The perceived risk associated with **binge drinking** on weekends has remained stable since 2011, but is currently lower than in 2007, the first year of monitoring.

- The perceived risk associated with using **prescription opioid pain relievers** nonmedically has remained relatively stable since 2013, the first year of monitoring.

- Among grades 9–12, the perceived risk associated with **trying cocaine** significantly increased between 2017 and 2019, returning to a level seen a few years ago. The current estimate remains higher than in 1999 and the early 2000s.

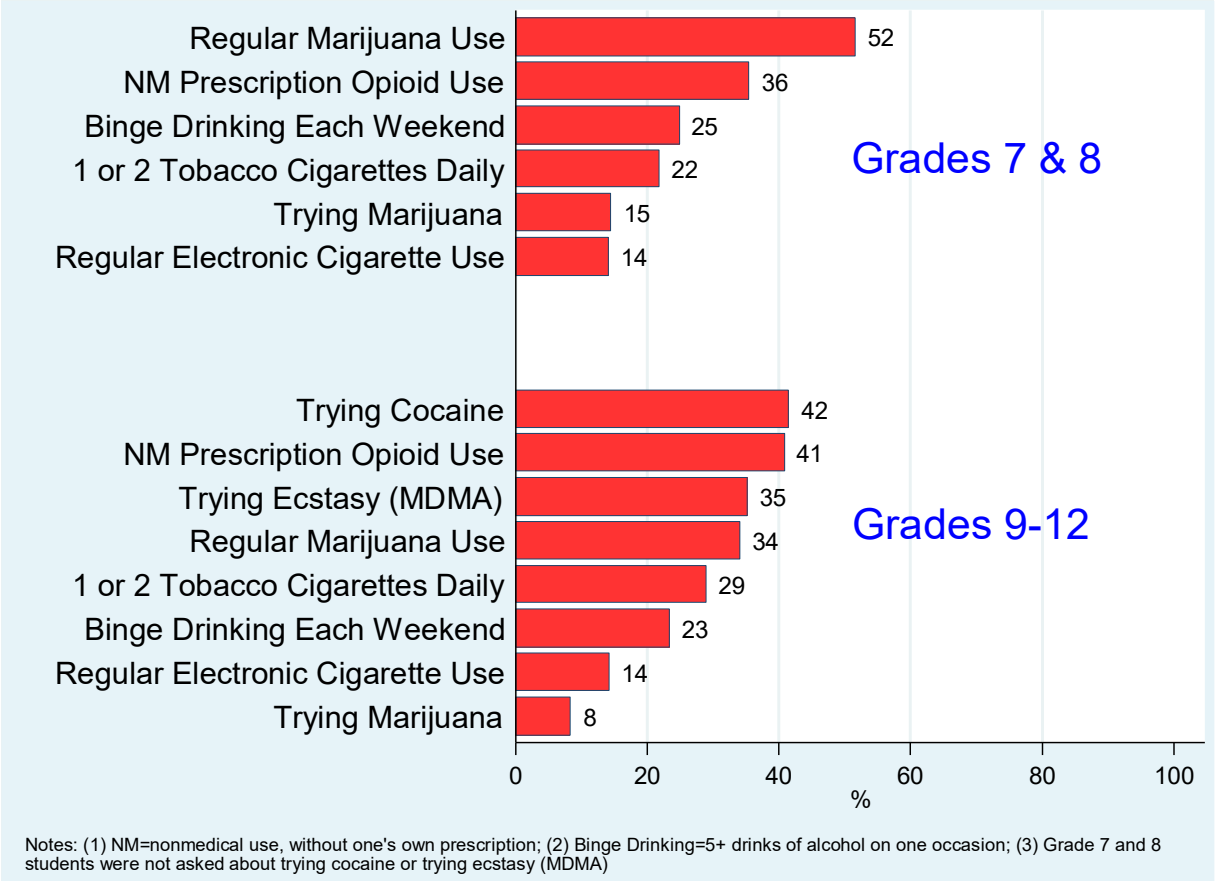
☐ Among grades 9–12, the perceived risk associated with **trying ecstasy** has remained stable since 2013, but is currently lower than estimates seen in the mid-to-late 2000s.

1989–2019

☐ Over the past 30 years, the perceived risk of harm associated with marijuana (trying and regular use) was highest in the late 1980s/early 1990s. Perceptions of risk remained stable during the late 1990s, increased slightly in the late 2000s, and decreased again during the past decade.

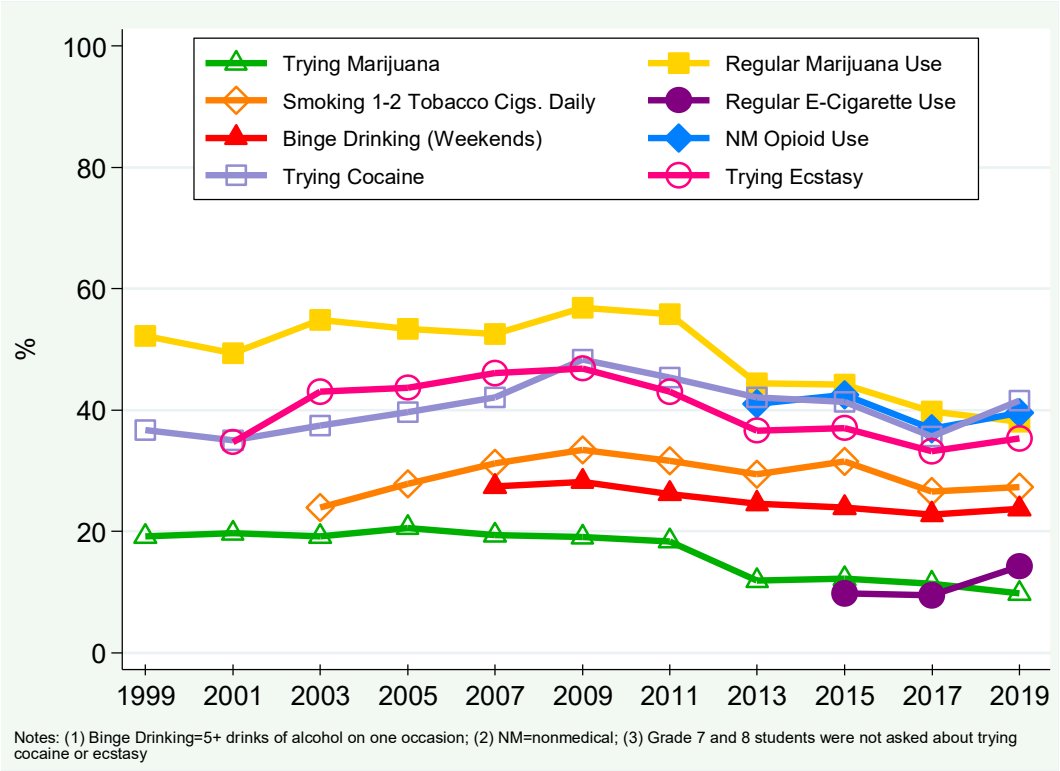
☐ The perceived risk of harm associated with trying cocaine decreased during the 1990s, gradually increased until 2009, followed by another decrease, and an increase in 2019.

Figure 3.11.1
Percentage Who Perceive "Great Risk" of Harm Associated with Drug Use by Grade Level, 2019 OSDUHS



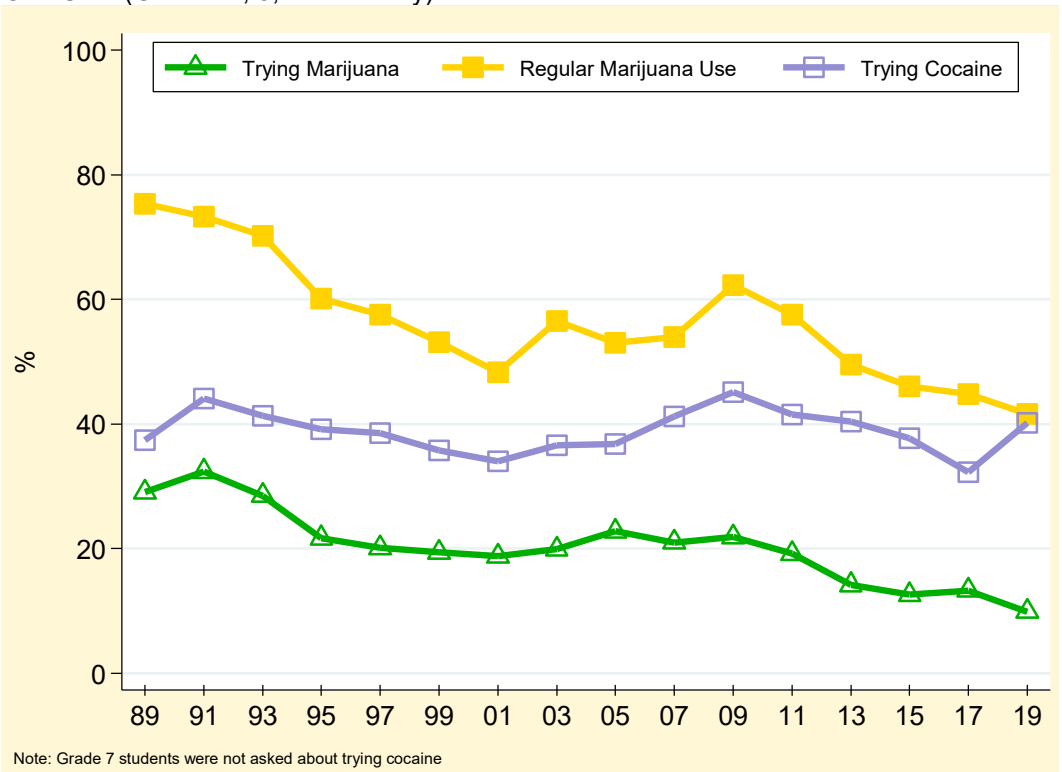
Notes: (1) NM=nonmedical use, without one's own prescription; (2) Binge Drinking=5+ drinks of alcohol on one occasion; (3) Grade 7 and 8 students were not asked about trying cocaine or trying ecstasy (MDMA)

Figure 3.11.2
Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1999–2019
OSDUHS (Grades 7–12)



Notes: (1) Binge Drinking=5+ drinks of alcohol on one occasion; (2) NM=nonmedical; (3) Grade 7 and 8 students were not asked about trying cocaine or ecstasy

Figure 3.11.3
Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1989–2019
OSDUHS (Grades 7, 9, and 11 only)



Note: Grade 7 students were not asked about trying cocaine

Table 3.11.1: Percentage Who Perceive "Great Risk" of Harm Associated with Drug Use by Grade, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(1837)	(3152)	(3648)	(2935)	(4262)	(4472)	(4974)	(5023)	(5071)	(6525)	
Trying Marijuana Once or Twice												
Total	**19.2**	**19.7**	**19.2**	**20.6**	**19.4**	**19.1**	**18.4**	**11.9**	**12.2**	**11.4**	**9.8**	bcd
Grade 7	28.4	27.0	30.8	32.7	29.7	34.6	27.7	26.0	20.7	27.4	14.0	ab
Grade 8	27.7	30.5	29.4	24.7	27.0	27.1	24.8	13.9	22.3	19.5	15.0	b
Grade 9	16.6	18.5	18.8	21.8	20.0	19.7	16.0	12.8	12.2	9.1	10.1	b
Grade 10	13.9	16.6	13.3	18.9	14.6	17.4	19.1	12.2	10.7	5.7	8.0	b
Grade 11	15.2	11.1	12.4	14.9	14.0	14.2	15.7	7.5	7.4	4.9	7.2	b
Grade 12	13.8	16.0	14.6	12.9	14.2	9.6	12.4	6.1	7.0	5.8	8.4	b
Smoking Marijuana Regularly												
Total	**52.2**	**49.4**	**54.9**	**53.4**	**52.5**	**56.9**	**55.8**	**44.4**	**44.2**	**39.8**	**38.1**	bcd
Grade 7	63.6	61.1	69.4	59.2	61.9	74.0	67.0	68.0	61.2	66.3	54.3	ab
Grade 8	60.2	58.7	66.8	59.5	59.8	67.0	63.8	54.5	62.0	61.8	49.1	ab
Grade 9	53.1	47.8	55.4	53.6	55.7	64.5	61.0	51.1	50.3	42.6	41.6	b
Grade 10	45.5	48.2	48.4	54.9	50.6	52.4	52.3	39.0	44.3	28.4	37.1	ab
Grade 11	44.9	36.8	47.4	46.8	45.3	51.5	46.8	35.8	31.8	28.2	34.1	b
Grade 12	45.2	44.4	46.8	47.8	45.2	42.3	50.1	32.8	31.3	22.4	27.0	b
Smoking 1 or 2 Tobacco Cigarettes Daily												
Total	—	—	**24.0**	**27.9**	**31.2**	**33.4**	**31.7**	**29.4**	**31.6**	**26.6**	**27.3**	d
Grade 7			20.4	23.2	24.0	30.3	24.7	24.0	20.5	28.1	20.0	
Grade 8			21.4	19.6	28.3	26.2	25.6	19.6	31.1	22.0	23.6	
Grade 9			22.5	28.0	28.9	35.4	25.5	29.5	31.3	28.1	25.6	
Grade 10			23.8	31.4	31.6	33.8	35.2	32.5	30.2	23.4	25.5	
Grade 11			26.0	28.8	34.5	35.7	32.8	29.6	32.2	24.4	31.1	
Grade 12			29.2	34.6	37.4	36.2	40.5	34.7	38.4	31.6	32.1	
Having 5 Drinks of Alcohol (Binge Drinking) Once or Twice Each Weekend												
Total	—	—	—	—	**27.4**	**28.2**	**26.2**	**24.6**	**23.9**	**22.8**	**23.7**	bc
Grade 7					32.2	31.6	30.3	27.9	24.8	27.0	24.3	
Grade 8					26.4	28.0	30.9	22.0	28.7	26.8	25.4	
Grade 9					27.3	33.1	24.3	28.1	26.6	22.0	24.0	
Grade 10					27.1	28.3	29.5	26.2	27.7	20.1	23.9	
Grade 11					29.8	27.6	25.1	25.3	22.6	21.0	26.2	
Grade 12					23.2	23.1	21.0	20.5	17.2	21.2	20.3	
Using a Prescription Opioid Pain Reliever Without a Prescription*												
Total	—	—	—	—	—	—	—	**41.0**	**42.5**	**36.9**	**39.6**	
Grade 7								35.6	26.0	35.7	33.8	
Grade 8								33.9	33.0	35.1	37.3	
Grade 9								40.9	41.4	31.9	34.6	
Grade 10								41.3	46.1	35.8	39.4	
Grade 11								43.2	47.6	39.6	44.2	
Grade 12								45.8	50.5	40.8	43.6	
Using Electronic Cigarettes Regularly												
Total	—	—	—	—	—	—	—	—	**9.8**	**9.5**	**14.2**	abcd
Grade 7									10.4	16.1	15.4	
Grade 8									10.6	11.0	12.9	
Grade 9									11.1	11.4	12.7	
Grade 10									8.3	5.6	16.4	ab
Grade 11									7.2	7.9	12.3	b
Grade 12									11.0	6.6	15.5	a

(cont'd)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(1837)	(3152)	(3648)	(2935)	(4262)	(4472)	(4974)	(5023)	(5071)	(6525)	
Trying Cocaine Once or Twice+												
Total	**36.7**	**35.0**	**37.5**	**39.7**	**42.1**	**48.3**	**45.4**	**42.1**	**41.4**	**35.7**	**41.6**	abcd
Grade 9	27.8	30.0	32.0	34.8	33.0	41.1	34.7	36.7	31.7	30.5	39.0	b
Grade 10	35.4	34.3	33.7	37.6	38.2	48.8	41.8	38.9	43.8	36.7	40.9	
Grade 11	45.1	38.8	41.2	38.8	49.4	48.7	48.4	43.7	43.2	33.9	41.2	a
Grade 12	40.8	40.2	44.0	46.6	46.9	52.9	53.4	46.8	45.2	39.9	44.1	
Trying Ecstasy (MDMA) Once or Twice+												
Total	—	**34.7**	**43.0**	**43.7**	**46.1**	**46.9**	**43.0**	**36.6**	**37.0**	**33.2**	**35.3**	cd
Grade 9		31.7	38.7	39.7	40.4	40.7	35.1	29.1	29.7	29.7	31.8	
Grade 10		31.3	43.5	42.9	42.0	45.5	40.6	36.4	39.9	32.0	35.2	
Grade 11		39.4	43.4	42.8	51.2	45.8	42.1	37.2	35.9	34.4	36.3	
Grade 12		39.8	46.9	48.8	50.2	53.2	51.0	41.2	40.6	35.4	36.9	

Notes: (1) based on a random half sample since 2001; (2) * such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, or codeine; (3)+ asked of a random half sample of grades 9-12 only; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01 (vs. 2001 for ecstasy, vs. 2003 for daily smoking, vs. 2007 for binge drinking, vs. 2013 for prescription opioids, vs. 2015 for electronic cigarettes); [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: How much do you think people risk harming themselves (physically or in other ways) if they…[behaviour]?

Source: OSDUHS, Centre for Addiction & Mental Health

Perceived Drug Availability

(Figures 3.11.4-3.11.6; Tables 3.11.2, A20)

In this section we present the percentage reporting that it is "fairly easy" or "very easy" to get alcohol, tobacco cigarettes, cannabis, cocaine, ecstasy (MDMA), LSD, and prescription opioid pain relievers without visiting a doctor. Note the questions about the availability of cocaine, ecstasy (MDMA), and LSD were asked of 9th to 12th graders only.

2019

- The drug most readily available to elementary students is alcohol, followed by tobacco cigarettes. Alcohol is also the most readily available drug to secondary students, followed by cannabis and tobacco cigarettes. LSD and ecstasy are the least readily available drugs (of those asked about) to secondary students.

- The perceived availability of drugs significantly varies by grade, as drugs become easier to obtain with increasing grade/age.

1999–2019

☐ The perceived availability of **alcohol** remained stable between 2017 and 2019, but it is currently lower than a few years ago. It also remains lower than estimates from 1999 and the early 2000s.

☐ The perceived availability of **tobacco cigarettes** remained stable between 2017 and 2019, but it is currently lower than most previous years.

☐ The perceived availability of **cannabis** remained stable during the past few years (since 2015). The current estimate remains lower than estimates from 1999 and the early 2000s.

☐ The perceived availability of **prescription opioids** remained stable between 2017 and 2019, and the current estimate does not significantly differ from previous years.

☐ The perceived availability of **cocaine** has been stable since 2011, but is currently lower than estimates from 1999 and the early 2000s.

☐ The perceived availability of **ecstasy** (MDMA) remained stable between 2017 and 2019, but is currently lower than most estimates since 2001.

☐ The perceived availability of **LSD** has remained stable since 2011, but is currently lower than estimates from 1999 and the early 2000s.

1981–2019

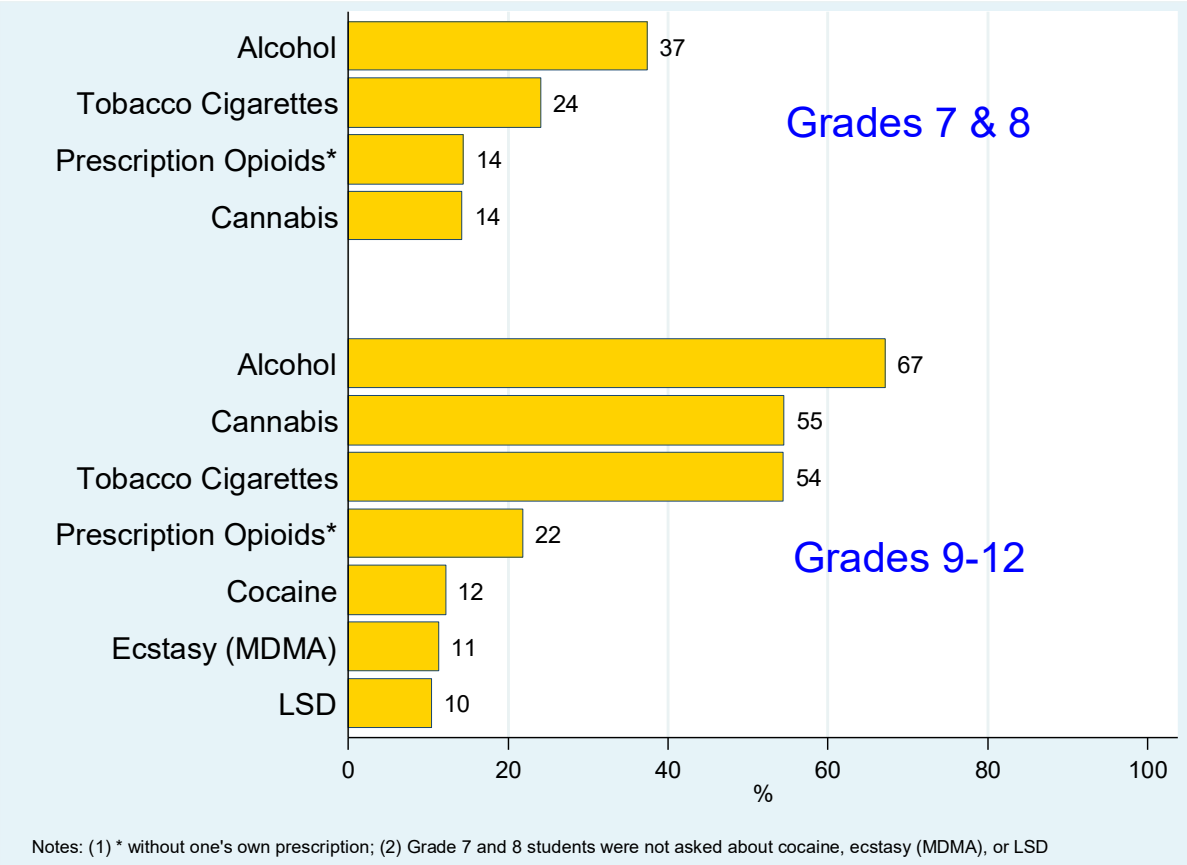
☐ The perceived availability of alcohol increased during the late 1980s/early 1990s, stabilized in the late 1990s, decreased in the 2000s, and stabilized in recent years.

☐ The perceived availability of cannabis was elevated in the early-to-mid 1980s, decreased in the late 1980/early 1990s, peaked again in the late 1990s/2001, decreased during the 2000s, and fluctuated during the past decade.

☐ The perceived availability of cocaine increased between 1989 and 2001, decreased in the 2000s, and stabilized during the past decade.

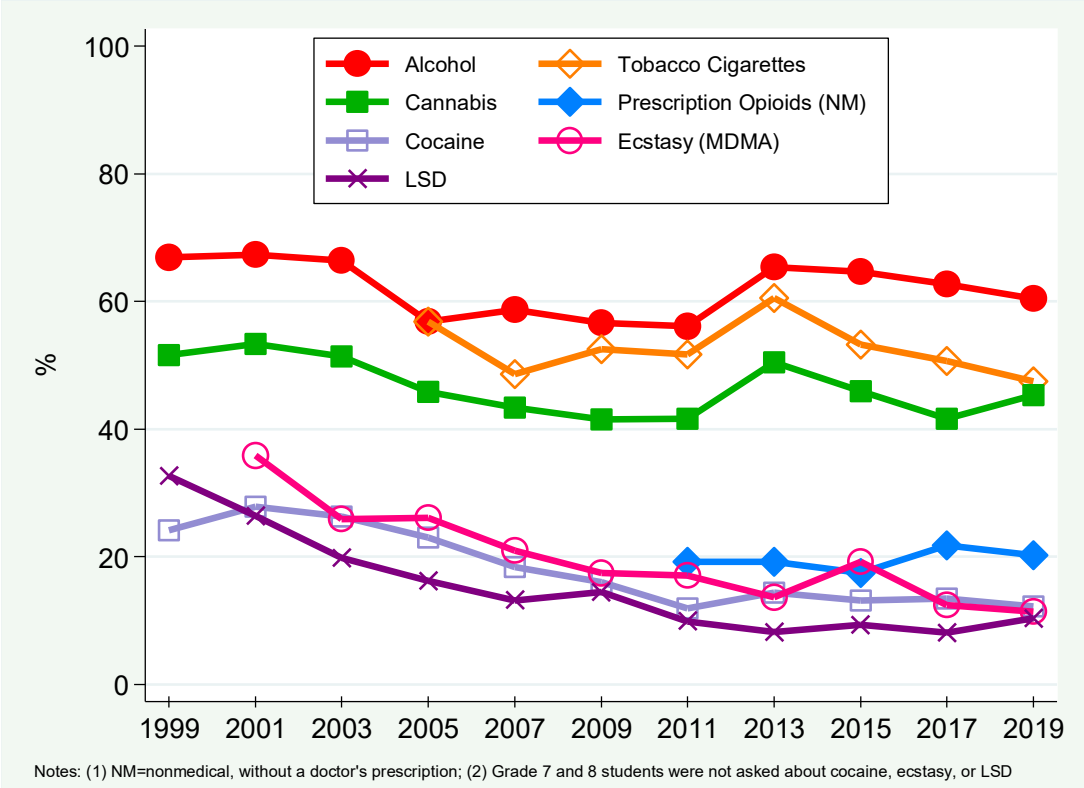
☐ The perceived availability of LSD shows a dramatic decrease in the 1990s and 2000s, and stability in recent years.

Figure 3.11.4
Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug by Grade Level, 2019 OSDUHS



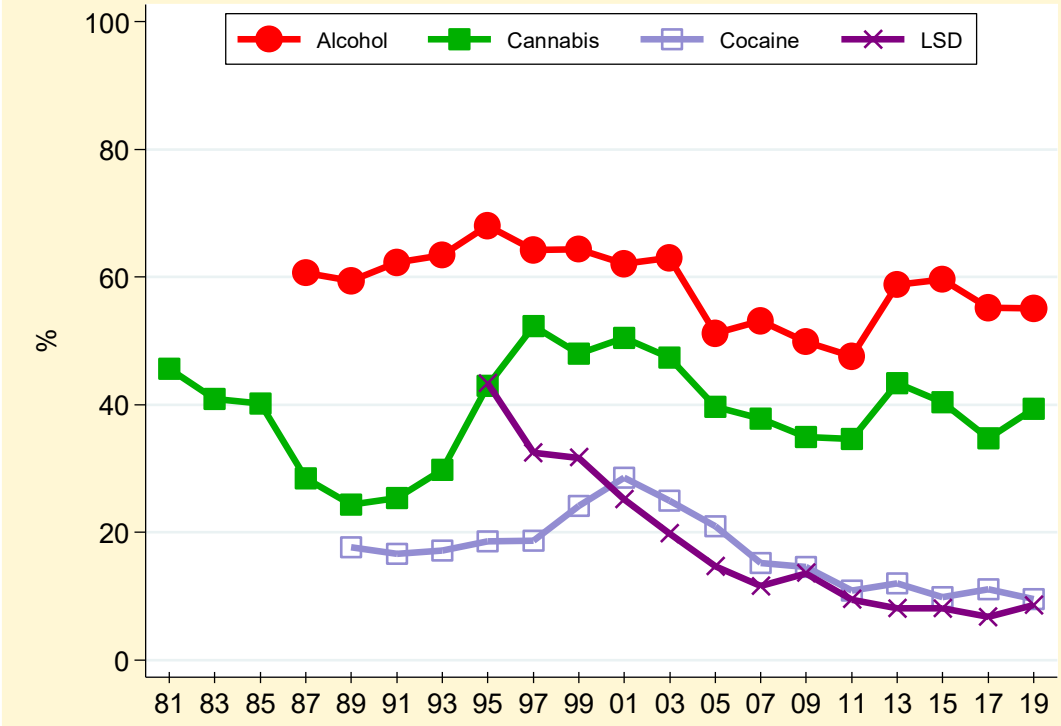
Notes: (1) * without one's own prescription; (2) Grade 7 and 8 students were not asked about cocaine, ecstasy (MDMA), or LSD

Figure 3.11.5
Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1999–2019
OSDUHS (Grades 7–12)



Notes: (1) NM=nonmedical, without a doctor's prescription; (2) Grade 7 and 8 students were not asked about cocaine, ecstasy, or LSD

Figure 3.11.6
Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1981–2019
OSDUHS (Grades 7, 9, and 11 only)



Note: Grade 7 students were not asked about cocaine or LSD

Table 3.11.2: Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug by Grade, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	(5023)	(5071)	(6525)	
Alcohol												
Total	**66.9**	**67.3**	**66.4**	**56.9**	**58.7**	**56.6**	**56.1**	**65.4**	**64.6**	**62.7**	**60.4**	bcd
Grade 7	33.8	31.9	33.8	24.6	29.4	19.7	21.0	23.0	29.1	32.0	33.5	
Grade 8	47.9	52.3	43.9	32.8	35.5	32.8	34.8	45.0	40.5	44.8	41.2	
Grade 9	66.6	68.8	66.2	53.0	54.2	50.0	48.1	63.5	59.2	53.4	52.8	b
Grade 10	79.2	80.0	75.1	66.0	63.8	62.1	56.3	68.3	70.2	68.1	64.7	b
Grade 11	87.2	85.1	82.6	74.5	74.6	73.0	68.6	78.4	80.7	77.1	70.1	b
Grade 12	87.6	89.6	86.7	83.8	84.5	82.0	85.8	86.8	83.3	86.5	76.6	ab
Cannabis												
Total	**51.6**	**53.4**	**51.4**	**45.8**	**43.4**	**41.5**	**41.6**	**50.5**	**46.0**	**41.6**	**45.3**	bcd
Grade 7	12.2	14.9	14.5	8.9	10.6	4.2	5.7	5.4	7.8	8.2	9.6	
Grade 8	30.9	27.6	28.4	21.4	15.7	13.5	15.6	22.0	13.2	11.9	18.8	ab
Grade 9	50.3	59.5	51.6	43.8	39.0	35.3	32.4	43.4	35.6	31.2	36.9	b
Grade 10	66.7	68.6	63.5	58.1	54.0	54.0	43.7	56.5	52.8	53.1	51.0	b
Grade 11	75.2	76.6	70.6	64.2	62.3	58.5	60.2	68.8	67.0	61.5	59.5	b
Grade 12	76.2	73.6	70.9	71.3	68.1	63.8	69.6	74.4	69.6	68.3	65.6	b
Tobacco Cigarettes												
Total	—	—	—	**56.9**	**48.6**	**52.5**	**51.7**	**60.6**	**53.3**	**50.7**	**47.5**	bcd
Grade 7				18.5	17.7	12.2	14.0	19.0	16.1	21.8	20.2	
Grade 8				29.4	24.3	26.2	28.9	34.6	26.4	25.1	27.8	
Grade 9				58.1	46.1	48.2	45.3	53.5	43.6	44.7	40.6	b
Grade 10				67.8	52.8	61.6	52.5	64.4	61.8	58.6	50.3	ab
Grade 11				76.1	67.0	72.0	69.7	76.1	70.2	67.1	56.6	ab
Grade 12				83.6	73.3	74.8	78.0	85.1	74.4	73.3	65.4	ab
Prescription Opioid Pain Relievers*												
Total	—	—	—	—	—	—	**19.2**	**19.2**	**17.5**	**21.8**	**20.2**	
Grade 7							6.6	13.4	13.6	15.5	11.8	
Grade 8							13.7	11.0	13.5	23.1	17.1	
Grade 9							22.1	14.4	14.9	16.8	17.7	
Grade 10							19.5	17.3	18.3	22.6	21.7	
Grade 11							24.4	25.6	19.6	24.5	24.6	
Grade 12							23.7	26.0	21.4	25.9	22.8	
Cocaine+												
Total	**24.2**	**27.9**	**26.3**	**23.0**	**18.4**	**16.0**	**11.9**	**14.4**	**13.2**	**13.5**	**12.7**	bcd
Grade 9	19.6	26.3	21.2	15.8	10.6	9.9	5.4	7.9	4.7	5.9	5.5	b
Grade 10	23.6	24.4	24.4	20.6	18.5	13.6	10.7	11.6	9.4	13.2	7.1	ab
Grade 11	29.5	31.4	28.8	26.3	19.8	18.9	16.4	15.7	14.8	15.9	13.4	b
Grade 12	25.1	32.5	31.5	28.5	23.7	20.1	14.4	19.7	20.5	17.2	19.4	b

(cont'd)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	(5023)	(5071)	(6525)	
LSD+												
Total	**32.7**	**26.4**	**19.8**	**16.2**	**13.2**	**14.5**	**9.9**	**8.2**	**9.3**	**8.1**	**10.4**	bcd
Grade 9	23.6	21.3	13.9	10.6	8.7	8.4	4.9	4.5	3.3	3.4	3.7	b
Grade 10	33.3	24.9	19.3	17.4	13.6	12.4	8.9	6.5	6.6	7.9	8.6	b
Grade 11	40.9	30.6	25.7	18.9	14.4	18.2	14.1	11.3	12.5	10.0	13.1	b
Grade 12	35.2	34.3	20.1	17.6	15.6	17.2	11.3	9.6	12.8	10.1	14.4	b
Ecstasy (MDMA)+												
Total	—	**35.9**	**25.9**	**26.1**	**21.0**	**17.5**	**17.1**	**13.7**	**19.2**	**12.4**	**11.4**	bcd
Grade 9		28.7	14.4	16.8	12.8	9.7	8.2	7.4	6.9	4.3	4.4	b
Grade 10		37.4	22.3	23.8	18.7	15.9	12.0	9.3	12.6	11.6	7.7	b
Grade 11		36.8	33.3	32.2	22.7	20.8	25.0	16.1	26.4	12.6	13.6	b
Grade 12		46.0	34.7	30.9	28.3	21.9	21.6	19.3	26.7	18.2	17.0	b

Notes: (1) based on a random half sample in each year; (2) * such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, codeine, without visiting a doctor; (3)+ based on grades 9-12 only; (4) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 1999 significant difference, p<.01 (vs. 2001 for ecstasy, vs. 2005 for tobacco cigarettes); [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: How easy or difficult would it be for you to get [drug] if you wanted some?
Source: OSDUHS, Centre for Addiction & Mental Health

Source of Tobacco Cigarettes
(Figure 3.11.7)

The OSDUHS included a question about where students obtained tobacco cigarettes, if they smoked at least one whole cigarette in the past 12 months: "*Thinking about the last time you smoked a whole tobacco cigarette in the last 12 months, where did you get it from?*" The response options were: *A corner store, small grocery store, supermarket, gas station, or bar; Over the Internet; A friend; A family member; Someone else; A First Nations reserve; Another source not listed;* or *Don't remember*. Students also had the option of responding that they did not smoke cigarettes. We restricted our analysis to students who were under age 19.

2019: Smokers in Grades 7–12

- Among underage students who reported smoking at least one whole cigarette in the past 12 months (*n*=543), the most common source reported was a friend. The least common sources were the Internet or a First Nation community (estimates suppressed).

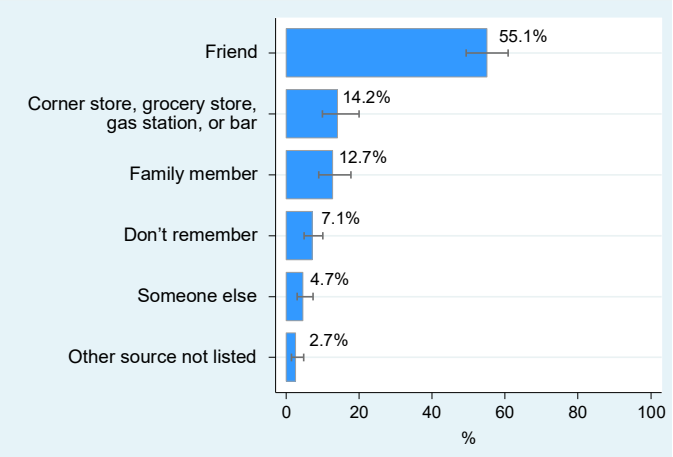
Source of Electronic Cigarettes
(Figure 3.11.8)

The OSDUHS included a question about where students obtained electronic cigarettes: "*Thinking about the last time you smoked any type of e-cigarette in the last 12 months, where did you get it from?*" The response options were: *Bought it at a convenience store, small grocery store, supermarket*; *Bought it at a gas station*; *Bought it at a pharmacy*; *Bought it at a vape shop/lounge*; *Bought it online/over the Internet*; *Bought it off a friend or someone else*; *Gave money to someone else to buy it for me*; *Tried a friend's/borrowed one*; *Got it as a gift or free sample*; *Took it from a family member*; *Got it from another source not listed;* or *Don't remember*. Students also had the option of responding that they did not use e-cigarettes. We restricted our analysis to students who were under age 19.

2019: E-cigarette users in Grades 7–12

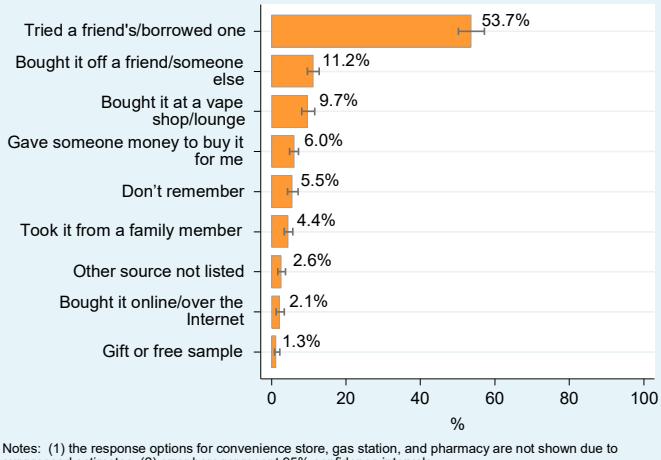
- Among underage students who reported using e-cigarettes in the past 12 months (*n*=1,983), the most common source reported was a friend. The least common sources were purchasing at a convenience store/grocery store, a gas station, or a pharmacy (all estimates suppressed).

Figure 3.11.7
Source of Previous Whole Tobacco Cigarette Among Smokers Under Age 19, 2019 OSDUHS (Grades 7–12)



Notes: (1) the response options for over the Internet and First Nations reserve are not shown due to suppressed estimates; (2) error bars represent 95% confidence intervals

Figure 3.11.8
Source of Previous Electronic Cigarette Among Users Under Age 19, 2019 OSDUHS (Grades 7–12)



Notes: (1) the response options for convenience store, gas station, and pharmacy are not shown due to suppressed estimates; (2) error bars represent 95% confidence intervals

Source of Alcohol

(Figure 3.11.9)

Students were asked how they usually obtain alcohol with the question: "*In the last 12 months, how did you usually get the alcohol you drank? (Please choose one answer only.)*" The response options were: *Given to me by a friend; Given to me by a family member; Took it from home without my parents' permission; Took it from somewhere else; Bought it at a LCBO store; Bought it at a beer store; Bought it at a grocery store; Bought it at a restaurant, bar, or club; Bought it at a public event such as a concert or sporting event; I gave someone else money to buy it for me; I got it some other way;* or *Don't remember.* Students also had the option of responding that they did not drink alcohol. We restricted our analysis to students who were under age 19.

2019: Drinkers in Grades 7–12

- Among underage students who reported drinking in the past year (*n*=3,304), the most common method of obtaining alcohol was receiving it from a family member. The least common methods of obtaining alcohol were purchasing it in a grocery store, restaurant/bar, at a public event, or taking it from somewhere else other than home (all estimates suppressed).

Opinions About Purchasing Beer in Grocery Stores

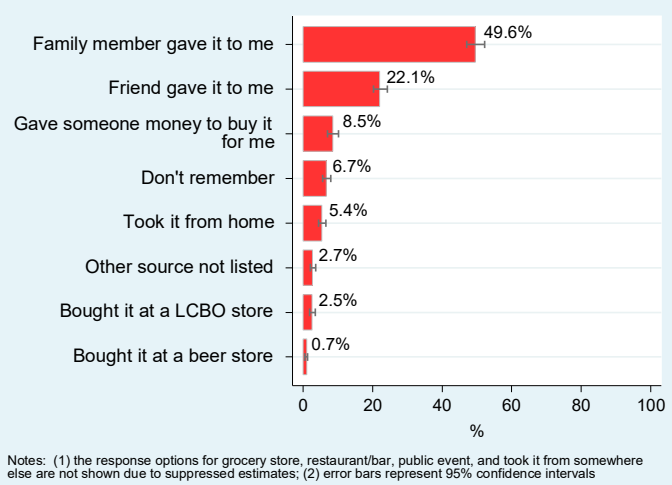
(Figure 3.11.10)

Students in grades 9–12 were asked their opinion about how difficult it would be to buy beer in grocery stores in Ontario. A random half sample was asked the question: "*If you wanted to buy beer in Ontario, do you think it would be more difficult for you to buy it in a grocery store or in a LCBO/beer store?*" The response options were: *More difficult to buy beer in a grocery store*, *More difficult to buy beer in a LCBO or beer store*, *Same difficulty,* or *Not sure*.

2019: Grades 9–12

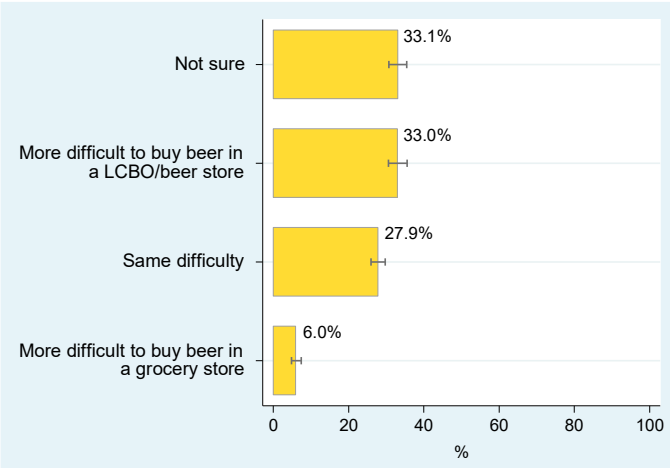
- One-third (33.0%) of secondary students believe it would be more difficult to purchase beer in a LCBO or a beer store in Ontario than in a grocery store. Only 6.0% of students believe that it would be more difficult to purchase beer in a grocery store than in a LCBO or beer store. Over one-quarter (27.9%) believe that there would be no difference in difficulty between these types of retailers, and one-third (33.1%) are not sure.

Figure 3.11.9
Usual Source of Alcohol Among Drinkers Under Age 19, 2019 OSDUHS (Grades 7–12)



Notes: (1) the response options for grocery store, restaurant/bar, public event, and took it from somewhere else are not shown due to suppressed estimates; (2) error bars represent 95% confidence intervals

Figure 3.11.10
Opinions About Purchasing Beer in a Grocery Store versus a LCBO/Beer Store in Ontario, 2019 OSDUHS (Grades 9–12)



Note: error bars represent 95% confidence intervals

Parental Permission to Drink Alcohol at Home

(Figure 3.11.11)

Starting in 2015, students in grades 9–12 were asked if they are allowed to drink alcohol at home. A random half sample was asked the question: "*Do your parents (or guardians) allow you and your friends to drink alcohol in your home while you are having a party or get-together?*" The response options were *Yes* or *No*. Students also had the option of responding that they did not drink alcohol.

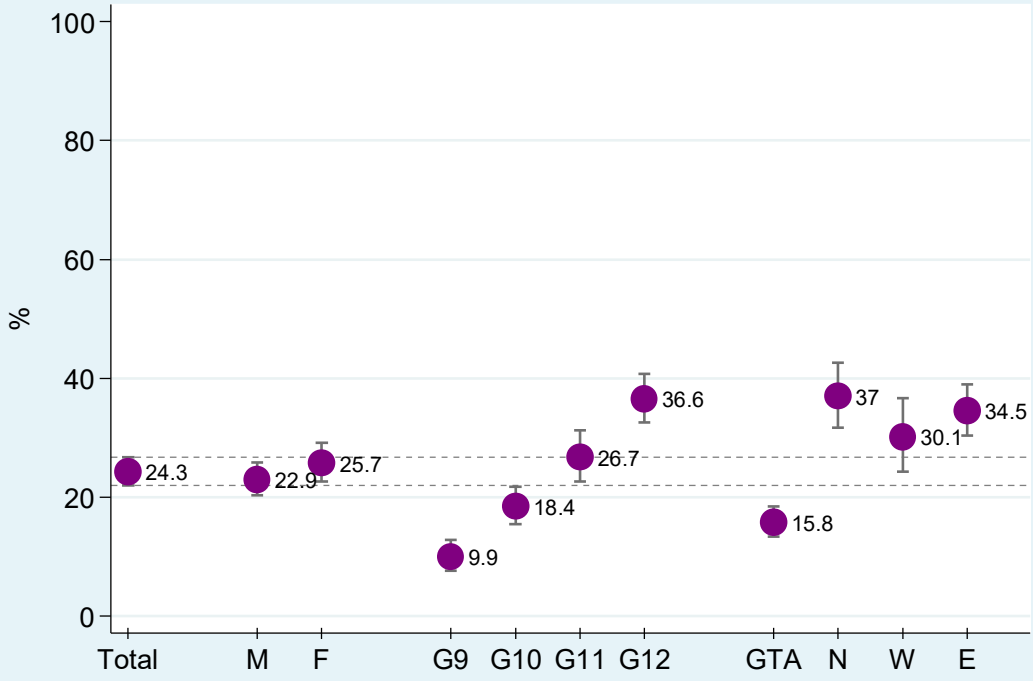
2019: Grades 9–12

- About one-quarter (24.3%; 95% CI: 22.0%-26.7%) of secondary students report that they are allowed to drink alcohol at home with their friends. This percentage represents about 150,800 students in grades 9–12.
- There is no significant sex difference.
- There is significant grade variation, ranging from 9.9% of 9th graders to 36.6% of 12th graders.
- There is significant regional variation showing that GTA students (15.8%) are least likely to report that they are allowed to drink at home with friends compared with students from the other three regions (about 30%-37%).

2015–2019: Grades 9–12

- The 2019 estimate (24.3%) is similar to the estimates from 2017 (26.8%) and 2015 (26.6%).

Figure 3.11.11
Percentage Reporting Parental Permission to Drink Alcohol at Home with Friends by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade and region (p<.05), no significant difference by sex

Source of Cannabis

(Figure 3.11.12)

Students were asked about how they usually obtain cannabis. A random half sample was asked the question: "*In the last 12 months, how did you usually get the cannabis you used? (Please choose one answer only.)*" The response options were: *Given to me by a brother or sister*; *Given to me by a friend; It was shared around a group of friends; Bought it from a friend; Bought it from someone I have heard about, but did not know personally; Bought it online from the Ontario Cannabis Store website; Bought it online from another website; Bought it at a cannabis store; Bought it at a medical dispensary; Given to me by one of my parents; Took it from home without my parents' permission; I grow my own; I got it some other way;* or *Don't remember*. Students also had the option of responding that they did not use cannabis.

2019: Cannabis Users in Grades 7–12

- Among those who reported using cannabis in the past year (*n*=1,329), the vast majority reported usually obtaining it through friends. The least common methods of obtaining cannabis were from an online source, a cannabis store, a medical dispensary, receiving it from parents, or growing one's own (estimates suppressed).

Perception of Friends' Use of Cannabis After Legalization

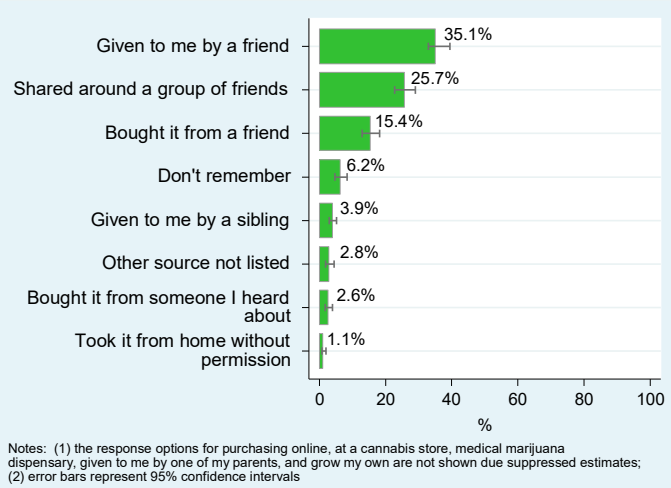
(Figure 3.11.13)

A random half sample of students in grades 9–12 was asked about their friends' use of cannabis after legalization. The question asked was "*Since cannabis use has become legal for adults, have you noticed your friends are using cannabis more often or less often than when it was illegal?*" The response options were: *My friends don't use cannabis*; *My friends are using cannabis more often now that it's legal for adults*; *My friends are using cannabis less often now that it's legal for adults*; *My friends are using cannabis the same as before it was legal for adults*; or *Not sure*.

2019: Grades 9–12

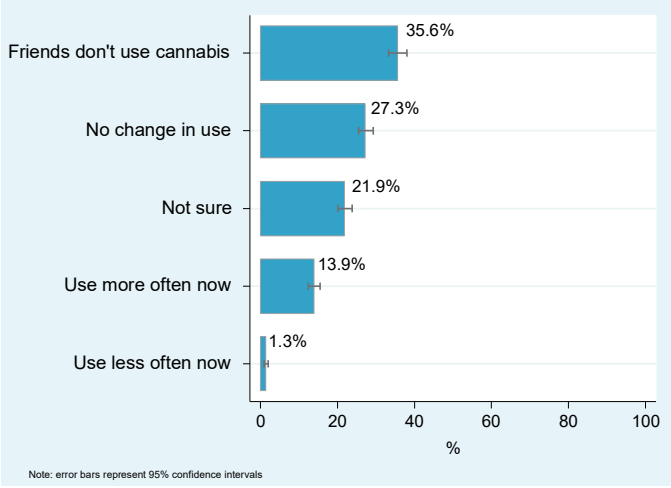
- Over one-third (35.6%) of secondary students report that their friends do not use cannabis. Over one-quarter (27.3%) of students believe that there has been no change in their friends' use of cannabis since legalization. One-in-five (21.9%) are not sure if their friends' use of cannabis has changed. One-in-seven (13.9%) believe that their friends use cannabis more often after legalization, and only 1.3% believe they are using less often.

Figure 3.11.12
Usual Source of Cannabis Among Users, 2019 OSDUHS (Grades 7–12)



Notes: (1) the response options for purchasing online, at a cannabis store, medical marijuana dispensary, given to me by one of my parents, and grow my own are not shown due suppressed estimates; (2) error bars represent 95% confidence intervals

Figure 3.11.13
Percentage Reporting Change in Friends' Use of Cannabis After Legalization, 2019 OSDUHS (Grades 9–12)



Note: error bars represent 95% confidence intervals

Source of Diverted Prescription Opioid Pain Relievers

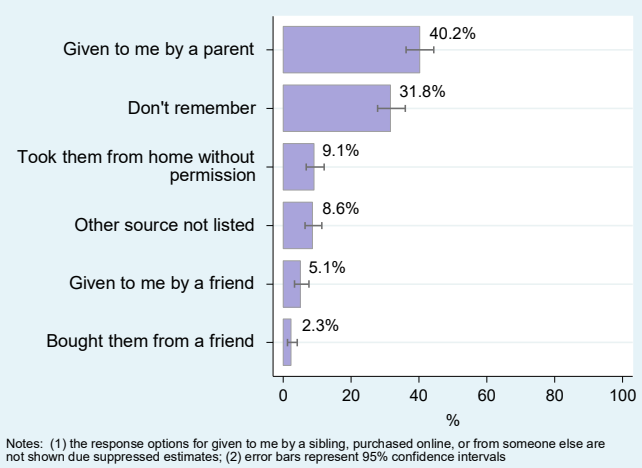
(Figure 3.11.14)

The OSDUHS included a question about where students obtained prescription opioids, without having their own prescription. A random half sample was asked the following question: "*If you used these types of pain relief pills* [such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, codeine] *in the last 12 months without a prescription or without a doctor telling you to take them, how did you usually get them?*" The response options were: *Given to me by a brother or sister; Given to me by a friend; Bought them from a friend; Bought them from someone I had heard about, but did not know personally; Bought them online/over the Internet; Given to me by one of my parents; Took them from home without my parents' permission; I got them some other way;* or *Don't remember*. Students also had the option of responding that they had never used prescription opioids at all or without their own prescription.

2019: Users in Grades 7–12

- Among those who used opioid pain relievers nonmedically in the past year (*n*=954), the most common source reported was a parent. The least common sources were siblings, someone else, or the Internet (estimates suppressed).

Figure 3.11.14
Usual Source of Prescription Opioids Among Users, 2019 OSDUHS (Grades 7–12)



Notes: (1) the response options for given to me by a sibling, purchased online, or from someone else are not shown due suppressed estimates; (2) error bars represent 95% confidence intervals

3.12 School and Neighbourhood

Recall of Substance Use Education at School

(Figure 3.12.1)

The OSDUHS asked a random half sample of students about the number of classes/lectures they received about alcohol, cannabis, and other drugs during the current academic year. Typically, the majority of schools that participate in the survey do so between March and June. Specifically, the questions were: (1) "*Since September, how many classes or presentations did you have that talked about alcohol?*", and (2) "*Since September, how many classes or presentations did you have that talked about cannabis or other types of drugs?"*

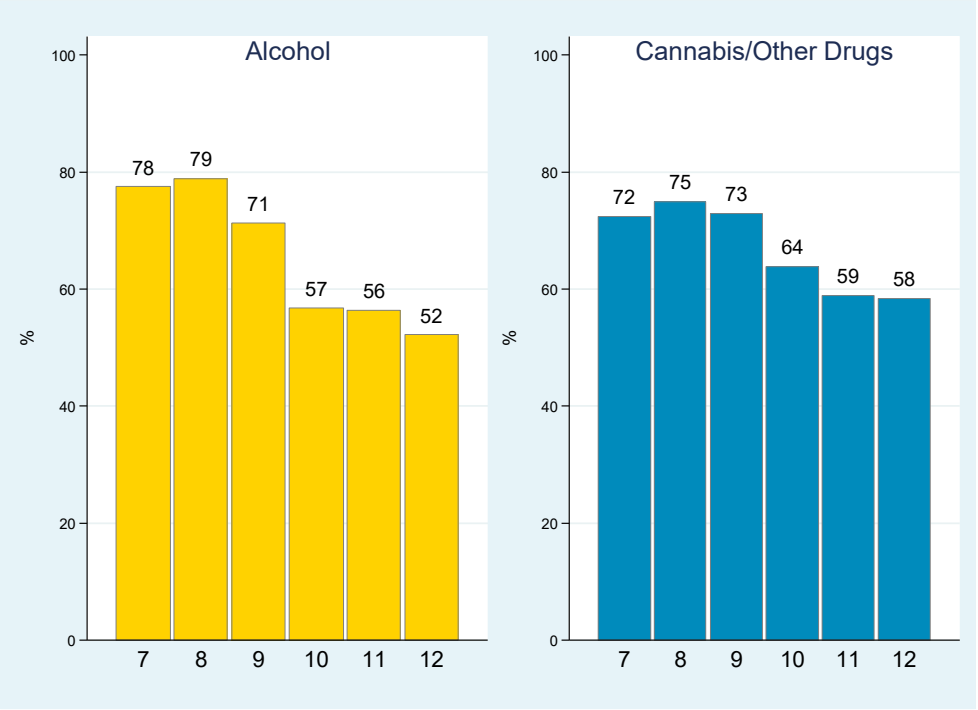
We present the percentage of students who recall receiving at least one class or presentation about substances. (Note that students who completed the survey in November and December were excluded from this analysis.)

2019: Grades 7–12

- In 2019, 63.0% (95% CI: 60.1%-65.8%) of students could recall receiving at least one class about alcohol since the start of the school year. Younger students are significantly more likely than older students to recall receiving education about alcohol.

- In 2019, 65.4% (95% CI: 62.7%-67.9%) of students could recall at least one class about cannabis or other drugs since the start of the school year. Younger students are significantly more likely than older students to recall receiving education about drugs.

Figure 3.12.1
Percentage Recalling at Least One Class/Presentation About Alcohol or Other Drugs Since September by Grade, 2019 OSDUHS



Drug Problem at School

(Figure 3.12.2; Tables 3.12.1, A21)

Since 1993, the OSDUHS has asked students about their perception of the magnitude of the drug problem, if at all, at their school. The question was "*In your school, is drug use a big problem, a small problem, or no problem at all?"*

2019: Grades 7–12

- One-quarter (25.6%) of students believe that drug use in their school is a "big problem," half (49.8%) believe it is a "small problem," and another quarter (24.6%) believe that drug use is not a problem in their school.

- Females (29.2%) are significantly more likely than males (22.3%) to believe that drug use is a "big problem" in their school.

- Not surprisingly, 7th and 8th graders are least likely to believe that drug use is a "big problem" in their school (about 11%-16%).

- There are no significant differences among the regions regarding the perception that drug use in school is a "big problem."

Trends:

- There was a significant increase between 2017 and 2019 (from 21.3% to 25.6%), returning to a level seen in most survey cycles since 1999.

- Looking over the long-term, this perception is much more prevalent now than in 1993 (14.8%), the first year of monitoring.

Figure 3.12.2
Percentage Reporting that Drug Use at School is a Big Problem, Small Problem, or Not a Problem, 2019 OSDUHS (Grades 7–12)

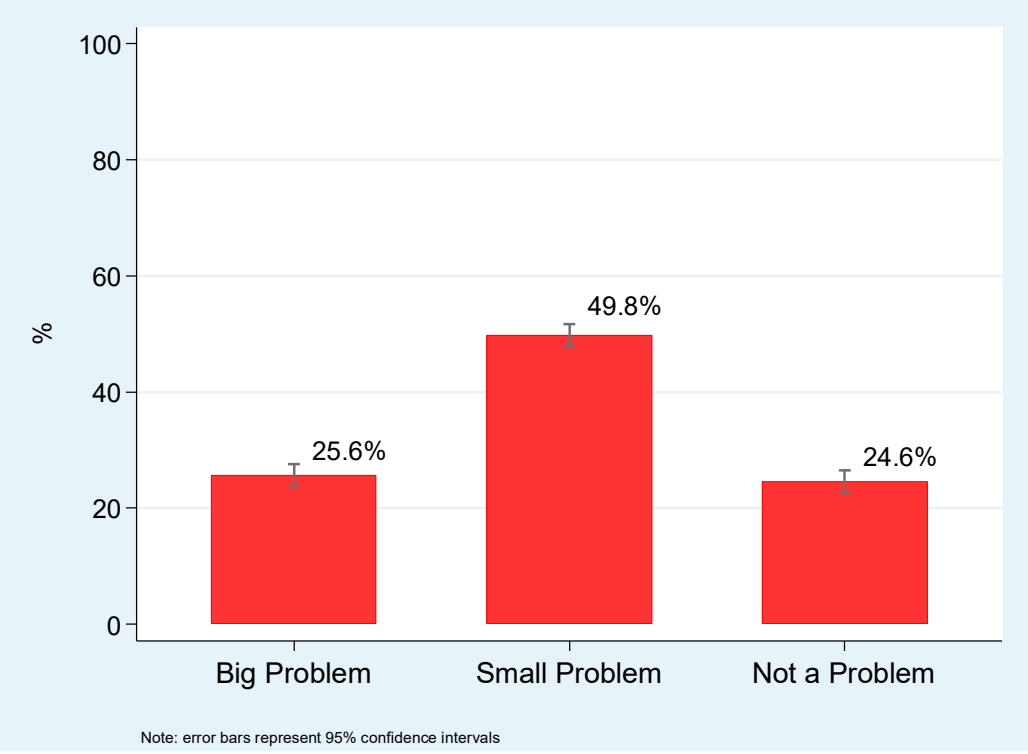


Table 3.12.1: Percentage Reporting the Perception that Drug Use at School is a “Big Problem,” 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total	**23.5**	**26.6**	**27.8**	**24.9**	**25.0**	**23.7**	**24.8**	**24.7**	**25.5**	**21.3**	**25.6**
(95% CI)	(20.5-26.7)	(23.1-30.5)	(25.2-30.5)	(22.4-27.6)	(22.2-28.0)	(21.4-26.2)	(22.2-27.6)	(21.8-28.0)	(23.3-27.9)	(19.0-23.8)	(23.8-27.6)
Sex											
Males	22.3	26.7	25.7	23.2	22.2	20.2	21.5	21.3	23.8	20.4	22.3
Females	24.6	26.5	29.7	26.9	28.1	27.7	28.5	28.3	27.4	22.2	29.2
Grade											
7	17.9	8.1	14.2	12.4	10.9	9.8	8.9	12.7	12.9	10.8	15.8
8	14.6	8.0	14.8	11.3	13.3	9.6	11.4	11.2	10.2	9.8	10.9
9	29.9	35.0	32.6	28.9	27.8	26.6	30.4	24.5	23.2	27.4	26.9
10	21.4	37.0	35.7	34.4	30.3	35.5	34.2	31.5	31.6	28.9	31.8
11	27.8	31.2	34.7	30.3	30.3	26.4	28.2	30.0	32.1	24.4	34.7
12	26.1	37.4	28.8	29.8	32.8	25.8	28.7	29.2	32.7	24.3	25.0
Region											
GTA	25.4	25.0	29.3	26.0	25.4	23.7	22.0	23.4	25.7	22.4	23.3
North	26.6	30.7	31.4	30.8	32.0	28.4	33.2	28.3	32.8	26.2	27.0
West	23.8	29.7	28.2	28.1	27.1	22.4	28.7	25.3	24.4	22.0	28.0
East	13.1	23.6	21.6	18.1	19.0	24.4	24.4	26.8	25.0	17.3	28.1

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) significant increase between 2017 and 2019 among the total sample.
Q: In your school, is drug use a big problem, a small problem, or no problem at all?
Source: OSDUHS, Centre for Addiction & Mental Health

Intoxication at School

(Figures 3.12.3, 3.12.4; Table 3.12.2)

Starting in 2005, the OSDUHS asked students about being intoxicated at school. The question used was *"In the last 12 months, how many times (if ever) have you been drunk or high at school?"* Here we present the percentage reporting having been drunk or high at school at least once in the past year.

2019: Grades 7–12

- About one-in-ten (11.1%) students report that they were intoxicated at school at least once during the 12 months before the survey. This percentage represents about 88,700 Ontario students in grades 7 to 12.

- Males (12.2%) and females (9.9%) are equally likely to report being drunk or high at school.

- There is significant grade variation, ranging from 2.7% of 8th graders to 20.6% of 12th graders.

- There is significant regional variation showing that GTA students (8.4%) are least likely to report being intoxicated at school compared with students in the other three regions (about 13%-14%).

2005–2019: Grades 7–12

☐ The percentage of students who reported being intoxicated at school at least once in the past year has been stable since 2013, at about 10%-12%. However, there has been a significant downward trend when comparing the 2019 percentage to those seen between 2005 and 2011, when estimates were about 15%-17%.

Getting Drugs at School

(Figures 3.12.5, 3.12.6; Table 3.12.3)

Starting in 2005, the OSDUHS asked students whether they had been offered, sold, or given drugs at school. The question used was "*In the last 12 months, has anyone offered, sold, or given you an illegal drug on school property?"* Here we present the percentage responding "yes."

2019: Grades 7–12

- About one-in-six (16.8%) students report that they were offered, sold, or given a drug at school during the 12 months before the survey. This percentage represents about 133,700 Ontario students in grades 7 to 12.

- Males (18.4%) are significantly more likely than females (15.0%) to report they were offered, sold, or given a drug at school in the past year.

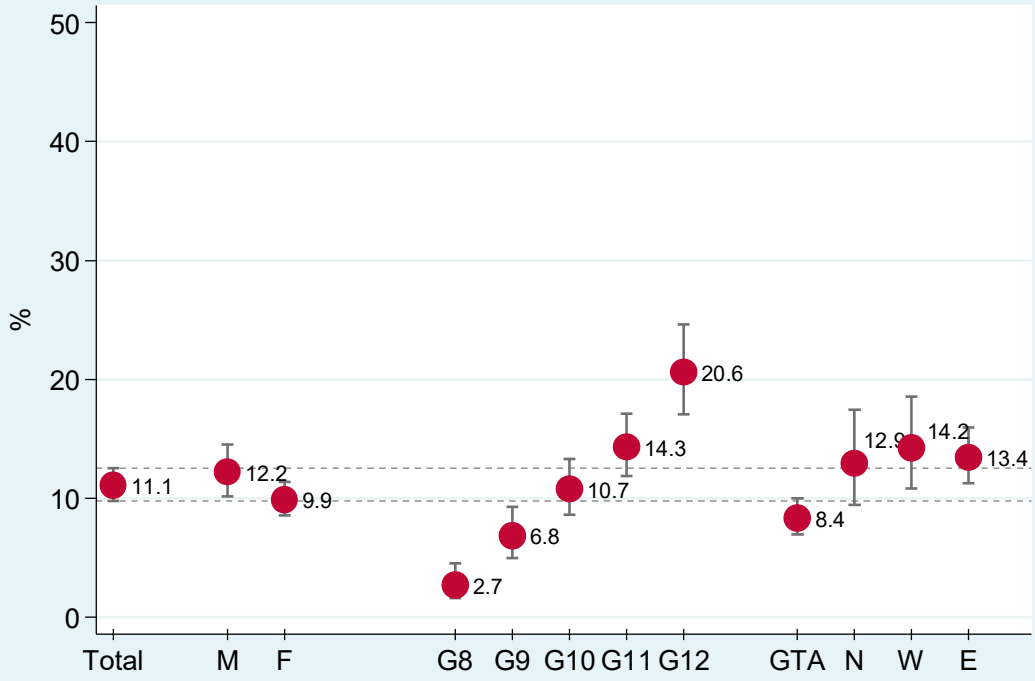
- Students in grades 9 to 12 (17%-24%) are significantly more likely than 7th and 8th graders to be offered, sold, or given a drug at school.

- Despite some variation, there are no significant differences among the regions.

2005–2019: Grades 7–12

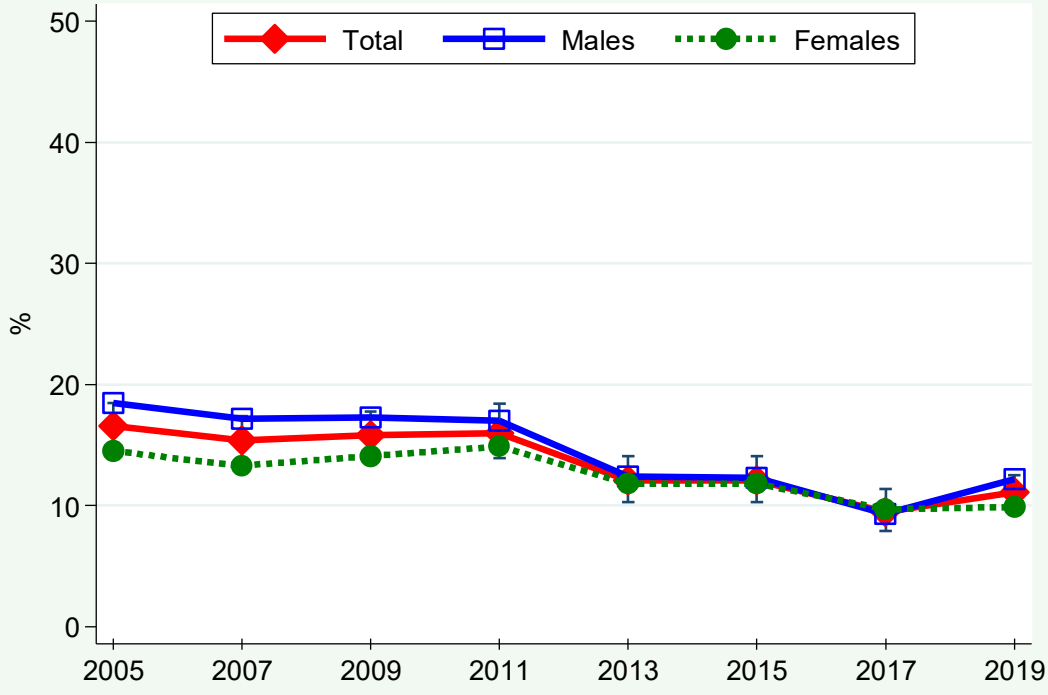
☐ The percentage of students who reported having been offered, sold, or given a drug at school in the past year has been stable since 2013, at about 15%-18%. However, there has been a significant downward trend when comparing the 2019 percentage to those seen between 2005 and 2011, when estimates were about 20%-23%.

Figure 3.12.3
Percentage Reporting Having Been Drunk or High at School in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



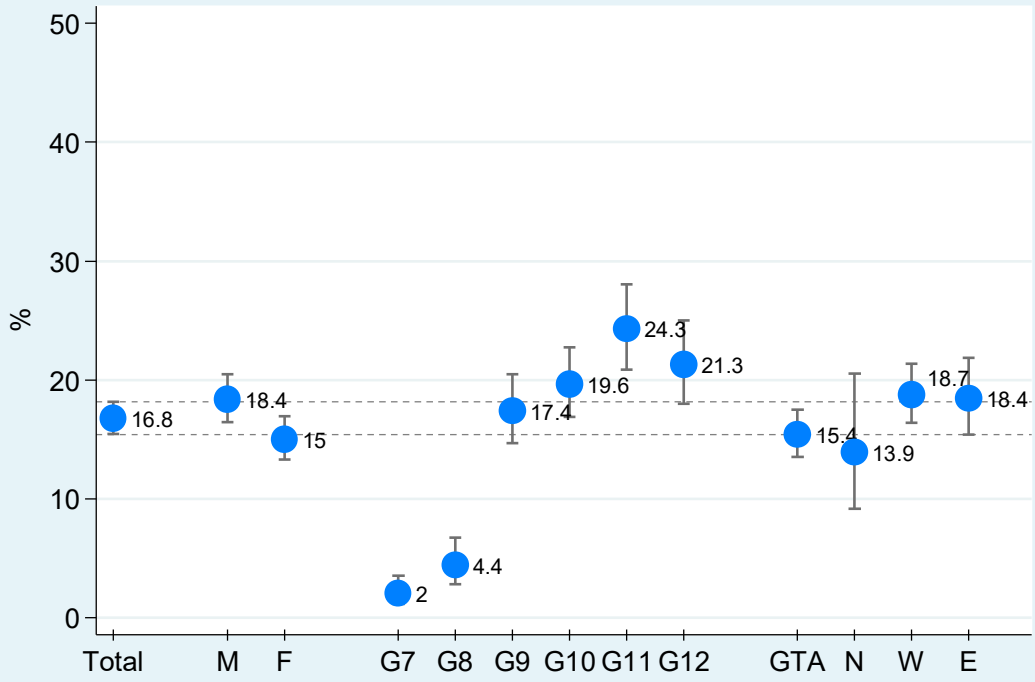
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant differences by grade and region (p<.05), no significant difference by sex

Figure 3.12.4
Percentage Reporting Having Been Drunk or High at School in the Past Year by Sex, 2005-2019 OSDUHS



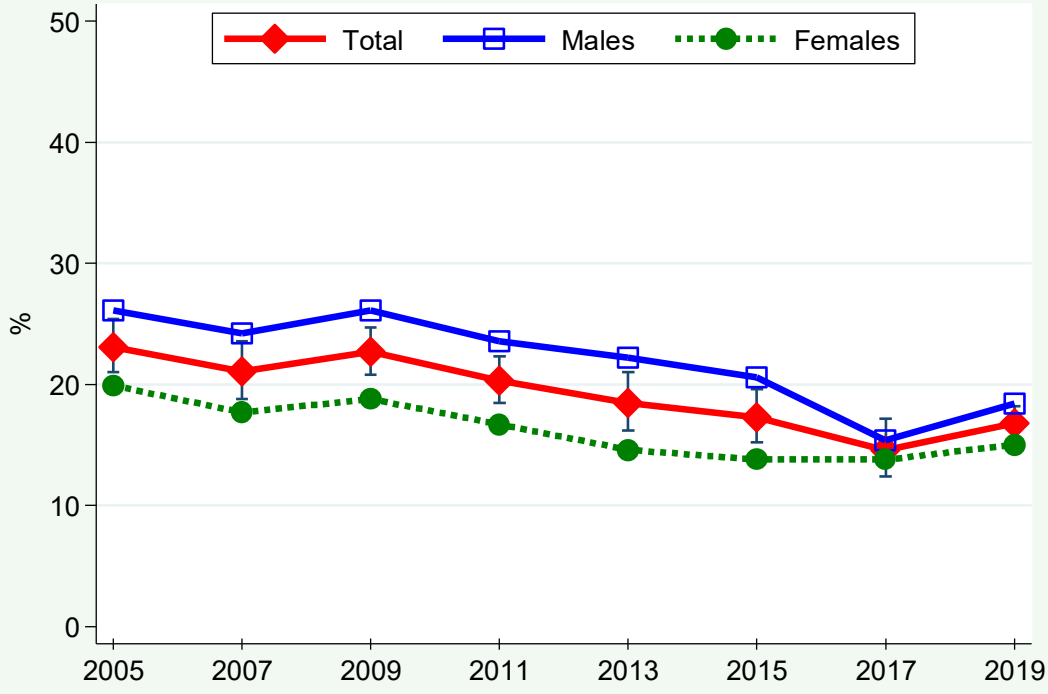
Note: error bars represent 95% confidence intervals for the total estimates

Figure 3.12.5
Percentage Reporting Having Been Offered, Given, or Sold an Illegal Drug at School in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by sex and grade (p<.05), no significant differences by region

Figure 3.12.6
Percentage Reporting Having Been Offered, Given, or Sold an Illegal Drug at School in the Past Year by Sex, 2005-2019 OSDUHS



Note: error bars represent 95% confidence intervals for the total estimates

Table 3.12.2: Percentage Reporting Having Been Drunk or High at School in the Past Year, 2005–2019 OSDUHS

		2005	2007	2009	2011	2013	2015	2017	2019
	(n=)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total (95% CI)		**16.6** (14.9-18.5)	**15.4** (13.5-17.4)	**15.8** (14.0-17.8)	**16.0** (13.9-18.4)	**12.1** (10.3-14.1)	**12.1** (10.3-14.1)	**9.5** (7.9-11.4)	**11.1** [bc] (9.8-12.5)
Sex									
	Males	**18.5** (16.4-21.0)	**17.2** (14.7-20.0)	**17.3** (15.0-19.8)	**17.0** (14.4-19.9)	**12.4** (9.5-16.1)	**12.3** (10.4-14.5)	**9.3** (7.5-11.4)	**12.2** [b] (10.2-14.5)
	Females	**14.5** (12.5-16.8)	**13.3** (11.1-15.8)	**14.1** (12.0-16.4)	**14.9** (12.5-17.6)	**11.8** (9.8-14.0)	**11.8** (9.5-14.7)	**9.7** (7.8-12.0)	**9.9** [b] (8.6-11.4)
Grade									
	7	†	**3.6** (2.0-6.5)	†	†	†	†	†	†
	8	**3.7** (2.2-6.4)	**4.0** (2.2-7.2)	**3.8** (2.5-5.8)	**4.7** (2.9-7.6)	†	†	†	**2.7** (1.6-4.5)
	9	**16.6** (13.4-20.3)	**15.5** (11.7-20.1)	**10.6** (7.8-14.2)	**10.3** (7.0-14.8)	**5.5** (3.5-8.3)	**5.7** (4.0-8.2)	**4.7** (2.9-7.7)	**6.8** [b] (5.0-9.3)
	10	**22.0** (18.4-25.9)	**18.4** (13.7-24.3)	**21.4** (16.8-26.9)	**20.4** (14.6-27.7)	**15.3** (12.0-19.3)	**10.5** (7.4-14.6)	**12.6** (9.8-16.1)	**10.7** [b] (8.6-13.3)
	11	**27.8** (22.7-33.5)	**21.8** (17.7-26.6)	**22.9** (18.4-28.1)	**25.1** (19.4-32.0)	**18.8** (14.0-24.9)	**20.7** (16.6-25.4)	**14.5** (10.6-19.4)	**14.3** [b] (11.8-17.1)
	12	**24.3** (20.6-28.4)	**24.4** (20.2-29.0)	**26.2** (21.5-31.6)	**24.4** (18.1-32.2)	**18.3** (13.7-24.0)	**22.1** (16.9-28.3)	**18.1** (13.7-23.6)	**20.6** (17.0-24.6)
Region									
	GTA	**16.6** (13.8-19.8)	**14.7** (12.1-17.9)	**14.8** (12.2-17.7)	**13.1** (11.0-15.5)	**11.9** (9.6-14.6)	**10.2** (8.3-12.5	**8.2** (6.3-10.5)	**8.4** [b] (7.0-10.0)
	North	**18.0** (13.4-23.6)	**21.2** (17.1-26.0)	**17.7** (11.8-25.8)	**18.7** (15.9-21.9)	**9.2** (5.5-14.8)	**11.6** (7.3-17.9)	**6.2** (4.1-9.2)	**12.9** [a] (9.4-17.4)
	West	**18.0** (14.0-23.0)	**16.4** (12.3-21.4)	**18.4** (14.2-23.4)	**23.5** (18.9-28.8)	**13.3** (9.5-18.4)	**12.3** (8.0-18.3)	**10.8** (8.3-14.0)	**14.2** (10.8-18.5)
	East	**14.8** (11.0-19.7)	**13.4** (9.3-19.0)	**13.0** (10.6-16.0)	**12.9** (10.8-15.4)	**11.1** (7.8-15.6)	**16.8** (13.0-21.4)	**10.2** (5.8-17.3)	**13.4** (11.3-16.0)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) [a] 2019 vs. 2017 significant difference, p<.01; [b] 2019 vs. 2005 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: In the last 12 months, how many times (if ever) have you been drunk or "high" on school property?
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.12.3: Percentage Reporting Having Been Offered, Sold, or Given a Drug at School in the Past Year, 2005–2019 OSDUHS

		2005	2007	2009	2011	2013	2015	2017	2019
	(n=)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)
Total		**23.1**	**21.1**	**22.7**	**20.3**	**18.5**	**17.3**	**14.6**	**16.8** [bc]
(95% CI)		(21.0-25.4)	(18.8-23.6)	(20.8-24.7)	(18.5-22.3)	(16.2-21.0)	(15.2-19.6)	(12.4-17.2)	(15.4-18.2)
Sex									
	Males	**26.1** (23.4-29.0)	**24.2** (20.8-27.9)	**26.1** (23.5-29.0)	**23.6** (20.7-26.7)	**22.2** (18.1-26.9)	**20.6** (18.0-23.4)	**15.4** (12.8-18.5)	**18.4** [b] (16.4-20.5)
	Females	**19.9** (17.5-22.6)	**17.7** (15.5-20.1)	**18.8** (16.8-21.1)	**16.7** (13.8-20.0)	**14.6** (12.2-17.4)	**13.8** (11.5-16.5)	**13.8** (11.2-16.9)	**15.0** [b] (13.3-16.9)
Grade									
	7	**3.3** (2.0-5.6)	**4.6** (2.6-8.0)	†	†	**2.5** (1.4-4.2)	†	†	**2.0** (1.1-3.5)
	8	**5.5** (3.5-8.4)	**5.2** (3.2-8.3)	**4.9** (3.1-7.5)	**6.2** (3.5-10.8)	**6.6** (4.4-9.6)	**3.2** (1.8-5.4)	**3.3** (2.0-5.4)	**4.4** (2.8-6.8)
	9	**26.2** (21.8-31.2)	**22.5** (17.9-27.8)	**23.2** (18.4-28.9)	**17.9** (14.5-21.8)	**17.4** (12.4-24.0)	**12.7** (10.2-15.7)	**12.6** (9.1-17.2)	**17.4** [b] (14.7-20.5)
	10	**30.1** (25.3-35.3)	**26.1** (20.4-32.7)	**31.5** (27.1-36.4)	**28.0** (22.1-34.8)	**23.0** (18.8-27.8)	**21.9** (18.4-25.9)	**23.6** (18.5-29.6)	**19.6** [b] (16.9-22.7)
	11	**34.4** (29.5-39.8)	**32.4** (27.8-37.4)	**35.9** (30.5-41.7)	**30.9** (25.7-36.7)	**26.8** (21.4-33.0)	**27.3** (22.6-32.5)	**21.7** (17.5-26.6)	**24.3** [b] (20.9-28.0)
	12	**35.1** (30.3-40.2)	**30.3** (26.0-35.0)	**28.9** (23.5-35.0)	**27.0** (23.8-30.4)	**24.2** (18.7-30.7)	**25.4** (19.7-32.0)	**20.4** (16.6-24.9)	**21.3** [b] (18.0-25.0)
Region									
	GTA	**24.8** (20.8-29.2)	**22.5** (18.7-26.9)	**21.3** (18.3-24.6)	**21.1** (17.5-25.3)	**18.4** (15.8-21.3)	**17.0** (14.0-20.4)	**15.4** (13.1-18.1)	**15.4** [b] (13.5-17.5)
	North	**22.4** (17.9-27.8)	**22.7** (16.8-30.0)	**27.3** (21.8-33.5)	**20.1** (17.0-23.6)	**13.2** (8.4-20.2)	**13.6** (10.3-17.9)	**11.3** (8.3-15.1)	**13.9** (9.1-20.5)
	West	**25.0** (20.0-30.8)	**18.5** (13.9-24.0)	**25.0** (20.6-30.0)	**20.5** (17.0-24.5)	**18.2** (13.8-23.5)	**15.2** (11.4-19.8)	**16.6** (13.8-19.9)	**18.7** (16.4-21.4)
	East	**18.0** (14.0-22.8)	**21.0** (15.8-27.3)	**20.3** (16.9-24.3)	**18.6** (14.8-23.2)	**21.2** (14.1-30.6)	**22.1** (16.5-29.0)	**10.8** (5.3-20.8)	**18.4** (15.4-21.9)

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) GTA=Greater Toronto Area; (5) no significant differences 2019 vs. 2017; [b] 2019 vs. 2005 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: In the last 12 months, has anyone offered, sold, or given you an illegal drug on school property?
Source: OSDUHS, Centre for Addiction & Mental Health

Exposure to Drug Selling

(Figures 3.12.7, 3.12.8; Tables 3.12.4, 3.12.5)

Students were asked whether anyone had tried to sell them drugs anywhere, and whether or not they had seen drug selling in their neighbourhood. Both questions referred to the past 12 months.

2019: Grades 7–12

- One-in-five (20.8%) students report that someone had tried to sell them drugs anywhere during the past year. This estimate represents about 165,800 students in grades 7 to 12 in Ontario.

- Males and older students are significantly more likely to report that someone tried to sell drugs to them. Despite some regional variation, there are no significant differences among the four regions.

- About one-in-five (18.3%) students – an estimated 145,600 in Ontario – report seeing someone selling drugs in their neighbourhood in the past year.

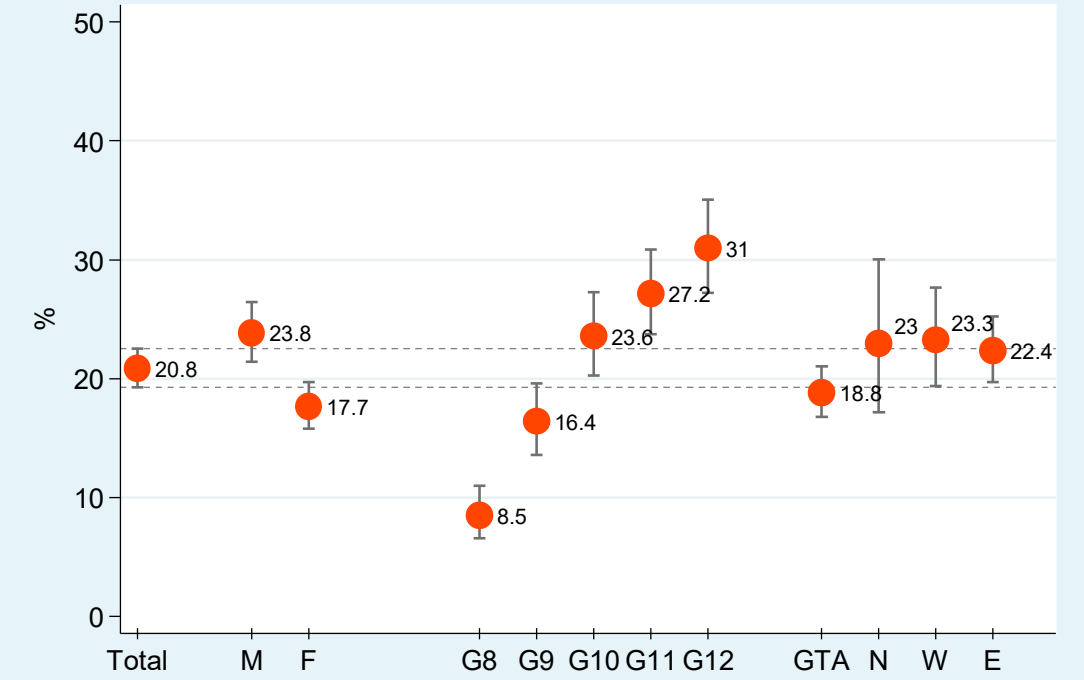
- Older students are significantly more likely to witness drug selling in the neighbourhood. There is no significant sex difference. Despite some regional variation, there are no significant differences among the four regions in witnessing drug selling in the neighbourhood.

1999–2019: Grades 7–12

- The percentage of students reporting that someone had tried to sell them drugs was relatively stable between 1999 and 2009, but has since significantly decreased during the past decade. The 2019 estimate (20.8%) is significantly lower than all prior estimates except for 2017.

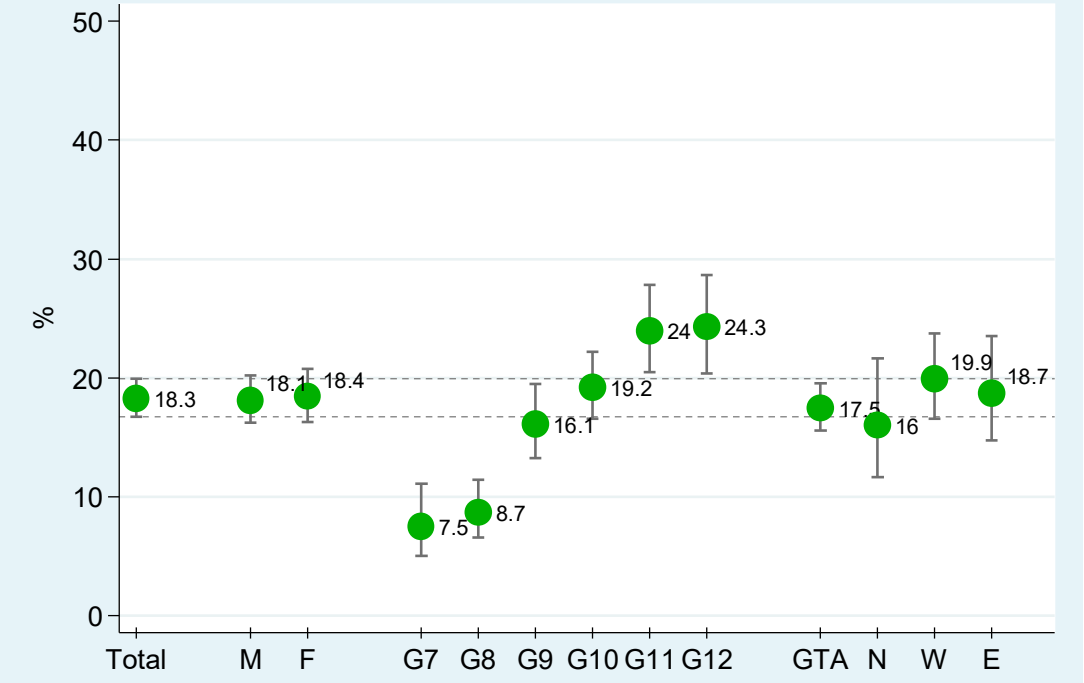
- The percentage of students reporting that they had seen drug selling in their neighbourhood was stable between 1999 and 2003, followed by a decline, stability, and another decline. The 2019 estimate (18.3%) is significantly lower than all prior estimates except for 2017.

Figure 3.12.7
Percentage Reporting that Someone Had Tried to Sell Them Drugs in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant differences by sex and grade (p<.05), no significant differences by region

Figure 3.12.8
Percentage Reporting Witnessing Drug Selling in Their Neighbourhood in the Past Year by Sex, Grade, and Region, 2019 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant differences by grade (p<.05), no significant differences by sex or region

Table 3.12.4: Percentage Reporting that Someone Tried to Sell Drugs to Them in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)	
Total	**35.4**	**38.8**	**36.7**	**33.0**	**31.0**	**32.2**	**26.8**	**25.2**	**24.8**	**19.8**	**20.8**	[bcd]
(95% CI)	(32.7-38.3)	(35.3-42.5)	(34.4-39.1)	(30.8-35.2)	(28.1-34.0)	(30.2-34.2)	(24.2-29.5)	(22.8-27.8)	(22.4-27.4)	(17.2-22.3)	(19.2-22.5)	
Sex												
Males	42.8	45.6	45.3	37.8	35.6	38.7	30.0	30.8	28.5	21.0	23.8	[b]
Females	27.9	32.4	28.7	27.6	25.8	24.9	23.1	19.4	20.9	18.5	17.7	[b]
Grade												
7	11.5	13.1	11.9	8.5	10.8	5.7	5.4	3.1	†	5.9	†	[b]
8	23.1	20.2	21.0	16.2	14.2	14.0	10.1	13.7	8.6	5.7	8.5	[b]
9	36.8	46.6	36.8	35.1	29.0	28.1	20.9	17.8	19.1	15.4	16.4	[b]
10	45.2	53.7	47.2	43.7	41.5	41.2	33.5	29.0	29.0	26.7	23.6	[b]
11	51.2	50.8	51.2	46.4	39.9	45.4	38.3	37.0	35.6	26.0	27.2	[b]
12	44.9	42.0	44.8	43.6	43.4	45.4	39.8	36.0	36.8	31.9	31.0	[b]
Region												
GTA	35.1	36.3	37.9	32.0	30.2	29.6	24.3	23.7	23.7	21.1	18.8	[b]
North	36.0	34.9	35.8	36.2	35.2	44.2	33.1	23.7	23.1	17.8	23.0	[b]
West	39.1	42.3	36.9	34.7	29.8	33.5	30.2	27.0	24.0	21.0	23.3	[b]
East	27.7	41.2	34.0	32.3	32.7	31.8	26.8	27.1	29.6	16.1	22.4	[b]

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, has anyone tried to sell you any illegal drug anywhere?
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.12.5: Percentage Reporting Witnessing Drug Selling in their Neighbourhood in the Past Year, 1999–2019 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	(6525)	
Total	**31.4**	**32.1**	**32.0**	**27.0**	**28.0**	**28.3**	**26.0**	**21.1**	**21.9**	**19.3**	**18.3**	bcd
(95% CI)	(28.5-34.4)	(29.0-35.3)	(29.9-34.3)	(25.0-29.2)	(25.6-30.5)	(26.1-30.7)	(23.9-28.1)	(19.2-23.1)	(20.0-23.9)	(16.9-21.8)	(16.7-19.9)	
Sex												
Males	36.2	37.6	37.7	29.9	29.4	30.8	27.4	21.8	24.5	18.9	18.1	b
Females	26.5	26.8	26.7	23.9	26.4	25.6	24.4	20.3	19.1	19.6	18.4	b
Grade												
7	12.2	14.2	14.3	7.8	12.5	10.2	5.8	5.9	6.7	8.9	7.5	
8	22.8	17.8	22.3	13.4	13.1	14.0	10.6	11.2	9.2	9.6	8.7	b
9	27.5	36.6	30.8	28.1	30.0	26.3	21.2	16.4	17.4	16.2	16.1	b
10	43.8	39.9	36.7	34.0	35.3	34.8	30.6	23.6	27.9	25.9	19.2	b
11	45.8	44.2	46.2	36.9	36.2	31.4	35.4	29.9	28.1	28.1	24.0	b
12	38.7	36.7	37.2	38.2	35.7	42.6	39.6	28.7	30.5	23.7	24.3	b
Region												
GTA	33.6	33.6	33.1	27.5	31.1	30.1	25.9	23.2	23.2	21.8	17.5	b
North	33.0	26.0	27.6	27.8	29.9	24.1	26.8	16.0	19.7	17.4	16.0	b
West	28.3	31.8	33.0	27.8	24.6	27.9	28.4	18.6	19.8	17.1	19.9	b
East	29.2	31.3	29.8	25.2	25.2	26.7	23.3	21.0	22.0	18.9	18.7	b

Notes: (1) based on a random half sample of grades 7-12 in each year; (2) entries in brackets are 95% confidence intervals; (3) GTA=Greater Toronto Area; (4) no significant differences 2019 vs. 2017; [b] 2019 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, have you seen anyone selling illegal drugs in your neighbourhood?

Source: OSDUHS, Centre for Addiction & Mental Health

4. DISCUSSION

THE PUBLIC HEALTH APPROACH TO DRUG USE

Tobacco, alcohol, and other drug use are among the leading causes of morbidity and mortality, both during adolescence and in adulthood. A public health approach to drug use ultimately seeks to improve the health, safety, and well-being of the entire population. The OSDUHS performs several public health functions including: identifying the extent of drug use in the mainstream student population, identifying its timing and pattern during adolescence, identifying the consequences of drug use and misuse, identifying risk and protective factors, tracking changes in drug use and new forms of use over time, and identifying priority areas for further research. Since 1977, the OSDUHS has been providing a knowledge base for designing and targeting preventive and health promotion programs, informing public health policy, evaluating the efficacy of a policy or program on a population level, and disseminating trustworthy information to health and education professionals and the general public.

STUDY LIMITATIONS AND DATA INTERPRETATION

Before discussing our findings, we must first remind readers of some of the limitations of this study. Although an in-school probability sampling survey is the most feasible and valid method to monitor drug use in the student population, those interpreting the OSDUHS results should consider the following limitations. First, these data are based on self-reports, which cannot be readily verified, nor are they based on clinical assessment. Respondents may unintentionally misreport their responses due to various errors in the response process. Respondents may err in their reporting of a behaviour or event due to such factors as the event not being stored in memory, not understanding the question, being unable to retrieve the information, and difficulty in formatting a response based on provided categories (Biemer & Lyberg, 2003).

Second, self-reports of drug use, other illegal behaviours, and sensitive issues likely underestimate the true rate by some unknown magnitude (Adlaf, 2005; Brener, Billy, & Grady, 2003; Delaney-Black et al., 2010; Hibell et al., 2003; McCambridge & Strang, 2006). However, there is evidence that conditions of anonymity and an in-class survey setting yield reasonably accurate reports of drug use (Bjarnason & Adalbjarnardottir, 2000; Brener, Billy, & Grady, 2003; Griesler et al., 2008; Hibell et al., 2003; O'Malley et al., 2000). Further, the extent of underreporting is not likely to vary over time. Thus, estimates of change over time should remain valid and unaffected by any bias.

Third, the bias caused by nonrespondents can affect our estimates. We do not know whether, or by how much, nonrespondents (i.e., absent students, suspended students, and those who were not allowed or refused to participate) differ from respondents. Research has shown that students who are absent from school report higher rates of drug use than those who attend regularly (Bovet et al., 2006; Eaton et al., 2008; Michaud et al., 1998; Weitzman et al., 2003). However, the rate of student absenteeism in the OSDUHS has remained stable across time; therefore, the trends reported should remain valid. More compelling, our analysis comparing high-responding classes to low-responding classes found few differences in the reporting of drug use and related measures (see the Methods chapter).

Fourth, our findings cannot be generalized to adolescents who are not attending school (e.g., dropouts, street youth, those in the military or in an institutionalized health or correctional

setting). Drug use in such groups can be appreciably different from what is found in the mainstream student population (Smart, Adlaf, Walsh, & Zdanowicz, 1994). However, the bias caused by such noncoverage depends not only on the difference in drug use between those surveyed and those not, but also on the size of the group missed. Thus, although drug use may be more likely among these adolescents excluded because they are out-of-scope, if the size of the excluded group is small relative to the total population, the bias may not be substantial (Heeringa et al., 2017). In our case, the group of adolescents excluded from our target constitutes only about 6% of the total adolescent population between the ages of 12 and 18 in Ontario.

Fifth, the data reflect a snapshot in time and because we do not follow the same students over time, we cannot identify causes of individual change or the temporal ordering of risk factors (i.e., whether X causes Y, or Y causes X). In addition, we cannot determine from these data to what extent our findings are adolescent-limited – that is, whether drug use changes with the transition into emerging adulthood.

Sixth and finally, the findings in such a large study are numerous and complex and some findings are more reliable than others. For example, random variation causes us to be cautious in interpreting change between two points in time. Therefore, we place greater emphasis on change occurring over multiple survey time points.

Despite these limitations, population health surveys such as the OSDUHS excel at identifying the extent of various health behaviours that have important current and future implications for adolescent well-being. Population health surveys help to identify which population groups are at the greatest risk of poor health outcomes, help to identify areas requiring more research, and help to identify potential future trends that have implications for future service and programming needs.

ENCOURAGING FINDINGS

This report presented findings about the past year use of alcohol, tobacco cigarettes and alternative smoking devices, cannabis and other drugs, and the nonmedical (NM) use of prescription drugs. It also examined changes in drug use and other related measures since 1977. There are many encouraging findings from the 2019 OSDUHS, as described below.

- The vast majority of students in Ontario do not smoke **tobacco cigarettes**. The past year prevalence of cigarette smoking began to decline dramatically during the 2000s, remained stable during the past few years, but continued to decrease to a historical low in 2019 at 5%. The percentage of students reporting past year use of a **waterpipe** (hookah) also declined in 2019, reaching an all-time low at about 4%.

- **Alcohol** use reached a historical low in 2013 and has remained stable since then. Currently less than half of the student population in grades 7 to 12 drinks alcohol. The magnitude of the decline in drinking has been even greater over the longer term, since the late 1970s, when roughly three-quarters of students drank. More importantly, **binge drinking** (five or more drinks on one occasion) is significantly lower today compared with elevated levels evident during the two peak periods seen in the late 1970s and the late 1990s. Further, the percentage of secondary school students reporting **hazardous or harmful drinking** significantly declined during the past decade, reaching an all-time low in recent years.

- Despite a numerical increase, we found no statistically significant change in **cannabis** use in 2019 compared to 2017, which was the latest estimate before legalization in October 2018. To date a few studies have been conducted on the impact of cannabis legalization using data from U.S. jurisdictions that legalized recreational cannabis, and the results are inconclusive. Using school-based survey data, one study found an increase in the prevalence of cannabis use among adolescents after legalization in the state of Washington, but also found no change among students in Colorado (Cerdá et al., 2017). Other

studies have shown a decrease in cannabis use among students (Anderson, Hansen, Rees, & Sabia, 2019; Dilley et al., 2019). Statistics Canada's *National Cannabis Survey* has shown that cannabis use remained stable between the first quarter of 2018 and the first quarter of 2019 among respondents aged 15-24 (Statistics Canada, 2019). Additional cycles of OSDUHS data are needed to address the effect of cannabis legalization on adolescent use in Ontario.

- Past year prevalence estimates for all **illicit drugs** monitored (e.g., ecstasy (MDMA), cocaine) are currently lower than estimates seen a few years ago, and much lower than estimates seen decades ago. The past year prevalence estimates for so-called "hard drugs" such as **methamphetamine**, **LSD**, **crack**, and **heroin** have shown declines over time and have recently reached historical lows.

- The past year **nonmedical use of prescription opioids** (e.g., Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNEO) has declined substantially since monitoring began in 2007, from one-in-five students reporting use without their own prescription down to one-in-ten students in recent years.

- Almost half (42%) of students **used no drug** in the past year, including alcohol and cigarettes. The proportion abstaining is significantly higher than the estimates from even a few years ago, and substantially higher than the estimates from the late 1970s and early 1980s, when only about 20% to 25% of students did not use drugs.

- **Driving after drinking alcohol** among licensed students is lower in 2019 than a decade ago, and markedly lower than the late 1970s and early 1980s. It is worth noting that the declines in drinking and driving followed the introduction of several new initiatives designed to prevent impaired driving in Ontario, including requiring a 0 Blood Alcohol Content (BAC) among all drivers up to age 21 (implemented August 2010), and increasing the sanctions for drivers who are apprehended with BACs in the "warn range" (.05% to .08%; implemented May 2009).

- Although **driving after cannabis use** among licensed students remained stable between 2017 and 2019, there has been a dramatic decline during the past decade or so. This reduction corresponds with the introduction of public education initiatives by organizations, such as MADD Canada, to address this behaviour.

- The percentage of all students reporting **riding in a vehicle with a driver who was drinking alcohol,** and the percentage **riding in a vehicle with a driver who was using drugs** has significantly declined since 2001, when monitoring of these behaviours first began.

- The **age of initiation** for drinking alcohol, smoking cigarettes, and using cannabis has increased. Our data show that students today initiate smoking cigarettes, drinking alcohol, and using cannabis later in adolescence than students did decades ago. Beginning use at a later age predicts fewer substance-related problems later on in life.

- One function of the OSDUHS is to track the **emergence of new drugs** or new forms of administration. Starting in 2013, we asked about **synthetic cannabis** ("spice" or "K2") use. The 2019 survey shows that synthetic cannabis ("spice," "K2") is used by less than 2% of students. **Fentanyl** use was first tracked in 2017, and the 2019 survey shows that less than 1% of secondary school students use this drug. This suggests that neither of these drugs have measurably diffused into the mainstream student population at this time. However, we must remain cautious. When the OSDUHS first began monitoring ecstasy (MDMA) use in 1991, the past year prevalence estimate was suppressed due to a very low value. A decade later, ecstasy use among Ontario students hit an all-time high. Therefore, ongoing monitoring of these drugs is warranted to observe if use eventually increases.

- The **perceived availability of tobacco cigarettes** has significantly decreased in the past few years (since 2013). The **perceived availability of cocaine, LSD, and ecstasy (MDMA)** has significantly decreased over the past two decades or so. Therefore, these drugs are now seen as more difficult to obtain than in the past.

- Reported **intoxication at school** and **drug availability at school** are currently lower than estimates seen a decade ago. **Exposure to drug selling** has also decreased over time.

SOME PUBLIC HEALTH CONCERNS

Several findings should be viewed as public health concerns. Smoking and drinking remain the primary topics of concern because these behaviours are responsible for greater harm to the physical and social well-being of youth, as well as to the population as a whole.

- **Tobacco cigarette smoking** is the leading cause of preventable disease and typically begins in adolescence. Although the OSDUHS has shown that student smoking has substantially declined over the decades, there is still a significant proportion that currently smoke cigarettes (5%, representing about 45,600 students in Ontario). The prevalence increases to one-in-ten among 12th graders.

- The OSDUHS has been monitoring the use of **electronic cigarettes** since 2015. The 2019 results show that about one-quarter (23%) of students in grades 7-12 use e-cigarettes (also known as "vaping"). This represents about 187,200 students in Ontario. The prevalence increases to one-third of 12th graders. About 8% of students vape daily. Many more students use e-cigarettes than tobacco cigarettes, and more students tried e-cigarettes for the first time in the past year than tobacco cigarettes. Further, students perceive the regular use of e-cigarettes to be less physically harmful than smoking one or two tobacco cigarettes daily. Trend data show that e-cigarette use has dramatically increased since the previous survey in 2017 (from 11% to 23%), as has the proportion of new users. Vaping nicotine also significantly increased since the previous survey. The recent surge in vaping is consistent with other survey research showing increases among youth in Canada (Hammond et al., 2019) and the U.S. (Gentzke et al., 2019; Miech et al., 2019a). Potential short-term harms from vaping include severe acute pulmonary illness (Landman et al., 2019; Layden et al., 2019; Schier et al., 2019), poisoning and other unintentional injuries (Walley, Wilson, Winickoff, & Groner, 2019). Potential harms from vaping nicotine include nicotine dependence, impeding healthy brain functioning and development, and increased likelihood of other drug use (Jenssen et al., 2019; Ren & Lotfipour, 2019; Rigotti, 2018). Some prospective studies among youth show that vaping is a strong risk factor for future tobacco cigarette smoking (Hammond, Reid, Cole, & Leatherdale, 2017; Leventhal et al., 2016; Miech, Patrick, O'Malley, & Johnston, 2017; Wills, Gibbons, Sargent, & Schweitzer, 2016). While some researchers suggest that e-cigarettes are less harmful than combustible tobacco cigarettes (National Academies of Sciences, Engineering, and Medicine [NASEM], 2018) and could possibly be beneficial to adult smokers in smoking cessation efforts (Bullen et al., 2013; Etter & Bullen, 2014), any use by young people is worrisome. Much is yet to be understood about the health effects of e-cigarettes and, in particular, the impact on tobacco cigarette smoking behaviour among adolescents.

- Despite a downward trend in use, **alcohol** remains the most commonly used drug among Ontario students. Just under half (42%) of all students drink alcohol, and this increases to about two-thirds of 12th graders. **Binge drinking** remains at an elevated level, as about one-in-six students (15% or an estimated 133,700 in Ontario) report drinking five or more drinks on the same occasion at least once in the past month. Among 12th graders, over one-quarter binge drink at least once a month. Alcohol consumption, especially binge drinking,

during adolescence has been associated with various adverse consequences such as family problems, school problems, mental health problems, risky sexual behaviour, injuries, as well as poor neurocognitive performance and altered brain development (Jacobus & Tapert, 2013; Kuntsche, Kuntsche, Thrul, & Gmel, 2017; Meruelo, Castro, Cota, & Tapert, 2017), and some problems can persist into adulthood (McCambridge, McAlaney, & Rowe, 2011).

- Despite the downward trend over time, about one-in-seven (14%) secondary students **drink hazardously/harmfully** (roughly 99,100 in Ontario), meaning that their drinking increases their risk of current or future physical and social problems. One-in-six (17%) secondary students **could not remember what happened when they were drinking** on at least one occasion in the past year, and 6% were **injured or injured someone** in the past year due to their drinking.

- Drinking **alcohol mixed with an energy drink** in the past year was reported by one-in-six (17%) students (22% of 12th graders). There are concerns that adolescents who mix these beverages increase their risk of harm, especially physical injury and intoxicated driving, possibly due to underestimating one's level of intoxication (Howland & Rohsenow, 2013; Marczinski, Fillmore, Henges, Ramsey, & Young, 2012; Roemer & Stockwell, 2017).

- Despite the downward trend over time, an unacceptably high percentage of students report using a **prescription opioid pain reliever** without their own prescription at least once in the past year (11%, representing about 98,300 in Ontario). The use of opioids can be dangerous when used without medical supervision because if taken in a large dose, or if taken with other depressant drugs (e.g., alcohol), this can severely slow one's breathing and possibly cause death. Chronic use of opioids can lead to tolerance and dependence (Manchikanti, Fellows, Ailinani, & Pampati, 2010; Okie, 2010).

- While **fentanyl** use among secondary students did not significantly change between 2017 and 2019, we estimate that about 3,500 students in grades 9-12 used this drug in the past year. Fentanyl is a potent synthetic opioid associated with a high risk of overdose and death from ingesting even a small quantity. Fentanyl-related deaths in Ontario and Canada have increased markedly in recent years, largely contributing to the opioid crisis (Belzak & Halverson, 2018; Special Advisory Committee on the Epidemic of Opioid Overdoses, June 2019).

- **Vehicles**: Despite long-term declines in drinking and driving, there are still about 4% of licensed students in grades 10 through 12 who report drinking and driving at least once in the past year (an estimated 10,900 in Ontario). A higher proportion (7%) of licensed students report driving after using cannabis (an estimated 18,900). Both of these behaviours have remained stable for a few years, despite continued efforts to reduce impaired driving. About 15% of all students report being a passenger with a driver who had been drinking, and 10% rode with a driver who had been using drugs. Especially worrisome is that the likelihood of being a passenger with an intoxicated driver (from either alcohol or cannabis) increases significantly with grade (e.g., about one-in-five 12th graders report these behaviours). All these behaviours increase the risk of unintentional injuries – the leading cause of death among young people. An important message from these data is that crash risk is not restricted to drivers.

- **Cannabis** remains among the most common drugs used by students and the recent legalization of recreational cannabis use for adults in Canada has created concerns that young people may increase use or be otherwise adversely affected. About one-in-five (22%) students in grades 7–12 use cannabis (an estimated 198,300 in Ontario). This prevalence reaches 40% among 12th graders. The perceived risk of harm from using cannabis either experimentally or regularly has decreased in recent years. This decrease in perceived risk of harm from using cannabis raises concerns because it may be a leading indicator of future increases in use, as shown by youth survey researchers in the U.S. (Miech et al., 2019b).

- Among the most common ways that secondary students report consuming cannabis is by edibles. About one-in-seven (14%) secondary students use **cannabis edibles** (e.g., cookies, candy), and this percentage significantly increased since 2017 (11%). The dosage and potency of cannabis edible products are commonly not known, which can lead to serious consequences such as overdose-related symptoms. A further risk associated with cannabis edibles stems from the lag between consumption and feeling the physiological effects, which can lead to consuming increased quantities in efforts to obtain the desired effects (NASEM, 2017).

- About one-in-ten (10%) secondary students report **consuming cannabis by vaping** and this percentage has significantly increased since monitoring first began in 2015 (5%). About 4% of secondary students consume cannabis by **dabbing**. The degree to which vaping and dabbing cannabis decreases or increases the health risks compared with smoking cannabis is not yet known, although some research suggests the THC content in vapourized oils and waxes and the exposure to toxic chemicals is much higher than in a traditional marijuana joint (Budney, Sargent, & Lee, 2015; Morean, Kong, Camenga, Cavallo, & Krishnan-Sarin, 2015; Stogner & Miller, 2015). Further, the perception of greater safety associated with vaping rather than smoking cannabis and the greater discretion due to minimal odour may increase the likelihood of use in more places (Budney et al., 2015; Giroud et al., 2015; Morean et al., 2015).

- About 2% of students in grades 7–12 (an estimated 20,700 in Ontario) use **cannabis daily** and another 2% use it several times per week. Short-term problems from regular cannabis use include memory impairment, reduced attention and motivation, which negatively affect school and family life (Broyd, van Hell, Beale, Yücel, & Solowij, 2016; Hall, 2015; Hall & Degenhardt, 2009; Lisdahl & Price, 2012; Silins et al., 2014; Volkow et al., 2014). Frequent or heavy cannabis use during adolescence is also worrisome due to potential long-term consequences. Research has shown a link to respiratory illnesses (Hall & Degenhardt, 2009; NASEM, 2017), neuropsychological impairment (Meruelo et al., 2017; Meier et al., 2012; NASEM, 2017; Raver, Haughwout, & Keller, 2013), depression (Horwood et al., 2012; Lev-Ran et al., 2014; NASEM, 2017), anxiety (Degenhardt et al., 2013; NASEM, 2017), and dependence (Hall, 2015; Silins et al., 2014; Volkow et al., 2014) in adulthood. Further, research is accumulating showing an association between heavy or early cannabis use and the onset of psychotic symptoms in individuals who possess an underlying vulnerability to psychosis (Griffith-Lendering et al., 2013; Kuepper et al., 2011; Large, Sharma, Compton, Slade, & Nielssen, 2011; Marconi, Di Forti, Lewis, Murray, & Vassos, 2016; McLaren, Silins, Hutchinson, Mattick, & Hall, 2010; NASEM, 2017; van Os et al., 2002).

- **Cannabis and alcohol use** together on the same occasion at least once in the past year was reported by 14% of students (representing 110,200 students in grades 7-12), and reaches 27% among 12th graders. Simultaneous alcohol and cannabis use has been shown to be associated with various short-term adverse consequences such as unsafe driving (Terry-McElrath, O'Malley, & Johnston, 2014), and regular co-use has been linked to neurocognitive deficits (Jacobus et al., 2015).

- The current past year prevalence of **nonmedical use of drugs typically used to treat Attention-Deficit/Hyperactivity Disorder (ADHD)**, such as Adderall and Ritalin, is slightly but significantly higher than the estimate from 2007, the first year of monitoring (3% vs. 1%, respectively). This is worth noting because it is the only drug measure apart from e-cigarettes to show an upward trend over the past decade, especially among older students. These stimulant drugs are typically misused to improve concentration and academic performance, or for weight control (Jeffers, Benotsch, & Koester, 2013; Wilens et al., 2008).

- Although the consumption of **highly caffeinated energy drinks** shows a significant decline over time, use remains elevated with one-third (33%) of all students (an estimated

259,500 in Ontario) reporting past year use. One-in-ten students report drinking an energy drink in the past week. The medical community has expressed concern about children and adolescents consuming energy drinks, and have called for restrictions on the labelling, sales and marketing of these beverages (MacDonald, Stanbrook, & Hébert, 2010; Seifert, Schaechter, Hershorin, & Lipshultz, 2011; Sepkowitz, 2013; Wolk, Ganetsky & Babu, 2012).

- One-in-nine (11%) students report that they were **intoxicated at school** at least once during the year before the survey. This estimate increases to almost one-in-five 12th graders.

- Although a majority of drugs examined in the 2019 OSDUHS have past year prevalence estimates below 5%, we should not dismiss these rates as unimportant. Whether a given drug poses significant problems in the population depends not only on the percentage using, but also on the likelihood of becoming dependent and of other hazards as well. Thus, it would be irresponsible to ignore the harm caused by drugs used by a small proportion. Even low prevalence rates represent large numbers of students. If we extrapolate our estimates to the total population of students in grades 7 through 12 in Ontario's publicly funded schools, we estimate that about 20,700 (2%) use cannabis daily, about 13,000 (2%) used synthetic cannabis ("spice," "K2") in the past year, and about 23,700 (3%) used an ADHD drug nonmedically in the past year.

DEMOGRAPHIC CORRELATES

The strongest correlate of drug use found in this report was **grade or age** (see Table 4.2 for an overview). Generally, drug use is more likely to occur as grade level increases, typically peaking in grade 11 (ages 16/17) or grade 12 (ages 17/18). The exception to this is inhalant use, which is most prevalent among 7th and 8th graders and declines by grade 9.

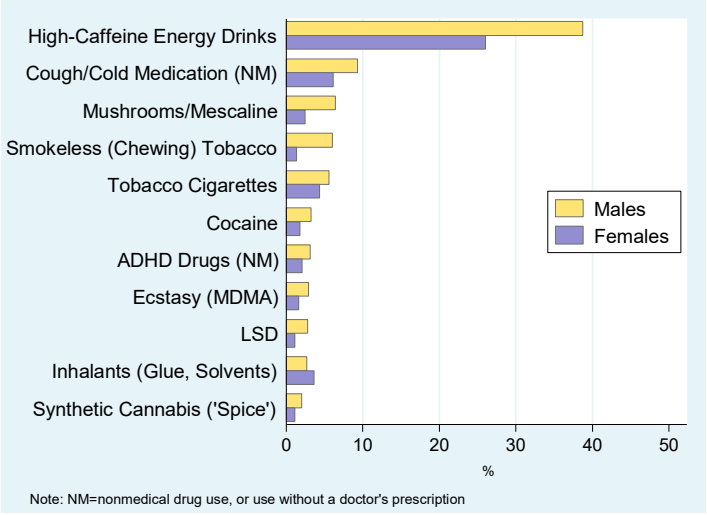
Sex is also associated with use of certain drugs. As summarized in Figure 4.1 and Table 4.2, males are significantly more likely to use energy drinks, cough/cold medication, mushrooms, smokeless tobacco, tobacco cigarettes, cocaine, ADHD drugs, ecstasy (MDMA), LSD, and synthetic cannabis. Females are more likely to use inhalants.

Several differences according to **region** of the province are evident in 2019 (Table 4.2). Compared with the provincial average, students in the Greater Toronto Area (GTA) are less likely to use the following drugs:

- tobacco cigarettes
- electronic cigarettes
- smokeless tobacco
- alcohol and binge drinking
- cannabis
- LSD
- mushrooms
- cocaine
- ecstasy (MDMA)
- cough/cold medication
- ADHD drugs
- tranquillizers/sedatives, and
- energy drinks.

Compared with the provincial average, students in the North region are more likely to use tobacco cigarettes, cocaine, and ecstasy (MDMA). Students in the West region are more likely to use ecstasy (MDMA) and ADHD drugs nonmedically. Students in the East region are more likely to use tobacco cigarettes, cough/cold medication nonmedically, and ADHD drugs nonmedically.

Figure 4.1
Significant Sex Differences in Past Year Drug Use, 2019 OSDUHS



POSSIBILITIES FOR PREVENTION

Although abstinence is the ideal goal for prevention programs targeted to adolescents, research has shown that preventing adolescents from using drugs, including alcohol and tobacco, is difficult, and, at best, effects are usually short-lived. However, delaying the initiation of use, especially heavy use, and preventing or minimizing harmful consequences from drug use may be more feasible goals (Fischer et al., 2017: Kuntsche, Rossow, Engels, & Kuntsche, 2016; Nicholson, Duncan, White, & Stickle, 2013; Rosenbaum, 2016; Toumbourou et al., 2007). Our survey findings suggest that the prime period for prevention programs is between grades 7 and 10 (ages 12–15), as this is the most likely time for the initiation of substance use. However, the use of many drugs continues to increase in grades 11 and 12, suggesting that prevention or harm reduction efforts should extend into the older grades.

The 2019 OSDUHS findings show a surge in the use of electronic cigarettes among students, especially products containing nicotine. This increase occurred subsequent to the regulatory framework implemented in Canada in May 2018, which permitted the sale of vaping products containing nicotine and greater advertising and access to products. Further, the findings show that students perceive vaping as less harmful than smoking tobacco cigarettes. Stricter regulations to curb youth access to electronic cigarettes and public education about the potential harms from vaping are clearly needed to address a rapidly evolving public health problem in Ontario.

Findings also show that problem use of alcohol and drugs is not rare among youth. We found that related risk behaviours and harms, such as driving while intoxicated, being a passenger with a driver who was using alcohol or drugs, and being injured while intoxicated are not uncommon occurrences. Thus, there is a need for programs to focus on reducing these behaviours and reducing the potential for harm.

A relatively smaller percentage of Ontario students use so-called "street" or "hard" drugs such as cocaine, hallucinogenic drugs (e.g., mushrooms or LSD), or methamphetamine when compared with the percentage that use prescription drugs (e.g., opioid pain relievers) or cough/cold medications nonmedically. Similar changes in the "drug landscape" over the past decade have been seen in the United States (Miech et al., 2019b). One likely explanation for this shift is that young people perceive these medications to be less harmful than "street" drugs given that they are legal and have therapeutic purposes. Any prevention program should address the use of medication to "get high" by educating youth and parents about the risks of harm associated with the nonmedical use of these drugs.

Prevention efforts should include a component that targets young people's beliefs and attitudes about drugs, specifically the risks of physical harms that can occur from use. Increases over time in the perceived risk of harm from using a substance are associated with concurrent and subsequent decreases in the rate of use, and vice versa (Miech et al., 2019b). Our findings show that beliefs about risk of harm are drug-specific. This, combined with the divergence in historical trajectories of past year use of the various drugs studied over time, suggests that any prevention effort should provide drug-specific information. Furthermore, considering the decrease over time in the perceived risks of using cannabis and the misconceptions youth have about harms from use (McKiernan & Fleming, 2017), there is a need for education about the short-term and long-term effects of cannabis use and the effects of the various modes of use.

While prevention efforts cannot control access to drugs through peer groups, the availability and accessibility of legal products such as tobacco cigarettes, electronic cigarettes, cannabis, and alcohol can be controlled through enhanced government policies. There is strong research evidence showing that reducing access through regulations such as increased taxes, enforcing minimum age laws, reducing the number of sales outlets, and restricting marketing can reduce substance use among youth (Babor et al., 2010; Hall et al., 2016; Stockwell et al., 2005; U.S. Department of Health and Human Services, 2016).

FUTURE OSDUHS MONITORING

Youth smoking, drinking, and other drug use are constantly changing, requiring ongoing monitoring and evaluation. As new drugs and new methods of use come on the scene, it is important to assess their use, related harms, and perceptions. Monitoring these health risk behaviours provides valuable information about determinants, co-occurrences, and changes over time. These data enable us to evaluate the effects of policies (e.g., smoking bans on school property, zero-tolerance policies), education programs, and whether health objectives are achieved. Scientific surveys, such as the OSDUHS, can also be useful for comparing youth populations residing in different regions.

Measuring change in student drug use, age at initiation, and perceptions over the past 40 years has been one of the most important contributions of the OSDUHS to drug research, policy, and prevention in Canada. We showed that important strides were made during the 1980s in reducing drug use among students, only to be followed by substantial increases in the late 1990s and early 2000s. Since then there has been a second decline in prevalence rates for most drugs measured in the survey. This decline in drug use over the past decade and a half has also been seen in other regions such as the U.S. (Miech et al., 2019b) and Europe (Kraus et al., 2018).

Despite this progress, we should not be complacent. History has shown that the values and lifestyles of adolescents can change quickly, and so too can the character of drug use. Not only do new drugs and new methods of use emerge regularly, but also old drugs are rediscovered by a new generation of young people who may not be aware of their adverse effects. The social and legislative environments surrounding legal and illegal drugs are also in constant flux. Two recent examples of policy changes that could influence student drug use are the Ontario government's decision to increase the number of cannabis retailers, and the Canadian government's approval of the sale of cannabis edibles and vaping products. These changes have important implications for availability, which is a major determinant of substance use and related problems. The public health response to these policy changes requires accurate information. Although we cannot be certain what the near future holds for student drug use, we can closely monitor trends in use to ensure that programmatic responses are based not on sensationalized fears, but rather on sound scientific information.

Readers should note that there is a companion OSDUHS report entitled *The Mental Health and Well-Being of Ontario Students*, which addresses trends in other important public health issues such as mental health, bullying, physical activity, obesity, gambling, video gaming and other technology use. The next release of this companion report will be in the summer of 2020.

Table 4.1: Significant Changes in Past Year Drug Use by Subgroup, 2019 vs. 2017 and 2019 vs. 1999

	Tobacco Cigarettes	Electronic Cigarettes	Waterpipes	Alcohol	Binge Drinking	Cannabis	Inhalants	LSD	Mushrooms	Methamphetamine	Cocaine	Crack	Heroin	Ecstasy (MDMA)	Opioid Pain Relievers (NM)	ADHD Drugs (NM)	Any NM Prescription Drug Use	Any Drug Use	Energy Drinks
Total	↓▽	↑△	↓▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	↓▽	▽	△	▽	▽	▽
Males	↓▽	↑△	↓▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	△	▽	▽	▽
Females	▽	↑△	▽	▽	▽		▽	▽	▽	▽	▽	▽		▽	▽	△	▽	▽	▽
Grade 7	▽			▽	▽	▽	▽	--	--	--	--	--	--	--			--	--	▽
Grade 8	▽			▽	▽	↑▽	▽	--	--	--	--	--	--	--	▽		--	--	▽
Grade 9	▽	↑△		▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽	▽		▽	▽	▽
Grade 10	↓▽	↑△	↓▽	▽	▽	▽	▽	▽	▽	▽	▽	▽		▽	▽		▽	▽	▽
Grade 11	▽	↑△	↓▽	▽	▽	▽	▽	▽	▽	▽	▽	▽		▽	▽		▽	▽	▽
Grade 12	▽	↑△	▽	▽	▽		▽	▽	▽	▽		▽	▽	▽	▽	△	▽	▽	▽
GTA	↓▽	△	↓▽	▽	↓▽	▽	▽	▽	▽	▽	▽	▽		↓▽	▽		▽	▽	▽
North	▽	↑△		▽	▽		▽	▽	▽	▽					▽		▽	▽	▽
West	▽	↑△		▽	▽	↑	▽	▽	▽	▽	▽	▽		▽	▽	△	▽	▽	▽
East	▽	↑△	▽	▽			▽	▽	▽	▽		▽	▽		▽	△	▽	▽	

Notes: (1) ↑ ↓ significant increase or decrease in 2019 vs. 2017, p<.01; (2) △ ▽ significant increase or decrease in 2019 vs. 1999 for most drugs, p<.01 (vs. 2001 for ecstasy, vs. 2003 for cocaine, vs. 2007 for opioid pain relievers, ADHD drugs, and Any NM Prescription Drug Use, vs. 2011 for energy drinks, vs. 2013 for waterpipes, vs. 2015 for electronic cigarettes); (3) -- indicates question not asked of that grade; (4) NM=nonmedical use, without one's own doctor's prescription; (5) GTA=Greater Toronto Area; (6) "Binge Drinking" refers to drinking five or more drinks on one occasion at least once in the past month; (7) "Any Drug Use" index is based on eight drugs asked about over time (excludes alcohol, tobacco, cannabis); (8) no significant year differences for the total sample were found for smokeless tobacco, synthetic cannabis, cough/cold medication (NM), or tranquillizers/sedatives (NM), therefore these drugs are not presented.

Table 4.2: Significant Subgroup Differences in Past Year Drug Use, 2019 OSDUHS

	Tobacco Cigarettes	Electronic Cigarettes	Waterpipes	Smokeless Tobacco	Alcohol	Binge Drinking	Cannabis	Synthetic Cannabis	Inhalants	LSD	Mushrooms	Cocaine	Ecstasy (MDMA)	Cough/Cold Medication (NM)	ADHD Drugs (NM)	Tranquillizers/ Sedatives (NM)	Any NM Prescription Drug	Any Drug Use	Energy Drinks
Sex Effect	*	ns	ns	***	ns	ns	ns	*	*	***	***	***	***	***	**	ns	ns	**	***
	M ↑			M ↑				M ↑	F ↑	M ↑	M ↑	M ↑	M ↑	M ↑	M ↑			M ↑	M ↑
Grade Effect	***	***	***	***	***	***	***	***	***	*	**	***	***	ns	***	***	**	***	***
(compared with previous grade)	8 ↑ 7	8 ↑ 7			8 ↑ 7	8 ↑ 7	8 ↑ 7			--	--	--	--			--	--	--	8 ↑ 7
	9 ↑ 8	9 ↑ 8	9 ↑ 8		9 ↑ 8	9 ↑ 8	9 ↑ 8		9 ↓ 8										
		10 ↑ 9			10 ↑ 9	10 ↑ 9	10 ↑ 9	10 ↑ 9			10 ↑ 9								
	11 ↑ 10	11 ↑ 10		11 ↑ 10	11 ↑ 10	11 ↑ 10	11 ↑ 10				11 ↑ 10	11 ↑ 10	11 ↑ 10			11 ↑ 10	11 ↑ 10		11 ↑ 10
	12 ↑ 11		12 ↑ 11		12 ↑ 11	12 ↑ 11	12 ↑ 11					12 ↑ 11			12 ↑ 11				
Region Effect	***	***	ns	***	***	***	***	ns	ns	***	**	***	***	**	***	*	*	ns	*
(region compared with Ontario)	GTA ↓	GTA ↓		GTA ↓	GTA ↓	GTA ↓	GTA ↓			GTA ↓	GTA ↓	GTA ↓	GTA ↓	GTA ↓	GTA ↓	GTA ↓	GTA ↓		GTA ↓
	N ↑											N ↑	N ↑						
													W ↑		W ↑				
	E ↑													E ↑	E ↑				

Notes: (1) overall tests of effect are based on a univariate chi-square statistic, *p<.05, **p<.01, ***p<.001; (2) subgroup comparisons are based on *adjusted logistic regressions*; (3) -- indicates question not asked of grades 7 and 8 students; (4) ns=nonsignificant; (5) "Binge Drinking" refers to drinking five or more alcoholic drinks on one occasion at least once in the past month; (6) "Alcohol + Cannabis" refers to using both on the same occasion at least once in the past year; (7) NM=nonmedical use, without one's own doctor's prescription; (8) GTA=Greater Toronto Area, N=North, W=West, E=East; (9) past year use of methamphetamine, crack, heroin, fentanyl, and prescription opioids (NM) show no significant differences according to sex, grade, or region and therefore are not presented.

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6. APPENDICES

1. Long-Term Drug Use Tables, 1977–2019
2. Drugs No Longer Monitored in the OSDUHS
3. Ontario Public Health Regions Sponsoring Oversamples in the OSDUHS, 2009–2019
4. District School Boards in Ontario
5. Student Completion Rate by Year of Survey
6. Sample Demographics by Year of Survey
7. Design Effects (Deffs) for Estimates by Year of Survey

Appendix 1: Long-Term Drug Use Tables, 1977–2019

Table A1: Percentage Using the Drug At Least Once in the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
GRADES 7, 9, and 11																						
(n=)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2424)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Cigarettes	**29.2** (26.7-31.8)	**35.0** (32.3-37.7)	**28.8** (25.4-32.5)	**29.0** (25.6-32.6)	**23.6** (21.1-26.2)	**22.9** (21.1-24.8)	**22.2** (20.3-24.2)	**20.1** (18.4-22.0)	**23.4** (21.8-25.2)	**27.3** (25.2-29.5)	**27.2** (25.4-29.0)	**26.6** (23.5-30.0)	**21.2** (17.7-25.2)	**17.4** (15.3-19.7)	**12.7** (11.1-14.5)	**10.8** (9.3-12.6)	**9.3** (8.0-10.9)	**7.2** (6.0-8.4)	**6.3** (4.9-8.0)	**6.0** (5.0-7.2)	**5.2** (3.9-6.8)	**3.9** (3.2-4.8)
Alcohol	**72.8** (70.4-75.1)	**73.7** (71.6-75.8)	**70.1** (67.7-72.3)	**69.0** (66.1-71.9)	**66.3** (64.7-67.9)	**65.1** (63.0-67.3)	**62.6** (58.8-66.3)	**54.3** (51.6-57.0)	**53.6** (50.4-56.6)	**56.0** (53.4-58.4)	**56.9** (53.3-60.4)	**62.7** (59.4-66.0)	**58.9** (54.1-63.5)	**62.9** (60.2-64.4)	**57.8** (54.9-60.5)	**56.1** (53.0-59.0)	**51.2** (47.9-54.4)	**49.8** (44.7-54.9)	**41.8** (38.1-45.7)	**38.9** (36.0-41.7)	**36.2** (33.3-39.2)	**35.0** (32.7-37.3)
Cannabis	**21.8** (19.5-24.3)	**29.1** (26.1-32.4)	**25.1** (22.2-28.2)	**21.9** (19.7-24.3)	**19.4** (16.4-22.9)	**13.8** (10.9-17.3)	**11.9** (9.7-14.4)	**9.9** (8.7-11.3)	**11.5** (10.7-12.4)	**21.9** (18.8-25.4)	**23.9** (21.9-26.0)	**26.8** (23.7-30.1)	**26.2** (22.1-30.8)	**27.8** (25.4-30.3)	**22.2** (20.1-24.5)	**22.0** (19.5-24.7)	**20.4** (18.4-22.6)	**18.4** (16.3-20.7)	**18.5** (15.9-21.5)	**16.7** (14.7-18.9)	**15.0** (12.8-17.5)	**17.8** (16.1-19.6)
Inhalants	**9.1** (8.1-10.1)	**9.4** (8.3-10.5)	**5.3** (4.1-6.9)	**6.2** (5.5-6.9)	**3.8** (3.1-4.6)	**5.1** (3.9-6.8)	**4.2** (3.6-5.0)	**2.3** (1.6-3.2)	**3.4** (2.7-4.1)	**4.8** (4.1-5.6)	**3.5** (3.0-4.1)	**9.6** (8.0-11.4)	**7.6** (6.1-9.5)	**7.6** (6.4-9.0)	**6.7** (5.4-8.4)	**6.9** (5.2-9.0)	**6.2** (4.7-7.9)	**6.4** (5.1-8.1)	**3.6** (2.7-4.8)	**3.5** (2.6-4.8)	**3.4** (2.5-4.6)	**3.1** (2.6-3.7)
GRADES 9 and 11																						
(n=)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
LSD	**7.7** (6.4-9.3)	**11.2** (9.4-13.3)	**13.0** (10.4-16.0)	**12.6** (10.7-14.8)	**9.5** (7.3-12.2)	**7.3** (4.8-10.8)	**7.1** (4.8-10.4)	**6.9** (5.6-8.3)	**9.1** (7.6-10.8)	**13.0** (9.5-7.4)	**10.8** (9.7-12.0)	**8.6** (6.4-11.5)	**4.8** (3.6-6.4)	**3.8** (3.0-4.8)	**2.6** (1.8-3.6)	**2.4** (1.7-3.5)	**2.1** (1.4-3.0)	**2.0** (1.1-3.4)	**1.2** (0.7-1.9)	**1.2** (0.8-1.7)	**1.2** (0.8-1.7)	**1.6** (1.2-2.2)
Mushrooms	**5.2** (4.2-6.4)	**6.8** (5.5-8.4)	**5.8** (3.9-8.6)	**8.6** (6.6-11.1)	**6.1** (4.5-8.1)	**5.4** (3.2-8.8)	**5.1** (3.4-7.7)	**4.3** (3.4-5.4)	**3.9** (3.0-5.1)	**10.6** (7.5-14.7)	**13.5** (11.5-15.8)	**16.0** (12.9-19.6)	**13.8** (11.0-17.2)	**12.6** (10.6-14.9)	**8.3** (6.7-10.3)	**7.5** (6.1-9.1)	**6.3** (4.8-8.2)	**4.8** (3.6-6.4)	**2.9** (1.8-4.8)	**2.6** (1.9-3.6)	**3.7** (2.6-5.3)	**3.6** (2.8-4.7)
Methamphet.	**2.7** (2.1-3.5)	**4.2** (3.5-5.1)	**3.8** (2.5-5.5)	**6.2** (3.3-11.2)	**4.1** (3.2-5.1)	**4.1** (3.0-5.6)	**3.2** (2.5-4.2)	**4.6** (2.9-7.4)	**4.1** (2.7-6.3)	**6.9** (4.6-10.3)	**4.8** (3.6-6.4)	**5.8** (3.5-9.6)	**3.4** (2.2-5.3)	**5.7** (4.4-7.3)	**3.4** (2.5-4.7)	**2.6** (1.8-3.5)	**1.7** (1.2-2.6)	†	**0.7** (0.4-1.4)	**0.9** (0.5-1.9)	**0.5** (0.3-0.9)	†
Cocaine	**4.0** (3.2-5.0)	**5.9** (4.8-7.2)	**5.7** (4.6-7.0)	**4.8** (3.4-6.8)	**4.6** (3.5-6.1)	**4.0** (2.6-6.0)	**3.1** (2.1-4.6)	**2.2** (1.5-3.1)	**1.5** (0.8-2.8)	**2.9** (2.3-3.7)	**3.3** (2.9-3.8)	**4.2** (3.0-5.7)	**4.8** (3.5-6.6)	**5.9** (4.8-7.2)	**5.4** (4.4-6.8)	**4.0** (3.2-5.1)	**2.4** (1.8-3.2)	**2.9** (2.0-4.1)	**1.8** (1.2-2.6)	**1.8** (1.3-2.5)	**2.3** (1.3-3.9)	**1.8** (1.4-2.4)
Crack	—	—	—	—	—	**1.4** (0.8-2.5)	**1.4** (0.7-2.5)	**1.2** (0.6-2.3)	**1.0** (0.5-2.0)	**2.2** (1.7-2.8)	**2.8** (2.1-3.7)	**3.3** (2.2-4.8)	**3.2** (2.3-4.4)	**3.4** (2.5-4.5)	**2.4** (1.8-3.1)	**1.6** (1.1-2.3)	**1.3** (0.8-2.1)	**0.8** (0.4-1.5)	**0.9** (0.5-1.7)	†	**0.5** (0.3-0.9)	†
Heroin	**2.2** (1.6-2.9)	**2.7** (2.0-3.6)	**1.9** (1.3-2.9)	**2.1** (1.4-3.1)	**1.7** (1.2-2.4)	**1.4** (0.8-2.7)	**1.4** (0.8-2.3)	**1.3** (0.8-2.0)	**1.2** (0.7-1.9)	**2.4** (1.6-3.5)	**1.9** (1.5-2.4)	**2.2** (1.5-3.2)	**1.5** (0.9-2.4)	**1.4** (1.0-2.0)	**1.1** (0.7-1.6)	**1.4** (0.9-2.1)	**0.9** (0.6-1.5)	†	†	†	†	†
Ecstasy	—	—	—	—	—	—	—	†	†	**2.5** (1.4-4.4)	**4.2** (2.3-7.5)	**5.8** (4.0-8.4)	**8.2** (6.5-10.2)	**5.2** (4.2-6.3)	**5.6** (4.4-7.2)	**4.5** (3.4-5.8)	**3.5** (2.7-4.7)	**5.1** (3.8-6.9)	**2.0** (1.2-3.2)	**3.5** (2.7-4.5)	**1.6** (1.1-2.4)	**1.8** (1.4-2.3)
Tranquillizers	**6.1** (5.0-7.4)	**7.3** (6.2-8.7)	**6.4** (5.3-7.7)	**6.8** (5.1-9.1)	**4.1** (3.1-5.3)	**3.8** (2.6-5.6)	**3.0** (2.5-3.6)	**2.2** (1.6-3.0)	**1.1** (0.6-2.3)	**2.0** (1.2-3.2)	**2.3** (1.8-3.0)	**2.4** (1.6-3.5)	**2.2** (1.3-3.7)	**3.0** (2.3-3.9)	**2.4** (1.7-3.2)	**2.2** (1.6-3.0)	**1.5** (1.1-2.0)	**2.0** (1.1-3.5)	**1.7** (1.2-2.4)	**1.7** (1.2-2.4)	**2.0** (1.3-3.1)	**2.6** (2.1-3.3)
Any Drug	**14.4** (12.6-16.4)	**19.8** (17.4-22.3)	**18.0** (15.9-20.4)	**19.8** (16.9-23.1)	**15.2** (12.4-18.5)	**12.6** (9.5-16.4)	**12.1** (9.8-14.8)	**12.3** (9.6-15.7)	**13.2** (10.2-16.9)	**20.8** (15.8-26.9)	**20.3** (17.7-23.1)	**21.5** (17.4-26.2)	**19.8** (17.0-23.1)	**16.4** (14.2-18.8)	**13.4** (11.5-15.5)	**11.4** (9.6-13.5)	**9.4** (7.8-11.4)	**9.1** (7.3-11.2)	**6.3** (4.8-8.2)	**6.5** (5.3-7.9)	**5.9** (4.3-8.2)	**6.2** (5.3-7.4)

Notes: (1) entries in brackets are 95% confidence intervals; (2) NM = nonmedical use, without a doctor's prescription; (3) † estimate suppressed (< 0.5%); (4) the "Any Drug" index used for trend purposes is restricted to use of any one of the following eight drugs: LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), tranquillizers/sedatives (NM).

Source: OSDUHS, Centre for Addiction & Mental Health

Table A2: Percentage Reporting Tobacco Cigarette Smoking in the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Total	**29.2**	**35.0**	**28.8**	**29.0**	**23.6**	**22.9**	**22.2**	**20.1**	**23.4**	**27.3**	**27.2**	**26.6**	**21.2**	**17.4**	**12.7**	**10.8**	**9.3**	**7.2**	**6.3**	**6.0**	**5.2**	**3.9** [cd]
(95% CI)	(26.7-31.8)	(32.3-37.7)	(25.4-32.5)	(25.6-32.6)	(21.1-26.2)	(21.1-24.8)	(20.3-24.2)	(18.4-22.0)	(21.8-25.2)	(25.2-29.5)	(25.4-29.0)	(23.5-30.0)	(17.7-25.2)	(15.3-19.7)	(11.1-14.5)	(9.3-12.6)	(8.0-10.9)	(6.0-8.4)	(4.9-8.0)	(5.0-7.2)	(4.0-6.8)	(3.2-4.8)
Males	**27.6**	**32.0**	**24.8**	**27.5**	**21.7**	**21.7**	**21.4**	**19.9**	**21.3**	**27.0**	**25.8**	**26.7**	**19.5**	**16.6**	**12.1**	**10.4**	**9.9**	**7.6**	**6.7**	**5.3**	**6.3**	**4.1**
	(24.6-30.9)	(29.1-35.1)	(23.0-26.7)	(22.9-32.7)	(18.8-24.9)	(18.8-24.9)	(19.1-23.9)	(17.4-22.6)	(18.6-24.3)	(24.2-30.0)	(22.4-29.6)	(22.7-31.0)	(15.7-24.0)	(13.8-19.8)	(10.3-14.1)	(8.5-12.7)	(8.0-12.2)	(6.1-9.6)	(5.0-8.8)	(4.0-7.0)	(4.6-8.5)	(3.1-5.3)
Females	**30.5**	**38.0**	**33.2**	**30.4**	**25.5**	**24.1**	**23.0**	**20.4**	**25.5**	**27.6**	**28.4**	**26.6**	**22.9**	**18.1**	**13.4**	**11.2**	**8.7**	**6.6**	**5.9**	**6.7**	**4.0**	**3.8**
	(27.5-33.8)	(34.7-41.4)	(26.6-40.6)	(27.0-34.0)	(22.0-29.4)	(21.8-26.5)	(19.1-27.4)	(18.7-22.2)	(22.2-29.2)	(24.6-30.9)	(27.1-29.7)	(22.8-30.8)	(18.3-28.2)	(15.5-21.1)	(11.2-16.0)	(9.2-13.6)	(7.0-10.7)	(5.2-8.5)	(4.4-7.8)	(5.3-8.5)	(3.0-5.4)	(2.9-4.8)
Grade																						
7	**14.0**	**20.4**	**11.4**	**14.8**	**10.3**	**10.2**	**7.1**	**6.1**	**9.4**	**10.3**	**10.2**	**7.4**	**5.0**	**4.4**	**2.0**	**2.5**	**1.0**	†	†	†	†	†
	(11.1-17.7)	(17.2-23.9)	(10.7-12.3)	(8.9-23.7)	(7.3-14.4)	(7.4-13.9)	(4.6-11.0)	(4.4-8.4)	(7.7-11.3)	(7.2-14.4)	(8.1-12.7)	(5.2-10.3)	(3.2-7.6)	(2.8-6.8)	(1.2-3.4)	(1.2-5.3)	(0.6-1.8)					
9	**33.3**	**36.5**	**32.2**	**32.5**	**24.6**	**24.9**	**28.2**	**21.4**	**23.7**	**27.5**	**26.0**	**27.8**	**23.4**	**17.0**	**12.6**	**10.2**	**7.5**	**3.7**	**3.3**	**3.8**	**2.8**	**2.7**
	(28.9-38.1)	(32.2-41.0)	(27.0-37.9)	(30.8-34.3)	(19.8-30.1)	(21.3-28.9)	(26.2-30.4)	(18.5-24.5)	(22.8-24.8)	(25.8-29.1)	(23.5-28.6)	(23.6-32.5)	(17.5-30.6)	(13.9-20.6)	(10.4-15.1)	(8.1-12.9)	(5.5-10.2)	(2.5-5.5)	(2.3-4.7)	(2.8-5.2)	(1.7-4.5)	(2.0-3.8)
11	**41.1**	**49.1**	**43.4**	**44.6**	**35.4**	**32.4**	**30.3**	**31.9**	**34.9**	**41.7**	**43.4**	**41.7**	**35.8**	**28.3**	**23.5**	**19.3**	**17.9**	**14.5**	**12.9**	**12.5**	**11.1**	**7.5**
	(36.6-45.7)	(44.4-53.9)	(37.6-49.4)	(38.4-51.0)	(31.1-40.0)	(28.1-37.0)	(26.4-34.5)	(28.7-35.3)	(30.6-39.5)	(36.7-46.8)	(39.3-47.6)	(35.4-48.4)	(29.8-42.2)	(24.3-32.6)	(20.0-27.2)	(16.3-22.7)	(14.9-21.5)	(12.1-17.3)	(9.7-16.9)	(10.1-15.3)	(8.1-15.1)	(5.9-9.6)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you smoke tobacco cigarettes? (The definition of smoking includes occasional smoking, but excludes a few puffs or smoking less than one whole cigarette in the past 12 months.)

Source: OSDUHS, Centre for Addiction & Mental Health

Table A3: Percentage Reporting Daily Tobacco Cigarette Smoking in the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Total	**22.0**	**24.1**	**20.7**	**20.3**	**15.9**	**14.8**	**14.4**	**14.4**	**16.9**	**19.0**	**19.4**	**20.7**	**16.9**	**12.0**	**7.5**	**5.0**	**4.5**	**3.1**	**2.3**	**1.9**	**1.6**	**1.2** [cd]
(95% CI)	(19.8-24.4)	(21.8-26.6)	(17.8-23.9)	(17.8-23.0)	(13.5-18.7)	(12.9-17.0)	(12.3-16.6)	(13.0-16.1)	(15.8-18.1)	(17.3-20.8)	(17.7-21.3)	(17.7-24.1)	(13.7-20.6)	(10.3-14.0)	(6.2-9.0)	(4.1-6.1)	(3.4-5.8)	(2.4-3.9)	(1.6-3.3)	(1.4-2.6)	(1.1-2.3)	(0.8-1.6)
Males	**20.8**	**22.3**	**17.2**	**19.6**	**14.2**	**14.5**	**13.4**	**14.6**	**15.9**	**19.5**	**18.8**	**20.9**	**15.9**	**11.4**	**7.3**	**5.3**	**4.6**	**4.1**	**2.3**	**2.2**	**2.3**	**1.4**
	(18.1-23.9)	(19.6-25.1)	(15.6-18.9)	(16.2-23.5)	(11.7-17.0)	(12.3-16.9)	(11.2-15.9)	(11.8-18.0)	(14.3-17.6)	(17.1-22.2)	(15.6-22.5)	(16.9-25.5)	(12.4-20.0)	(9.1-14.1)	(5.8-9.0)	(4.0-7.0)	(3.2-6.6)	(3.1-5.4)	(1.5-3.6)	(1.4-3.4)	(1.5-3.5)	(1.0-2.0)
Females	**23.0**	**26.0**	**24.5**	**21.0**	**17.8**	**15.2**	**15.3**	**14.2**	**17.9**	**18.5**	**19.9**	**20.5**	**17.9**	**12.7**	**7.7**	**4.6**	**4.3**	**2.0**	**2.3**	**1.7**	**0.9**	**0.9**
	(20.4-25.9)	(23.1-29.1)	(19.9-29.7)	(18.2-24.2)	(14.4-21.7)	(12.7-18.0)	(11.9-19.5)	(12.8-15.8)	(15.5-20.6)	(16.6-20.5)	(18.8-21.2)	(16.9-24.6)	(13.6-23.1)	(10.6-15.1)	(6.0-9.9)	(3.6-5.8)	(3.2-5.7)	(1.3-3.3)	(1.4-3.7)	(1.1-2.5)	(0.5-1.5)	(0.6-1.4)
Grade																						
7	**9.4**	**12.6**	**6.9**	**8.6**	**6.3**	**7.1**	**4.2**	**3.8**	**5.8**	**6.0**	**6.5**	**4.2**	**3.2**	**3.2**	**0.9**	†	†	†	†	†	†	†
	(7.1-12.4)	(10.3-15.4)	(5.5-8.8)	(4.9-14.9)	(3.9-10.0)	(4.9-10.2)	(2.7-6.3)	(1.9-7.6)	(4.4-7.7)	(3.2-11.0)	(4.5-9.3)	(2.8-6.2)	(1.6-6.0)	(1.8-5.6)	(0.5-1.7)							
9	**24.8**	**24.4**	**22.7**	**23.4**	**16.7**	**14.0**	**17.5**	**16.0**	**16.5**	**19.2**	**18.1**	**20.8**	**18.6**	**12.8**	**6.7**	**4.0**	**3.5**	†	**1.0**	**1.3**	†	**0.6**
	(20.9-29.2)	(20.7-28.5)	(18.7-27.3)	(20.3-26.9)	(12.0-22.8)	(11.3-17.3)	(14.3-21.3)	(14.9-17.1)	(14.9-18.1)	(16.6-22.0)	(16.0-20.4)	(16.8-25.5)	(13.0-25.8)	(10.0-16.3)	(5.2-8.7)	(2.8-5.6)	(2.1-6.0)		(0.6-1.7)	(0.7-2.5)		(0.3-1.0)
11	**32.8**	**36.6**	**33.1**	**32.9**	**24.6**	**22.5**	**21.0**	**22.7**	**26.7**	**29.8**	**32.2**	**34.7**	**29.4**	**18.4**	**14.7**	**9.9**	**8.6**	**6.2**	**4.9**	**3.9**	**3.4**	**2.5**
	(28.6-37.3)	(31.6-41.8)	(27.5-39.2)	(28.4-37.7)	(20.1-29.8)	(18.1-27.7)	(16.8-26.0)	(19.4-26.5)	(23.6-30.1)	(27.4-32.4)	(28.1-36.6)	(28.5-41.5)	(24.1-35.4)	(15.0-22.3)	(11.6-18.4)	(8.0-12.3)	(6.2-11.7)	(4.6-8.1)	(3.2-7.4)	(2.9-5.4)	(2.2-5.3)	(1.8-3.4)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you smoke tobacco cigarettes? (Daily smoking is defined as typically smoking one or more cigarettes per day during the past year.)

Source: OSDUHS, Centre for Addiction & Mental Health

Table A4: Percentage Reporting Drinking Alcohol in the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Total	**72.8**	**73.7**	**70.1**	**69.0**	**66.3**	**65.1**	**62.6**	**54.3**	**53.6**	**56.0**	**56.9**	**62.7**	**58.9**	**62.9**	**57.8**	**56.1**	**51.2**	**49.8**	**41.9**	**38.9**	**36.2**	**35.0** [cd]
(95% CI)	(70.4-75.1)	(71.6-75.8)	(67.7-72.3)	(66.1-71.9)	(64.7-67.9)	(63.0-67.3)	(58.8-66.3)	(51.6-57.0)	(50.4-56.6)	(53.4-58.4)	(53.3-60.4)	(59.4-66.0)	(54.1-63.5)	(60.3-65.4)	(54.9-60.5)	(53.0-59.0)	(47.9-54.4)	(44.7-54.9)	(38.1-45.7)	(36.0-41.7)	(33.3-39.2)	(32.7-37.3)
Males	**75.1**	**75.9**	**70.3**	**69.9**	**68.1**	**65.9**	**65.0**	**54.1**	**53.6**	**56.9**	**56.8**	**65.6**	**59.0**	**67.4**	**58.1**	**56.9**	**52.4**	**50.4**	**41.8**	**38.5**	**37.7**	**33.4**
	(72.5-77.6)	(73.6-78.0)	(68.0-72.5)	(66.4-73.2)	(65.1-71.0)	(63.6-68.2)	(60.5-69.3)	(50.8-57.4)	(50.4-56.9)	(53.8-59.9)	(52.6-60.9)	(61.5-69.6)	(54.2-63.7)	(64.2-70.5)	(54.0-62.1)	(52.7-61.0)	(48.6-56.1)	(46.1-54.6)	(37.3-46.5)	(34.9-42.3)	(33.4-42.2)	(30.7-36.2)
Females	**70.7**	**71.5**	**69.8**	**68.2**	**64.4**	**64.4**	**60.3**	**54.6**	**53.5**	**55.1**	**57.0**	**59.8**	**58.8**	**58.5**	**57.4**	**55.2**	**49.9**	**49.2**	**41.9**	**39.2**	**34.6**	**36.6**
	(67.5-73.8)	(68.6-74.2)	(66.0-73.4)	(65.4-70.9)	(62.1-66.6)	(61.2-67.5)	(56.3-64.2)	(51.4-57.7)	(48.5-58.4)	(51.6-58.6)	(53.3-60.6)	(55.5-63.9)	(52.2-65.1)	(54.9-61.9)	(54.3-60.4)	(51.6-58.7)	(46.0-53.8)	(41.8-56.5)	(37.6-46.3)	(35.5-43.0)	(31.3-38.1)	(33.8-39.4)
Grade																						
7	**57.3**	**57.0**	**51.2**	**53.0**	**43.1**	**43.6**	**42.5**	**30.1**	**32.0**	**30.5**	**31.9**	**39.7**	**36.1**	**39.1**	**31.4**	**28.1**	**22.7**	**17.4**	**9.9**	**8.6**	**10.5**	**7.3**
	(53.5-61.0)	(53.6-60.4)	(48.6-53.8)	(46.3-60.0)	(39.6-46.6)	(39.5-47.8)	(38.5-46.6)	(26.8-33.6)	(25.6-39.1)	(27.8-33.3)	(26.1-38.3)	(33.8-45.9)	(29.6-43.1)	(35.0-43.4)	(28.1-35.0)	(23.7-33.1)	(18.6-27.4)	(13.5-22.1)	(7.5-13.0)	(5.6-13.0)	(8.5-12.9)	(5.8-9.1)
9	**75.5**	**75.6**	**75.4**	**71.5**	**68.0**	**64.8**	**64.5**	**56.0**	**52.0**	**57.8**	**55.3**	**63.1**	**60.9**	**65.1**	**64.8**	**58.9**	**51.6**	**50.5**	**37.1**	**33.8**	**31.8**	**30.3**
	(72.7-78.1)	(72.9-78.1)	(71.4-78.9)	(68.6-74.3)	(65.8-70.1)	(59.0-70.2)	(58.1-70.5)	(52.1-59.8)	(49.2-54.7)	(54.5-61.0)	(47.4-63.0)	(58.0-67.9)	(54.3-67.1)	(60.5-69.3)	(60.4-68.9)	(53.8-63.8)	(46.3-56.8)	(43.8-57.2)	(32.9-41.5)	(30.6-37.2)	(28.2-35.6)	(26.9-34.0)
11	**87.4**	**89.9**	**83.9**	**88.9**	**87.4**	**84.8**	**81.8**	**75.0**	**73.2**	**75.8**	**80.6**	**82.0**	**81.0**	**79.9**	**76.1**	**79.2**	**74.3**	**73.5**	**67.9**	**67.0**	**60.6**	**57.0**
	(85.1-89.3)	(87.0-92.2)	(80.3-87.0)	(86.3-91.1)	(84.7-89.7)	(81.1-87.9)	(73.1-88.2)	(69.7-79.6)	(68.7-77.3)	(69.3-81.3)	(76.3-84.3)	(77.7-85.6)	(75.1-85.8)	(76.3-83.1)	(72.3-79.5)	(75.5-82.4)	(70.0-78.2)	(66.8-79.3)	(62.6-72.7)	(62.1-71.6)	(56.4-64.6)	(53.0-60.9)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you drink alcohol – liquor (rum, whiskey, etc.), wine, beer, or coolers? (Past year alcohol use includes drinking at a special event, but excludes a sip just to try.)
Source: OSDUHS, Centre for Addiction & Mental Health

Table A5: Percentage Reporting Binge Drinking in the Past Month, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Total	**18.3**	**23.8**	**20.0**	**20.9**	**19.2**	**18.8**	**20.3**	**18.3**	**15.0**	**18.6**	**22.1**	**25.7**	**22.1**	**24.6**	**19.0**	**22.2**	**19.2**	**18.2**	**14.7**	**14.7**	**13.7**	**11.7** [cd]
(95% CI)	(16.3-20.4)	(21.5-26.2)	(19.2-20.8)	(19.0-23.0)	(16.4-22.5)	(16.2-21.7)	(17.5-23.5)	(16.0-20.7)	(13.4-16.8)	(15.1-22.6)	(19.8-24.6)	(22.1-29.6)	(18.5-26.1)	(22.1-27.4)	(16.7-21.5)	(20.0-24.6)	(17.0-21.6)	(15.2-21.5)	(12.7-17.1)	(12.7-16.9)	(11.4-16.3)	(10.2-13.3)
Males	**20.6**	**27.3**	**22.7**	**24.7**	**22.9**	**21.4**	**23.0**	**20.2**	**16.4**	**21.6**	**23.8**	**29.7**	**26.1**	**27.7**	**19.9**	**22.9**	**19.4**	**17.7**	**15.0**	**13.7**	**14.4**	**11.4**
	(18.2-23.3)	(24.6-30.1)	(21.1-24.4)	(22.4-27.1)	(18.3-28.1)	(17.3-26.0)	(20.0-26.4)	(17.9-22.8)	(13.9-19.2)	(17.6-26.1)	(21.1-26.8)	(25.6-34.2)	(21.5-31.3)	(24.1-31.6)	(17.0-23.1)	(19.9-26.1)	(17.0-22.0)	(15.1-20.6)	(12.5-18.0)	(11.2-16.7)	(11.3-18.1)	(9.4-13.7)
Females	**16.2**	**20.2**	**17.0**	**17.3**	**15.5**	**16.4**	**17.7**	**16.0**	**13.7**	**15.7**	**20.6**	**21.5**	**18.0**	**21.7**	**18.0**	**21.6**	**19.1**	**18.6**	**14.5**	**15.7**	**12.9**	**12.0**
	(13.9-18.9)	(17.6-23.1)	(15.1-19.1)	(14.9-19.9)	(12.5-19.0)	(14.0-19.0)	(14.2-21.9)	(13.0-19.7)	(11.3-16.5)	(12.6-19.4)	(17.6-24.1)	(17.3-26.4)	(14.4-22.1)	(18.7-25.0)	(15.4-21.0)	(18.8-24.5)	(16.2-22.4)	(13.0-26.0)	(12.2-17.1)	(13.0-18.8)	(10.3-16.1)	(10.3-13.9)
Grade																						
7	**4.7**	**8.8**	**3.3**	**5.5**	**4.1**	**4.2**	**3.3**	**2.4**	**3.1**	**2.6**	**3.0**	**5.0**	**4.2**	**5.8**	**3.4**	**4.4**	**2.7**	**1.1**	†	†	†	**1.1**
	(3.4-6.5)	(6.8-11.2)	(2.4-4.6)	(2.9-10.3)	(1.9-8.4)	(2.5-6.9)	(2.4-4.5)	(1.5-4.0)	(2.1-4.6)	(2.2-3.1)	(2.3-3.9)	(3.5-7.1)	(2.7-6.7)	(4.0-8.4)	(2.1-5.5)	(2.9-6.6)	(1.6-4.5)	(0.6-2.1)				(0.7-1.7)
9	**17.2**	**23.1**	**20.2**	**21.9**	**16.1**	**16.5**	**20.3**	**18.3**	**12.3**	**13.9**	**19.8**	**23.8**	**21.7**	**23.5**	**18.8**	**18.8**	**16.3**	**13.7**	**8.5**	**9.0**	**9.2**	**8.7**
	(14.3-20.6)	(20.0-26.5)	(18.9-21.6)	(19.6-24.3)	(10.6-23.7)	(12.6-21.3)	(17.7-23.2)	(13.8-23.8)	(9.7-15.4)	(9.1-20.6)	(15.6-24.9)	(18.7-29.7)	(17.0-27.2)	(20.3-27.0)	(15.4-22.7)	(15.6-22.4)	(12.9-20.4)	(10.7-17.4)	(6.5-11.0)	(7.0-11.6)	(6.8-12.4)	(7.0-10.8)
11	**36.2**	**41.6**	**38.3**	**42.1**	**37.7**	**34.2**	**38.6**	**32.8**	**27.7**	**36.9**	**41.4**	**45.7**	**41.7**	**40.9**	**34.5**	**42.2**	**35.6**	**35.3**	**29.5**	**30.5**	**27.7**	**21.3**
	(32.2-40.5)	(36.8-46.5)	(32.1-44.9)	(38.8-45.4)	(32.5-43.2)	(26.2-43.2)	(30.8-47.1)	(28.5-37.4)	(24.5-31.2)	(28.5-45.2)	(36.3-46.6)	(39.1-52.5)	(36.1-47.5)	(36.0-46.0)	(30.4-38.8)	(37.7-47.0)	(31.3-40.0)	(30.9-40.0)	(25.1-34.3)	(26.2-35.3)	(23.4-32.5)	(18.4-24.6)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 4 weeks, how often have you had 5 or more drinks of alcohol on the same occasion?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A6: Percentage Reporting Drunkenness in the Past Month, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(1168)	(953)	(1618)	(1862)	(1488)	(2355)	(4669)	(5211)	(5225)	(5686)	(3242)
Total	**15.5**	**18.6**	**15.4**	**15.9**	**15.0**	**16.2**	**15.0**	**16.7**	**14.4**	**19.6**	**22.4**	**23.3**	**23.3**	**23.6**	**19.4**	**19.0**	**16.8**	**17.3**	**13.5**	**12.7**	**13.2**	**12.0** [cd]
(95% CI)	(13.8-17.4)	(16.8-20.5)	(13.6-17.5)	(14.1-18.0)	(12.8-17.3)	(13.3-19.6)	(13.5-16.6)	(14.8-18.7)	(13.0-15.9)	(16.2-23.6)	(20.8-24.0)	(20.0-27.0)	(19.4-27.7)	(20.7-26.8)	(16.8-22.4)	(16.4-21.9)	(14.8-19.0)	(14.7-20.3)	(11.4-15.8)	(10.9-14.7)	(10.9-15.9)	(10.1-14.2)
Males	**17.1**	**20.0**	**16.5**	**19.0**	**16.3**	**17.1**	**15.6**	**17.6**	**14.3**	**21.4**	**22.4**	**25.3**	**25.3**	**26.8**	**19.4**	**17.8**	**14.9**	**16.4**	**12.2**	**11.3**	**13.4**	**11.6**
	(15.0-19.3)	(17.7-22.7)	(14.8-18.5)	(16.4-22.0)	(13.6-19.3)	(13.5-21.4)	(13.7-17.7)	(15.7-19.6)	(12.8-15.9)	(17.9-25.4)	(20.3-24.7)	(21.2-29.8)	(20.6-30.7)	(22.8-31.1)	(16.1-23.3)	(14.7-21.4)	(12.4-17.6)	(14.0-19.0)	(9.7-15.2)	(9.2-13.8)	(10.0-17.5)	(9.2-14.6)
Females	**14.1**	**17.1**	**14.3**	**12.9**	**13.6**	**15.4**	**14.4**	**15.6**	**14.5**	**17.9**	**22.4**	**21.3**	**21.2**	**20.7**	**19.4**	**20.3**	**18.7**	**18.4**	**14.8**	**14.0**	**13.1**	**12.4**
	(12.1-16.4)	(14.9-19.6)	(11.4-17.7)	(11.3-14.7)	(10.7-17.1)	(12.8-18.2)	(12.0-17.2)	(12.9-18.8)	(12.2-17.0)	(14.3-22.3)	(20.6-24.2)	(17.4-25.8)	(16.3-27.1)	(16.8-25.3)	(16.4-22.9)	(16.7-24.5)	(15.3-22.6)	(14.0-23.8)	(12.4-17.6)	(11.6-16.9)	(10.6-16.0)	(10.1-15.2)
Grade																						
7	**6.5**	**7.8**	**4.4**	**6.0**	**4.3**	**4.3**	**2.9**	**4.2**	**4.3**	**3.8**	**4.8**	**4.3**	**4.8**	**3.6**	**3.4**	**3.2**	**3.8**	**1.5**	†	†	†	†
	(4.9-8.5)	(6.0-10.1)	(3.7-5.1)	(3.8-9.4)	(2.6-7.2)	(2.8-6.6)	(2.3-3.6)	(3.5-5.1)	(2.8-6.6)	(3.0-4.9)	(3.1-7.4)	(2.8-6.6)	(2.8-8.1)	(2.0-6.5)	(2.1-5.3)	(1.6-6.6)	(2.4-5.9)	(0.9-2.4)				
9	**15.5**	**19.8**	**16.6**	**19.1**	**14.6**	**16.4**	**18.3**	**17.4**	**13.8**	**16.1**	**20.2**	**21.5**	**24.5**	**24.5**	**20.4**	**17.1**	**15.9**	**14.2**	**9.3**	**8.2**	**9.9**	**8.2**
	(12.8-18.6)	(17.0-22.9)	(13.3-20.6)	(17.7-20.5)	(11.1-19.2)	(12.4-21.4)	(15.2-21.8)	(13.9-21.5)	(11.0-17.0)	(10.9-23.1)	(17.7-22.8)	(16.7-27.1)	(19.2-30.8)	(20.6-28.8)	(16.4-25.0)	(13.2-22.0)	(12.5-20.1)	(11.7-17.1)	(7.1-12.0)	(6.1-11.0)	(7.6-12.8)	(6.1-11.0)
11	**26.3**	**29.0**	**26.5**	**26.3**	**25.8**	**26.7**	**23.7**	**27.4**	**23.4**	**36.7**	**40.2**	**41.7**	**40.7**	**39.6**	**33.6**	**35.8**	**29.4**	**32.4**	**25.6**	**26.2**	**25.7**	**22.1**
	(22.9-30.0)	(25.4-33.0)	(20.2-33.8)	(21.4-31.8)	(21.5-30.7)	(18.5-36.9)	(21.3-26.2)	(23.9-31.1)	(20.6-26.4)	(28.9-45.5)	(37.0-43.4)	(35.3-48.4)	(32.5-49.4)	(33.4-46.1)	(28.7-39.0)	(30.8-41.1)	(25.3-34.0)	(28.1-36.9)	(21.3-30.4)	(22.5-30.3)	(20.8-31.2)	(18.5-26.1)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) asked of a random half sample between 2001 and 2009 and again in 2019;(3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 4 weeks, how often has drinking alcohol made you drunk (that is, you had so much that you could not do what you wanted to do, or you threw up)?

Source: OSDUHS, Centre for Addiction & Mental Health

Table A7: Percentage Reporting Cannabis Use in the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	(7059)
Total	**21.8**	**29.1**	**25.1**	**21.9**	**19.4**	**13.8**	**11.9**	**9.9**	**11.5**	**21.9**	**23.9**	**26.8**	**26.2**	**27.8**	**22.2**	**22.0**	**20.4**	**18.4**	**18.5**	**16.7**	**15.0**	**17.8** [d]
(95% CI)	(19.5-24.3)	(26.1-32.4)	(22.2-28.2)	(19.7-24.3)	(16.4-22.9)	(10.9-17.3)	(9.7-14.4)	(8.7-11.3)	(10.7-12.4)	(18.8-25.4)	(21.9-26.0)	(23.7-30.1)	(22.1-30.8)	(25.4-30.3)	(20.1-24.5)	(19.5-24.7)	(18.4-22.6)	(16.3-20.7)	(15.9-21.5)	(14.7-18.9)	(12.8-17.5)	(16.1-19.6)
Males	**25.7**	**33.1**	**27.6**	**25.3**	**22.5**	**16.3**	**12.4**	**11.0**	**13.6**	**24.1**	**24.2**	**29.5**	**29.6**	**29.5**	**22.9**	**23.6**	**22.4**	**18.6**	**20.6**	**15.5**	**17.3**	**17.4**
	(22.7-28.9)	(29.3-37.2)	(25.1-30.2)	(22.6-28.1)	(18.8-26.7)	(13.4-19.7)	(10.2-14.9)	(9.6-12.7)	(10.3-17.6)	(20.8-27.7)	(21.3-27.4)	(26.2-33.1)	(24.5-35.2)	(25.9-33.3)	(20.2-25.8)	(20.3-27.4)	(20.0-25.0)	(16.0-21.5)	(17.1-24.5)	(13.1-18.3)	(14.5-20.5)	(15.2-19.8)
Females	**18.3**	**25.0**	**22.4**	**18.6**	**16.1**	**11.4**	**11.4**	**8.7**	**9.5**	**19.8**	**23.6**	**24.0**	**22.8**	**26.1**	**21.5**	**20.2**	**18.3**	**18.2**	**16.4**	**18.0**	**12.6**	**18.2**
	(15.7-21.3)	(21.6-28.7)	(17.6-28.0)	(16.3-21.1)	(12.3-20.8)	(8.5-15.2)	(8.5-15.0)	(7.2-10.4)	(7.0-12.8)	(16.0-24.1)	(21.9-25.4)	(19.9-28.6)	(18.5-27.7)	(23.6-28.9)	(18.8-24.5)	(17.6-23.1)	(15.3-21.8)	(14.7-22.2)	(13.8-19.4)	(15.2-21.2)	(10.0-15.8)	(16.2-20.4)
Grade																						
7	**5.6**	**10.4**	**5.4**	**5.1**	**4.6**	**3.8**	**0.9**	**0.7**	**1.7**	**2.6**	**3.4**	**3.5**	**5.1**	**6.2**	**3.0**	**3.6**	**1.1**	**2.4**	**1.7**	†	**2.0**	**1.3**
	(4.1-7.5)	(8.2-13.0)	(4.2-6.8)	(2.8-9.1)	(3.1-6.8)	(2.4-6.0)	(0.5-1.5)	(0.2-2.1)	(0.9-3.0)	(1.2-5.6)	(1.4-8.1)	(2.2-5.6)	(3.4-7.6)	(4.3-8.7)	(1.9-4.9)	(2.2-5.8)	(0.6-1.8)	(1.3-4.4)	(1.0-3.1)		(1.1-3.6)	(0.7-2.4)
9	**23.3**	**29.2**	**27.1**	**25.0**	**18.3**	**12.1**	**12.7**	**8.2**	**8.8**	**19.5**	**24.0**	**25.5**	**28.8**	**27.9**	**23.0**	**21.0**	**18.4**	**11.9**	**14.6**	**10.3**	**9.3**	**12.8**
	(19.3-27.8)	(24.1-34.8)	(24.1-30.3)	(22.1-28.3)	(13.1-25.0)	(6.0-23.0)	(8.8-18.0)	(6.6-10.0)	(7.5-10.2)	(14.1-26.2)	(21.6-26.5)	(21.7-29.7)	(23.8-34.2)	(24.5-31.5)	(20.2-26.1)	(17.2-25.4)	(15.0-22.3)	(10.0-14.1)	(11.6-18.2)	(8.2-12.8)	(7.4-11.7)	(10.8-15.1)
11	**39.2**	**50.2**	**44.3**	**42.2**	**35.2**	**24.4**	**22.5**	**20.1**	**22.6**	**40.8**	**42.0**	**48.1**	**45.7**	**45.0**	**40.1**	**40.0**	**38.6**	**36.8**	**33.5**	**35.1**	**30.4**	**33.1**
	(34.4-44.1)	(44.3-56.1)	(36.6-52.2)	(36.8-47.7)	(28.6-42.4)	(19.9-29.4)	(18.5-27.0)	(17.3-23.2)	(20.5-24.8)	(34.1-47.9)	(37.5-46.7)	(42.8-53.4)	(37.7-53.9)	(40.6-49.5)	(36.2-44.1)	(35.9-44.2)	(34.4-42.9)	(33.2-40.7)	(29.1-38.3)	(30.9-39.6)	(25.2-36.2)	(29.8-36.5)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you use cannabis (also known as marijuana, "weed", "pot", "grass", hashish, "hash", hash oil, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A8: Frequency of Cannabis Use in the Past Year, 1981–2019 OSDUHS (Grades 7, 9, and 11 only)

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Not Used	75.0	78.1	80.6	86.2	88.1	90.1	88.5	78.1	72.2	73.2	73.8	72.2	77.8	78.0	79.6	81.6	81.5	83.3	85.0	82.2
1-2 times	6.8	7.1	6.6	5.5	5.0	3.6	4.5	6.7	8.0	8.0	6.0	8.2	6.1	6.2	5.4	5.1	5.5	4.1	5.5	6.0
3-5 times	3.1	3.2	3.3	2.2	2.1	1.7	2.1	3.7	4.5	3.8	4.8	3.6	3.2	3.8	3.8	2.4	2.9	2.6	3.0	2.8
6-9 times	3.5	2.8	2.3	1.2	1.2	1.1	1.2	2.1	3.3	3.8	2.9	3.2	1.8	2.5	2.3	2.4	1.9	2.2	1.3	2.1
10-19 times	3.3	2.5	2.0	2.1	1.4	1.1	0.9	2.8	3.5	3.4	4.1	3.4	3.2	3.0	2.5	2.3	2.6	2.5	1.7	1.8
20-39 times	2.8	1.9	1.7	0.9	1.0	1.0	1.1	2.0	2.8	2.7	2.6	2.5	2.0	1.6	1.7	1.2	1.8	1.7	1.3	1.8
40+ times	5.5	4.3	3.5	2.0	1.2	1.4	1.6	4.4	5.7	5.1	5.8	6.8	5.9	4.8	4.7	5.1	3.9	3.6	2.1	3.3

Table A9: Percentage Reporting Inhalant Use (Glue or Solvents) During the Past Year, 1977–2019 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	(7059)
Total	**9.1**	**9.4**	**5.3**	**6.2**	**3.8**	**5.1**	**4.2**	**2.3**	**3.4**	**4.8**	**3.5**	**9.6**	**7.6**	**7.6**	**6.7**	**6.9**	**6.2**	**6.4**	**3.6**	**3.5**	**3.4**	**3.1** [cd]
(95% CI)	(8.1-10.1)	(8.3-10.5)	(4.1-6.9)	(5.5-6.9)	(3.1-4.6)	(3.9-6.8)	(3.6-5.0)	(1.6-3.2)	(2.7-4.1)	(4.1-5.6)	(3.0-4.1)	(8.0-11.4)	(6.1-9.5)	(6.4-9.0)	(5.4-8.4)	(5.2-9.0)	(4.7-7.9)	(5.1-8.1)	(2.7-4.8)	(2.6-4.8)	(2.5-4.6)	(2.6-3.7)
Males	**9.8**	**11.0**	**5.6**	**7.1**	**4.0**	**6.2**	**4.7**	**2.0**	**3.2**	**4.8**	**3.0**	**8.2**	**8.2**	**7.2**	**6.5**	**6.6**	**4.5**	**6.6**	**3.0**	**4.0**	**2.6**	**2.4**
	(8.2-11.6)	(9.4-13.0)	(4.3-7.3)	(6.5-7.7)	(3.0-5.3)	(4.5-8.5)	(3.6-6.3)	(1.4-3.0)	(2.6-4.0)	(3.7-6.1)	(2.3-4.0)	(6.3-10.6)	(5.9-11.1)	(5.7-9.0)	(5.0-8.5)	(4.7-9.4)	(3.1-6.4)	(5.0-8.7)	(1.8-5.0)	(2.4-6.4)	(1.6-4.3)	(1.9-3.2)
Females	**8.4**	**7.6**	**5.0**	**5.3**	**3.6**	**4.1**	**3.7**	**2.6**	**3.5**	**4.8**	**3.9**	**11.0**	**7.0**	**8.0**	**6.9**	**7.1**	**8.0**	**6.3**	**4.3**	**3.0**	**4.2**	**3.8**
	(7.3-9.6)	(6.3-9.2)	(3.5-7.1)	(4.2-6.6)	(2.9-4.4)	(2.8-5.9)	(2.7-5.1)	(1.7-3.9)	(2.4-5.0)	(4.9-5.7)	(2.8-5.4)	(8.8-13.7)	(5.4-9.2)	(6.3-10.0)	(4.8-9.8)	(5.1-9.9)	(5.8-11.1)	(4.1-9.4)	(3.1-6.0)	(1.9-5.0)	(2.7-6.5)	(3.0-4.9)
Grade																						
7	**15.1**	**13.3**	**7.6**	**8.7**	**5.3**	**8.1**	**5.3**	**2.4**	**4.7**	**6.3**	**5.9**	**14.6**	**10.8**	**12.0**	**10.0**	**9.9**	**9.6**	**12.2**	**5.9**	**6.2**	**6.2**	**4.5**
	(13.2-17.1)	(11.5-15.3)	(4.6-12.6)	(7.4-10.3)	(3.9-7.2)	(5.2-12.4)	(3.9-7.1)	(1.2-4.46)	(3.4-6.4)	(4.8-8.1)	(4.7-7.3)	(11.6-18.1)	(8.4-13.8)	(8.6-16.4)	(7.0-14.2)	(6.3-15.4)	(6.4-14.1)	(8.9-16.6)	(4.1-8.4)	(3.7-10.2)	(4.5-8.6)	(3.4-5.8)
9	**7.9**	**9.7**	**5.7**	**5.9**	**4.3**	**4.6**	**4.6**	**2.5**	**3.3**	**5.6**	**3.2**	**9.5**	**8.6**	**7.5**	**7.2**	**6.6**	**6.2**	**4.5**	**3.0**	**2.8**	**2.3**	**3.2**
	(6.7-9.4)	(7.9-11.9)	(4.6-7.2)	(5.0-7.0)	(3.2-5.8)	(3.3-6.2)	(3.7-5.8)	(1.7-3.8)	(3.1-3.5)	(4.5-6.8)	(2.5-4.2)	(7.3-12.3)	(6.3-11.6)	(6.0-9.3)	(5.1-10.1)	(4.2-10.4)	(3.9-9.8)	(3.2-6.5)	(1.9-4.7)	(1.6-4.7)	(1.3-4.0)	(2.4-4.3)
11	**3.6**	**4.5**	**2.2**	**2.7**	**1.8**	**3.0**	**2.6**	**2.0**	**2.3**	**2.7**	**1.7**	**5.4**	**†**	**4.2**	**3.1**	**4.2**	**3.4**	**3.6**	**2.6**	**2.3**	**1.9**	**2.1**
	(2.5-5.0)	(3.3-6.2)	(1.3-3.6)	(2.1-3.6)	(1.1-2.9)	(1.9-4.8)	(2.0-3.4)	(1.0-3.6)	(1.3-4.0)	(1.7-4.2)	(1.0-2.8)	(3.4-8.6)		(3.0-5.9)	(1.9-5.2)	(2.6-6.8)	(2.0-5.8)	(1.9-6.6)	(1.4-4.8)	(1.3-4.1)	(1.0-3.4)	(1.5-3.0)

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) question asked of a random half sample between 2005 and 2017; (5) estimates prior to 2011 are based on two separate questions (glue use and solvent use) in the questionnaire; (6) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you sniff glue or solvents (for example, gasoline, butane, aerosols, paint thinner, nail polish remover, etc.) in order to get high?

Source: OSDUHS, Centre for Addiction & Mental Health

Table A10: Percentage Reporting LSD Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2404)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**7.7**	**11.2**	**13.0**	**12.6**	**9.5**	**7.3**	**7.1**	**6.9**	**9.1**	**13.0**	**10.8**	**8.6**	**4.8**	**3.8**	**2.6**	**2.4**	**2.1**	**2.0**	**1.2**	**1.2**	**1.2**	**1.6** [cd]
(95% CI)	(6.4-9.3)	(9.4-13.3)	(10.4-16.0)	(10.7-14.8)	(7.3-12.2)	(4.8-10.8)	(4.8-10.4)	(5.6-8.3)	(7.6-10.8)	(9.5-17.4)	(9.7-12.0)	(6.4-11.5)	(3.6-6.4)	(3.0-4.8)	(1.8-3.6)	(1.7-3.5)	(1.4-3.0)	(1.1-3.4)	(0.7-1.9)	(0.8-1.7)	(0.8-1.7)	(1.2-2.2)
Males	**8.7**	**13.0**	**14.0**	**15.3**	**11.4**	**9.7**	**7.9**	**7.0**	**10.5**	**14.4**	**11.8**	**9.2**	**6.1**	**4.5**	**2.9**	**3.3**	**2.3**	**3.0**	**1.7**	**0.8**	**1.4**	**2.4**
	(6.8-11.1)	(10.6-15.8)	(12.4-15.6)	(12.7-18.3)	(8.6-14.9)	(6.3-14.8)	(5.0-12.3)	(6.0-8.3)	(8.0-13.7)	(11.3-18.2)	(10.0-13.8)	(6.6-12.6)	(4.4-8.4)	(3.4-5.9)	(1.9-4.4)	(2.1-5.3)	(1.4-3.6)	(1.5-5.7)	(1.0-2.9)	(0.4-1.6)	(0.8-2.3)	(1.7-3.5)
Females	**6.9**	**9.4**	**11.9**	**10.0**	**7.5**	**5.0**	**6.3**	**6.7**	**7.7**	**11.6**	**9.9**	**8.0**	**3.3**	**3.2**	**2.2**	**1.5**	**1.9**	†	†	**1.5**	**1.0**	**0.8**
	(5.4-8.8)	(7.5-11.8)	(8.0-17.3)	(7.5-13.1)	(5.3-10.5)	(3.2-7.5)	(4.1-9.6)	(5.0-8.8)	(5.9-10.0)	(7.5-17.6)	(7.9-12.4)	(5.4-11.7)	(2.0-5.4)	(2.1-4.7)	(1.3-3.7)	(0.9-2.6)	(1.2-3.2)			(0.9-2.6)	(0.5-1.7)	(0.5-1.2)
Grade																						
9	**5.8**	**8.7**	**10.7**	**9.6**	**5.8**	**4.6**	**6.1**	**3.6**	**6.3**	**7.4**	**7.8**	**6.8**	**4.6**	**3.7**	**2.4**	**1.9**	**1.7**	†	†	**0.6**	†	**1.0**
	(4.4-7.6)	(6.9-11.1)	(8.4-13.6)	(8.2-11.2)	(3.9-8.4)	(2.2-9.2)	(3.3-11.2)	(2.8-4.7)	(5.0-8.1)	(4.3-12.5)	(6.2-9.9)	(4.8-9.4)	(3.3-6.4)	(2.6-5.2)	(1.6-3.6)	(1.2-3.0)	(0.9-3.1)			(0.3-1.2)		(0.6-1.7)
11	**10.6**	**14.7**	**16.0**	**16.5**	**13.6**	**9.8**	**8.4**	**10.0**	**11.8**	**18.5**	**13.7**	**10.7**	**5.1**	**4.0**	**2.8**	**3.0**	**2.5**	**2.8**	**1.4**	**1.7**	**1.7**	**2.2**
	(8.5-13.3)	(11.6-18.5)	(11.5-21.9)	(12.7-21.0)	(9.9-18.2)	(5.8-15.9)	(5.4-12.8)	(8.1-12.2)	(9.1-15.2)	(12.6-26.1)	(12.2-15.3)	(7.2-15.6)	(2.9-8.6)	(2.8-5.5)	(1.8-4.3)	(1.8-4.9)	(1.5-4.1)	(1.6-4.8)	(0.8-2.4)	(1.0-2.8)	(1.1-2.7)	(1.4-3.3)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you use LSD or "acid"?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A11: Percentage Reporting Mushroom or Mescaline Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**5.2**	**6.8**	**5.8**	**8.6**	**6.1**	**5.4**	**5.1**	**4.3**	**3.9**	**10.6**	**13.5**	**16.0**	**13.8**	**12.6**	**8.3**	**7.5**	**6.3**	**4.8**	**2.9**	**2.6**	**3.7**	**3.6** [cd]
(95% CI)	(4.2-6.4)	(5.5-8.4)	(3.9-8.6)	(6.6-11.1)	(4.5-8.1)	(3.2-8.8)	(3.4-7.7)	(3.4-5.4)	(3.0-5.1)	(7.4-14.7)	(11.5-15.8)	(12.9-19.6)	(11.0-17.2)	(10.6-14.9)	(6.7-10.3)	(6.1-9.1)	(4.8-8.2)	(3.6-6.4)	(1.8-4.8)	(1.9-3.6)	(2.6-5.3)	(2.8-4.7)
Males	**6.6**	**7.5**	**6.7**	**11.3**	**7.5**	**7.2**	**5.5**	**5.1**	**4.9**	**12.4**	**14.1**	**16.1**	**14.7**	**15.0**	**8.9**	**8.9**	**7.0**	**5.7**	**4.2**	**3.1**	**5.4**	**5.0**
	(5.1-8.6)	(5.7-9.9)	(4.4-10.1)	(9.6-13.2)	(5.3-10.5)	(4.0-12.5)	(3.6-8.4)	(4.3-6.0)	(3.1-7.7)	(9.0-16.8)	(11.7-16.9)	(12.8-20.1)	(11.3-19.0)	(12.0-18.6)	(6.9-11.5)	(7.0-11.3)	(5.1-9.4)	(4.1-7.9)	(2.6-6.8)	(2.1-4.5)	(3.2-9.0)	(3.7-6.8)
Females	**4.0**	**6.0**	**4.9**	**5.9**	**4.6**	**3.7**	**4.8**	**3.2**	**3.0**	**8.9**	**13.0**	**15.8**	**12.8**	**10.2**	**7.7**	**5.9**	**5.6**	**3.8**	†	**2.1**	**1.9**	**2.2**
	(3.0-5.4)	(4.6-8.0)	(3.0-7.9)	(4.1-8.5)	(3.1-6.7)	(2.0-6.5)	(2.9-7.8)	(2.2-4.8)	(1.5-5.8)	(5.9-13.2)	(10.6-15.7)	(11.7-21.0)	(9.5-17.0)	(8.3-12.5)	(5.6-10.4)	(4.5-7.7)	(4.0-7.7)	(2.4-6.2)		(1.3-3.4)	(1.3-2.9)	(1.5-3.2)
Grade																						
9	**3.4**	**4.0**	**4.8**	**6.4**	**3.9**	†	†	**1.9**	†	**4.5**	**9.9**	**10.2**	**9.7**	**7.8**	**5.7**	**4.1**	**3.2**	**1.6**	†	†	**1.8**	**1.3**
	(2.4-4.6)	(3.0-5.3)	(2.4-9.5)	(4.5-9.0)	(2.5-6.2)			(1.5-2.5)		(3.1-6.6)	(6.8-14.4)	(7.6-13.5)	(7.0-13.4)	(6.1-10.0)	(4.4-7.5)	(2.9-5.7)	(2.0-5.0)	(0.9-2.6)			(1.0-3.3)	(0.9-2.0)
11	**8.0**	**10.7**	**7.2**	**11.5**	**8.4**	**7.6**	**7.2**	**6.5**	**6.4**	**16.6**	**17.0**	**22.7**	**19.2**	**17.4**	**11.1**	**10.9**	**9.3**	**8.0**	**4.5**	**4.3**	**5.4**	**5.9**
	(6.2-10.3)	(8.2-14.0)	(4.8-10.8)	(7.9-16.3)	(5.9-11.8)	(4.1-13.5)	(5.3-9.8)	(5.0-8.5)	(5.0-8.0)	(10.8-24.6)	(14.8-19.4)	(17.9-28.3)	(14.9-24.5)	(14.3-21.1)	(8.8-13.9)	(8.8-13.5)	(6.6-12.9)	(5.8-10.9)	(2.8-7.3)	(3.1-6.0)	(3.4-8.6)	(4.4-7.9)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you use psilocybin or mescaline (also known as “magic mushrooms”, “shrooms”, “mesc”, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A12: Percentage Reporting Methamphetamine Use (includes Crystal Methamphetamine) in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(656)	(1168)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**2.7**	**4.2**	**3.8**	**6.2**	**4.1**	**4.1**	**3.2**	**4.6**	**4.1**	**6.9**	**4.8**	**5.8**	**3.5**	**5.7**	**3.4**	**2.6**	**1.7**	†	**0.7**	**0.9**	**0.5**	† [cd]
(95% CI)	(2.1-3.5)	(3.5-5.1)	(2.5-5.5)	(3.3-11.2)	(3.2-5.1)	(3.0-5.6)	(2.5-4.2)	(2.9-7.4)	(2.7-6.3)	(4.6-10.3)	(3.6-6.4)	(3.5-9.6)	(2.2-5.3)	(4.4-7.3)	(2.5-4.7)	(1.8-3.5)	(1.2-2.6)		(0.4-1.4)	(0.5-1.9)	(0.3-0.9)	
Males	**3.2**	**5.0**	**3.5**	**8.1**	**4.3**	**5.3**	**3.8**	**4.8**	**5.8**	**8.2**	**4.6**	**6.3**	**4.8**	**6.5**	**3.8**	**2.7**	**1.6**	†	†	†	†	†
	(2.2-4.6)	(3.9-6.3)	(2.1-5.7)	(4.7-13.5)	(3.3-5.5)	(3.6-7.9)	(2.3-6.1)	(2.8-8.2)	(3.7-8.9)	(5.2-12.7)	(3.5-5.9)	(3.3-11.8)	(2.9-7.8)	(4.5-9.2)	(2.5-5.8)	(1.8-3.9)	(1.0-2.7)					
Females	**2.3**	**3.4**	**4.1**	**4.3**	**3.9**	**3.0**	**2.7**	†	**2.5**	**5.7**	**5.0**	**5.4**	†	**4.8**	**3.0**	**2.4**	**1.8**	†	†	†	†	†
	(1.6-3.2)	(2.5-4.7)	(2.6-6.3)	(2.0-9.0)	(2.7-5.5)	(1.9-4.6)	(1.7-4.2)		(1.2-5.4)	(3.3-10.0)	(3.1-7.9)	(2.9-9.6)		(3.3-7.1)	(1.8-5.0)	(1.6-3.8)	(1.1-2.9)					
Grade																						
9	**2.8**	**4.0**	**3.8**	†	**3.2**	**3.0**	**2.9**	**4.3**	**3.1**	**6.0**	**3.2**	**3.9**	**2.8**	**4.5**	**3.8**	**1.8**	**1.4**	†	†	†	†	†
	(2.1-3.8)	(3.0-5.3)	(2.0-7.0)		(2.5-4.1)	(1.9-4.7)	(1.9-4.4)	(2.6-7.3)	(1.9-4.9)	(2.9-12.2)	(1.8-5.5)	(2.3-6.5)	(1.7-4.7)	(2.8-7.1)	(2.5-5.8)	(1.0-3.3)	(0.8-2.4)					
11	**2.5**	**4.5**	**3.7**	**5.3**	**5.0**	**5.2**	**3.6**	**4.9**	**5.3**	**7.8**	**6.4**	**8.1**	†	**6.8**	**3.0**	**3.3**	**2.0**	†	†	†	†	†
	(1.6-4.0)	(3.4-5.9)	(2.6-5.3)	(3.7-7.4)	(3.5-7.1)	(3.4-7.9)	(2.6-4.9)	(2.3-10.0	(2.8-9.9)	(5.0-12.1)	(4.5-9.0)	(4.3-14.9)		(4.7-9.7)	(1.7-5.2)	(2.3-4.7)	(1.1-3.6)					

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) question asked of a random half sample between 1991 and 2005; (5) all estimates between 1991 and 2009 are based on two separate questions (methamphetamine and crystal methamphetamine) in the questionnaire; (6) all estimates between 1977 and 1989 are based on methamphetamine use only and excludes crystal methamphetamine because it was not measured in those years; (7) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use methamphetamine or crystal methamphetamine (also known as “speed”, “crystal meth”, “crank”, “Ice”, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

Table A13: Percentage Reporting Cocaine Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**4.0**	**5.9**	**5.7**	**4.8**	**4.6**	**4.0**	**3.1**	**2.2**	**1.5**	**2.9**	**3.3**	**4.2**	**4.8**	**5.9**	**5.4**	**4.0**	**2.4**	**2.9**	**1.8**	**1.8**	**2.3**	**1.8** [cd]
(95% CI)	(3.2-5.0)	(4.8-7.2)	(4.6-7.0)	(3.4-6.8)	(3.5-6.1)	(2.6-6.0)	(2.1-4.6)	(1.5-3.1)	(0.8-2.8)	(2.3-3.7)	(2.9-3.8)	(3.0-5.7)	(3.5-6.6)	(4.8-7.2)	(4.4-6.8)	(3.2-5.1)	(1.8-3.2)	(2.0-4.1)	(1.2-2.6)	(1.3-2.5)	(1.3-3.9)	(1.4-2.4)
Males	**4.9**	**7.0**	**6.4**	**6.6**	**5.8**	**5.8**	**4.0**	**2.4**	†	**3.7**	**3.7**	**4.6**	**5.0**	**6.4**	**5.6**	**4.3**	**2.2**	**3.7**	**2.2**	**1.6**	†	**2.4**
	(3.8-6.3)	(5.5-9.0)	(4.9-8.3)	(4.7-9.1)	(3.5-9.5)	(3.4-9.8)	(2.6-6.0)	(1.5-4.0)		(2.4-5.4)	(2.7-5.1)	(3.1-6.8)	(3.3-7.5)	(4.9-8.4)	(4.2-7.4)	(3.2-5.8)	(1.5-3.3)	(2.3-6.0)	(1.3-3.6)	(1.0-2.5)		(1.7-3.6)
Females	**3.3**	**4.7**	**4.9**	**3.1**	**3.4**	**2.2**	**2.2**	**1.8**	†	**2.2**	**3.0**	**3.7**	**4.6**	**5.3**	**5.3**	**3.7**	**2.6**	**2.0**	**1.3**	**2.1**	**1.4**	**1.2**
	(2.3-4.6)	(3.5-6.2)	(3.3-7.2)	(1.9-5.0)	(2.1-5.3)	(1.1-4.6)	(1.1-4.6)	(1.1-3.1)		(1.6-3.0)	(2.1-4.2)	(2.5-5.5)	(2.7-7.8)	(3.9-7.3)	(4.0-7.0)	(2.7-5.1)	(1.7-4.0)	(1.2-3.4)	(0.8-2.2)	(1.3-3.4)	(0.8-2.4)	(0.8-1.8)
Grade																						
9	**4.1**	**5.8**	**5.8**	**4.6**	**4.1**	†	**2.0**	**1.6**	**0.6**	**2.3**	**2.3**	**3.2**	**3.2**	**4.9**	**3.8**	**2.3**	**1.1**	†	†	†	†	**0.9**
	(3.1-5.3)	(4.3-7.6)	(4.6-7.4)	(2.9-7.3)	(2.5-6.6)		(1.0-3.8)	(1.0-2.5)	(0.3-1.1)	(1.5-3.6)	(2.0-2.8)	(2.1-4.7)	(2.0-5.2)	(3.5-6.8)	(2.8-5.1)	(1.6-3.5)	(0.6-1.9)					(0.6-1.6)
11	**4.0**	**6.0**	**5.5**	**5.0**	**5.2**	**4.6**	**4.5**	**2.8**	**2.5**	**3.5**	**4.3**	**5.4**	**7.0**	**6.9**	**7.2**	**5.7**	**3.7**	**4.9**	**1.9**	**3.1**	†	**2.7**
	(2.8-5.6)	(4.6-7.9)	(3.6-8.1)	(3.0-8.3)	(3.8-7.0)	(2.8-7.5)	(2.8-7.1)	(1.7-4.6)	(1.2-5.0)	(2.6-4.6)	(3.5-5.2)	(3.4-8.4)	(4.4-10.9)	(5.1-9.2)	(5.6-9.2)	(4.3-7.6)	(2.6-5.2)	(3.3-7.2)	(1.2-3.1)	(2.2-4.4)		(2.0-3.7)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you use cocaine (also known as “coke”, “blow”, “snow”, “powder”, “snort”, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A14: Percentage Reporting Crack Cocaine Use in the Past Year, 1987–2019 OSDUHS (Grades 9 and 11 only)

	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total (95% CI)	**1.4** (0.8-2.5)	**1.4** (0.7-2.5)	**1.2** (0.6-2.3)	**1.0** (0.5-2.0)	**2.2** (1.7-2.8)	**2.8** (2.1-3.7)	**3.3** (2.2-4.8)	**3.2** (2.3-4.4)	**3.4** (2.5-4.5)	**2.4** (1.8-3.1)	**1.6** (1.1-2.3)	**1.3** (0.8-2.1)	**0.8** (0.4-1.5)	**0.9** (0.5-1.7)	†	†	† [cd]
Males	†	**1.8** (0.9-3.3)	**1.3** (0.6-2.9)	†	**2.7** (1.7-4.3)	**3.8** (2.2-6.5)	**3.7** (2.4-5.7)	**3.1** (1.8-5.2)	**3.8** (2.6-5.4)	**2.3** (1.6-3.4)	**1.4** (0.9-2.2)	**1.4** (0.8-2.6)	†	†	†	†	†
Females	**0.6** (0.4-0.9)	†	†	†	**1.7** (1.3-2.2)	**1.9** (1.1-3.2)	**2.8** (1.7-4.5)	**3.3** (2.0-5.4)	**3.0** (1.9-4.7)	**2.4** (1.6-3.5)	**1.8** (1.0-3.1)	**1.2** (0.7-2.2)	†	†	†	†	†
Grade																	
9	**1.7** (1.0-3.0)	†	†	†	**1.8** (1.1-3.1)	**2.3** (1.3-3.8)	**2.9** (1.9-4.6)	**3.7** (2.3-6.0)	**3.1** (2.2-4.5)	**2.6** (1.8-3.8)	**1.0** (0.6-1.8)	†	†	†	†	†	†
11	†	†	**1.3** (0.7-2.4)	†	**2.5** (1.9-3.2)	**3.3** (2.4-4.4)	**3.6** (1.9-6.8)	**2.6** (1.6-4.0)	**3.6** (2.4-5.4)	**2.1** (1.4-3.1)	**2.2** (1.4-3.4)	**1.7** (0.9-2.9)	†	†	†	†	†

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often have you used cocaine in the form of "crack"?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A15: Percentage Reporting Heroin Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**2.2**	**2.7**	**1.9**	**2.1**	**1.7**	**1.4**	**1.4**	**1.3**	**1.2**	**2.4**	**1.9**	**2.2**	**1.5**	**1.4**	**1.1**	**1.4**	**0.9**	†	†	†	†	† [cd]
(95% CI)	(1.6-2.9)	(2.0-3.6)	(1.3-2.9)	(1.4-3.1)	(1.2-2.4)	(0.8-2.7)	(0.8-2.3)	(0.8-2.0)	(0.7-1.9)	(1.6-3.5)	(1.6-2.4)	(1.5-3.2)	(0.9-2.4)	(1.0-2.0)	(0.7-1.6)	(0.9-2.1)	(0.6-1.5)					
Males	**1.7**	**3.4**	**2.7**	**2.6**	**2.3**	**2.2**	**1.9**	**1.4**	†	**3.6**	**2.5**	**2.6**	**2.1**	**1.8**	**1.2**	**2.3**	†	†	†	†	†	†
	(1.1-2.7)	(2.4-4.8)	(1.6-4.3)	(1.7-3.9)	(1.7-3.2)	(1.1-4.2)	(1.0-3.5)	(0.8-2.5)		(2.4-5.2)	(1.8-3.4)	(1.5-4.3)	(1.1-3.9)	(1.2-2.9)	(0.7-2.0)	(1.4-3.6)						
Females	**2.6**	**2.0**	**1.1**	**1.5**	**1.0**	†	†	**1.1**	†	**1.2**	**1.4**	†	†	**0.9**	**1.0**	†	†	†	†	†	†	†
	(1.8-3.7)	(1.3-3.1)	(0.6-2.1)	(0.8-3.1)	(0.5-2.1)			(0.7-1.8)		(0.6-2.4)	(1.1-2.0)			(0.5-1.7)	(0.5-1.8)							
Grade																						
9	**2.7**	**3.2**	**2.2**	**2.4**	**2.0**	†	†	†	**1.2**	**2.3**	**2.1**	**2.5**	**2.2**	**1.5**	**1.4**	**1.0**	†	†	†	†	†	†
	(1.8-3.8)	(2.3-4.6)	(1.3-3.9)	(1.5-3.9)	(1.2-3.3)				(0.6-2.3)	(1.6-3.2)	(1.6-2.7)	(1.7-3.8)	(1.3-3.6)	(0.9-2.4)	(0.8-2.3)	(0.6-1.8)						
11	**1.4**	**2.0**	**1.5**	**1.6**	**1.3**	**1.6**	**1.7**	**1.4**	**1.2**	**2.4**	**1.8**	†	†	**1.3**	**0.8**	**1.7**	†	†	†	†	†	†
	(0.8-2.5)	(1.3-3.1)	(1.0-2.3)	(0.8-3.2)	(0.9-2.1)	(0.8-3.3)	(0.8-3.4)	(0.8-2.3)	(0.6-2.5)	(1.2-4.8)	(1.2-2.5)			(0.7-2.2)	(0.4-1.5)	(1.0-2.9)						

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend; [d] significant nonlinear trend.
Q: In the last 12 months, how often did you use heroin (also known as "H", "junk", or "smack")?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A16: Percentage Reporting Ecstasy (MDMA) Use in the Past Year, 1991–2019 OSDUHS (Grades 9 and 11 only)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total (95% CI)	†	†	**2.5** (1.4-4.4)	**4.2** (2.3-7.5)	**5.8** (4.0-8.4)	**8.2** (6.5-10.2)	**5.2** (4.2-6.3)	**5.6** (4.4-7.2)	**4.5** (3.4-5.8)	**3.5** (2.6-4.7)	**5.1** (3.8-6.9)	**2.0** (1.2-3.2)	**3.5** (2.7-4.5)	**1.6** (1.1-2.4)	**1.7** [cd] (1.4-2.3)
Males	†	†	**3.4** (1.9-6.1)	†	**5.1** (3.0-8.7)	**7.9** (5.8-10.6)	**4.6** (3.4-6.3)	**5.8** (4.2-8.0)	**4.4** (3.1-6.2)	**3.3** (2.3-4.6)	**5.6** (3.6-8.5)	**2.1** (1.2-3.6)	**3.0** (2.1-4.1)	**1.8** (1.1-2.9)	**2.1** (1.5-3.1)
Females	†	†	†	**4.4** (2.8-7.1)	**6.6** (4.1-10.4)	**8.5** (6.2-11.5)	**5.7** (4.3-7.6)	**5.4** (3.8-7.4)	**4.5** (3.2-6.2)	**3.8** (2.7-5.4)	**4.6** (2.5-8.3)	**1.9** (1.0-3.3)	**4.0** (2.9-5.6)	**1.5** (0.9-2.5)	**1.4** (1.0-2.0)
Grade															
9	†	†	†	**3.0** (2.1-4.3)	†	**7.2** (5.0-10.1)	**3.7** (2.7-5.1)	**3.6** (2.6-4.9)	**2.8** (1.9-4.1)	**2.0** (1.1-3.5)	†	†	**1.1** (0.6-1.9)	†	**0.7** (0.4-1.2)
11	†	†	**3.1** (1.6-5.8)	†	**9.8** (6.4-14.8)	**9.5** (6.9-13.0)	**6.6** (4.9-9.0)	**7.7** (5.7-40.5)	**6.2** (4.6-8.2)	**5.0** (3.7-6.9)	**7.9** (5.9-10.6)	**3.1** (2.0-4.8)	**5.8** (4.4-7.6)	**2.5** (1.7-3.6)	**2.8** (2.0-3.8)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) question asked of a random half sample between 1991 and 1999; (4) † estimate suppressed due to unreliability; (5) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: In the last 12 months, how often did you use MDMA or "ecstasy" (also known as "Molly", "E", "X")?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A17: Percentage Reporting Nonmedical Tranquillizer/Sedative Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**6.1**	**7.3**	**6.4**	**6.8**	**4.1**	**3.8**	**3.0**	**2.2**	**1.1**	**2.0**	**2.3**	**2.4**	**2.2**	**3.0**	**2.4**	**2.2**	**1.5**	**2.0**	**1.7**	**1.7**	**2.0**	**2.6** [cd]
(95% CI)	(5.0-7.4)	(6.2-8.7)	(5.3-7.7)	(5.1-9.1)	(3.1-5.3)	(2.6-5.6)	(2.5-3.6)	(1.6-3.0)	(0.6-2.3)	(1.2-3.2)	(1.8-3.0)	(1.6-3.5)	(1.3-3.7)	(2.3-3.9)	(1.7-3.2)	(1.6-3.0)	(1.1-2.0)	(1.1-3.5)	(1.2-2.4)	(1.2-2.4)	(1.3-3.1)	(2.1-3.3)
Males	**6.1**	**7.3**	**7.0**	**7.1**	**3.4**	**4.4**	**2.3**	**1.9**	†	**2.0**	**2.5**	**2.0**	†	**3.4**	**2.3**	**1.8**	**0.5**	†	**1.5**	**1.0**	**1.5**	**2.5**
	(4.7-8.0)	(5.7-9.3)	(5.9-8.3)	(5.0-10.1)	(2.3-4.9)	(2.5-7.6)	(1.3-4.0)	(1.1-3.1)		(1.1-3.5)	(1.9-3.3)	(1.1-3.4)		(2.4-4.8)	(1.7-3.2)	(1.2-3.0)	(0.3-1.0)		(0.8-2.6)	(0.6-2.0)	(0.9-2.4)	(1.8-3.7)
Females	**6.0**	**7.4**	**5.7**	**6.6**	**4.8**	**3.3**	**3.7**	**2.6**	†	**2.0**	**2.2**	**2.8**	**1.3**	**2.5**	**2.4**	**2.6**	**2.5**	**1.5**	**1.9**	**2.4**	**2.6**	**2.7**
	(4.6-7.9)	(5.9-9.1)	(4.1-8.0)	(4.8-9.0)	(3.4-6.6)	(2.2-4.8)	(2.6-5.2)	(1.6-4.2)		(1.1-3.5)	(1.6-3.0)	(1.6-4.7)	(0.7-2.5)	(1.6-3.8)	(1.5-3.8)	(1.7-3.8)	(1.8-3.6)	(0.9-2.5)	(1.2-2.9)	(1.5-3.8)	(1.5-4.5)	(2.0-3.6)
Grade																						
9	**5.5**	**6.3**	**6.4**	**6.9**	**3.7**	**3.2**	**2.4**	**2.1**	†	**1.6**	**2.0**	**1.7**	†	**1.8**	**2.5**	†	**1.0**	**0.7**	**1.3**	**0.5**	†	**1.3**
	(4.3-7.1)	(5.0-8.0)	(4.9-8.2)	(5.2-9.2)	(2.7-5.0)	(1.7-6.2)	(1.8-3.1)	(1.4-3.1)		(1.0-2.6)	(1.3-3.1)	(1.0-2.9)		(1.1-2.9)	(1.5-3.9)		(0.6-1.8)	(0.4-1.1)	(0.8-2.1)	(0.3-0.9)		(0.8-2.0)
11	**6.9**	**8.8**	**6.5**	**6.8**	**4.5**	**4.3**	**3.8**	**2.3**	†	**2.4**	**2.6**	**3.1**	**3.3**	**4.1**	**2.3**	**3.2**	**2.0**	**3.2**	**2.0**	**2.8**	**3.0**	**3.9**
	(5.1-9.3)	(6.9-11.1)	(4.9-8.6)	(3.8-11.7)	(2.9-6.8)	(2.7-7.0)	(3.1-4.7)	(1.4-3.7)		(1.2-4.9)	(2.0-3.4)	(1.8-5.2)	(1.7-6.5)	(2.9-5.9)	(1.5-3.3)	(2.2-4.6)	(1.3-3.1)	(1.6-6.3)	(1.3-3.2)	(1.9-4.2)	(1.8-4.8)	(2.9-5.2)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [c] significant linear trend; [d] significant nonlinear trend.
Q: Sedatives or tranquillizers are sometimes prescribed by doctors to help people sleep, calm them down, or to relax their muscles. In the last 12 months, how often did you use sedatives or tranquillizers (such as Xanax, Valium, Ativan, also known as "tranqs", "benzos", "xans", "bars", "downers") without a prescription or without a doctor telling you to take them? (Note that “sedatives” was added to the question in 2007.)
Source: OSDUHS, Centre for Addiction & Mental Health

Table A18: Percentage Reporting Any Drug Use in the Past Year, 1977–2019 OSDUHS (Grades 9 and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	(5015)
Total	**14.4**	**19.8**	**18.0**	**19.8**	**15.2**	**12.6**	**12.1**	**12.3**	**13.2**	**20.8**	**20.3**	**21.5**	**19.8**	**16.4**	**13.4**	**11.4**	**9.4**	**9.1**	**6.3**	**6.5**	**5.9**	**6.2** [cd]
(95% CI)	(12.6-16.4)	(17.4-22.3)	(15.9-20.4)	(16.9-23.1)	(12.4-18.5)	(9.5-16.4)	(9.8-14.8)	(9.6-15.7)	(10.2-16.9)	(15.8-26.9)	(17.7-23.1	(17.4-26.2)	(17.0-23.1)	(14.2-18.8)	(11.5-15.5)	(9.6-13.5)	(7.8-11.4)	(7.3-11.2)	(4.8-8.2)	(5.3-7.9)	(4.3-8.2)	(5.3-7.4)
Males	**15.2**	**21.4**	**19.3**	**22.6**	**16.9**	**14.7**	**11.9**	**12.0**	**15.0**	**23.1**	**20.0**	**23.8**	**20.2**	**18.9**	**13.8**	**12.1**	**10.2**	**9.9**	**7.1**	**5.9**	**6.6**	**7.7**
	(12.8-18.0)	(18.4-24.7)	(17.7-20.9)	(20.0-25.3)	(13.4-21.1)	(10.3-20.6)	(8.8-15.9)	(8.4-16.7)	(9.9-22.0)	(16.4-31.5)	(17.0-23.3)	(18.5-30.0)	(16.9-23.8)	(15.6-22.8)	(11.6-16.4)	(9.9-14.8)	(7.9-12.9)	(7.6-12.8)	(5.1-9.7)	(4.4-7.8)	(4.2-10.4)	(6.2-9.6)
Females	**13.6**	**18.1**	**16.7**	**17.1**	**13.4**	**10.6**	**12.2**	**12.8**	**11.5**	**18.7**	**20.5**	**19.1**	**19.4**	**13.8**	**12.9**	**10.7**	**8.6**	**8.2**	**5.5**	**7.1**	**5.2**	**4.7**
	(11.3-16.3)	(15.4-21.1)	(13.0-21.2)	(13.2-21.8)	(10.5-17.1)	(8.4-13.3)	(9.3-16.0)	(7.9-20.0)	(7.4-17.3)	(13.8-24.9)	(16.6-25.0)	(14.4-25.0)	(15.0-24.8)	(11.4-16.6)	(10.4-15.9)	(8.6-13.3)	(7.0-10.7)	(5.8-11.5)	(4.1-7.4)	(5.4-9.2)	(3.9-6.8)	(3.7-5.9)
Grade																						
9	**12.0**	**16.0**	**16.2**	**17.3**	**10.9**	**9.1**	**9.3**	**10.6**	**10.8**	**13.1**	**14.5**	**15.4**	**15.7**	**12.0**	**10.4**	**7.4**	**6.4**	**3.7**	**4.0**	**2.2**	**3.7**	**3.1**
	(9.9-14.6)	(13.4-19.1)	(13.6-19.2)	(13.4-22.1)	(7.6-15.4)	(5.4-14.8)	(6.6-13.0)	(9.0-12.4)	(7.8-14.7)	(10.5-16.1)	(10.1-20.3)	(11.1-21.0)	(12.9-19.0)	(9.8-14.8)	(8.5-12.5)	(5.6-9.6)	(4.6-8.7)	(2.5-5.4)	(2.5-6.3)	(1.5-3.3)	(2.4-5.5)	(2.3-4.3)
11	**17.8**	**24.9**	**20.5**	**23.0**	**19.9**	**15.9**	**15.6**	**13.8**	**15.8**	**28.4**	**26.0**	**28.5**	**25.3**	**20.7**	**16.6**	**15.6**	**12.4**	**14.4**	**8.5**	**10.5**	**8.0**	**9.2**
	(14.9-21.2)	(21.1-29.2)	(17.1-24.4)	(18.9-27.7)	(16.0-24.4)	(11.4-21.7)	(12.6-19.1)	(9.1-20.3)	(10.8-22.7)	(19.2-39.9)	(23.5-28.6)	(22.5-35.2)	(20.5-30.8)	(17.2-24.6)	(13.9-19.8)	(13.0-18.6)	(9.5-15.9)	(11.2-18.3)	(6.4-11.2)	(8.5-13.0)	(5.1-12.5)	(7.4-11.4)

Notes: (1) based on grades 9 and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) question asked of a random half sample from 1991 to 1999; (5) the **eight drugs** included in the index are LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), and tranquillizers/sedatives (NM); excluded from the index: cigarettes, waterpipes, alcohol, cannabis, synthetic cannabis, inhalants, fentanyl, prescription ADHD drugs, prescription opioid pain relievers, and OTC cough/cold medication; (6) [c] significant linear trend; [d] significant nonlinear trend.

Source: OSDUHS, Centre for Addiction & Mental Health

Table A19: Percentage Who Perceive "Great Risk" of Harm Associated with Drug Use, 1989–2019 OSDUHS (Grades 7, 9, and 11 only)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	
(n)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	(3242)	
Great Risk in Trying Marijuana Once or Twice																	
Total	29.1	32.4	28.5	21.7	20.1	19.4	18.8	19.9	22.8	21.0	21.9	19.2	14.2	12.6	13.3	9.8	cd
Great Risk in Smoking Marijuana Regularly																	
Total	75.4	73.3	70.2	60.1	57.6	53.2	48.3	56.5	53.0	54.0	62.3	57.6	49.6	46.0	44.8	41.6	cd
Great Risk in Trying Cocaine Once or Twice*																	
Total	37.4	44.1	41.3	39.2	38.5	35.8	34.0	36.6	36.8	41.2	45.1	41.5	40.4	37.7	32.3	40.2	d

Notes: (1) based on grades 7, 9, 11 only (long-term sample); (2) * based on grades 9 and 11 only; (3) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: How much do you think people risk harming themselves (physically or in other ways) if they…[behaviour]?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A20: Percentage Reporting it is "Fairly Easy" or "Very Easy" to Obtain the Drug, 1981–2019 OSDUHS (Grades 7, 9, and 11 only)

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	(3242)
Alcohol																				
Total	—	—	—	60.7	59.4	62.3	63.4	68.1	64.3	64.4	62.1	63.0	51.2	53.2	49.9	47.6	58.8	59.6	55.2	55.1
Cannabis																				
Total	45.6	40.9	40.2	28.5	24.4	25.4	29.8	43.0	52.3	48.0	50.5	47.4	39.7	37.8	35.0	34.6	43.4	40.4	34.7	39.4
Cocaine*																				
Total	—	—	—	19.2	17.7	16.6	17.2	18.6	18.7	24.2	28.6	25.0	21.0	15.2	14.6	10.9	12.0	9.9	11.1	9.6
LSD*																				
Total	—	—	—	—	—	—	—	43.4	32.5	31.7	25.2	19.8	14.7	11.6	13.6	9.5	8.1	8.1	6.8	8.6

Notes: (1) based on grades 7, 9, 11 only (long-term sample); (2) * based on grades 9 and 11 only; (3) [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: How easy or difficult would it be for you to get [drug] if you wanted some?
Source: OSDUHS, Centre for Addiction & Mental Health

Table A21: Percentage Reporting the Perception that Drug Use at School is a “Big Problem,” 1993–2019 OSDUHS (Grades 7, 9, and 11 only)

	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
(n)	(1241)	(1453)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	(3242)
Total	**14.8**	**26.2**	**25.4**	**25.9**	**25.5**	**28.2**	**24.1**	**23.5**	**22.6**	**23.5**	**23.6**	**23.9**	**21.2**	**27.4**
(95% CI)	(11.4-19.0)	(21.5-31.5)	(22.1-29.1)	(22.2-30.0)	(20.7-31.0)	(25.0-31.6)	(21.4-27.1)	(20.5-26.7)	(19.7-25.8)	(20.8-26.5)	(20.5-26.9)	(21.1-27.0)	(18.5-24.1)	(25.0-30.1)
Males	12.7	23.3	23.9	25.8	26.9	26.3	25.6	20.8	19.7	21.2	19.7	22.6	21.8	24.8
Females	16.9	28.9	26.8	26.1	24.1	30.0	22.7	26.4	25.8	26.0	27.7	25.2	20.6	30.2
Grade														
7	9.0	13.7	14.5	17.9	8.1	14.2	12.4	10.9	9.8	8.9	12.7	12.9	10.8	15.8
9	18.0	31.8	29.1	29.9	35.0	32.6	28.9	27.8	26.6	30.4	24.5	23.2	27.4	26.9
11	16.5	31.0	31.2	27.8	31.2	34.7	30.3	30.3	26.4	28.2	30.0	32.1	24.4	34.7

Notes: (1) based on grades 7, 9, and 11 only (long-term sample); (2) entries in brackets are 95% confidence intervals; (3) question asked of a random half sample in each year.
Q: In your school, is drug use a big problem, a small problem, or no problem at all?
Source: OSDUHS, Centre for Addiction & Mental Health

Appendix 2

Table A22: Drugs No Longer Monitored in the OSDUHS

	First Year Monitored	Last Year Monitored
Barbiturates (prescription)	1977	2005
Benzylpiperazine (BZP pills)	2011	2013
Doda	2011	2011
GHB	2001	2009
Gravol (OTC)	1995	2011
Injection drug use (non-specific)	1989	2015
Jimson weed	2007	2017
Ketamine	2001	2013
Mephedrone (“bath salts”)	2011	2017
Methoxetamine	2013	2013
Modafinil	2013	2015
OxyContin (prescription)	2005	2013
PCP	1981	2009
Rohypnol	2001	2009
Salvia Divinorum	2009	2017
Sleeping medication (OTC)	2007	2009
Steroids	1989	2015
Stimulants (prescription)	1977	2011

OTC= over-the-counter

Appendix 3

Table A23: Ontario Public Health Regions Sponsoring Oversamples in the OSDUHS, 2009–2019

Public Health Region	2009	2011	2013	2015	2017	2019
Brant County	--	--	--	●	--	--
Durham Region	●	●	●	●	●	●
Haliburton, Kawartha, Pine Ridge District	●	--	●	--	●	--
Hamilton	●	--	--	--	--	●
Leeds, Grenville and Lanark District	●	--	●	--	●	--
Middlesex-London District	--	--	--	--	--	●
Niagara Region	--	●	--	●	--	●
North Bay Parry Sound District	--	●	--	●	--	--
Ottawa	●	●	●	--	●	●
Peel Region	--	--	●	●	●	●
Simcoe Muskoka District	--	--	--	●	--	●
Southwestern District	--	--	--	--	--	●
Sudbury and District	--	--	●	--	--	--
Toronto	--	--	--	--	--	●
York Region	●	●	●	●	●	●

Appendix 4

Table A24: District School Boards in Ontario by Region

GREATER TORONTO AREA	NORTHERN ONTARIO	WESTERN ONTARIO	EASTERN ONTARIO
Conseil scolaire catholique MonAvenir *	Algoma District	Avon Maitland District	Algonquin and Lakeshore Catholic District
Conseil scolaire Viamonde *	Conseil scolaire catholique de district des Grandes Rivières	Bluewater District	Catholic District Board of Eastern Ontario
Dufferin-Peel Catholic District	Conseil scolaire catholique du Nouvel-Ontario	Brant Haldimand Norfolk Catholic District	Conseil des écoles catholiques du Centre-Est
Durham Catholic District	Conseil scolaire catholique Franco-Nord	Bruce-Grey Catholic District	Conseil des écoles publiques de l'Est de l'Ontario
Durham District	Conseil scolaire de district catholique des Aurores boréales	Conseil scolaire catholique Providence	Conseil scolaire de district catholique de l'Est ontarien
Halton Catholic District	Conseil scolaire public du Grand Nord de l'Ontario	District School Board of Niagara	Hastings and Prince Edward District
Halton District	Conseil scolaire public du Nord-Est de l'Ontario	Grand Erie District	Kawartha Pine Ridge District *
Peel District	District Ontario North East	Greater Essex County District	Limestone District
Toronto Catholic District	Huron-Superior Catholic District	Hamilton-Wentworth Catholic District	Ottawa Catholic
Toronto District	Keewatin-Patricia District	Hamilton-Wentworth District	Ottawa-Carleton District
York Catholic District	Kenora Catholic District	Huron Perth Catholic District	Penetanguishene Protestant Separate
York Region District	Lakehead District	Lambton Kent District	Peterborough Victoria Northumberland and Clarington Catholic District *
	Near North District	London District Catholic	Renfrew County Catholic District
	Nipissing-Parry Sound Catholic District	Niagara Catholic District	Renfrew County District
	Northeastern Catholic District	St. Clair Catholic District	Simcoe County District
	Northwest Catholic District	Thames Valley District	Simcoe Muskoka Catholic District
	Rainbow District	Upper Grand District	Trillium Lakelands District
	Rainy River District	Waterloo Catholic District	Upper Canada District
	Sudbury Catholic District	Waterloo Region District	
	Superior-Greenstone District	Wellington Catholic District	
	Superior North Catholic District	Windsor-Essex Catholic District	
	Thunder Bay Catholic District		

* board with schools in more than one region

Appendix 5

Table A25: Student Completion Rate by Year of Survey, 1985–2019

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Total	Selected (N)	(5077)	(5092)	(4832)	(4781)	(4640)	(5167)	(5231)	(6564)	(6094)	(9411)	(10922)	(9497)	(14196)	(15005)	(16535)	(17804)	(18,733)	(23,997)
	Completed (%)	**82**	**84**	**81**	**83**	**77**	**76**	**77**	**76**	**71**	**72**	**72**	**68**	**65**	**62**	**63**	**59**	**61**	**59**
	Absent (%)	14	12	15	14	13	15	15	12	13	12	12	13	13	12	11	11	12	12
	No consent (%)	4	4	4	3	9	9	8	12	16	16	16	19	22	26	26	29	27	29
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0	0
Grade 7	Selected (N)	(1257)	(1440)	(1340)	(1106)	(1083)	(1165)	(1054)	(1030)	(1016)	(1446)	(1273)	(1104)	(2632)	(2434)	(3287)	(3260)	(3100)	(3480)
	Completed (%)	84	86	84	86	83	80	81	76	75	68	76	66	63	60	65	58	58	59
	Absent (%)	7	6	7	5	8	6	5	10	7	7	9	9	9	8	8	7	10	8
	No consent (%)	9	7	9	9	9	13	14	14	18	25	14	25	27	32	27	35	30	33
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	0
Grade 8	Selected (N)								(1061)	(1038)	(1449)	(1301)	(1085)	(2711)	(2467)	(3245)	(3349)	(3312)	(3750)
	Completed (%)								76	68	68	75	72	63	60	63	59	62	58
	Absent (%)								10	8	9	7	9	10	9	9	9	9	8
	No consent (%)								14	24	23	18	19	26	31	29	31	29	34
	Other (%)								--	--	--	--	--	--	--	--	1	0	0
Grade 9	Selected (N)	(1315)	(1206)	(1265)	(1029)	(1248)	(1366)	(1442)	(1201)	(1017)	(1671)	(2110)	(1820)	(2111)	(2664)	(2536)	(2978)	(3331)	(4231)
	Completed (%)	82	84	83	88	81	78	80	77	70	75	71	68	68	64	61	61	65	61
	Absent (%)	13	11	13	10	8	11	12	9	12	12	9	11	11	10	11	11	10	10
	No consent (%)	5	5	4	2	10	11	7	14	18	13	20	20	21	26	28	28	24	28
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	1
Grade 10	Selected (N)								(855	(1177)	(1654)	(2120)	(1727)	(2332)	(2597)	(2417)	(2760)	(3262)	(4173)
	Completed (%)								76	70	73	68	65	67	60	65	63	60	61
	Absent (%)								10	16	14	13	15	13	14	11	11	12	13
	No consent (%)								14	14	13	19	20	19	25	24	25	28	26
	Other (%)								--	--	--	--	--	--	--	--	1	0	0
Grade 11	Selected (N)	(1280)	(1341)	(1115)	(1392)	(1068)	(1270)	(1075)	(1046)	(874)	(1672)	(2128)	(1876)	(2140)	(2384)	(2604)	(2853)	(2894)	(4160)
	Completed (%)	80	84	79	81	68	74	75	73	68	72	73	69	65	65	61	55	59	58
	Absent (%)	17	14	20	16	17	18	15	17	18	14	14	15	15	14	15	13	12	14
	No consent (%)	3	2	1	2	15	7	10	10	14	14	13	16	20	20	24	31	28	27
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1
Grade 12	Selected (N)								(789)	(584)	(1519)	(1990)	(1885)	(2270)	(2459)	(2446)	(2604)	(2874)	(4203)
	Completed (%)								76	68	72	69	66	65	66	62	60	61	57
	Absent (%)								19	23	19	18	19	19	15	16	14	18	19
	No consent (%)								5	9	9	13	14	15	19	22	26	21	25
	Other (%)								--	--	--	--	--	--	--	--	0	0	0

(cont'd)

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
GTA	Selected (N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(7406)	(8797)
	Completed (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	62
	Absent (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	11
	No consent (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	27
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0
North	Selected (N)	(626)	(584)	(426)	(327)	(253)	(386}	(490)	(1223)	(1448)	(1868)	(1965)	(1364)	(1079)	(3268)	(2305)	(2594)	(2534)	(1605)
	Completed (%)	84	86	87	86	81	76	79	77	76	70	64	60	61	55	56	53	59	59
	Absent (%)	13	14	12	12	14	16	13	13	14	13	12	16	16	11	13	10	13	13
	No consent (%)	3	0	0	2	5	8	9	10	10	17	24	24	23	33	31	36	28	28
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0	0
West	Selected (N)	(1914)	(1917)	(2211)	(2054)	(2061)	(2261)	(1992)	(2321)	(2360)	(3628)	(4052)	(4030)	(4447)	(3841)	(5132)	(7469)	(3449)	(8440)
	Completed (%)	84	85	81	82	74	77	78	73	66	71	72	67	65	63	65	60	60	54
	Absent (%)	12	12	14	10	14	13	15	13	14	11	12	13	14	12	9	11	14	13
	No consent (%)	4	3	5	4	12	10	7	13	20	18	16	20	21	25	26	29	25	32
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	1
East	Selected (N)	(1397)	(1404)	(1339)	(1340)	(1209)	(1407)	(1476)	(1881)	(1552)	(2298)	(3296)	(2787)	(7255)	(6010)	(7786)	(5769)	(5384)	(5155)
	Completed (%)	83	85	82	85	77	78	74	79	70	76	75	70	67	65	64	63	59	61
	Absent (%)	14	11	14	12	13	13	13	10	12	12	12	12	11	11	11	10	12	12
	No consent (%)	3	4	4	2	9	8	12	11	17	12	13	17	22	24	13	26	28	26
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1

Notes: The completion rate shows the proportion of students who participated in the survey *and* met the data completion (quality) criteria over the total number of enrolled students in the selected classes, and is not regionally weighted; surveys from 1985–1997 included grades 7, 9, 11, and 13 only; surveys in 1999 and 2001 included grades 7–13; surveys from 2003–2019 included grades 7–12; the boundaries for the "West" and "East" regions were slightly modified in 2017 as the GTA students were removed from these two regions; "No consent" refers to either lack of parental consent or no returned signed consent form by the date of the survey (the latter made up the majority of this category); "Other" refers to cases that did not meet the data quality criteria, those who could not complete the questionnaire on their own due to comprehension issues, or withdrew from the survey.

Source: OSDUHS, Centre for Addiction & Mental Health; tabulated by the Institute for Social Research, York University

Appendix 6

Table A26: Sample Demographics by Year of Survey, 1977–1997

	1977		1979		1981		1983		1985		1987		1989		1991		1993		1995		1997	
	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
Males	(1841)	46.9	(1988)	50.7	(1530)	52.5	(1784)	49.5	(1603)	51.2	(1663)	48.9	(1509)	49.6	(1554)	52.8	(1270)	49.4	(1412)	48.9	(1438)	47.3
Females	(2086)	53.1	(1932)	49.3	(1461)	47.5	(1830)	50.5	(1543)	48.8	(1713)	51.1	(1531)	50.4	(1407)	47.2	(1347)	50.6	(1495)	51.1	(1634)	52.7
G7	(1287)	32.8	(1267)	32.3	(1097)	32.7	(1539)	38.9	(1054)	32.4	(1239)	31.9	(1121)	32.3	(941)	32.1	(894)	29.5	(927)	30.3	(851)	31.1
G9	(1578)	40.2	(1545)	39.4	(1001)	38.7	(1149)	34.4	(1078)	35.1	(1017)	32.9	(1042)	38.1	(897)	33.2	(1003)	35.4	(1050)	34.7	(1152)	34.0
G11	(1062)	27.0	(1108)	28.3	(894)	28.6	(926)	26.7	(1014)	32.5	(1120)	35.2	(877)	29.7	(1123)	34.6	(720)	35.1	(930)	35.0	(1069)	34.9
Age (sd)	n/a		n/a		n/a		14.1 (1.8)		14.5 (1.8)		14.5 (1.8)		14.4 (1.7)		14.6 (1.9)		14.6 (1.7)		15.0 (1.9)		14.4 (1.7)	
Toronto	(1486)	37.8	(1115)	28.4	(490)	21.9	(759)	21.2	(574)	22.3	(706)	21.4	(453)	18.0	(601)	19.4	(642)	20.4	(647)	20.2	(715)	19.6
North	(509)	13.0	(624)	15.9	(355)	8.9	(351)	8.7	(401)	11.0	(417)	9.7	(256)	9.0	(256)	7.8	(156)	8.5	(220)	8.4	(291)	8.0
West	(1089)	27.7	(1403)	35.8	(1133)	46.6	(1469)	40.3	(1254)	39.1	(1305)	42.2	(1405)	44.8	(1252)	43.7	(1122)	42.9	(1242)	42.7	(1163)	42.8
East	(843)	21.5	(778)	19.5	(1013)	22.6	(1035)	29.8	(917)	27.5	(948)	26.8	(926)	28.2	(852)	29.2	(697)	28.2	(798)	28.8	(903)	29.5
Total N	**3927**		**3920**		**2991**		**3614**		**3146**		**3376**		**3040**		**2961**		**2617**		**2707**		**3072**	

Notes: The sample size (N) is the number surveyed (unweighted); percentages are based on weighted data; mean age and standard deviation (sd) is shown; the seven regions sampled in 1977 and 1979 correspond approximately to the four regions sampled since 1981; n/a = not available.

Source: OSDUHS, Centre for Addiction & Mental Health

Table A27: Sample Demographics by Year of Survey, 1999–2019

	1999		2001		2003		2005		2007		2009		2011		2013		2015		2017		2019	
	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
Males	(2252)	50.8	(1917)	49.8	(3163)	48.3	(3720)	51.8	(3068)	51.8	(4341)	51.8	(4334)	51.8	(4651)	51.8	(4782)	51.8	(5026)	51.6	(6314)	51.6
Females	(2195)	49.2	(1981)	50.2	(3453)	51.7	(4006)	48.2	(3255)	48.2	(4771)	48.2	(4954)	48.2	(5621)	48.2	(5644)	48.2	(6409)	48.4	(7828)	48.4
G7	(766)	16.0	(750)	17.1	(947)	14.9	(961)	15.8	(721)	15.1	(1632)	14.1	(1446)	13.0	(2100)	12.2	(1874)	13.2	(1800)	13.5	(2044)	11.7
G8	(798)	16.0	(691)	14.6	(976)	14.3	(971)	16.1	(768)	15.6	(1697)	14.3	(1459)	13.5	(2013)	12.5	(1955)	13.7	(2048)	14.1	(2174)	11.8
G9	(905)	21.7	(702)	20.8	(1254)	18.4	(1471)	17.0	(1221)	16.5	(1414)	16.3	(1684)	16.7	(1537)	16.4	(1794)	16.0	(2175)	16.0	(2596)	17.6
G10	(638)	13.7	(806)	21.6	(1181)	18.0	(1427)	16.4	(1105)	16.6	(1534)	16.7	(1547)	16.8	(1544)	17.0	(1702)	16.4	(1953)	16.6	(2534)	17.6
G11	(750)	18.7	(561)	15.7	(1188)	18.3	(1537)	16.1	(1273)	16.2	(1378)	16.9	(1539)	17.1	(1574)	17.9	(1557)	17.1	(1711)	17.0	(2419)	18.3
G12	(590)	13.8	(388)	10.2	(1070)	16.1	(1359)	18.6	(1235)	20.0	(1457)	21.7	(1613)	22.9	(1504)	24.0	(1544)	23.6	(1748)	22.8	(2375)	23.0
Age (sd)	15.0 (1.8)		14.8 (1.7)		15.0 (1.8)		15.0 (1.8)		15.0 (1.9)		15.0 (1.9)		15.1 (1.9)		15.2 (1.8)		15.1 (1.9)		15.0 (1.8)		15.2 (1.8)	
GTA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(4725)	46.1	(5453)	47.0
North	(808)	8.5	(1014)	9.0	(1285)	7.9	(1245)	7.0	(797)	6.4	(649)	6.4	(1793)	5.2	(1264)	5.6	(1355)	5.6	(1486)	5.3	(941)	5.8
West	(1532)	42.7	(1425)	43.0	(2513)	44.4	(2865)	41.8	(2639)	42.8	(2861)	43.0	(2392)	44.2	(3305)	46.8	(4407)	44.7	(2068)	28.5	(4581)	25.4
East	(1367)	30.7	(926)	28.2	(1721)	29.4	(2444)	33.4	(1944)	33.8	(4766)	34.0	(3860)	33.7	(4934)	29.7	(3611)	32.7	(3156)	20.1	(3167)	21.8
Total N	**4447**		**3898**		**6616**		**7726**		**6323**		**9112**		**9288**		**10272**		**10426**		**11435**		**14142**	

Notes: The sample size (N) is the number surveyed (unweighted); percentages are based on weighted data; mean age and standard deviation (sd) is shown; the boundaries for the "West" and "East" regions were slightly modified starting in 2017 as the GTA students were removed from these two regions.
Source: OSDUHS, Centre for Addiction & Mental Health

Appendix 7

Table A28: Design Effects (Deffs) for Estimates by Year of Survey, 1981–2019

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Sex	1.84	5.21	1.20	2.60	1.36	2.62	1.79	1.58	3.28	3.82	3.60	4.94	6.22	3.68	4.47	17.75	4.94	6.84	9.18	6.07
Grade 7	4.81	0.73	1.62	4.79	2.75	4.38	1.56	0.01	0.00	0.72	2.81	4.65	5.14	1.87	2.89	6.68	13.91	5.06	17.22	1.94
Grade 8	--	--	--	--	--	--	--	--	--	14.6	1.55	3.11	4.96	3.12	2.12	6.70	11.17	2.45	17.38	1.96
Grade 9	4.09	1.16	1.50	7.33	3.44	8.34	2.26	0.01	0.00	19.8	20.4	2.22	2.97	1.86	4.29	5.23	4.46	2.11	3.80	1.82
Grade 10	--	--	--	--	--	--	--	--	--	12.5	20.4	2.17	1.55	2.80	3.14	2.52	4.25	3.23	6.16	1.79
Grade 11	16.72	1.29	1.02	6.58	3.72	4.27	2.52	0.02	0.01	17.1	32.8	1.92	1.36	1.11	6.37	4.67	3.39	1.24	9.86	1.63
Grade 12	--	--	--	--	--	--	--	--	--	12.6	23.0	3.18	2.90	1.59	3.69	5.50	6.37	5.85	7.61	2.37
Grade 13	6.63	1.39	1.31	5.80	1.38	13.49	0.77	0.01	0.00	8.8	25.8	--	--	--	--	--	--	--	--	--
Toronto/GTA	18.15	0.67	1.62	7.92	1.72	5.63	3.27	0.02	0.00	0.56	3.50	4.80	9.69	6.69	3.33	9.73	17.84	3.77	24.09	7.13
North	1.11	2.79	3.24	2.46	2.17	3.62	1.14	0.01	0.00	0.38	0.52	3.39	3.94	1.74	1.64	3.92	4.34	2.59	7.43	4.18
West	6.79	0.93	1.11	6.31	3.10	6.91	1.73	0.02	0.00	0.73	2.89	7.07	9.39	6.85	6.23	37.35	14.07	4.90	10.76	4.61
East	3.05	1.14	1.36	5.69	4.26	5.82	2.61	0.01	0.01	0.72	2.67	4.41	9.51	5.11	6.73	19.17	10.88	4.23	59.76	5.55
Tobacco Cigarettes	4.20	4.56	2.29	1.38	1.50	1.31	1.04	1.46	1.22	3.73	4.65	2.63	3.42	2.46	3.44	5.69	6.07	5.09	7.61	2.75
Alcohol	1.63	3.20	1.01	1.76	3.97	2.95	2.27	1.72	3.47	2.94	3.58	3.46	5.99	3.62	5.81	7.06	9.76	9.00	10.81	6.90
Binge Drinking	0.50	2.10	3.64	3.45	4.06	3.98	1.21	6.19	2.26	4.33	3.58	4.07	6.65	2.95	4.63	3.42	7.71	7.53	7.43	6.32
Drunkenness	1.71	2.30	2.61	5.09	1.45	3.08	0.96	5.96	1.22	4.52	1.93	2.94	3.76	1.95	2.87	3.02	8.44	6.51	5.66	4.55
Cannabis	2.78	2.22	4.06	5.40	3.42	1.19	0.62	4.09	1.47	3.60	3.67	3.24	4.47	3.46	3.30	3.57	9.01	7.79	7.16	4.89
Inhalants	2.54	0.63	1.02	3.24	0.81	1.59	0.91	0.91	0.70	2.09	2.02	2.84	1.69	1.95	2.16	3.23	2.93	1.64	1.95	2.07
Heroin	1.32	1.52	1.36	1.94	1.48	1.50	0.82	1.84	0.41	1.54	1.05	1.34	1.34	1.63	1.98	8.99	1.74	1.46	3.83	1.34
Methamphetamine	2.06	9.92	0.82	1.50	0.85	1.69	1.57	2.09	1.21	3.44	2.72	1.23	1.46	1.62	3.34	5.18	3.09	3.99	4.17	1.88
Tranquillizers (NM)	1.12	2.57	1.23	2.04	0.59	1.14	1.68	1.96	0.72	3.74	2.49	1.56	1.55	1.67	2.18	3.50	3.26	2.04	2.81	2.26
Tranquillizers (M)	0.89	1.15	0.71	2.22	1.16	1.25	1.92	1.28	0.84	1.71	1.20	1.11	1.84	1.28	2.59	3.41	2.75	1.03	4.06	1.89
LSD	2.94	1.81	2.78	4.20	3.92	1.24	0.99	5.04	0.89	3.42	2.26	1.85	2.73	2.33	2.49	3.59	2.83	2.12	2.73	2.15
Mushrooms/Mescaline	3.80	2.65	2.00	4.54	3.52	0.96	0.88	5.19	1.57	4.21	2.48	3.22	4.40	2.62	3.50	4.28	6.14	4.58	3.02	2.58
Cocaine	1.36	2.27	2.27	2.51	1.74	1.52	2.10	0.68	0.41	3.13	1.90	1.61	2.53	1.50	2.72	2.20	4.43	2.37	5.97	2.26
Total (average)	**4.09**	**2.37**	**1.81**	**4.03**	**2.38**	**3.57**	**1.57**	**1.82**	**0.90**	**5.39**	**6.94**	**3.04**	**4.14**	**2.73**	**3.58**	**7.35**	**6.82**	**4.06**	**10.00**	**3.37**

Notes: 1981–1997 deffs are based on grades 7, 9, 11, and 13; 1999 and 2001 deffs are based on grades 7–13; 2003–2019 deffs are based on grades 7–12; NM=nonmedical use; M=medical/prescription use; elevated deffs since 2009 are attributed to the oversampling of students in the public health regions; the elevated deffs in 2017 are attributed to having a single PSU in a stratum in that cycle.

Source: OSDUHS, Centre for Addiction & Mental Health

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