

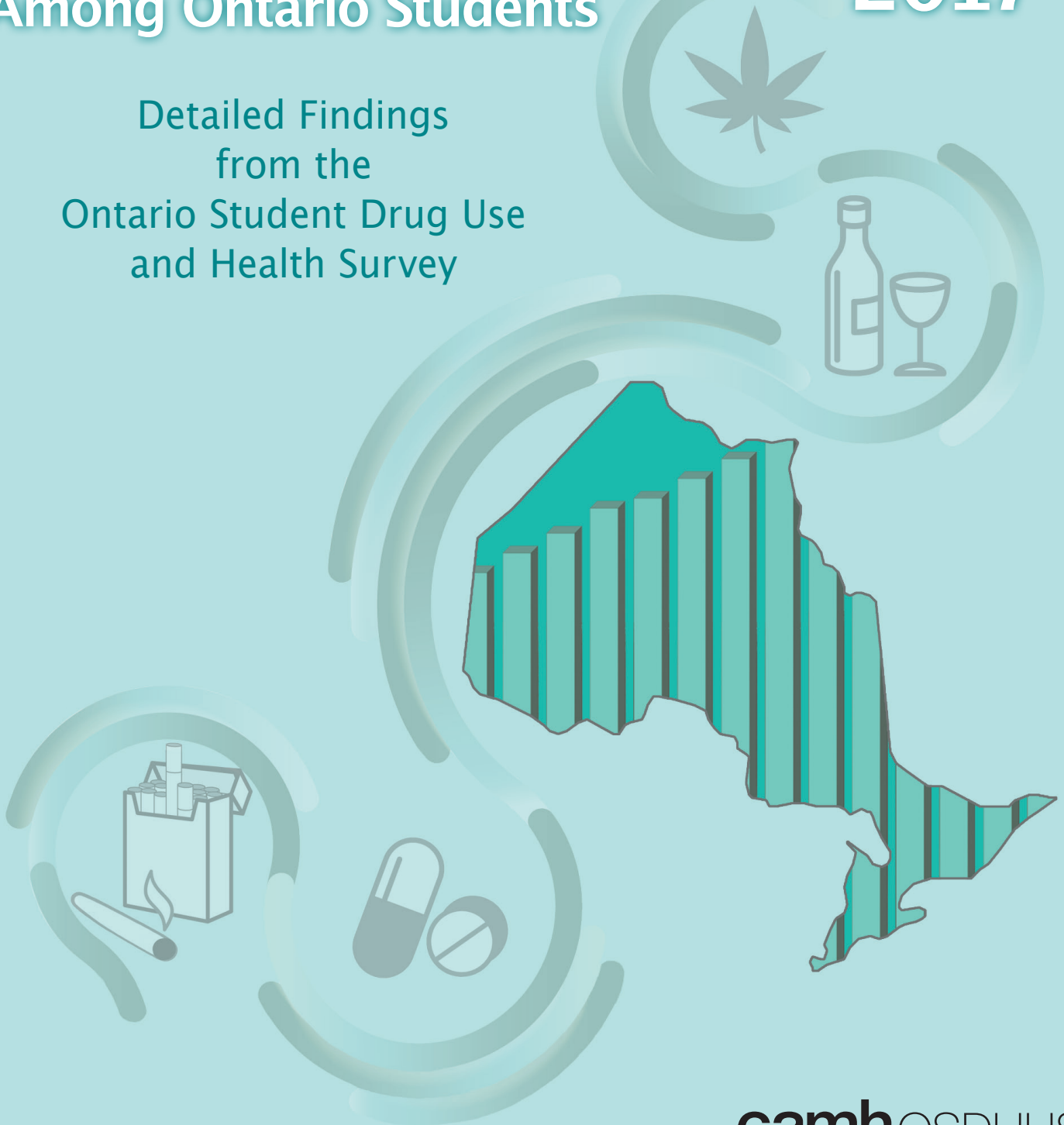
Celebrating 40 Years of OSDUHS

Drug Use

Among Ontario Students

1977-
2017

Detailed Findings
from the
Ontario Student Drug Use
and Health Survey



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

camhOSDUHS
Ontario Student Drug
Use and Health Survey

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CAMH Research Document
Series No. 46

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The 2017 OSDUHS Drug Use Report Summary

The Centre for Addiction and Mental Health's *Ontario Student Drug Use and Health Survey* (OSDUHS) is the longest ongoing school survey of adolescents in Canada, and one of the longest in the world. The OSDUHS has been conducted every two years since 1977, and 2017 marks the study's 40th anniversary. A total of 11,435 students (61% of eligible students in participating classes) in grades 7 through 12 from 52 school boards, 214 schools, and 764 classes participated in the 2017 OSDUHS, which

was administered by the Institute for Social Research, York University. This report describes the past year use of alcohol, tobacco, illicit drugs, nonmedical (NM) use of prescription drugs, and other substances of concern, and changes since 1977. 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 administered in classrooms between November 2016 and June 2017.

Past Year Drug Use (%) for the Total Sample, by Sex, and by Grade, 2017 OSDUHS (N=11,435)

	Total	Males	Females	G7	G8	G9	G10	G11	G12
Grades 7–12									
Alcohol	42.5	42.7	42.2	10.5	11.8	31.8	49.9	60.6	68.3 *
High-Caffeine Energy Drinks	34.1	41.1	26.9 *	21.8	26.0	36.7	37.7	36.9	39.7 *
Cannabis	19.0	19.6	18.3	2.0	2.0	9.3	19.9	30.4	36.9 *
Binge Drinking (5+ Drinks Past Month)	16.9	17.6	16.1	s	s	9.2	17.2	27.7	32.3 *
Electronic Cigarettes (Vape Pens)	10.7	13.0	8.2 *	s	s	9.2	12.6	16.1	18.9 *
Opioid Pain Relievers (NM)	10.6	10.2	11.1	8.4	8.1	11.1	13.1	11.9	10.5
OTC Cough/Cold Medication	9.2	11.2	7.1 *	10.0	5.2	10.7	11.6	9.5	8.3
Tobacco Cigarettes	7.0	8.1	5.8 *	s	s	2.8	6.4	11.1	15.2 *
Waterpipes (Hookahs)	6.2	7.7	4.5 *	s	s	3.3	7.2	10.8	12.1 *
Smokeless (Chewing) Tobacco	5.4	8.1	2.6 *	s	s	6.3	4.8	9.7	8.5 *
Inhalants (Glue or Solvents)	3.4	3.0	3.7	6.2	4.8	2.3	3.8	1.9	s *
ADHD Drugs (NM)	2.3	2.6	1.9	1.5	0.9	0.8	s	3.3	4.5 *
Synthetic Cannabis ("Spice," "K2")	1.5	1.6	1.4	s	s	s	1.6	s	2.5 *
Salvia Divinorum	0.6	0.9	s	s	s	s	s	s	s
Grades 9–12[†]									
Mushrooms (Psilocybin) or Mescaline	4.0	5.4	2.4 *	--	--	1.8	2.0	5.4	5.7 *
Ecstasy (MDMA)	3.4	4.2	2.5	--	--	s	2.3	2.5	6.7 *
Cocaine	3.1	4.0	2.0	--	--	s	1.2	s	5.5 *
Tranquillizers/Sedatives (NM)	2.7	2.7	2.6	--	--	s	2.0	3.0	4.1 *
LSD	1.5	2.0	1.0 *	--	--	s	1.6	1.7	1.9
Fentanyl	0.9	s	s	--	--	s	s	s	s
Jimson Weed	0.8	s	s	--	--	s	s	s	s
Methamphetamine	0.6	s	s	--	--	s	s	s	s
Crack	0.6	s	s	--	--	s	s	s	s
Any NM Use of a Prescription Drug	13.7	13.5	14.0	--	--	12.2	14.0	14.3	14.1
Any Drug Use Including Cannabis	37.8	35.8	40.1	--	--	24.6	33.2	39.8	48.3 *
Any Drug Use Excluding Cannabis	23.8	23.1	24.6	--	--	19.6	22.1	23.2	28.3

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 excludes smoking a few puffs; OTC=over-the-counter drug used to "get high"; NM=nonmedical use, without a doctor's prescription; "Any NM Use of a Prescription Drug" refers to nonmedical use of opioids, Attention-Deficit/Hyperactivity Disorder (ADHD) drugs, or tranquilizers/sedatives; "Any Drug Use Including Cannabis" refers to use of any one of 18 drugs (excludes alcohol, tobacco and electronic cigarettes, waterpipes, and caffeine drinks); estimates for heroin and mephedrone were suppressed due to unreliability.

2017 Subgroup Differences

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

- Among the drugs asked about in the 2017 survey, males are significantly more likely than females to use eight drugs. Females do not show a higher prevalence of use for any drug.

Males are more likely than females to use...
• Tobacco Cigarettes
• Electronic Cigarettes
• Waterpipes/Hookahs
• Smokeless Tobacco
• OTC Cough/Cold Medication
• Energy Drinks
• Mushrooms/Mescaline
• LSD

OTC = over-the-counter

- Past year use of many drugs significantly differs by grade. Use of most drugs increases with grade, peaking in grades 11 or 12.

Use increases with grade	Use decreases with grade
• Tobacco Cigarettes	• Inhalants
• Electronic Cigarettes	
• Waterpipes/Hookahs	
• Smokeless Tobacco	
• Alcohol	
• Binge Drinking	
• Cannabis	
• Synthetic Cannabis	
• ADHD Drugs (NM)	
• Energy Drinks	
• Mushrooms/Mescaline	
• Ecstasy	
• Cocaine	
• Tranquillizers (NM)	
• Any Drug incl. Cannabis	
• Any Drug excl. Cannabis	

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 (Toronto, Durham Region, York Region, Peel Region, and Halton Region); 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 the past year use of several drugs, each showing that students in the Greater Toronto Area differ from the provincial average. These drugs are listed in the table below. Students in the North, West, and East regions do not significantly differ from the provincial average on any drug use measured.

Use in region below provincial average	Use in region above provincial average
Greater Toronto Area	
<ul style="list-style-type: none"> • Tobacco Cigarettes • Energy Drinks • Mushrooms/Mescaline 	<ul style="list-style-type: none"> • Inhalants • OTC Cough/Cold Medication

OTC = over-the-counter

An overview of results according to Ontario's Local Health Integration Networks (LHINs) is also provided in the report.

Changes in Past Year Drug Use, 2017 vs. 2015

Among the total sample of students, one drug showed an **increase** in use between the previous survey in 2015 and the 2017 survey. The past year nonmedical use of over-the-counter cough or cold medication increased from 6.4% to 9.2%.

Significant **decreases** in past year use between 2015 and 2017 were found for three drugs:

- ❑ ecstasy (from 5.4% in 2015 to 3.4% in 2017),
- ❑ salvia divinorum (from 1.6% to 0.6%), and
- ❑ jimson weed (from 1.8% to 0.8%).

	2015 past year use		2017 past year use
Ecstasy	5.4%	↓	3.4%
Salvia Divinorum	1.6%	↓	0.6%
Jimson Weed	1.8%	↓	0.8%
OTC Cough/Cold Medication (NM)	6.4%	↑	9.2%

NM=nonmedical use

Trends, 1999–2017

The year 1999 is a key marker in the study’s history because the study was redesigned that year to include *all* grades between 7 and 12. In this section, we highlight significant changes during the period between 1999 and 2017.

In general, most past year drug use measures show a significant downward trend over time. The one exception is the nonmedical use of an ADHD drug (e.g., Ritalin, Adderall, Concerta), which shows a significant increase over the past decade. The percentage reporting the nonmedical use of an ADHD drug in 2017 (2.3%)

is significantly higher than the estimate from 2007 (1.0%), the first year of monitoring.

The following drugs or drug use measures show significant **decreases** during the period between 1999 and 2017:

- ❑ alcohol: from 66.0% to 42.5%
- ❑ binge drinking: from 27.6% to 16.9%
- ❑ energy drinks: from 49.5% (2011) to 34.2%
- ❑ cannabis: from 28.0% to 19.0%
- ❑ opioids (NM): from 20.6% (2007) to 10.6%
- ❑ tobacco cigarettes: from 28.4% to 7.0%
- ❑ waterpipes: from 9.7% (2013) to 6.2%
- ❑ inhalants: from 8.9% to 3.4%
- ❑ salvia divinorum: from 4.4% (2009) to 0.6%
- ❑ mushrooms:* from 17.1% to 4.0%
- ❑ ecstasy:* from 7.9% (2001) to 3.4%
- ❑ cocaine:* from 5.7% (2003) to 3.1%
- ❑ LSD:* from 8.8% to 1.5%
- ❑ jimson weed:* from 3.1% (2007) to 0.8%
- ❑ methamphetamine:* from 6.3% to 0.6%
- ❑ crack:* from 3.2% to 0.6%
- ❑ heroin:* from 2.1% to <0.5%.

- ❑ Any nonmedical use of a prescription drug decreased between 2007 and 2017 (from 23.5% to 13.7%) among grades 9–12.

- ❑ Any use of at least one of *nine* drugs (including cannabis) measured in all survey cycles, significantly decreased between 1999 and 2017 (from 39.2% to 26.4%) among grades 9–12.

- ❑ A similar measure to that above, but excluding cannabis, also significantly decreased between 1999 and 2017 (from 22.8% to 7.8%) among grades 9–12.

Drugs that remained stable since they were first monitored include electronic cigarettes, smokeless tobacco, synthetic cannabis (“spice”), mephedrone (“bath salts”), and tranquilizers/sedatives (nonmedical use).

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

Trends by Sex

Males show a significant increase in the past year use of over-the-counter cough/cold medication used to “get high” since the previous survey in 2015 (from 6.7% to 11.2%). Females show no significant increase in the past year use of any drug since the previous survey in 2015.

However, both sexes show many decreases during the period between 1999 and 2017. These are listed in the table below.

Decreases in Past Year Drug Use by Sex	
Males	Females
<ul style="list-style-type: none"> • Tobacco Cigarettes • Alcohol & Binge Drinking • Cannabis • Inhalants • Salvia Divinorum • LSD • Mushrooms/Mescaline • Jimson Weed • Methamphetamine • Cocaine • Crack • Heroin • Ecstasy • Energy Drinks • Opioids (NM) • Any Prescription Drug (NM) • Any Drug incl. Cannabis • Any Drug excl. Cannabis 	<ul style="list-style-type: none"> • Tobacco Cigarettes • Waterpipes/Hookahs • Alcohol & Binge Drinking • Inhalants • LSD • Mushrooms/Mescaline • Jimson Weed • Methamphetamine • Cocaine • Crack • Ecstasy • Energy Drinks • Opioids (NM) • Any Prescription Drug (NM) • Any Drug incl. Cannabis • Any Drug excl. Cannabis

Notes: (1) bolded text indicates decrease in 2017 vs. 2015 (previous survey), (2) NM=nonmedical use.

Long-Term Trends, 1977–2017 (Grades 7, 9, and 11 only)

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 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:

- tobacco cigarettes
- alcohol
- LSD
- methamphetamine (includes crystal methamphetamine).

Pattern 2: Prevalence in 2017 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:

- binge drinking
- 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:

- cannabis.

Pattern 4: Prevalence shows only one peak in the late 1990s or early 2000s (or the late 1970s for tranquilizers), followed by a decline, and stability:

- ecstasy
- crack
- tranquilizers/sedatives (NM).

Pattern 5: Prevalence was very low and stable for decades, reaching an all-time low in recent years:

- heroin.

Tracking Emerging Drugs

- ❑ The OSDUHS regularly includes new questions about emerging drugs. New to the 2017 cycle was a question about illicit fentanyl use. The survey shows that about 1% of high school students report using fentanyl in the past year (representing about 5,800 high school students in Ontario).
- ❑ The OSDUHS began to track the use of synthetic cannabis (more commonly known as “spice” or “K2”) in the 2013 cycle. In 2017, about 2% of students in grades 7 through 12 (representing about 13,800 students in Ontario) used synthetic cannabis in the past year. There has been no significant change in use since 2013.
- ❑ The 2017 past year prevalence estimate for mephedrone (“bath salts”) among high school students, which was first tracked in the 2011 cycle, is suppressed due to an extremely low value. Use of this synthetic drug has remained very low and stable since monitoring first began. Thus, there is no evidence that it has measurably diffused into the mainstream student population.

Tobacco and Alternative Smoking Devices Overview

- ❑ In 2017, about 7% of students in grades 7–12 (an estimated 63,800 in Ontario) report smoking cigarettes (more than just a few puffs) during the past year. About 2% of students (an estimated 21,300) smoke cigarettes on a daily basis. The dramatic downward trend in cigarette smoking that began in the early 2000s appears to have halted, as estimates have remained at about 7%-9% in recent years (since 2011).

- ❑ Males (8%) are significantly more likely than females (6%) to smoke tobacco cigarettes. The prevalence of cigarette smoking significantly increases with grade, reaching 15% among 12th graders.
- ❑ About 3% of all students (an estimated 21,300 in Ontario) report smoking contraband cigarettes in the past year. Among past year smokers, 43% report smoking contraband cigarettes.
- ❑ About one-in-ten (11%) students in grades 7–12 (an estimated 80,800 in Ontario) report using more than just a few puffs of an electronic cigarette, with or without nicotine, in the past year. Males (13%) are more likely than females (8%) to use electronic cigarettes. Among the grades, students in 11th and 12th grade are most likely to use (16%-19%).
- ❑ Over one-third (40%) of past year electronic cigarette users report using electronic cigarettes without nicotine. Over one-quarter (28%) of users report using electronic cigarettes with nicotine, 19% report using both types, and 13% report not knowing what type they used.
- ❑ About 6% of students in grades 7–12 (46,600 students in Ontario) report smoking more than just a few puffs from a waterpipe (hookah) in the past year. Among high school students who use a waterpipe, over one-third (38%) usually smoke only cannabis in the waterpipe, almost one-third (31%) usually smoke only tobacco, 21% smoke both substances, and 10% usually smoke another substance.
- ❑ Smokeless tobacco (a.k.a. chewing tobacco, dipping tobacco, snuff) is used by about 5% of students in grades 7–12 (an estimated 40,800 in Ontario), with males (8%) more likely to use than females (3%).

- The most common source of tobacco cigarettes reported by students who smoke is a friend or family member. The most common source of electronic cigarettes reported by users is trying one or borrowing one from a friend.
- Males and females are equally likely to drink hazardingly/harmfully (14% for both). The likelihood significantly increases with grade level, reaching 23% among 12th graders.

Alcohol Overview

- In 2017, less than half (43%) of all students – an estimated 385,300 in Ontario – report drinking more than just a few sips of alcohol during the past year. While the past year prevalence of drinking did not significantly change since the previous survey in 2015, the current estimate is significantly lower than all other estimates seen since 1999.
- Males (43%) and females (42%) are equally likely to drink alcohol. Past year drinking varies by grade, increasing from 11%-12% of 7th and 8th graders to 68% of 12th graders.
- About one-in-six (17%) students (an estimated 153,300 in Ontario) report binge drinking (defined as 5+ drinks on one occasion) at least once during the month before the survey. A similar percentage (16%) report getting drunk at least once in the past month. Males and females are equally likely to binge drink and get drunk. About one-third of 12th graders report binge drinking and getting drunk at least once in the past month.
- One-in-seven (14%) high school students – an estimated 110,600 in grades 9–12 – report drinking hazardingly or harmfully, as measured by the *AUDIT* screener. Hazardous/harmful drinking significantly decreased since the previous survey in 2015, reaching an all-time low in 2017.
- One-in-six (16%) high school students could not remember what had happened when they were drinking on at least one occasion during the past year. One-in-twelve (8%) report that they were injured or someone else was injured because of their drinking.
- Just over one-quarter (27%) of high school students report that they are allowed to drink alcohol at home during parties or get-togethers with their friends. There is no significant difference between males and females. There is significant grade variation, ranging from 11% of 9th graders to 37% of 12th graders.
- Among past year drinkers, the most common method of obtaining alcohol is to receive it from a family member.
- Over one-third (35%) of high school students believe it would be more difficult for them to buy beer in a LCBO or beer store than a grocery store in Ontario. Only 7% 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 30% believe the difficulty would not differ.

Cannabis Overview

- ❑ In 2017, about one-in-five (19%) students in grades 7–12 – an estimated 172,200 in Ontario – report using cannabis in the past year. While past year cannabis use did not significantly change since the previous survey in 2015, it is currently lower than most estimates seen since 1999.
- ❑ Males (20%) and females (18%) are equally likely to use cannabis. Use increases with grade level, ranging from 2% of 7th and 8th graders up to 37% of 12th graders.
- ❑ About 1% of students in grades 7–12 use cannabis daily, representing about 13,100 students in Ontario.
- ❑ About one-in-eight (13%) students used alcohol and cannabis on the same occasion at least once in the past year. This percentage represents about 98,900 Ontario students in grades 7–12.
- ❑ Among high school students, the most common modes of using cannabis are smoking it in a pipe or bong (21%), smoking it in a joint (20%), and eating it in food products such as brownies or candy (11%). The least common mode is to use cannabis in a drink, such as a tea (2%).
- ❑ About 7% of high school students report using cannabis for medical purposes, such as pain or nausea, in the past year. This percentage represents about 35,000 Ontario students in grades 9–12.
- ❑ About 2% of high school students (an estimated 9,800) report symptoms of cannabis dependence, as measured by the *Severity of Dependence Scale*.
- ❑ Among past year cannabis users, the most common method of obtaining cannabis is through friends.
- ❑ About 1% of high school students report ever being arrested or warned by police for using cannabis (representing about 6,900 students in grades 9–12).
- ❑ Students were asked their opinions about cannabis legalization. About one-third (35%) of students in grades 7–12 think cannabis use should be legal for adults, another third (33%) said it should not be legal, and another third (32%) are not sure. Older students are more likely to indicate that cannabis use should be legal for adults.
- ❑ Students were also asked about their intentions to use if cannabis is legalized. About two thirds (62%) of students in grades 7–12 do not intend to use cannabis even if it is legalized for adults. About one-in-ten (11%) indicate that they will use cannabis as often as they do now, 8% indicate that they will try cannabis, 4% will use cannabis more often than they do now, and 14% are not sure about their intentions to use. Younger students are more likely to indicate that they will not use cannabis if legalized.

Nonmedical Use of Prescription Drugs

- ❑ One-in-ten (11%) students in grades 7–12 – an estimated 97,100 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. Although past year nonmedical opioid use has remained stable since the previous survey in 2015, it is currently lower than when monitoring first began in 2007. Males and females are equally likely to use these drugs nonmedically. The majority (55%) of past year users report obtaining these drugs from a parent or sibling.

- About 2% of students in grades 7–12 (an estimated 20,800) report using a drug typically used to treat Attention-Deficit/Hyperactivity Disorder (ADHD) in children (e.g., Ritalin, Concerta, Adderall, Dexedrine) without a prescription in the past year. Males and females are equally likely to use these drugs nonmedically.
- About 3% of high school students (an estimated 17,500 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.

Nonmedical Use of Over-the-Counter Drugs

- About one-in-ten (9%) students in grades 7–12 (an estimated 83,300) report using over-the-counter (OTC) cough and cold medications containing the drug dextromethorphan in order to “get high” during the past year. Males (11%) are significantly more likely than females (7%) to use cough/cold medication to get high. Use of these drugs significantly increased since the previous survey in 2015, returning to a level seen in prior years.

Caffeine

- Students were asked about their use of highly caffeinated energy drinks (e.g., Red Bull, Rockstar, Monster, Amp) during the past year and the past week. One-third (34%) of students (an estimated 304,600 in grades 7–12) report drinking an energy drink at least once during the year before the survey. One-in-eight (13%) students (an estimated 112,800) report drinking an energy drink at least once during the week before the survey.

- Students were asked about their use of coffee and tea (caffeinated) during the past week. About 6% of students in grades 7–12 report drinking coffee daily in the past week, and 6% report drinking caffeinated tea daily. Combining the two, about one-in-ten (11%) students drink coffee and/or caffeinated tea daily (an estimated 75,500 students).

Past Year Abstinence

- About 44% of students in grades 7–12 (an estimated 332,000 in Ontario) report using no drug at all during the past year (this includes alcohol, cigarettes and other smoking devices, but excludes caffeinated drinks). Males and females are equally likely to abstain from drug use. Past year abstinence significantly decreases with grade, from over two-thirds of 7th and 8th graders down to one-quarter of 11th and 12th graders. The percentage of students reporting no drug use in 2017 is similar to the previous estimate from 2015. However, there has been a significant increasing trend in abstinence between 1999 and 2017, from 27% to 44%, mainly occurring during the past few years.

Consequences and Problems Related to Alcohol and Other Drug Use

Vehicles

- One-in-six (16%) 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 past decade or so.

- 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 11,600 adolescent drivers in Ontario). Drinking and driving among adolescent drivers has been stable since 2011 at about 4%-7%. However, the current estimate is significantly lower than estimates seen between 1999 and 2009 (when rates were between 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).
- The percentage of drivers in grades 10–12 reporting driving after cannabis use is higher than the percentage reporting driving after drinking. About one-in-ten (9%) drivers report driving a vehicle within one hour of using cannabis at least once during the past year (an estimated 24,100 adolescent drivers in Ontario). Cannabis use and driving has remained stable since 2011 (at about 9%-12%). However, it is currently significantly lower than estimates seen during the 2000s, when levels were between 16%-20%.

Drug Use Problem

- One-in-seven (14%) students (an estimated 109,700 in grades 9–12) report symptoms of a drug use problem, as measured by the *CRAFFT* screener.
- A very small proportion (0.6%) of high school students (an estimated 3,800 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.

Other Highlights

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: 5% for tobacco cigarettes, 14% for electronic cigarettes, 20% for alcohol, 9% for cannabis, and 3% for illicit drugs other than cannabis.
- In 2017, the average age at which 12th-grade smokers reported smoking their first cigarette was 15.4 years. The average age at first alcoholic drink among 12th-grade drinkers was 14.5 years, and the first time they were drunk was at age 15.2. The average age at first cannabis use among 12th-grade users was 15.3 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.

Perceived Risk and Disapproval Associated with Drug Use

- Students in grades 7 and 8 believe that the greatest risk of harm is associated with regular marijuana use, followed by using a prescription opioid nonmedically. Students in grades 9–12 believe the greatest risk of harm is associated with using a prescription opioid nonmedically, followed by trying cocaine. Trying marijuana and electronic cigarette use rank among the lowest drug-using behaviours in terms of perceived risk.
- The percentage of students who perceive a great risk of harm associated with marijuana use (trying and regular use) has remained stable since 2013, but it is currently lower than estimates from 1999 to 2011. The percentage who perceive a great risk of harm associated with using

prescription opioids nonmedically has declined since 2013, the first year of monitoring. The perceived risk associated with daily tobacco smoking, regular waterpipe use, and trying cocaine also declined in recent years.

- The majority of students in grades 7 and 8 disapprove of regular marijuana use. Almost half of students in grade 9–12 disapprove of trying cocaine and trying ecstasy.

Perceived Availability of Drugs

- In 2017, among students in grades 7–12, the drug perceived to be most readily available is alcohol (63% report that it would be “fairly easy” or “very easy” to obtain), followed by tobacco cigarettes (51%), and cannabis (43%).
- Over the past few years, the perceived availability of alcohol has remained stable while the perceived availability of tobacco cigarettes and cannabis has decreased. The perceived availability of prescription opioids (without one’s own prescription) shows a slight, but significant, increase between 2015 and 2017, from 18% to 22%.
- The perceived availability of cocaine, LSD, and ecstasy show substantial decreases compared to estimates from decades ago.

School and Neighbourhood

- Of all the grades surveyed, students in grades 7, 8, and 9 are most likely to report receiving education at school about alcohol, cannabis, and other drugs.
- One-in-five (21%) students in grades 7–12 believe that drug use in their school is a “big problem,” 47% believe that drug use is a “small problem,” and 32% believe that it is “not a problem” in their school.
- One-in-ten (10%) students in grades 7–12 (an estimated 70,200 in Ontario) report being drunk or high at school at least once in the past year, and this percentage is significantly lower than a decade ago (about 15%-16%).
- One-in-seven (15%) students in grades 7–12 (an estimated 108,300 in Ontario) report they have been offered, sold, or given an illegal drug at school at least once in the past year, and this percentage is significantly lower than a decade ago (about 21%-23%).
- About 8% of students in grades 7–12 indicate that most or all of their closest friends use drugs.
- One-in-five (20%) students in grades 7–12 (an estimated 145,900) report that someone tried to sell them drugs anywhere at least once in the past year. The 2017 estimate is the lowest on record since monitoring began in 1995.
- One-in-five (19%) students in grades 7–12 (an estimated 142,200) report seeing drugs being sold in their own neighbourhood at least once in the past year, and the 2017 estimate is among the lowest on record since 1995.

Methodology

The Centre for Addiction and Mental Health's *Ontario Student Drug Use and Health Survey* (OSDUHS) is an Ontario-wide survey of elementary/middle school students in grades 7 and 8 and secondary school students in grades 9 through 12. This repeated cross-sectional survey has been conducted every two years since its inception in 1977. The 2017 survey, which used a stratified (region by school level) two-stage (school, class) cluster design, was based on 11,435 students in grades 7 through 12 in 764 classes, in 214 schools from 52 English and French public and Catholic school boards. Excluded from selection were schools on military bases, in First Nations communities, 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 by staff from the Institute for Social Research, York University in classrooms between November 2016 and June 2017 during regular school hours. Students in French-language schools completed French questionnaires. Sixty-one percent (61%) of randomly selected schools, 94% of selected classes, and 61% of eligible students in those classes completed the survey. The 2017 total sample of 11,435 students is representative of just under one million students in grades 7 to 12 enrolled in Ontario's publicly funded schools.

New drug-related questions in the 2017 cycle included fentanyl use, modes of cannabis use, substances usually smoked in waterpipes, caffeine consumption, and opinions about cannabis legalization and purchasing beer in grocery stores.

Please visit the OSDUHS webpage for reports and FAQs:

www.camh.ca/osduhs

Résumé du rapport sur la consommation de drogues – SCDSEO 2017

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 le plus ancien sondage mené auprès d'adolescents en milieu scolaire au Canada et l'un des plus anciens au monde. Le SCDSEO est réalisé tous les deux ans depuis 1977 et 2017 marque son 40e anniversaire. Au total, 11 435 élèves (61 % des élèves choisis dans les classes participantes) de la 7e à la 12e année répartis dans 52 conseils scolaires, 214 écoles et 764 classes ont participé au SCDSEO 2017, qui a été administré par l'Institut de

recherche sociale de l'Université York. Le rapport décrit la consommation d'alcool, de tabac, de drogues illicites, de médicaments sur ordonnance à des fins non médicales (NM) et d'autres substances préoccupantes au cours de l'année écoulée, ainsi que les changements survenus depuis 1977. 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 administrés en classe entre novembre 2016 et juin 2017.

Consommation de drogues (en pourcentage) au cours de l'année écoulée parmi l'échantillon total, selon le sexe et l'année d'études, SCDSEO 2017 (N = 11 435)

	Total	Garçons	Filles	7 ^e	8 ^e	9 ^e	10 ^e	11 ^e	12 ^e	
7^e – 12^e année										
Alcool	42,5	42,7	42,2	10,5	11,8	31,8	49,9	60,6	68,3 *	
Boissons énergisantes fortement caféinées	34,1	41,1	26,9 *	21,8	26,0	36,7	37,7	36,9	39,7 *	
Cannabis	19,0	19,6	18,3	2,0	2,0	9,3	19,9	30,4	36,9 *	
Excès occasionnel d'alcool (plus de 5 verres au cours du mois écoulé)	16,9	17,6	16,1	s	s	9,2	17,2	27,7	32,3 *	
Cigarettes électroniques (vapeottes)	10,7	13,0	8,2 *	s	s	9,2	12,6	16,1	18,9 *	
Analgésiques opioïdes (NM)	10,6	10,2	11,1	8,4	8,1	11,1	13,1	11,9	10,5	
Antitussifs et antirhumes en vente libre	9,2	11,2	7,1 *	10,0	5,2	10,7	11,6	9,5	8,3	
Cigarettes de tabac	7,0	8,1	5,8 *	s	s	2,8	6,4	11,1	15,2 *	
Pipes à eau (narguilés)	6,2	7,7	4,5 *	s	s	3,3	7,2	10,8	12,1 *	
Tabac sans fumée (tabac à chiquer)	5,4	8,1	2,6 *	s	s	6,3	4,8	9,7	8,5 *	
Substances inhalées (colle ou solvants)	3,4	3,0	3,7	6,2	4,8	2,3	3,8	1,9	s *	
Médicaments pour le TDAH (NM)	2,3	2,6	1,9	1,5	0,9	0,8	s	3,3	4,5 *	
Cannabis synthétique (« spice », « K2 »)	1,5	1,6	1,4	s	s	s	1,6	s	2,5 *	
Salvia divinorum	0,6	0,9	s	s	s	s	s	s	s	
9^e – 12^e année[†]										
Champignons (psilocybine) ou mescaline	4,0	5,4	2,4 *	--	--	1,8	2,0	5,4	5,7 *	
Ecstasy (MDMA)	3,4	4,2	2,5	--	--	s	2,3	2,5	6,7 *	
Cocaïne	3,1	4,0	2,0	--	--	s	1,2	s	5,5 *	
Tranquillisants ou sédatifs (NM)	2,7	2,7	2,6	--	--	s	2,0	3,0	4,1 *	
LSD	1,5	2,0	1,0 *	--	--	s	1,6	1,7	1,9	
Fentanyl	0,9	s	s	--	--	s	s	s	s	
Stramoine	0,8	s	s	--	--	s	s	s	s	
Méthamphétamine	0,6	s	s	--	--	s	s	s	s	
Crack	0,6	s	s	--	--	s	s	s	s	
Tout médicament sur ordonnance (NM)	13,7	13,5	14,0	--	--	12,2	14,0	14,3	14,1	
Toute drogue, y compris le cannabis	37,8	35,8	40,1	--	--	24,6	33,2	39,8	48,3 *	
Toute drogue, sauf le cannabis	23,8	23,1	24,6	--	--	19,6	22,1	23,2	28,3	

Nota : † questions non posées aux élèves de 7^e et de 8^e 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 »; médicament en vente libre = utilisé à des fins non médicales pour « planer »; NM = usage non médical, sans ordonnance d'un médecin; « Tout médicament sur ordonnance (usage NM) » renvoie à l'usage NM d'opioïdes, de médicaments pour le trouble déficitaire de l'attention avec ou sans hyperactivité (TDAH) et de tranquillisants ou sédatifs; « Toute drogue, y compris cannabis » renvoie à l'usage de l'une quelconque des 18 drogues (sauf l'alcool, les cigarettes de tabac, les cigarettes électroniques, les pipes à eau et les boissons énergisantes fortement caféinées); les estimations pour l'héroïne et la méthédrone ont été supprimées pour raison de fiabilité.

Différences entre les sous-groupes pour 2017

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 2017, les garçons étaient nettement plus susceptibles que les filles de prendre huit drogues. Aucun taux de prévalence plus élevé n'a été relevé chez les filles.

Les garçons sont plus susceptibles que les filles de faire usage de ce qui suit :
• Cigarettes de tabac
• Cigarettes électroniques
• Pipes à eau/narguilés
• Tabac sans fumée
• Antitussifs et antirhumes en vente libre
• Boissons énergisantes
• Champignons/mescaline
• LSD

- L'usage d'un grand nombre de drogues au cours de l'année écoulée varie considérablement selon l'année d'études. L'usage de la plupart des drogues augmente selon l'année d'études pour atteindre un sommet en 11^e ou 12^e année.

Hausse de l'usage selon l'année d'études	Baisse de l'usage selon l'année d'études
• Cigarettes de tabac	• Substances inhalées
• Cigarettes électroniques	
• Pipes à eau/narguilés	
• Tabac sans fumée	
• Alcool	
• Excès occasionnel d'alcool	
• Cannabis	
• Cannabis synthétique	
• Médicaments pour le TDAH (usage NM)	
• Boissons énergisantes	
• Champignons/mescaline	
• Ecstasy	
• Cocaïne	
• Tranquillisants (usage NM)	
• Toute drogue, y compris le cannabis	
• Toute drogue, sauf le cannabis	

NM = usage non médical; excès d'alcool : cinq 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 (Toronto et régions de Durham, York, Peel et Halton); 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 régionales importantes dans la consommation de plusieurs drogues (énumérées ci-dessous) au cours de l'année écoulée. Ces différences révèlent que les élèves du grand Toronto diffèrent de la moyenne provinciale. Il n'y a pas de différence majeure par rapport à la moyenne provinciale chez les élèves des régions du Nord, de l'Ouest et de l'Est pour aucune des drogues étudiées.

Consommation dans la région inférieure à la moyenne provinciale	Consommation dans la région supérieure à la moyenne provinciale
Région du grand Toronto	
<ul style="list-style-type: none"> • Cigarettes de tabac • Boissons énergisantes • Champignons/mescaline 	<ul style="list-style-type: none"> • Substances inhalées • Antitussifs et antirhumes en vente libre

Un aperçu des résultats selon les réseaux locaux d'intégration de la santé (RLISS) de l'Ontario est également présenté dans le rapport.

Changements dans la consommation de drogues au cours de l'année écoulée : comparaison des résultats de 2017 et de 2015

Parmi l'échantillon total des élèves, on a relevé une **augmentation** de la consommation d'une drogue en 2017 depuis le sondage de 2015. En effet, l'usage non médical d'antitussifs ou d'antirhumes en vente libre au cours de l'année écoulée a augmenté, passant de 6,4 % à 9,2 %.

L'usage de trois drogues au cours de l'année écoulée a **diminué** considérablement de 2015 à 2017 :

- ❑ l'ecstasy (de 5,4 % en 2015 à 3,4 % en 2017);
- ❑ la Salvia divinorum (de 1,6 % à 0,6 %);
- ❑ la stramoine (de 1,8 % à 0,8 %).

	2015 usage au cours de l'année écoulée		2017 usage au cours de l'année écoulée
Ecstasy	5,4 %	↓	3,4 %
Salvia divinorum	1,6 %	↓	0,6 %
Stramoine	1,8 %	↓	0,8 %
Antitussifs et antirhumes en vente libre (NM)	6,4 %	↑	9,2 %

NM = usage non médical

Tendances, 1999–2017

L'année 1999 marque un tournant décisif du sondage, car c'est à ce moment qu'il a été modifié pour inclure *toutes* les années d'études de la 7^e à la 12^e année. Dans la présente section, nous présentons les changements importants survenus entre 1999 et 2017.

La tendance générale est à la baisse pour la plupart des drogues consommées au cours de l'année écoulée, à l'exception de l'usage non médical d'un médicament pour le TDAH (p. ex, Ritalin, Adderall et Concerta), qui a augmenté considérablement au cours des dix dernières années. Le pourcentage d'élèves ayant déclaré avoir fait un usage non médical d'un médicament pour le TDAH en 2017 (2,3 %) est nettement plus élevé que l'estimation faite en 2007 (1,0 %), première année de la surveillance de cet usage.

On a relevé des **baisse**s importantes au chapitre des drogues suivantes ou des mesures de l'usage de ces drogues entre 1999 et 2017 :

- ❑ alcool : de 66,0 % à 42,5 %
- ❑ excès occasionnel d'alcool : de 27,6 % à 16,9 %
- ❑ boissons énergisantes : de 49,5 % (2011) à 34,2 %
- ❑ cannabis : de 28,0 % à 19,0 %
- ❑ opioïdes (usage NM) : de 20,6 % (2007) à 10,6 %
- ❑ cigarettes de tabac : de 28,4 % à 7,0 %
- ❑ pipes à eau : de 9,7 % (2013) à 6,2 %
- ❑ substances inhalées : de 8,9 % à 3,4 %
- ❑ salvia divinorum : de 4,4 % (2009) à 0,6 %
- ❑ champignons :* de 17,1 % à 4,0 %
- ❑ ecstasy :* de 7,9 % (2001) à 3,4 %
- ❑ cocaïne :* de 5,7 % (2003) à 3,1 %
- ❑ LSD :* de 8,8 % à 1,5 %
- ❑ stramoine :* de 3,1 % (2007) à 0,8 %
- ❑ méthamphétamine :* de 6,3 % à 0,6 %
- ❑ crack :* de 3,2 % à 0,6 %
- ❑ héroïne :* de 2,1 % à <0,5 %

* Chez les élèves de la 9^e à la 12^e année seulement (la question n'a pas été posée aux élèves de 7^e et de 8^e année).

- ❑ Il y a eu une baisse de l'usage non médical d'un médicament sur ordonnance entre 2007 et 2017 (de 23,5 % à 13,7 %) chez les élèves de la 9^e à la 12^e année.
- ❑ Il y a eu une baisse importante de l'usage d'au moins une drogue d'un groupe de *neuf* (incluant le cannabis) mesuré dans tous les cycles du sondage entre 1999 et 2017 (de 39,2 % à 26,4 %) chez les élèves de la 9^e à la 12^e année.
- ❑ Il y a eu une baisse importante de l'usage de drogues (paramètre de consommation semblable à celui ci-dessus, mais excluant le cannabis) entre 1999 et 2017 (de 22,8 % à 7,8 %) chez les élèves de la 9^e à la 12^e année.

Les drogues dont l'usage est demeuré stable depuis leur première surveillance comprennent les cigarettes électroniques, le tabac sans fumée, le cannabis synthétique (« spice »), la méphédronne (« sels de bain ») et les tranquillisants/sédatifs (usage non médical).

Tendances selon le sexe

On a relevé une hausse importante de la consommation d'antitussifs ou d'antirhumes en vente libre pour « planer » chez les garçons au cours de l'année écoulée par rapport aux résultats du sondage de 2015 (de 6,7 % à 11,2 %). On n'a pas relevé aucune hausse importante de la consommation de drogues chez les filles au cours de l'année écoulée par rapport aux résultats du sondage de 2015.

On a relevé une baisse de la consommation de nombreuses drogues chez les garçons et les filles entre 1999 et 2017. Ces drogues sont énumérées dans le tableau suivant.

Baisse de la consommation de drogues au cours de l'année écoulée selon le sexe	
Garçons	Filles
<ul style="list-style-type: none"> • Cigarettes de tabac • Alcool et excès occasionnel d'alcool • Cannabis • Substances inhalées • Salvia divinorum • LSD • Champignons/mescaline • Stramoine • Méthamphétamine • Cocaïne • Crack • Héroïne • Ecstasy • Boissons énergisantes • Opioïdes (NM) • Tout médicament sur ordonnance (NM) • Toute drogue, y compris le cannabis • Toute drogue, sauf le cannabis 	<ul style="list-style-type: none"> • Cigarettes de tabac • Pipes à eau/narguilés • Alcool et excès occasionnel d'alcool • Substances inhalées • LSD • Champignons/mescaline • Stramoine • Méthamphétamine • Cocaïne • Crack • Ecstasy • Boissons énergisantes • Opioïdes (NM) • Tout médicament sur ordonnance (NM) • Toute drogue, y compris le cannabis • Toute drogue, sauf le cannabis

Nota : 1) Le texte en gras indique une baisse en 2017 par rapport à 2015 (sondage précédent); 2) NM = usage non médical.

Tendances à long terme : 1977–2017 (7^e, 9^e et 11^e années seulement)

On a effectué plusieurs estimations de la prévalence de la consommation de drogues au cours de l'année écoulée depuis 1977 et celles-ci ont révélé une même tendance en matière de consommation : 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 et d'une certaine stabilité au cours des dernières années. Les cinq tendances suivantes ont été observées sur le plan des changements à long terme :

1^{re} tendance : Après avoir atteint un sommet à la fin des années 1970, au début des années 1980 et à la fin des années 1990, la prévalence de la consommation des drogues suivantes au cours de l'année écoulée n'a jamais été aussi faible qu'elle ne l'a été ces dernières années :

- cigarettes de tabac;
- alcool;
- LSD;
- méthamphétamine (cristaux y compris).

2^e tendance : En 2017, la prévalence de la consommation de drogues a été nettement inférieure aux sommets observés à la fin des années 1970 et des années 1990 (et au sommet atteint au début des années 2000 pour la cocaïne). Pour les drogues suivantes, le taux de consommation actuel est comparable aux faibles taux observés à la fin des années 1980 et au début des années 1990 :

- excès occasionnel d'alcool;
- substances inhalées;
- champignons/mescaline;
- cocaïne.

3^e tendance : La 3^e tendance est semblable à la 2^e, à une nuance d'importance près : la consommation actuelle de la drogue suivante est nettement *supérieure* aux faibles taux observés à la fin des années 1980 et au début des années 1990 :

- cannabis.

4^e tendance : La prévalence de la consommation des drogues suivantes, qui n'avait atteint qu'un seul sommet à la fin des années 1990 ou au début des années 2000 (ou à la fin des années 1970 pour les tranquillisants) et qui avait graduellement baissé, s'est stabilisée :

- ecstasy;
- crack;
- tranquillisants ou sédatifs (NM).

5^e tendance : La prévalence de la consommation de la drogue suivante était très faible et stable pendant des décennies et n'a jamais été aussi basse qu'elle ne l'a été ces dernières années :

- héroïne.

Recensement de drogues émergentes

- ❑ Le SCDSEO comprend régulièrement de nouvelles questions sur les drogues émergentes. En 2017, on a posé pour la première fois une question sur l'usage illicite de fentanyl. Environ 1 % des élèves du secondaire (quelque 5 800 élèves du secondaire en Ontario) ont déclaré avoir pris du fentanyl au cours de l'année écoulée.
- ❑ À l'aide du SCDSEO, on a commencé à suivre l'usage de cannabis synthétique (communément appelé « spice » ou « K2 ») lors du cycle de 2013. En 2017, environ 2 % des élèves de la 7^e à la 12^e année (quelque 13 800 élèves en Ontario) avaient consommé du cannabis synthétique pendant l'année écoulée. Il n'y a pas eu de changement significatif au chapitre de la consommation depuis 2013.
- ❑ En 2017, la prévalence estimée de l'usage de méphédron (« sels de bain ») au cours de l'année écoulée chez les élèves du secondaire, que l'on a commencé à suivre lors du cycle de 2011, a été supprimée en raison d'une valeur très faible. L'usage de cette substance synthétique est demeuré très faible et stable depuis qu'on le surveille. Par conséquent, rien n'indique que l'usage de cette substance s'est répandu de façon mesurable chez les élèves.

Tabac et autres dispositifs utilisés pour fumer : vue d'ensemble

- ❑ En 2017, environ 7 % des élèves de la 7^e à la 12^e année (quelque 63 800 élèves en Ontario) ont dit avoir fumé la cigarette (plus que quelques bouffées) au cours de l'année écoulée. Environ 2 % des élèves (quelque 21 300 élèves) fument tous les jours. La baisse remarquable de l'usage de la cigarette observée au début des années

2000 semble s'être interrompue, car les estimations sont demeurées d'environ 7 % à 9 % ces dernières années (depuis 2011).

- ❑ Les garçons (8 %) sont nettement plus susceptibles que les filles (6 %) 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 15 % chez les élèves de 12^e année.
- ❑ Environ 3 % des élèves (quelque 21 300 élèves en Ontario) ont déclaré avoir fumé des cigarettes de contrebande au cours de l'année écoulée. Parmi les élèves ayant fumé au cours de l'année écoulée, 43 % ont déclaré avoir fumé des cigarettes de contrebande.
- ❑ Environ 11 % des élèves de la 7^e à la 12^e année (quelque 80 800 élèves en Ontario) ont indiqué qu'ils avaient fumé plus que quelques bouffées à l'aide d'une cigarette électronique, avec ou sans nicotine au cours de l'année écoulée. Les garçons sont plus susceptibles que les filles (13 % par rapport à 8 %) d'utiliser une cigarette électronique. Parmi les années d'études, les élèves de 11^e année (16 %) et ceux de 12^e année (19 %) sont les plus susceptibles d'utiliser ce genre de cigarette.
- ❑ Plus d'un tiers (40 %) des élèves ayant utilisé une cigarette électronique au cours de l'année écoulée ont déclaré avoir fumé celles sans nicotine. Plus d'un quart (28 %) des utilisateurs ont déclaré avoir utilisé une cigarette électronique avec de la nicotine, 19 % ont déclaré avoir utilisé les deux types et 13 % ont dit ne pas savoir quel type ils avaient utilisé.
- ❑ Environ 6 % des élèves de la 7^e à la 12^e année (46 600 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. Parmi les élèves du

secondaire qui utilisent une pipe à eau, plus du tiers (38 %) ne fument habituellement que du cannabis, près du tiers (31 %) ne fument habituellement que du tabac, 21 % fument ces deux substances et 10 % fument habituellement une autre substance.

- Environ 5 % des élèves de la 7^e à la 12^e année (quelque 40 800 élèves en Ontario) ont consommé du tabac sans fumée (tabac à chiquer ou à priser). Les garçons (8 %) sont plus susceptibles que les filles (3 %) d'en faire usage.
- La plupart des élèves ont déclaré que les cigarettes de tabac qu'ils fumaient leur étaient fournies par un ami ou un membre de la famille. La source la plus courante de cigarettes électroniques signalées par les utilisateurs est d'essayer celle d'un ami ou d'emprunter une d'un ami.

Alcool : vue d'ensemble

- En 2017, un peu moins de la moitié (43 %) de tous les élèves (environ 385 300 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 n'ait pas beaucoup changé depuis le sondage de 2015, l'estimation actuelle est nettement inférieure à toutes les autres estimations faites depuis 1999.
- La consommation d'alcool était à proportions égales chez les garçons (43 %) et les filles (42 %). La consommation au cours de l'année écoulée variait selon l'année d'études (allant de 11 % des élèves de 7^e année et de 12 % des élèves de 8^e année à 68 % des élèves de 12^e année).
- Environ un élève sur six (17 %), soit quelque 153 300 élèves en Ontario, a déclaré avoir fait un excès d'alcool (au moins cinq verres par occasion) au moins une fois durant le mois qui a précédé le sondage. Environ la même proportion d'élèves (16 %) ont déclaré s'être enivrés au moins une fois au cours du mois écoulé. On n'a pas relevé de différence entre les sexes concernant les excès occasionnels d'alcool et l'enivrement. Environ un tiers des élèves de 12^e année ont indiqué avoir fait un excès d'alcool et avoir été saouls à au moins une occasion au cours du mois écoulé.
- Un élève du secondaire sur sept (14 %), soit quelque 110 600 élèves de la 9^e à la 12^e année, a signalé des pratiques à risque selon les critères du *questionnaire de dépistage AUDIT*. La consommation d'alcool à risque a diminué considérablement depuis le sondage précédent de 2015 et n'a jamais été aussi faible qu'en 2017.
- On n'a pas relevé de différence entre les sexes concernant la consommation à risque (14 % pour les garçons et les filles). La prévalence de la consommation à risque augmente considérablement en fonction de l'année d'études pour atteindre 23 % chez les élèves de 12^e année.
- Un élève sur six (16 %) du secondaire 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. Un élève sur douze (8 %) a déclaré s'être blessé ou avoir blessé quelqu'un en raison de sa consommation d'alcool.
- Un peu plus du quart des élèves du secondaire (27 %) ont déclaré qu'ils étaient autorisés à consommer de l'alcool à la maison avec leurs amis lors de partys ou de rencontres. Il n'y a pas de différence importante entre les garçons et les filles. Toutefois, la différence augmente de façon marquée avec l'année d'études, passant de 11 % des élèves de 9^e année à 37 % des élèves de 12^e 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.
- ❑ Plus d'un tiers (35 %) 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 7 % 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 30 % de ces élèves estiment qu'il n'y aurait pas de différence.

Cannabis : vue d'ensemble

- ❑ En 2017, environ un élève sur cinq de la 7^e à la 12^e année (19 %, soit environ 172 200 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 2015 et est actuellement inférieure à la plupart des estimations faites depuis 1999.
- ❑ Les garçons (20 %) sont tout aussi susceptibles que les filles (18 %) de prendre du cannabis. Cette consommation augmentait avec les années d'études, passant de 2 % des élèves de 7^e et de 8^e année à 37 % des élèves de 12^e année.
- ❑ Environ 1 % des élèves de la 7^e à la 12^e année (quelque 13 100 élèves en Ontario) prenaient du cannabis tous les jours.
- ❑ Environ un élève sur huit (13 %) a consommé de l'alcool et du cannabis pendant la même occasion au moins une fois au cours de l'année écoulée. Ce pourcentage représente environ 98 900 élèves ontariens de la 7^e à la 12^e année.
- ❑ Parmi les élèves du secondaire, les façons les plus courantes de consommer du cannabis sont de le fumer dans une pipe ou un bong (21 %), de le fumer dans un joint (20 %) et de manger des produits alimentaires qui en contiennent comme des brownies ou des friandises (11 %). La façon la moins courante d'en consommer est de boire une boisson, comme un thé, qui en contient (2 %).
- ❑ Environ 7 % des élèves du secondaire ont déclaré avoir pris du cannabis à des fins médicales, comme pour soulager la douleur ou les nausées, au cours de l'année écoulée. Ce pourcentage représente environ 35 000 élèves ontariens de la 9^e à la 12^e année.
- ❑ Environ 2 % des élèves du secondaire (quelque 9 800 élèves) 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 sont procuré cette drogue auprès d'amis.
- ❑ Environ 1 % des élèves du secondaire (quelque 6 900 élèves de la 9^e à la 12^e année) ont déclaré avoir été arrêtés ou avoir reçu un avertissement de la police parce qu'ils consommaient du cannabis.
- ❑ On a demandé aux élèves ce qu'ils pensaient de la légalisation du cannabis. Environ le tiers (35 %) des élèves de la 7^e à la 12^e année estiment que les adultes devraient avoir le droit d'en consommer, un autre tiers (33 %) ont déclaré que le cannabis ne devrait pas être légal, et un autre tiers encore (32 %) étaient incertains. Les élèves plus âgés sont plus susceptibles de déclarer que les adultes devraient avoir le droit de consommer du cannabis.

- On a également demandé aux élèves s'ils prévoyaient consommer du cannabis s'il était légalisé. Environ les deux tiers (62 %) des élèves de la 7^e à la 12^e année ne prévoient pas en consommer même s'il est légal pour les adultes de le faire. Environ un élève sur dix (11 %) a déclaré qu'il consommerait du cannabis aussi souvent qu'il le fait actuellement, 8 % des élèves ont déclaré qu'ils en feraient l'essai, 4 % en consommeront plus souvent qu'ils ne le font actuellement, et 14 % étaient incertains. Les jeunes élèves sont plus susceptibles d'indiquer qu'ils ne consommeront pas de cannabis s'il est légalisé.

Prise de médicaments sur ordonnance à des fins non médicales

- Un élève sur dix (11 %) de la 7^e à la 12^e année (environ 97 100 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. La prise d'un opioïde à des fins non médicales au cours de l'année écoulée est demeurée stable depuis le sondage précédent de 2015 et est actuellement inférieure à ce qu'elle était lorsqu'on a commencé à la surveiller en 2007. Les garçons sont tout aussi susceptibles que les filles de prendre ces médicaments à des fins non médicales. La majorité des élèves (55 %) qui avaient pris ces médicaments au cours de l'année écoulée ont déclaré se les être procurés auprès d'un parent, d'un frère ou d'une sœur.
- Environ 2 % des élèves de la 7^e à la 12^e année (quelque 20 800 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., Ritalin, Concerta, Adderall

ou Dexedrine) au cours de l'année écoulée. Les garçons sont tout aussi susceptibles que les filles de prendre ces médicaments à des fins non médicales.

- Environ 3 % des élèves du secondaire (quelque 17 500 élèves de la 9^e à la 12^e 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.

Prise de médicaments en vente libre à des fins non médicales

- Environ un élève sur dix de la 7^e à la 12^e année (9 %, soit environ 83 300 élèves) a déclaré avoir pris un antitussif et un antirhume en vente libre contenant du dextrométhorphanne 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 (11 % par rapport à 7 %). L'utilisation de ces médicaments a augmenté considérablement depuis le sondage de 2015 et est revenue à un niveau affiché au cours des années précédentes.

Caféine

- On a posé aux élèves des questions sur leur consommation de boissons énergisantes fortement caféinées (p. ex., Red Bull, Rockstar, Monster, Amp) au cours de l'année écoulée et de la semaine précédant le sondage. Le tiers des élèves (34 %, soit environ 304 600 élèves de la 7^e à la 12^e année) ont signalé qu'ils avaient bu une boisson énergisante au moins une fois au cours de l'année précédant le sondage. Un élève sur huit (13 %, soit environ 112 800 élèves) a signalé qu'il avait bu une

boisson énergisante au moins une fois au cours de la semaine précédant le sondage.

- On a posé aux élèves des questions sur leur consommation de café et de thé (caféiné) au cours de la semaine écoulée. Environ 6 % des élèves de la 7^e à la 12^e année ont déclaré avoir bu du café tous les jours au cours de la semaine écoulée, et 6 % ont déclaré avoir bu du thé caféiné tous les jours. En combinant ces deux résultats, on constate qu'environ un élève sur dix (11 %, soit environ 75 500 élèves) boit du café ou du thé caféiné tous les jours.

Abstinence au cours de l'année écoulée

- Environ 44 % des élèves de la 7^e à la 12^e année (quelque 332 000 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 garçons sont tout aussi susceptibles que les filles de s'être abstenus de prendre des drogues. Les taux d'abstinence au cours de l'année écoulée diminuaient de façon importante avec l'année d'études, passant de plus des deux tiers des élèves de 7^e et de 8^e année au quart des élèves de 11^e et de 12^e année. Le pourcentage d'élèves ayant répondu qu'ils n'avaient pris aucune drogue en 2017 est semblable à l'estimation de 2015. Toutefois, on a relevé une tendance à la hausse marquée au chapitre de l'abstinence entre 1999 et 2017 – les taux sont passés de 27 % à 44 % – cette tendance étant plus forte ces dernières années.

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

Conduite de véhicules

- Un élève sur six (16 %) de la 7^e à la 12^e 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 dix dernières années.
- Environ 4 % des élèves de la 10^e à la 12^e 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 11 600 conducteurs adolescents en Ontario. Le taux de conduite chez les adolescents qui ont bu est stable depuis 2011 et se situe entre 4 % et 7 %. Toutefois, l'estimation actuelle est nettement inférieure aux estimations faites entre 1999 et 2009 (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 11^e année ont déclaré avoir conduit après avoir bu).
- Le pourcentage d'élèves de la 10^e à la 12^e 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 un conducteur sur dix (9 %) a 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 24 100 conducteurs adolescents en Ontario. La conduite sous l'influence du cannabis est stable depuis 2011, les taux variant de 9 % à 12 %.

Toutefois, ces taux sont nettement inférieurs aux estimations faites dans les années 2000, lorsque ces taux étaient entre 16 % et 20 %.

Problème lié à la consommation de drogue

- Un élève sur sept (14 %) (environ 109 700 élèves de la 9^e à la 12^e année) a déclaré avoir éprouvé des symptômes liés à l'usage de drogues, selon les critères du questionnaire de dépistage *CRAFFT*.
- Un très faible pourcentage des élèves (0,6 %) de la 9^e à la 12^e année (environ 3 800 élèves) ont déclaré avoir suivi un programme de traitement de l'alcoolisme ou de la toxicomanie au cours de l'année écoulée.

Autres faits saillants

Nouveaux consommateurs et initiation précoce

- Les pourcentages d'élèves de la 7^e à la 12^e année qui ont déclaré avoir pris une drogue pour la première fois au cours de l'année écoulée sont les suivants : 5 % pour les cigarettes de tabac, 14 % pour les cigarettes électroniques, 20 % pour l'alcool, 9 % pour le cannabis et 3 % pour les drogues illicites autres que le cannabis.
- En 2017, l'âge moyen auquel les fumeurs de 12^e année ont déclaré avoir fumé leur première cigarette était de 15,4 ans. En moyenne, les élèves de 12^e année ont également déclaré avoir pris leur première boisson alcoolique à l'âge de 14,5 ans et s'être enivrés pour la première fois à l'âge de 15,2 ans. Ils ont également déclaré avoir pris du cannabis pour la première fois à l'âge de 15,3 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.

Perception du risque associé à l'usage de drogues et réprobation de cet usage

- Les élèves de 7^e et de 8^e année ont jugé que la consommation régulière de marijuana était la plus dangereuse pour la santé, suivie de la consommation d'opioïdes sur ordonnance à des fins non médicales. Les élèves de la 9^e à la 12^e année ont jugé que la consommation d'opioïdes sur ordonnance à des fins non médicales était la plus dangereuse pour la santé, suivie de l'essai de la cocaïne. L'essai de la marijuana et l'utilisation d'une cigarette électronique sont parmi les habitudes de consommation de drogues considérées comme les moins risquées.
- Le pourcentage d'élèves qui estiment que la consommation de marijuana est dangereuse pour la santé (essai et consommation régulière) est stable depuis 2013, mais est actuellement inférieur aux estimations faites entre 1999 et 2011. Le pourcentage d'élèves qui estiment que l'usage d'opioïdes sur ordonnance à des fins non médicales est dangereux pour la santé a diminué depuis qu'on a commencé à surveiller cette tendance en 2013. La perception du risque associé à l'usage quotidien du tabac, à l'usage régulier d'une pipe à eau et à l'essai de la cocaïne a elle aussi diminué ces dernières années.

- Une majorité d'élèves de 7^e et de 8^e année désapprouvent l'usage fréquent de marijuana. Près de la moitié des élèves de la 9^e à la 12^e année désapprouvent l'essai de la cocaïne et de l'ecstasy.

Perception de la facilité d'accès aux drogues

- En 2017, les élèves de la 7^e à la 12^e année ont trouvé que la drogue la plus facile d'accès était l'alcool (63 % des élèves ont déclaré qu'il serait « assez facile » ou « très facile » de s'en procurer), suivi des cigarettes de tabac (51 %) et du cannabis (43 %).
- Au cours des dernières années, la perception de la facilité d'accès à l'alcool est restée stable, tandis que celle de la facilité d'accès aux cigarettes de tabac et au cannabis a diminué. La perception de la facilité d'accès aux opioïdes sur ordonnance (non prescrits à l'utilisateur) a augmenté légèrement entre 2015 et 2017, passant de 18 % à 22 %. Cette augmentation est significative.
- La perception de la facilité d'accès à la cocaïne, au LSD et à l'ecstasy a diminué considérablement par rapport aux estimations faites il y a plusieurs décennies.

École et quartier

- Parmi tous les élèves ayant participé au sondage, ce sont ceux de la 7^e à la 9^e année qui 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.

- Un élève sur cinq (21 %) de la 7^e à la 12^e année estime que dans son école la consommation de drogues est un « gros problème », 47 % croient que c'est un « problème mineur » et 32 % pensent qu'elle ne constitue « pas un problème » dans leur école.

- Parmi les élèves de la 7^e à la 12^e année, un sur dix (10 %, soit environ 70 200 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 (environ 15 % et 16 %).

- Un élève sur sept (15 %) de la 7^e à la 12^e année (soit environ 108 300 élèves en Ontario) a déclaré qu'au cours de l'année écoulée on lui avait proposé, vendu ou donné une drogue illicite à l'école à au moins une occasion. Cette estimation est nettement inférieure à celle faite il y a dix ans (environ 21 % et 23 %).

- Environ 8 % des élèves de la 7^e à la 12^e année ont déclaré que la plupart ou la totalité de leurs plus proches amis consommaient de la drogue.

- Un élève sur cinq (20 %) de la 7^e à la 12^e année (environ 145 900 élèves) a déclaré que quelqu'un avait essayé de lui vendre des drogues à un endroit ou à un autre au moins une fois au cours de l'année écoulée. L'estimation de 2017 est la plus faible jamais enregistrée depuis que l'on a commencé à surveiller ce facteur en 1995.

- Un élève sur cinq (19 %) de la 7^e à la 12^e année (environ 142 200 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 2017 est parmi les plus faibles depuis 1995.

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 réalisé à la grandeur de l'Ontario auprès d'élèves de 7^e et de 8^e année, ainsi qu'auprès d'élèves de la 9^e à la 12^e année. Ce sondage transversal à passages répétés est réalisé tous les deux ans depuis sa création en 1977. Le sondage de 2017, qui fait appel à un plan d'échantillonnage en grappes stratifié (région par école) à deux degrés (école et classe), a été rempli par 11 435 élèves de la 7^e à la 12^e année répartis dans 764 classes, dans 214 écoles faisant partie de 52 conseils scolaires publics et catholiques anglophones et francophones. Étaient exclus de l'échantillonnage les bases militaires, les réserves des Premières Nations, les hôpitaux et 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.

On a eu recours à des procédures actives 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 2016 et juin 2017 pendant les heures normales de cours. Les élèves des écoles francophones ont rempli le questionnaire en français. Soixante-et-un pour cent (61 %) des écoles choisies au hasard, 94 % des classes choisies au hasard et 61 % des élèves admissibles de ces classes ont rempli le sondage. L'échantillon total de 2017, regroupant 11 435 élèves, est représentatif d'un peu moins d'un million d'élèves de la 7^e à la 12^e année inscrits dans les écoles publiques de l'Ontario.

Les questions sur les drogues ajoutées au sondage de 2017 portent notamment sur le mode de consommation de cannabis, les substances fumées à l'aide d'une pipe à eau, l'usage de fentanyl, la consommation de caféine et l'opinion des élèves sur la légalisation du cannabis et l'achat de bière dans les épiceries.

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

www.camh.ca/osduhs

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1. INTRODUCTION

This report describes the prevalence and patterns of alcohol and other drug use among Ontario students in grades 7 through 12 in 2017, and changes occurring since 1977. The findings are based on the 21st 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 alcohol and other drug use and other health related behaviours among adolescent students in Canada, and one of the longest in the world. This cycle marks the study’s 40th anniversary.

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 and misuse in the adolescent population, the harms from use, and the associated contextual, social, and demographic risk and protective factors. 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, and other drug use by students, and trends in use since 1977;
- use of newly emerging drugs and new forms of consuming drugs;
- early initiation of use and trends over time;
- the nature of, and trends in, harms associated with alcohol and other drug use;
- trends in driving after consuming alcohol and cannabis;
- exposure to alcohol and other drug use at school, and exposure to preventive education;
- attitudes and beliefs about alcohol and other drug use.

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.”

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. Under the direction of Dr. Reginald Smart, four biennial surveys from 1968 through 1974 monitored alcohol, tobacco and other drug use among Toronto students in grades 7, 9, 11 and 13. (Given the restricted target population of Toronto students, these data are not presented in this report.)

In **1977**, the scope of the study was expanded to include students across Ontario, and in **1999**, the OSDUHS was further expanded 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.

During the past 40 years, the OSDUHS has surveyed thousands of students every two years, and to date over 100,000 students in Ontario have participated. The study’s history is underscored by considering that most of the 12th graders studied in 1977 are now in their 50s. 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.

All OSDUHS surveys received primary funding support from the Ontario Ministry of Health and Long-Term Care. The survey has been administered in schools by the Institute for Social Research at York University since 1981.

This 2017 OSDUHS drug use report includes **newly introduced material** on the following drug-related topics:

- fentanyl use;
- modes of cannabis use;
- cannabis use for medical purposes;
- substances smoked in a waterpipe;
- source of electronic cigarettes;
- caffeine consumption (coffee and tea);
- opinions about purchasing beer in grocery stores;
- opinions about cannabis legalization; and
- contact with police due to cannabis or other drug use.

This report presents descriptive findings related to drug use.² Described are the prevalence, frequency, and harms of use, changes in these measures 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 2017 OSDUHS mental health and well-being findings will be released in a companion report in 2018.

“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)

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.

Why Monitor Student Drug Use?

Adolescent health is now recognized as a priority for health researchers, health service providers, educators, and policy makers 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 from even infrequent use, such as poor academic achievement, chronic school absenteeism, 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 precipitate 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).

- 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, ketamine and other “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., vaporizers, 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 (Government of Ontario, n.d.), Ontario’s *Narcotics Strategy* (Ontario Ministry of Health and Long-Term Care, 2010), and Ontario’s *Youth Action Plan* (Ontario Ministry of Children and Youth Services, 2012).

- 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 stimulated 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, such as the OSDUHS, 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 high-risk, resilient, 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 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 cause drug use or whether drug use causes 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.

Impact of the OSDUHS

For 40 years, the OSDUHS findings have been used to inform public health monitoring, education and prevention, and health-related programs and policies in Ontario and beyond.

Public Health Monitoring

- Since 1977, the survey has monitored changes in alcohol, tobacco, 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 first Canadian adolescent population estimates for the use of several emerging drugs (e.g., crack, ecstasy, 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 and Local Health Integration Networks (LHINs) 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 in the areas of tobacco, alcohol, and prescription opioid misuse, and impaired and distracted driving.
- The findings have informed school health policies in Ontario in the areas of smoking on school property, bullying and safe schools.

Why Use a School-Based Survey to Monitor Adolescent Drug Use?

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 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 share 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.
- The school setting is conducive to eliciting truthful responses by adolescents (rather than in the home, for example). Adolescents

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).

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).

- 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.
- Schools themselves are social units worthy of examination. Schools are part of a fundamental hierarchical social structure: students are embedded, or nested, in classes, which, in turn, are nested in schools, nested in neighbourhoods, and nested in larger regional units. The character of these linkages can affect rates of drug use and their associated harms. OSDUHS research has shown that school characteristics, such as school size, policies, school climate, and connectedness are associated with student drug use and other health behaviours (Allison, Adlaf, Irving, Schoueri-Mychasiw, & Rehm, 2016; Kairouz & Adlaf, 2003; Rehm et al., 2005).
- 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).

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).

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). However, some advantages of computer administration include speed of data input and a decrease in missing data.

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/street 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).

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
<ul style="list-style-type: none"> ■ The survey is based on scientific, random (probability) sampling methods designed to produce representative samples in which the sampling error can be estimated. 	<ul style="list-style-type: none"> ■ 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.
<ul style="list-style-type: none"> ■ 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). 	<ul style="list-style-type: none"> ■ Enrolled students who do not participate (due to absenteeism or lack of consent) may bias estimates <i>if</i> nonparticipating students differ from participating students on variables of interest.
<ul style="list-style-type: none"> ■ The OSDUHS sample is geographically dispersed throughout Ontario with typically over 45 school boards, 150 schools, and 300 classrooms participating. 	<ul style="list-style-type: none"> ■ 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).
<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ 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
<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ 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.
<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ 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 21 biennially repeated 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 Nations communities, 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 9%). Therefore, although our target population represents students, it captures the vast majority (91%) of all Ontario children and adolescents aged 12–18 years, based on Statistics Canada’s population estimate (Statistics Canada, 2015).

Table 2.1 Forty Years (21 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			
No. School Boards	20	20	31	31	20	24	25	27	25	20	22	38	41	37	42	43	47	40	42	43	52			
No. Schools	104	87	182	227	193	170	171	179	165	137	168	111	106	126	137	119	181	181	198	220	214			
No. Classes	196	195	198	261	205	215	224	221	233	223	234	285	272	383	445	385	573	581	671	750	764			
No. Students	4687	4794	3270	4737	4154	4267	3915	3945	3571	3870	3990	4894	4211	6616	7726	6323	9112	9288	10272	10426	11435			
Student Completion Rate	70	78	85	85	82	84	81	83	77	76	77	76	71	72	72	68	65	62	63	59	61			
Design Features	3-stage selection (board; school; class), proportionately stratified by grade and region; grades 7, 9, 11 & 13; self-weighted estimates		single-stage 2-per-stratum selection (board clusters), disproportionately stratified by grade and region; grades 7, 9, 11 & 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); weighted estimates											
													grades 7–13 (OAC)		grades 7–12 (OAC eliminated in 2003)									

Notes: (1) bolded entries indicate a design change; (2) 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

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.

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 Design¹¹

In 1999, the OSDUHS transitioned to a *disproportionately stratified*¹² (region by school level¹³), *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

¹¹ In addition to the authors, the 2017 OSDUHS sample design team included Stella Park, Hugh McCague, David Northrup, and Tammy Chi, 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 (JK–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 lead by Professor Michael Ornstein, York University/ISR.

behaviours and age. The revised design also 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 2017 sample design divided Ontario into four regional strata based on the following boundaries: (1) *Greater Toronto Area* (City of Toronto, Durham Region, York Region, Peel Region, and Halton Region); (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

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). For this report, 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.

Supplemental Oversamples Sponsored by Ontario Public Health Units/Departments in 2017

In addition to the four regional strata of the base design just described, the 2017 OSDUHS included an additional six 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 six regions of the province were oversampled: Durham Region, York Region, Peel Region, City of Ottawa, Leeds-Grenville-Lanark District, and Haliburton-Kawartha-Pine-Ridge District.

The addition of these six regional oversamples resulted in 10 *mutually exclusive* regions. This produced 18 region-by-school level strata ($[4 \times 2] + [6 \times 2] = 20 - 2$ (elementary students were not sampled in two regions) = 18 total design-based strata). Mutually exclusive school samples were drawn for each of these 18 strata.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 Nations

¹⁷ Since 2009, 12 public health regions have sponsored supplemental oversamples of their jurisdictions for producing precise local estimates (see Table A2). 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 Table A5.

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 corresponding base regions.

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

communities, on Canadian Forces Bases, and schools in geographically inaccessible northern areas.²⁰

The 2017 OSDUHS school selection proceeded as follows:²¹

- 1) The sampling frame used to randomly draw the school sample was the Ontario Ministry of Education's 2013/2014 school enrolment database (most recently available at the time). 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, and fewer than 80 students in schools with grades 9 through 12), and schools in the remote northern region of the province, were excluded from the sampling frame.
- 2) Within *each* of the 18 region-by-school level primary-stage strata, a probability proportionate-to-size (PPS) selection of schools by means of systematic selection²² 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 *n*th school) without replacement (WOR).

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.

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).

- 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.

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 or returning a consent form.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 were excluded because they impede the creation of weights and within-class estimates.

Sample Exclusions

School Exclusions

- private schools
- schools in First Nations 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

Class Exclusions

- special education classes
- English as a Second Language (ESL) classes
- classes with fewer than four students enrolled/returning a consent form

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 2017 OSDUHS protocol was approved by the Research Ethics Boards (REBs) at CAMH and York University,²⁴ as well as 31 school board research review committees (RRC).²⁵

Student participation required the consent/permission of several entities, including school boards, school principals, classroom teachers, parents (if under 18 years) 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 most school boards contacted in 2017, 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 31 trained ISR field staff in the sampled classrooms during regular class periods between November 2016 and June 2017.²⁷ 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

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 predates 2017, 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.

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. Neither schools nor students were 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 3% of all questionnaires.³⁰

²⁹ In most schools (board permitting), 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, healthy weight, injuries), bullying, gambling and gambling problems, video game playing 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 and new synthetic drugs, prescription

³¹ Customized questionnaire forms were developed for schools in three school boards who requested the removal of certain questions deemed too sensitive (suicide, school expulsions, and family subjective socio-economic status).

³² Split ballot methods can not 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.

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 179 in Form A-SS, 151 in Form B-SS, 130 in Form A-ES, and 113 in Form B-ES. Roughly 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. A French version of Form A (ES and SS) was used in French-language schools.³³ The 2017 questionnaires can be accessed at www.camh.ca/osduhs.

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 30 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

³³ Form B versions 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).

of navigational errors (i.e., students skipping ahead to the wrong question).

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 (Brenner et al., 2002; Fosse & Haas, 2009; Inchly et al., 2016; Mawani & Gilmour, 2010; May & Klonsky, 2011; Miech, Johnston, O'Malley, Bachman, & Schulenberg, 2016; 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 2017 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 WHO's *ADHD Self-Report Scale Version 1.1* (ASRS; Kessler et al., 2005, 2007),

the *Canadian Adolescent Gambling Inventory's Gambling Problem Severity Subscale* (CAGI-GPSS) assessing gambling problems (Stinchfield, 2010; Temblay, 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 2017 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 2017 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: 97% of students (96% of 7th graders) indicated that the questionnaire was "fairly" or "very easy" to understand; only 10% of students (7% of 7th graders) indicated that the questionnaire was "much too long"; and only 5% 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/healthyouth/data/yrbs

³⁸ See www.hbsc.org

Table 2.2 Topic Overview of the Four Questionnaire Forms Used in the 2017 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	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 spent weekly 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
School Life			
usual marks, hours spent on homework, ever been suspended, attitudes about school, subjective social status at school, days absent , school transportation	usual marks, attitudes about school, subjective social status at school, days absent , school transportation	usual marks, hours spent on homework, ever been suspended, attitudes about school, subjective social status at school, days absent , school transportation	usual marks, attitudes about school, subjective social status at school, days absent , 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, synthetic cannabis, OTC 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, salvia, OTC cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, cigarettes, cannabis, synthetic cannabis, OTC 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, salvia, OTC 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 tranquilizers	hallucinogens, cocaine, crack, ecstasy, methamphetamine, heroin, fentanyl , synthetic "club" drugs, prescription tranquilizers
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, been in treatment, parental permission to drink at home with friends	first use, past month use, heavy episodic drinking, been in treatment, 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, opinions about cannabis legalization	first use, past month use, drug use problem screener	first use, past month use, cannabis dependence, usual source of cannabis, opinions about cannabis legalization, modes of cannabis use, medical cannabis use, ever received legal warning for cannabis use
Tobacco Cigarettes			
	first use, quitting, source of cigarettes, contraband cigarettes, exposure to second-hand smoke, opinions		first use, quitting, source of cigarettes, contraband cigarettes, exposure to second-hand 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, impaired driving, in-class driver training, collisions, texting and driving
Perceptions About Drugs, Education, and Exposure			
	availability and risk perceptions (alcohol, cigarettes, electronic cigarettes, cannabis, prescription opioid pain relievers), recall of drug education, intoxicated at school, exposure to drugs		availability and risk perceptions (alcohol, cigarettes, electronic cigarettes, cannabis, prescription opioid pain relievers, cocaine, ecstasy, LSD), recall of drug education, intoxicated at school, exposure to drugs
Physical Health			
self-rated health, physical activity, outdoor play , sedentary behaviour, healthy eating, go to bed/school hungry, hours of sleep on school night, height and weight, head injuries	self-rated health, physical activity, outdoor play , sedentary behaviour, healthy eating, coffee and tea consumption , go to bed/school hungry, hours of sleep on school night, height and weight, body image, doctor visits, head injuries	self-rated health, physical activity, outdoor play , sedentary behaviour, healthy eating, go to bed/school hungry, hours of sleep on school night, height and weight, head injuries	self-rated health, physical activity, outdoor play , sedentary behaviour, healthy eating, coffee and tea consumption , go to bed/school hungry, hours of sleep on school night, height and weight, body image, doctor visits, head injuries
Mental Health			
self-rated mental health, psychological distress, perceived stress, self-esteem, suicide ideation and attempt, help-seeking behaviour, how much mental health affects grades , ADHD screener		self-rated mental health, psychological distress, perceived stress, self-esteem, suicide ideation and attempt, help-seeking behaviour, prescription medication for anxiety or depression, how much mental health affects grades, traumatic life event , ADHD screener	
Other Risk Behaviours			
bullying perpetration and victimization at school, cyberbullying victimization and perpetration , school violence, gambling activities, internet gambling , video gaming and problems, antisocial behaviours		bullying perpetration and victimization at school, cyberbullying victimization and perpetration , school violence, gambling activities, internet gambling , problem gambling, video gaming and problems, problem technology use , antisocial behaviours	
questionnaire evaluation			

Notes: (1) **bolded text** in the table indicates a new topic in 2017; (2) Form A-ES and Form A-SS were translated into French.

Data Quality

2017 Sample Participation and Characteristics

A central 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 2017 OSDUHS was set at 11,500 students.

Schools

In total, 353 schools (285 initial selections plus 68 replacements) were invited to participate. Of these, **214 schools** (94 elementary/middle – of which 10 were French language – and 120 secondary – of which 15 were French language) from 52 school boards participated in the survey, resulting in a school participation rate of **61%**. The most cited reasons given by nonparticipating schools were that they were too busy, or that they had already committed to other research projects. Each school that was unable to participate was replaced with another randomly selected school 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 this group of nonparticipating schools were more likely to be located in the GTA or West region of the province, more likely to be secondary schools, 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 or grade were corrected by selecting replacement schools or by adjusting the final sampling weights. A further analysis was conducted to examine whether replacement schools³⁹ differed from initially selected schools. Results showed no substantial

³⁹ Of the 214 participating schools, 40 were replacements.

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., 2016) – 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 does 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

A total of **764 classes** met the class inclusion criteria and participated in the survey (255 from elementary/middle schools, 509 from secondary schools). The class participation rate was **94%**. We must note that about 30% of classes were not randomly selected. In most of these cases, these classes were convenient same-grade replacements, typically identified by principals, for classes that were originally selected but declined to participate for logistical reasons.⁴⁰

⁴⁰ Statistical tests comparing drug use prevalence 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

Students⁴¹

A total of 18,773 eligible students were enrolled in the 764 participating classes. Of these eligible students, 11,596 (62%) participated in the survey.⁴² However, after the data quality criteria were applied, **11,435 cases** were considered “completions,”⁴³ resulting in a conditional student **completion rate of 61%**.⁴⁴ Twelve percent (12%) of students were lost due to absenteeism, and 27% 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 lower grades was unreturned consent or parental refusal (30% in grade 7 versus 21% in grade 12, whereas in the upper grades absenteeism was higher than in the lower grades (18% in grade 12 versus 10% in grade 7).⁴⁵ The student completion rates

a subset of classes does not appear to have biased estimates.

⁴¹ 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.

⁴² The participation rate (62%) is defined as the number of eligible students who participated/the total number of eligible students in the selected classes.

⁴³ An “incomplete” case met any one of the following criteria: (1) had a missing value for sex, (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.

⁴⁴ 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-Halton (.211×.57) + Peel Region (.127×.63) + Durham Region (.057×.67) + York Region (.065×.69) + North (.053×.59) + West (.285×.60) + East (.114×.55) + Ottawa (.067×.65) + Leeds-Grenville-Lanark District (.009×.43) + Haliburton-Kawartha-Pine Ridge District (.011×.58) = 60%.

⁴⁵ The completion rate for secondary school students (grades 9–12 only) was 61% (13% absent, 25% no consent returned).

according to the four base regions presented in this report were 64% in the Greater Toronto Area, 59% in the North, 60% in the West, and 59% in the East.⁴⁶

Trends in Student Participation

Like many ongoing population surveys, student participation in the OSDUHS has trended downward over the long-term. Between 1977 and 2017, the student participation rate fell from 70% to 61%, 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 27% 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 (de Leeuw & de Heer, 2002; Galea & Tracy, 2007; Groves et al., 2009; Kreuter, 2013).

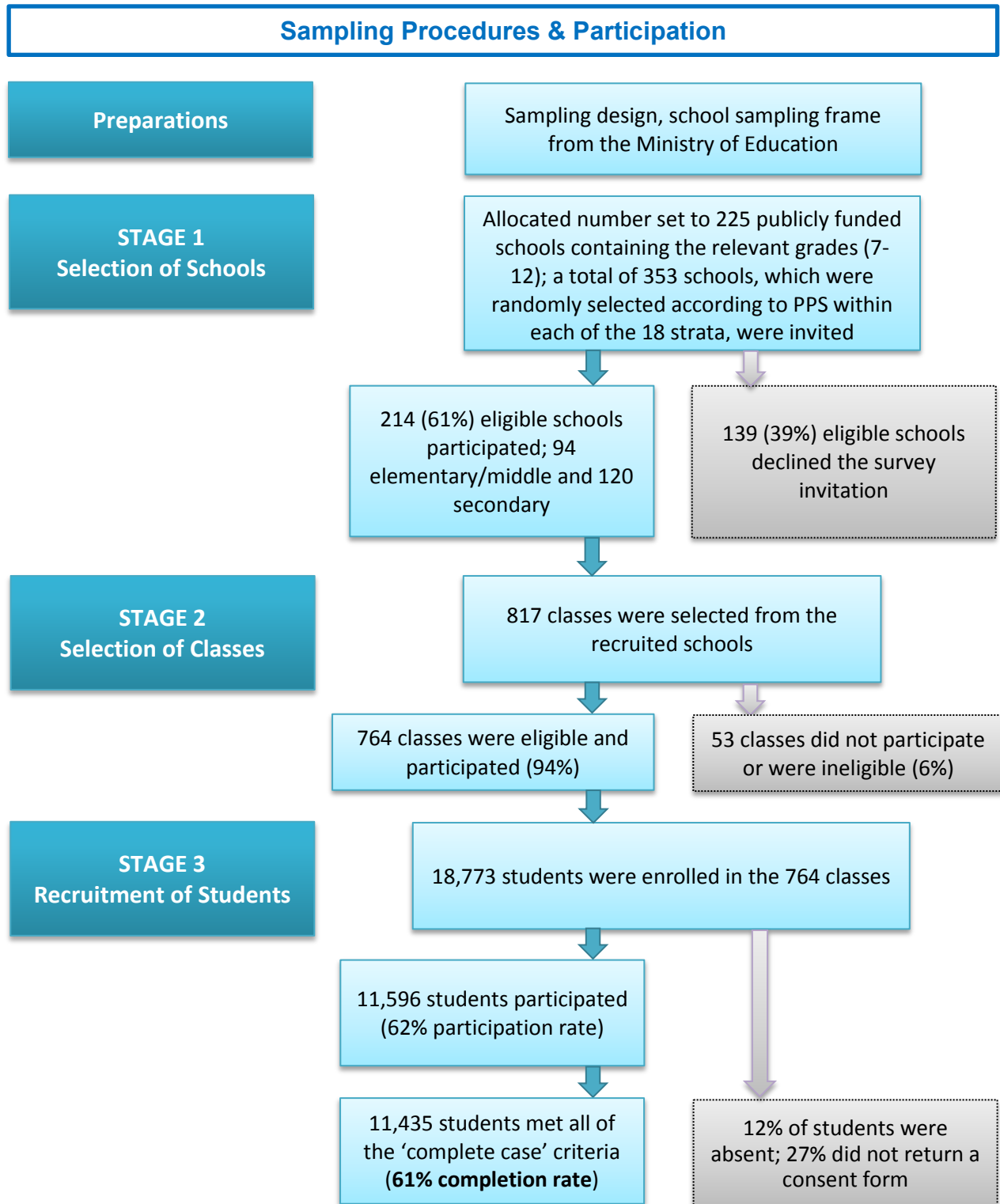
Still, our student completion rate of 61% is acceptable for a school survey that uses full active parental-student consent procedures (Courser, Shamblen, Lavrakas, Collins, & Ditterline, 2009; Draugalis, Coons, & Plaza, 2008; Shaw, Cross, Thomas, & Zubrick, 2015; Tigges, 2003; White, Hill, & Effendi, 2004). For example, Health Canada’s 2014/2015 *Canadian Student Tobacco, Alcohol, and Drugs Survey* (CSTADS), which uses a combination of active and passive parental consent procedures, achieved a national student response rate of 66%, yet the response rate in Ontario – where active consent is required by almost all school

⁴⁶ For further details about the 2017 sample selection and completion rates for the 10 regional strata, please see Northrup et al., 2017.

boards – was 49% (Rynard, Cumming, Burkhalter, & Manske, 2015). The American *Monitoring the Future* (MTF) survey also employs a blend of active and passive consent procedures and typically reaches national student response rates above 80%.⁴⁷ 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 2017) 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 results in higher rates (e.g., The ESPAD Group, 2016).

⁴⁷ 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 substantial monetary incentive to commit to the study for two cycles.

Figure 2.1 Sampling Procedures and Participation in the 2017 OSDUHS



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; Johnson & Wislar, 2012; Peytcheva & Groves, 2009).⁴⁸ 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.⁴⁹

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 not providing parental consent or not participating 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).

⁴⁸ Specifically, $\text{bias} = \text{nonresponse rate} \times (\text{mean}_{\text{respondents}} - \text{mean}_{\text{nonrespondents}})$

⁴⁹ An example would be a survey with a 90% response rate in which a large proportion underreported (or unreported) a given behaviour or state.

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 and drug-related measures in classes in which the class participation rate was below 70% (n=455 classes) with classes in which the rate was 70% or higher (n=309 classes). If students without consent are indeed “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 East region. Of the 38 drug-related measures compared between the two groups, none showed a significant difference. 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.⁵⁰ 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).

⁵⁰ 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,⁵¹ 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 estimates that the high school graduation rate in 2015/2016 was 87% (Ontario Ministry of Education, May 2017). However, we cannot assume that the dropout rate was 13% 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). Another 2016 study found that 5%-8% of 25-34 year-olds in Ontario did not graduate from high school (Uppal, 2017).

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 enrolled 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.

⁵¹ 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,⁵² received assistance from the teacher when completing the survey,⁵³ reported using a fictitious drug,⁵⁴ or reported using all the core illicit drugs 40 or more times during the past year (“faking bad”).⁵⁵ This data editing process resulted in a **final dataset consisting of 11,435 minimally complete cases** used in the data analyses (Form A-ES n=2,066 students; Form B-ES n=1,782 students; Form A-SS n=4,298 students; Form B-SS n=3,289 students).

⁵² We contend that if a student is unwilling to provide a valid response to the sex question or unwilling to complete more than the demographics section, the data quality of responses is dubious and the utility of the data provided is limited.

⁵³ Teacher assistance would likely compromise anonymity and affect the truthfulness of responses.

⁵⁴ The fictitious drug was called “adrenochromes.” Seventy-four cases were removed due to reporting use of the fictitious drug, and this number is consistent with prior survey cycles.

⁵⁵ 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.

Item Missingness

Both the single item missing rate and the cumulated item missing rate were low, suggesting quality responding. Across the 56 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.⁵⁶ Missing responses to questions were not statistically imputed, and, furthermore, any inconsistent responses provided by respondents were not corrected.

Poststratification

We compared the 2017 OSDUHS sample with the most currently available school enrolment numbers from the Ministry of Education, which were from the 2014/2015 school year. Table 2.3 shows that there were slight discrepancies between the 2017 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 younger males were overrepresented, whereas in other regions older 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 10 regional strata separately to restore each region's demographic composition to the population composition.⁵⁷

⁵⁶ 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%).

⁵⁷ The sex-by-grade population distribution was not available according to each of the 10 regions, 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.

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.⁵⁸ Table 2.4 and Figure 2.2 show the demographic characteristics of the final weighted sample.

⁵⁸ After adjustment, the difference between the weighted sample and enrolment figures did not exceed half a percentage point in any of the 12 poststratification groups.

Table 2.3 The 2017 OSDUHS Sample vs. Ontario 2014/2015 School Enrolment

	OSDUHS Preadjusted		Population Enrolment		OSDUHS Postadjusted	
	% Male	% Female	% Male	% Female	% Male	% Female
Grade 7	5.6	8.2	7.5	7.2	6.9	6.6
Grade 8	6.8	6.9	7.8	7.4	7.2	6.9
Grade 9	6.9	9.4	8.0	7.5	8.2	7.8
Grade 10	7.4	9.3	8.3	7.8	8.5	8.1
Grade 11	7.6	9.5	8.5	8.1	8.7	8.3
Grade 12	9.7	12.6	11.7	10.4	12.0	10.7
Total	44.2	55.9	51.6	48.4	51.6	48.4

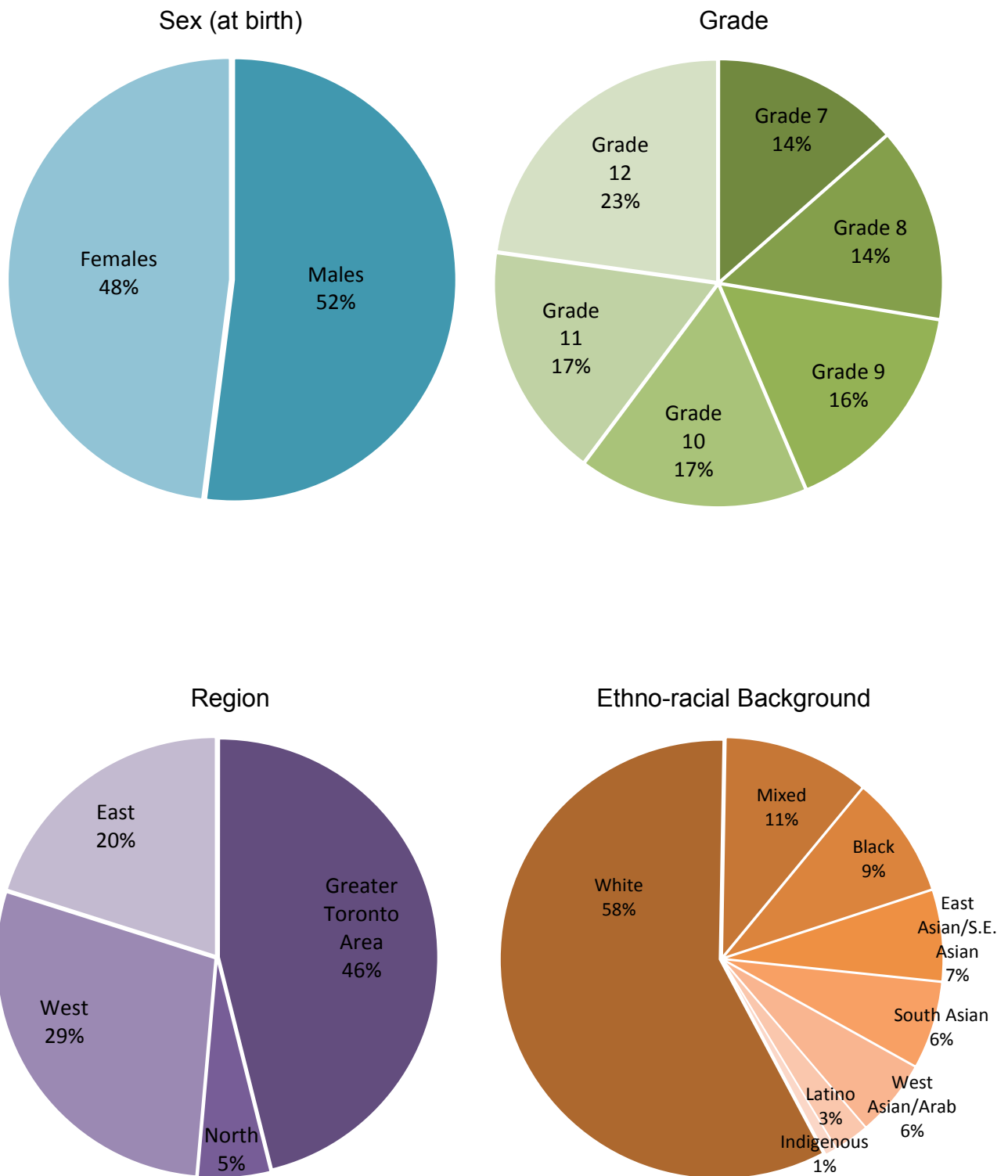
Notes: (1) OSDUHS cell entries are total sample percentages and are based on weighted data; (2) enrolment cell entries are total enrolment percentages and are based on 917,800 students in grades 7-12 enrolled in Ontario's publicly funded schools during the 2014/2015 school year.

Table 2.4 Final Sample Characteristics, 2017 OSDUHS

	Final Number (n)	Weighted %
Total	11,435	
Males	5,026	51.6
Females	6,409	48.4
Grade 7	1,800	13.5
Grade 8	2,048	14.1
Grade 9	2,175	16.0
Grade 10	1,953	16.6
Grade 11	1,711	17.0
Grade 12	1,748	22.8
Greater Toronto Area	854	21.1
Durham Region (OS)	1,199	5.7
York Region (OS)	992	6.5
Peel Region (OS)	1,680	12.7
North	1,486	5.3
West	2,068	28.5
East	188	11.4
City of Ottawa (OS)	1,430	6.7
Leeds-Grenville-Lanark District (OS)	323	0.9
Haliburton-Kawartha-Pine Ridge District (OS)	1,215	1.1
Public School	6,360	58.4
Catholic School	5,075	41.6

Notes: (1) mean age=15.0 years (SD=1.8); (2) OS=oversample for the public health unit/department; (3) the 10 regional strata were mutually exclusive; (4) for the four regional estimates presented in this report, the Greater Toronto Area includes the City of Toronto, Halton Region, and the oversamples in Durham Region, York Region, and Peel Region (combined n=4,725), and the East region includes the oversamples in the City of Ottawa, the Leeds-Grenville-Lanark District, and the Haliburton-Kawartha-Pine Ridge District (combined n=3,156).

Figure 2.2 Sample Demographics, 2017 OSDUHS (Weighted Percentages of Total Sample, N=11,435)



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.⁵⁹

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 **11,435 students to represent about 917,800 Ontario students** in grades 7 through 12, while ensuring that the sample composition corresponds to the population.⁶⁰

⁵⁹ 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).

⁶⁰ The population-scaled weights range in value from 2.46 to 3893.17 (mean=80.26, median=47.33) and inflates to the population count of 917,796. The sample-scaled weights range in value from 0.03 to 48.50 (mean=1.00, median=0.59).

Sample Weights

One intuitive way of thinking of the sampling weight is that each student in the sample represents or “stands in” for 80 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

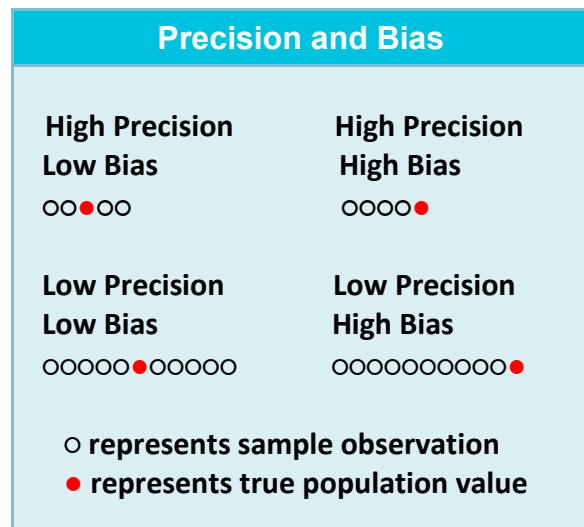
misreporting (e.g., unintentional errors of memory and recall, or intentional errors of underreporting or overreporting).

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 drank alcohol in the past year was 42.5% (39.5%–45.5%), 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;⁶¹ 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.⁶² 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.



⁶¹ 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.

⁶² 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, aggressive and other problem behaviours, and school problems (for examples see Cook et al., 2015; Fischer et al., 2013; Hamilton et al., 2015; Hamilton, van der Maas, Boak, & Mann, 2014; Vingilis et al., 2011). 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.
- 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., 2016; 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; Centers for Disease Control and Prevention, 1994; 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 and absenteeism remains rather constant across years (as our data show for absenteeism), then any biases in trend estimates should remain constant across time. 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 curves provides support for this assertion.

2017 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.⁶³

All 2017 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 13 (Heeringa et al., 2010; StataCorp, 2013).⁶⁴

⁶³ 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.

⁶⁴ 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.

The 2017 OSDUHS sampling design was comprised of **18 strata** (region by school level),⁶⁵ **214 primary sampling units** (schools), and **11,435 students**. The design-based degrees of freedom (*df*) for our complex sample was 196 ($df=214$ [# school PSUs] – 18 [# 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., 2010, p. 67).⁶⁶ In addition, our negligible sampling fraction allows us to ignore the finite population correction (fpc) in our estimation.⁶⁷

The statistical significance of subgroup (i.e., sex, grade, region) differences in 2017 was tested using bivariate second-order design-adjusted Rao-Scott Pearson chi-square tests at the $p<.05$ level of significance (Heeringa et al., 2010).

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.⁶⁸

⁶⁵ Elementary/middle schools were not sampled in two of the 10 regions, resulting in 18 rather than 20 strata. Note also that there is one stratum with a single PSU (called a “singleton” or “lonely” PSU). This was accounted for in Stata using the *singleunit* (*centered*) option when specifying the complex survey design variables.

⁶⁶ This restriction to stage 1 units has the added advantage of increasing the degrees of freedom by eliminating the stage 2 selection (classes).

⁶⁷ 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 2017 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).

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.⁶⁹

⁶⁸ 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., 2010; Korn & Graubard, 1999). Consequently, although observations are “removed,” their strata and PSUs are not.

⁶⁹ 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.

Trend Analysis

In this report, we describe three patterns of change in our data: the first describes changes between 2015 and 2017 (changes since the previous survey); the second describes trends from 1999 to 2017; and the third describes long-term trends from 1977 to 2017. To evaluate the time trends, a merged or “stacked” dataset was used.⁷⁰ All estimates spanning back to 1977 were accommodated for the respective survey design effects.

2017 vs. 2015 and 1999–2017 Trends

We first evaluated changes since the previous survey (i.e., 2017 vs. 2015). 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 2017 and 2015 estimates and estimates since 1999 were based on grades 7 through 12.

For 1999–2017 trends, we assessed change with a binary-response logistic regression providing an appraisal of the cycle-to-cycle change (with 2017 contrasted to each prior survey, i.e., reference group contrasts) as well as assessing the presence of linear and nonlinear trends.⁷¹ 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.

⁷⁰ Trend analyses were conducted using a stacked dataset cumulating 21 cycles for the years 1977–2017. The dataset contains 115,114 students enrolled in 2,687 schools distributed among 282 region-by-school level-by-year 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.

⁷¹ Linear and nonlinear trends were evaluated with orthogonal polynomial contrasts that decompose linear from quadratic and higher order nonlinear contrasts.

1977–2017 Trends

The long-term trend analyses from 1977 through 2017 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 2017 contrasted to each prior survey, i.e., reference group contrasts) and a joint test of the presence of any change between 1977 and 2017. 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,⁷² 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

⁷² Sex at birth is the variable (binary) presented in this report. Gender identity was also measured in the survey, and these results will be presented elsewhere.

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.
- For multi-item measures and screeners (e.g., the *AUDIT*), we report the alpha reliability coefficient which measures the internal consistency of the scale – the degree to which the items are strongly interrelated and thus measure the same construct.

- 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 variation⁷³ (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 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: $CV = (SE/estimate) \times 100\%$. 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 2017 OSDUHS Method and Sample Summary

2017 OSDUHS Method and Sample Summary	
Design	<ul style="list-style-type: none"> ▪ 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 2016/2017 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 Nations 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 design component (4 regions × 2 school levels) and an optionally-sponsored public health oversample (6 regions × 2 school levels), resulted in a combined total of 18 (20-2) region-by-school level strata (elementary/middle schools were not sampled in two of the 10 regions). ▪ Within each stratum, schools were selected by systematic random sampling according to PPS using the 2013/2014 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	<ul style="list-style-type: none"> ▪ 7th–12th graders sampled from 764 classes in 214 schools, and who provided active parental consent and student assent, completed questionnaires from November 2016 to June 2017. ▪ 61% of selected schools, 94% of selected classes, and 61% of students in participating classes completed the survey. ▪ The final (edited) sample of 11,435 students is representative of the 917,800 7th–12th graders enrolled in Ontario’s publicly funded public and Catholic schools.
Questionnaire	<ul style="list-style-type: none"> ▪ 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 33 minutes to complete, were administered in classrooms by trained staff from the Institute for Social Research. Form A versions were available in French and used in French language schools.
Student Characteristics	<ul style="list-style-type: none"> ▪ Males (n=5,026; 51.6% weighted); Females (n=6,409; 48.4% weighted). ▪ 7th graders (n=1,800; 13.5%); 8th graders (n=2,048; 14.1%); 9th graders (n=2,175; 16.0%); 10th graders (n=1,953; 16.6%); 11th graders (n=1,711; 17.0%); 12th graders (n=1,748; 22.8%). ▪ GTA (n=4,725; 46.1%); North (n=1,486; 5.3%); West (n=2,068; 28.5%); East (n=3,156; 20.1%).
Data Quality	<ul style="list-style-type: none"> ▪ 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 rates showed no significant differences in the key drug-related measures.
Analysis	<ul style="list-style-type: none"> ▪ 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 2014/2015 enrolment for sex-by-grade groupings. ▪ The complex sample analysis model is based on a design with 214 primary sampling unit clusters (schools), 764 secondary sampling unit clusters (classes) distributed among 18 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. One stratum has a single PSU and variance estimation was handled with the “centered” method in Stata, which uses deviations from the grand mean across PSUs to calculate the variance contribution from the stratum with the single PSU.

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 Cigarettes, E-Cigarettes, Waterpipe	Past year use of tobacco cigarettes, electronic cigarettes, and a waterpipe <u>excludes</u> 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 <i>Alcohol Use Disorders Identification Test</i> (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 2017	This binary measure indicates past year use of one or more of the following 18 drugs asked about in the 2017 survey (Form B-SS only): cannabis, synthetic cannabis, inhalants, LSD, mushrooms/mescaline, cocaine, crack, methamphetamine, heroin, fentanyl, ecstasy, jimson weed, salvia divinorum, mephedrone (“bath salts”), tranquilizers/sedatives (NM), prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication). Excluded from this count are tobacco cigarettes, e-cigarettes, waterpipes, alcohol, and caffeinated drinks.
Any Drug Use (for trends)	To examine trends in any drug use, we use two measures based on drugs that were common to all surveys since 1977. The first measures past year use of one or more of the following nine drugs: cannabis, LSD, mushrooms/mescaline, methamphetamine, cocaine, crack, heroin, ecstasy, and tranquilizers/sedatives (NM). A second measure for trends in any drug use excludes cannabis.
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 tranquilizers/sedatives.
Drug Use Problem	Reporting two or more of the six items on the <i>CRAFFT</i> 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 <i>Severity of Dependence Scale</i> (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 2017

Drug Use in the Past Year

(Figures 3.1.1, 3.1.2; Table 3.1.1)

By far, the most commonly used drug is alcohol, with 42.5% 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 highly caffeinated energy drinks is also quite prevalent, as about one-third (34.1%) of students report past year use, followed by cannabis, with 19.0% reporting past year use. One-in-ten (10.7%) students report using electronic cigarettes (with or without nicotine), which is a higher prevalence than regular tobacco cigarettes (7.0%). One-in-ten (10.6%) 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. About one-in-ten (9.2%) students report the use of over-the-counter 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 4.0% of secondary students reporting use in the past year, followed by “ecstasy” (MDMA) and cocaine at about 3%. Use of fentanyl, jimson weed, methamphetamine, and crack is rare, as these past year prevalence estimates fall below 1%. Estimates for past year use of heroin and mephedrone (“bath salts”) were suppressed due to very low values.

Over one-third (37.8%) of secondary students report using any drug (other than tobacco, alcohol or caffeine), during the past year. About one-in-seven (13.7%) 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

(Figure 3.1.1; Table 3.1.1)

Estimates for lifetime use show that alcohol and cannabis are the most common drugs ever used by students in grades 7–12.⁷⁴ Over two-thirds (65.7%) of students have ever tried alcohol (this includes sips) and about one-in-five (21.6%) have ever tried cannabis. More students have tried electronic cigarettes (21.6%) than regular tobacco cigarettes (16.2%) in their lifetime.

Frequency of Illicit 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 illicit drug. About one-in-ten (9.8%) students in grades 7–12 report using cannabis frequently during the past year. Frequent prescription opioid pain reliever use is reported by about 3.4% of all students. All other drugs measured in the survey are used this frequently by 2% of students or less. Figure 3.1.4 shows the number of times *past year users* used an illicit drug during the 12 months before the survey. Again, we can readily see that cannabis is the most frequently used illicit drug.

⁷⁴ Note that lifetime use of highly caffeinated energy drinks was not measured.

Figure 3.1.1
 Percentage Reporting Lifetime and Past Year Drug Use, 2017 OSDUHS

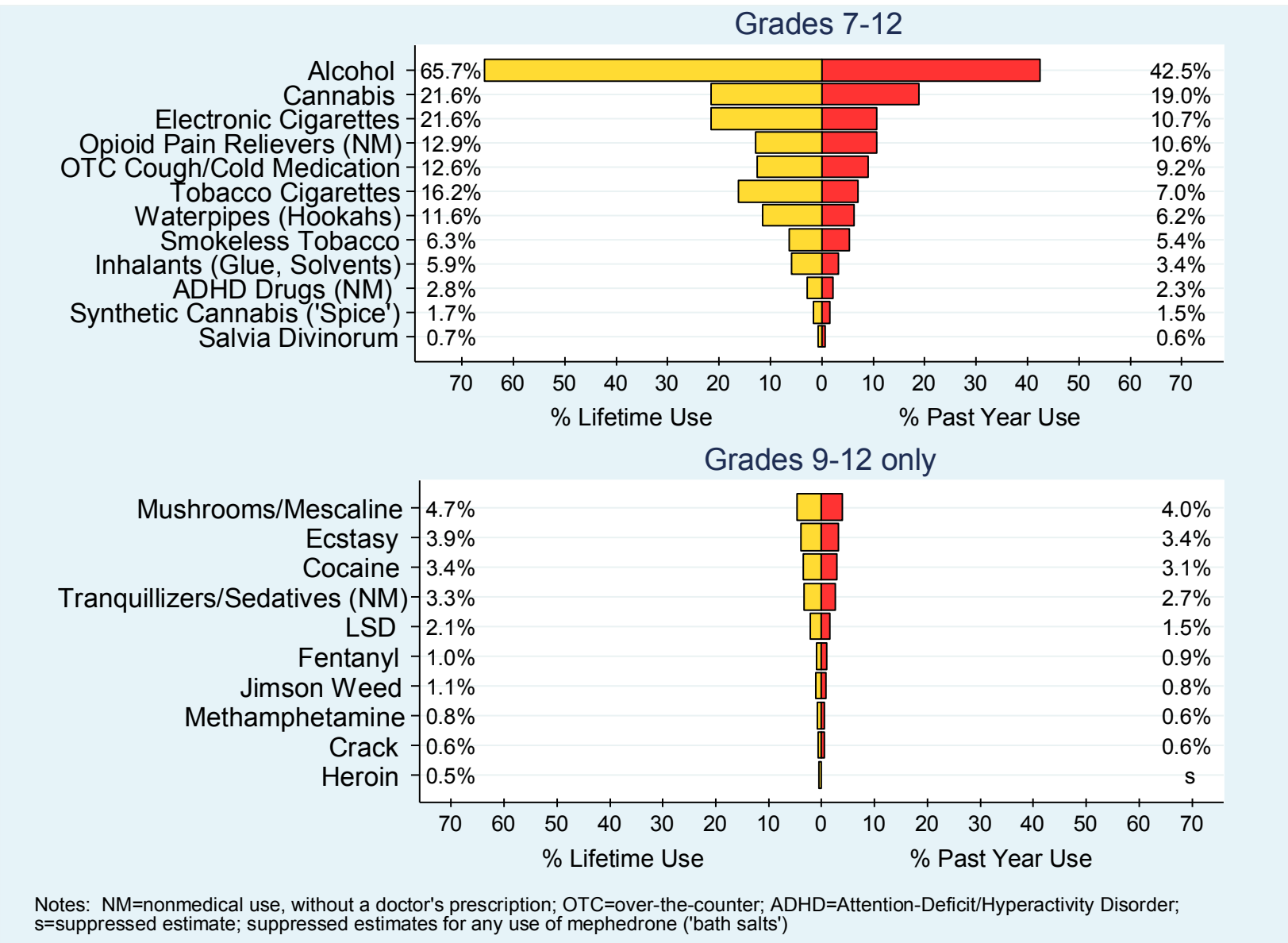


Figure 3.1.2

Percentage Reporting Past Year Drug Use by Grade Level, 2017 OSDUHS

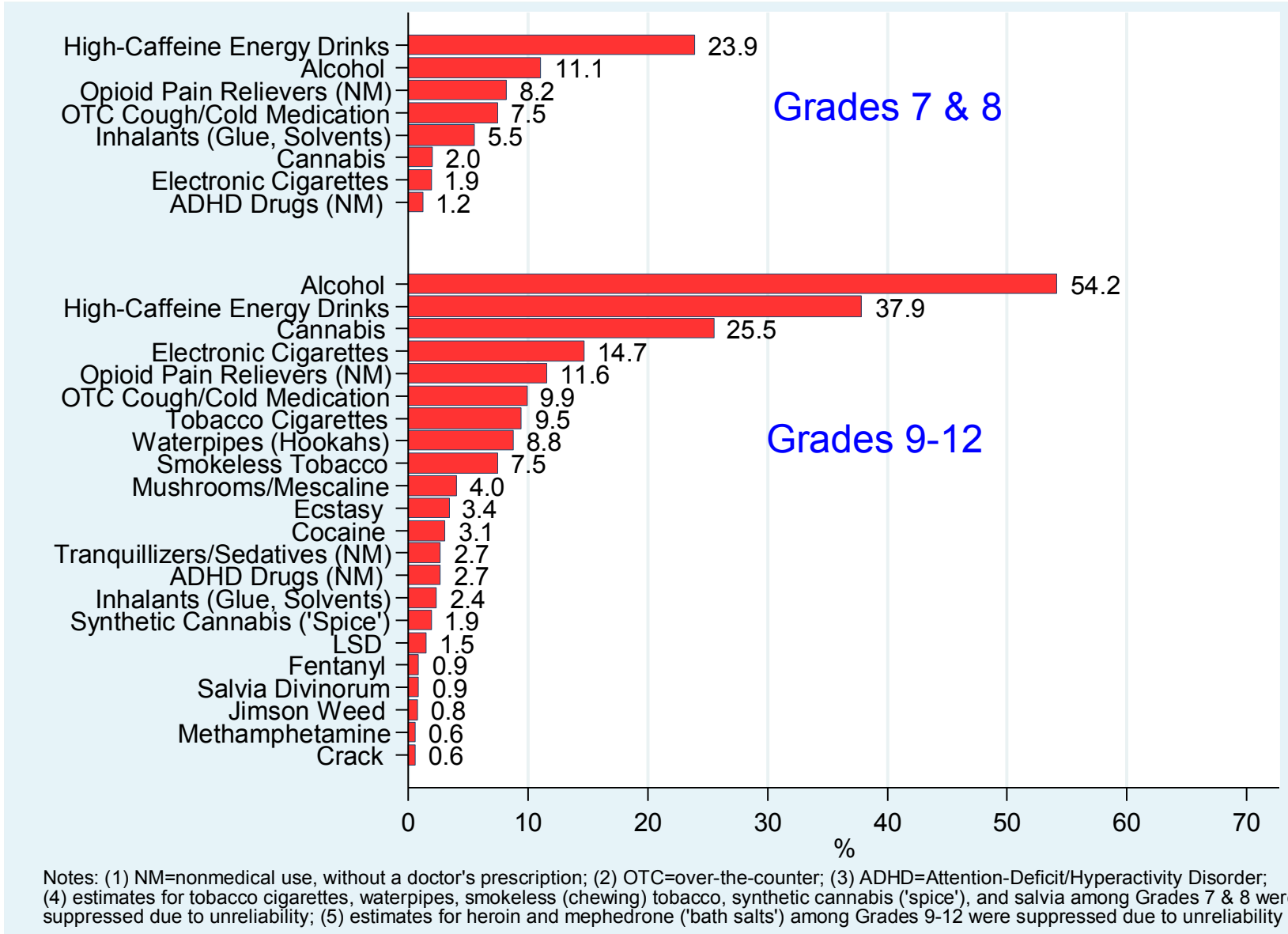


Figure 3.1.3

Percentage Reporting Frequent Drug Use (Six Times or More Often) in the Past Year, 2017 OSDUHS (Total Sample)

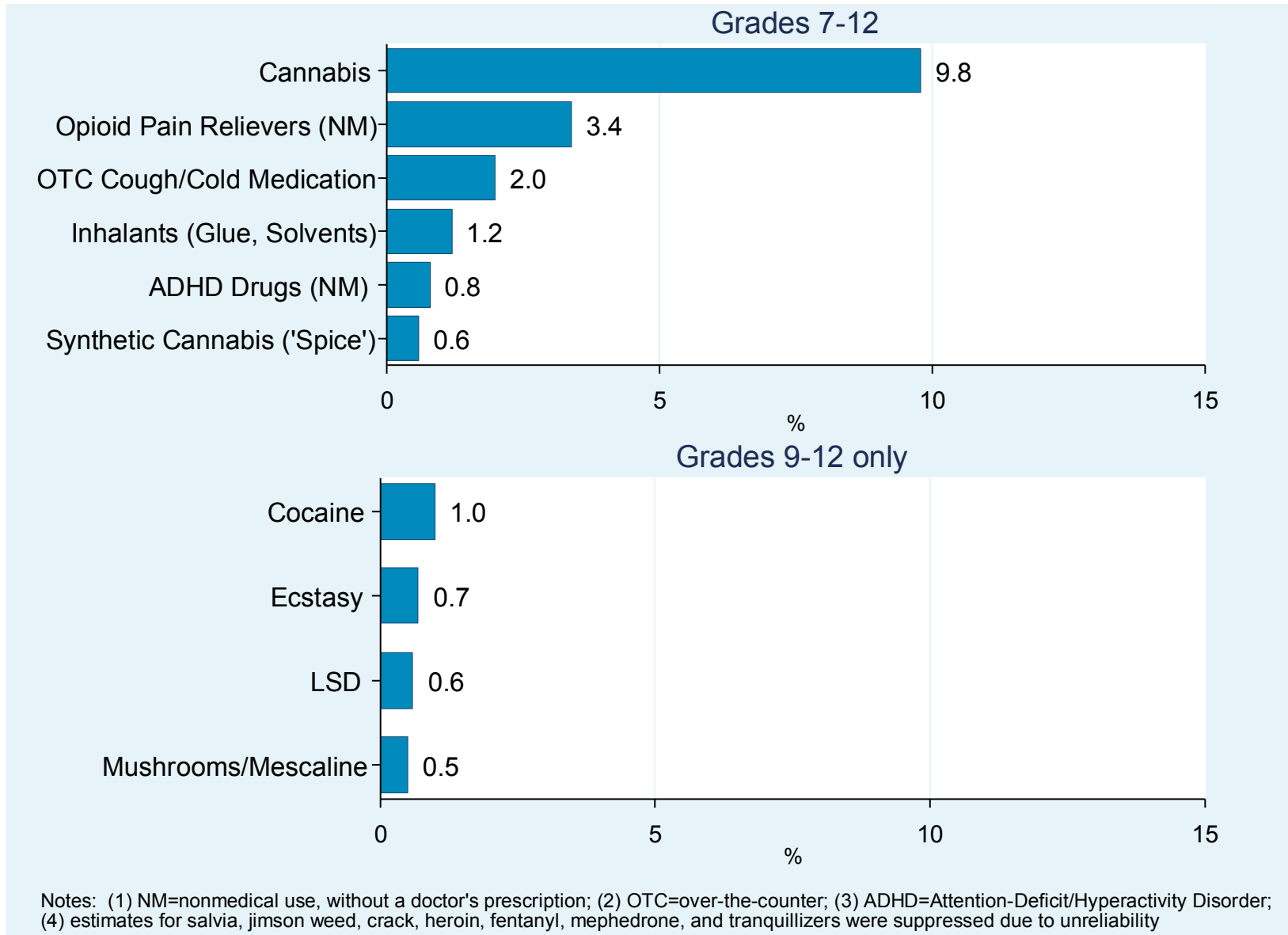


Figure 3.1.4
 Frequency of Drug Use in the Past Year, Among Users, 2017 OSDUHS (Grades 9–12 only)

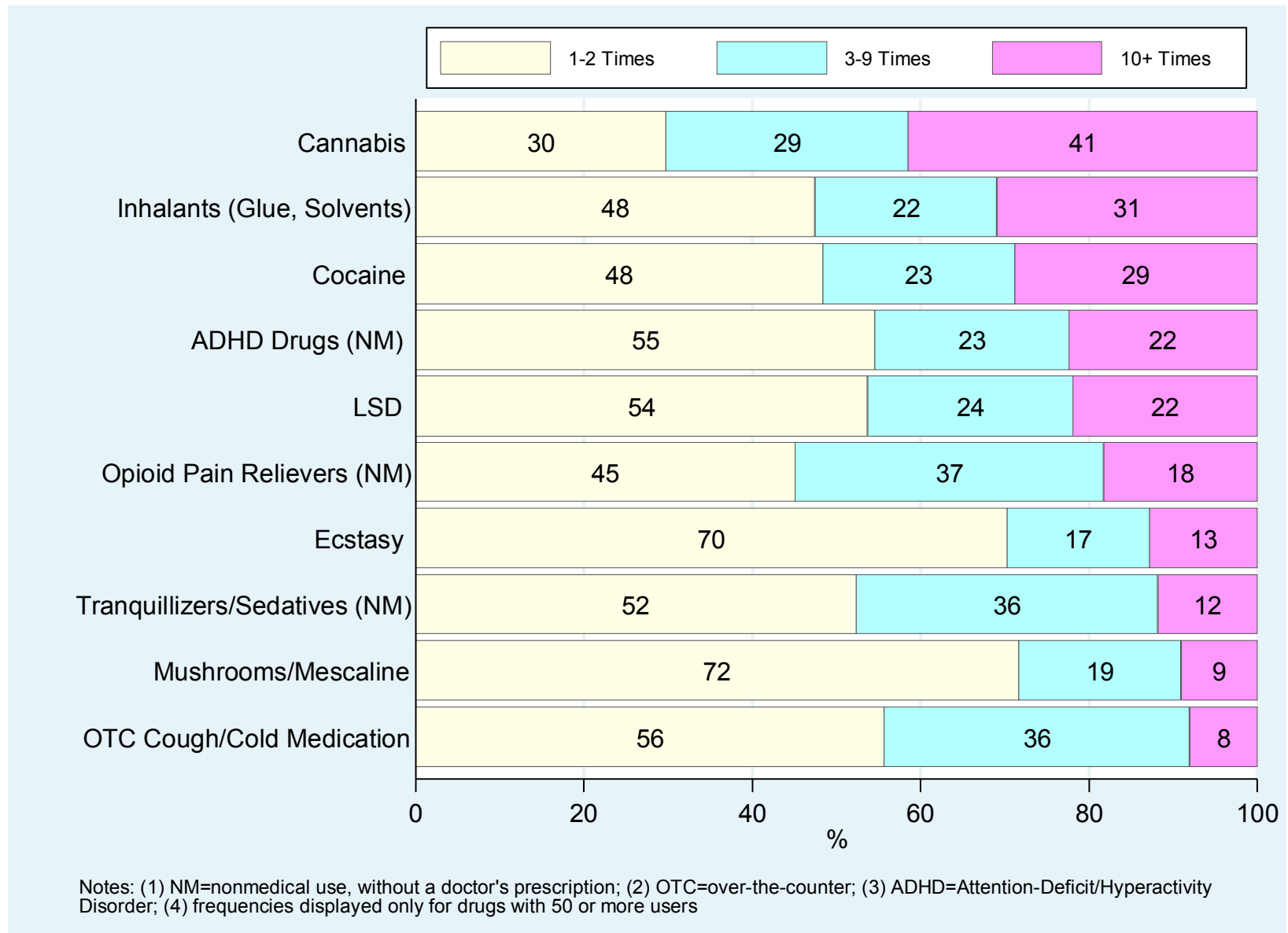


Table 3.1.1: Percentage Reporting Drug Use in Lifetime and in the Past Year, 2017 OSDUHS

	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	63.1	65.7	68.2	39.5	42.5	45.5	349,700	385,300	420,900
Cannabis	19.7	21.6	23.6	17.1	19.0	21.0	157,000	172,200	187,400
Electronic Cigarettes (Vape Pens)	18.1	21.6	25.5	8.6	10.7	13.2	62,100	80,800	99,500
Tobacco Cigarettes	14.2	16.2	18.4	5.8	7.0	8.4	51,200	63,800	76,500
Opioid Pain Relievers (NM)	11.6	12.9	14.3	9.5	10.6	12.0	85,600	97,100	108,700
OTC Cough/Cold Medication	11.2	12.6	14.2	8.0	9.2	10.6	69,700	83,300	96,900
Waterpipes (Hookahs)	10.0	11.6	13.5	5.1	6.2	7.3	38,900	46,600	54,400
Smokeless (Chewing) Tobacco	4.4	6.3	8.9	3.6	5.4	7.9	24,300	40,800	57,400
Inhalants (Glue or Solvents)	5.0	5.9	7.0	2.7	3.4	4.1	19,100	25,400	31,700
ADHD Drugs (NM)	2.1	2.8	3.8	1.7	2.3	3.1	14,900	20,800	26,600
Synthetic Cannabis (“Spice,” “K2”)	1.3	1.7	2.4	1.1	1.5	2.2	8,500	13,800	19,000
Salvia Divinorum	0.5	0.7	1.1	0.4	0.6	1.0	2,400	4,600	6,900
High-Caffeine Energy Drinks		n/a		31.7	34.1	36.6	276,100	304,600	333,100
AMONG GRADES 9–12 ONLY									
Mushrooms or Mescaline	3.8	4.7	5.8	3.3	4.0	4.8	21,300	26,000	30,700
Ecstasy (MDMA)	3.1	3.9	5.0	2.6	3.4	4.4	16,500	22,400	28,400
Cocaine	2.6	3.4	4.6	2.2	3.1	4.2	14,100	20,300	26,500
Tranquillizers/Sedatives (NM)	2.7	3.3	4.0	2.1	2.7	3.4	13,000	17,500	21,900
LSD	1.6	2.1	2.8	1.1	1.5	2.0	7,200	9,900	12,600
Jimson Weed	0.7	1.1	1.6	0.5	0.8	1.3	1,900	4,000	6,100
Fentanyl	0.6	1.0	1.7	0.5	0.9	1.6	2,000	5,800	9,600
Methamphetamine	0.5	0.8	1.4	0.3	0.6	1.1	1,700	4,000	6,300
Crack	0.3	0.6	1.1	0.3	0.6	1.0	1,500	3,700	5,900
Heroin	0.3	0.5	0.9		†				
Mephedrone (“Bath Salts”)		†			†				
Any NM Use of a Prescription Drug		n/a		12.4	13.7	15.2	80,100	91,100	102,100
Any Drug Use Including Cannabis		n/a		34.5	37.8	41.2	167,300	196,800	226,300

Notes: (1) ^a 95% confidence interval; (2) ^b numbers are based on a population of approximately 917,800 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) OTC=over-the-counter drug used to “get high”; (8) “Any NM Use of a Prescription Drug” refers to nonmedical use of prescription opioid pain relievers, ADHD drugs, or tranquilizers/sedatives; (9) “Any Drug Use Including Cannabis” refers to the past year use of any one of 18 drugs (excludes alcohol, tobacco and electronic cigarettes, waterpipes, and caffeinated drinks).

3.2 Overview of Drug Use Trends

2017 vs. 2015

(Figures 3.2.1a, 3.2.1b; Table 3.2.1a)

Of the 23 drugs monitored in both the 2015 and 2017 survey cycles, only over-the-counter cough/cold medication (used to “get high”) shows a statistically significant increase in past year prevalence, from 6.4% in 2015 to 9.2% in 2017.

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

- use of salvia divinorum decreased from 1.6% in 2015 to 0.6% in 2017;
- use of jimson weed decreased from 1.8% in 2015 to 0.8% in 2017; and
- use of ecstasy (MDMA) decreased from 5.4% to 3.4%.

No other drug shows a statistically significant change in past year prevalence between 2015 and 2017.

1999–2017 Trends

(Figures 3.2.2a, 3.2.2b; Table 3.2.1a)

Only past year nonmedical use of ADHD drugs shows a slight, yet statistically significant, increase since monitoring of this class of drugs first began in 2007 (from 1.0% to 2.3%). Most drugs monitored in the OSDUHS have shown decreases in past year use during the past two decades.

Drugs that decreased among grades 7–12:

- tobacco cigarette smoking significantly decreased from 28.4% in 1999 to 7.0% in 2017
- waterpipe use (from 9.7% in 2013 to 6.2%)
- alcohol (from 66.0% in 1999 to 42.5%)
- cannabis (from 28.0% in 1999 to 19.0%)
- inhalants (from 8.9% in 1999 to 3.4%)
- salvia divinorum (from 4.4% in 2009 to 0.6%)

- high-caffeine energy drinks (from 49.5% in 2011 to 34.1%)
- prescription opioid pain relievers (from 20.6% in 2007 to 10.6%).

Drugs that decreased among grades 9–12 only:

- LSD (from 8.8% in 1999 to 1.5% in 2017)
- mushrooms/mescaline (from 17.1% in 1999 to 4.0%)
- jimson weed (from 3.1% in 2005 to 0.8%)
- methamphetamine (from 6.3% in 1999 to 0.6%)
- cocaine (from 5.7% in 2003 to 3.1%)
- crack (from 3.2% in 1999 to 0.6%)
- ecstasy (from 7.9% in 2001 to 3.4%)
- heroin (from 2.1% in 1999 to <0.5%)
- an index measuring the nonmedical use of any prescription drug decreased from 23.5% in 2007 to 13.7% (mainly due to the decrease in prescription opioids)
- an index measuring any drug use of nine drugs, including cannabis, monitored since 1999 significantly decreased from 39.2% to 26.4%
- a second index similar to that above, but excluding cannabis, decreased from 22.8% in 1999 to 7.8%.

Drugs that remained stable since they were first monitored include electronic cigarettes, smokeless (chewing) tobacco, synthetic cannabis (“spice,” “K2”), mephedrone (“bath salts”), and tranquilizers/sedatives.

Figure 3.2.1a
 Past Year Drug Use 2017 vs. 2015, OSDUHS (Grades 7–12)

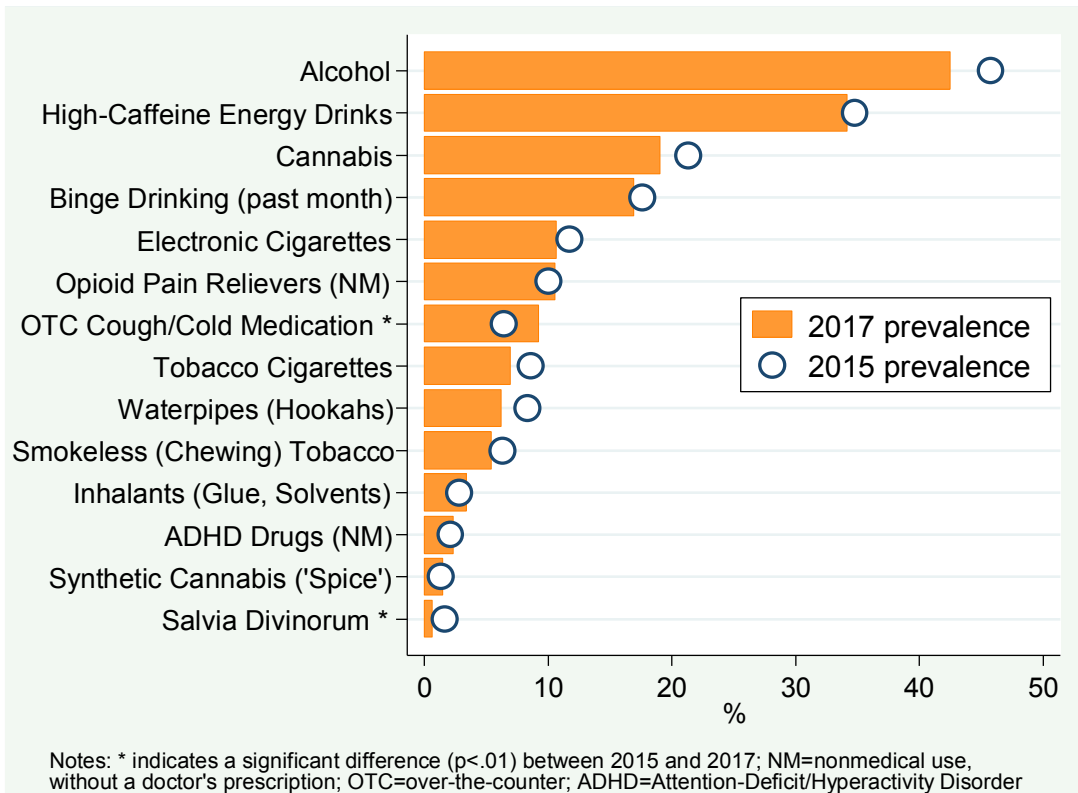


Figure 3.2.1b
 Past Year Drug Use 2017 vs. 2015, OSDUHS (Grades 9–12 only)

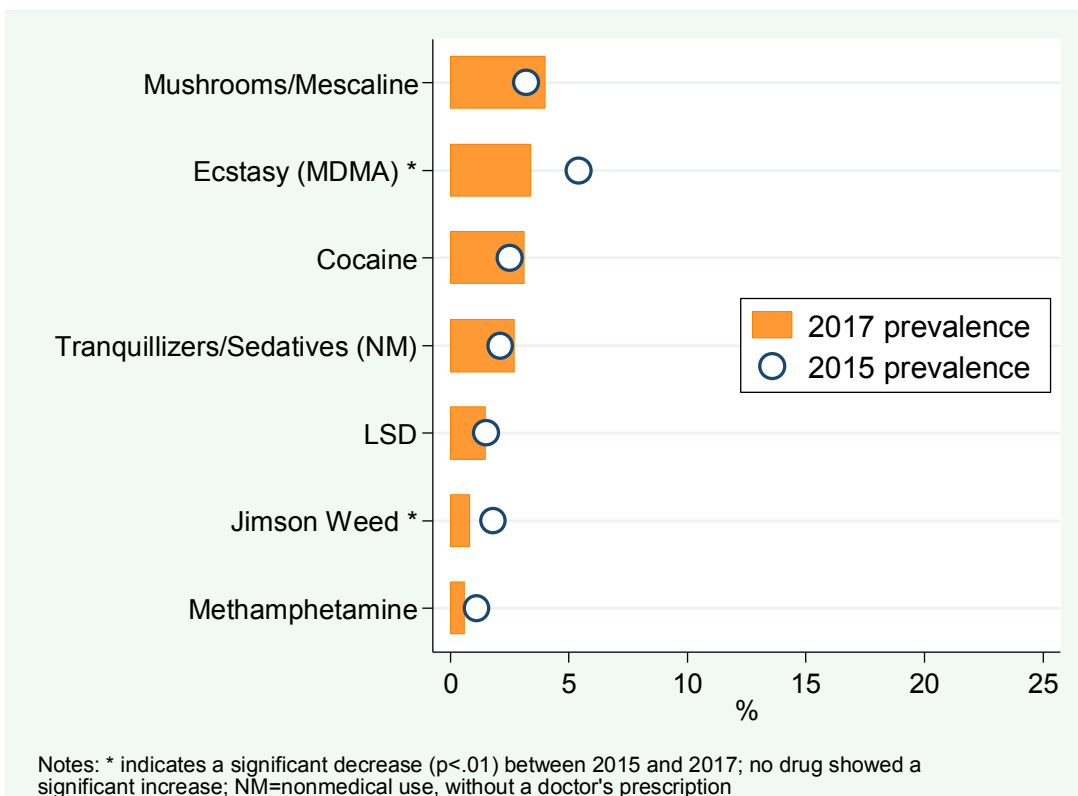


Figure 3.2.2a
Overview of Past Year Drug Use Trends, 1999–2017 OSDUHS (Grades 7–12)

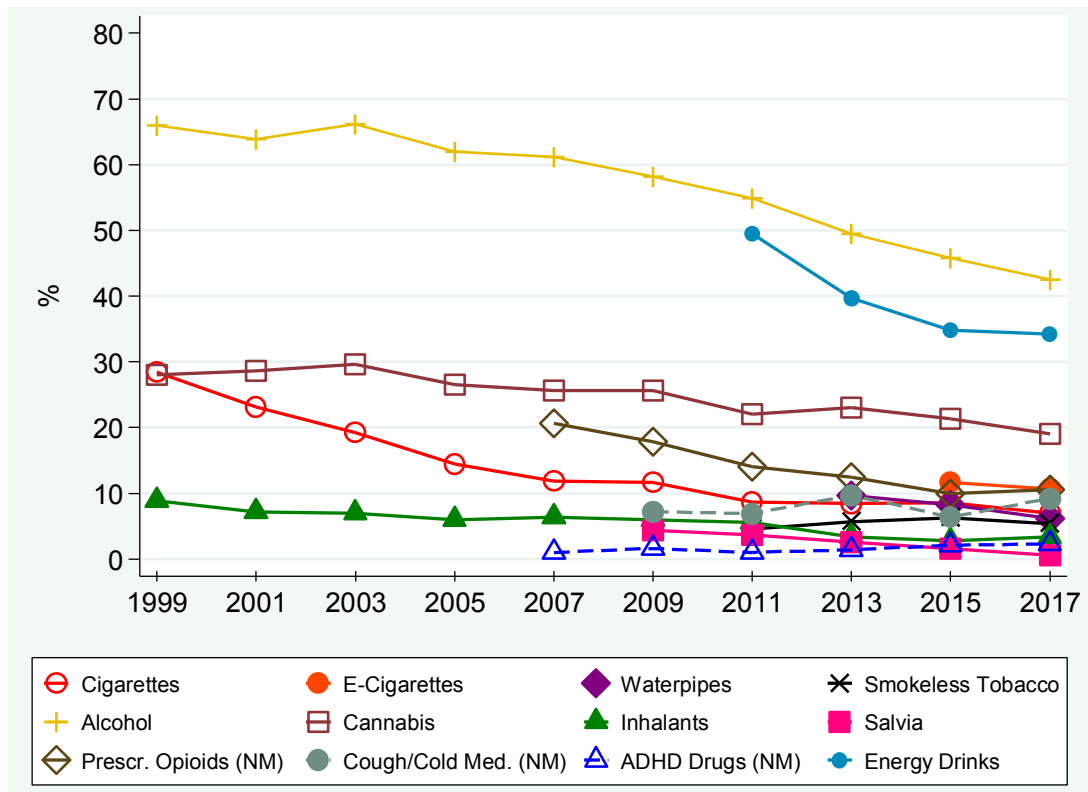


Figure 3.2.2b
Overview of Past Year Drug Use Trends, 1999–2017 OSDUHS (Grades 9–12 only)

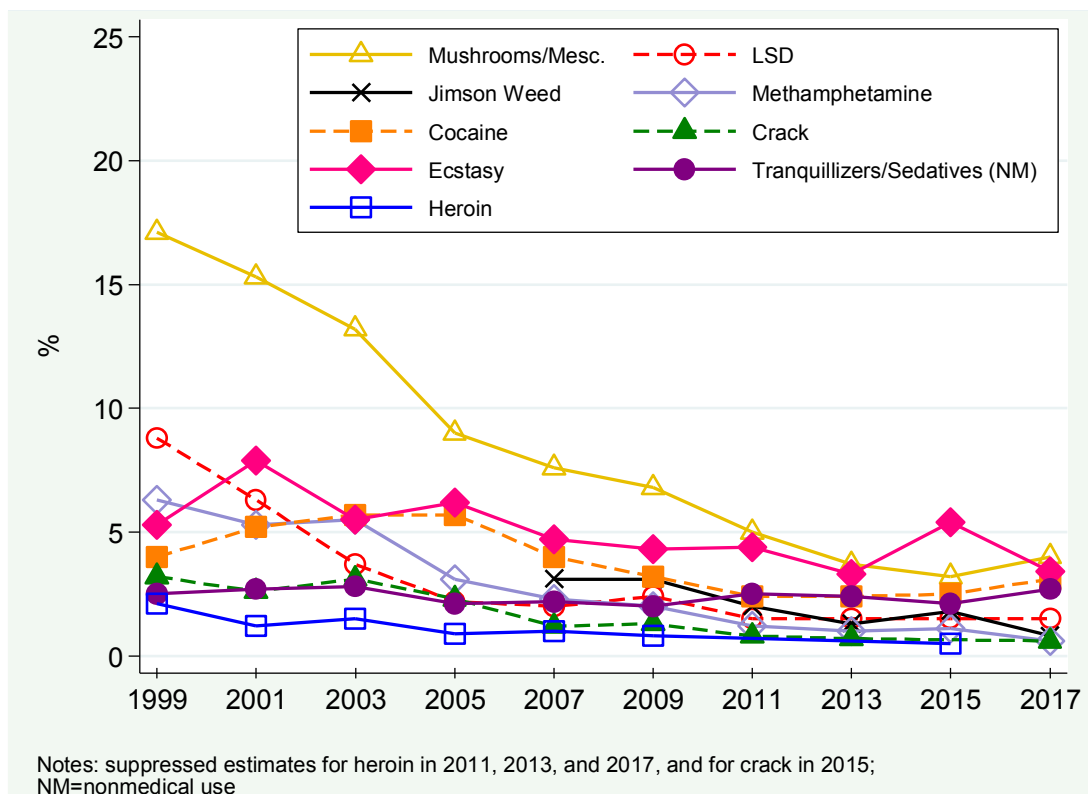


Table 3.2.1a: Percentage Using the Drug in the Past Year, 1999–2017 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
AMONG GRADES 7–12	(n=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
Tobacco Cigarettes	28.4	23.1	19.2	14.4	11.9	11.7	8.7	8.5	8.6	7.0 ^b	
	(26.1-30.7)	(20.3-26.1)	(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)	
Electronic Cigarettes	—	—	—	—	—	—	—	—	11.7	10.7	
									(10.2-13.4)	(8.6-13.2)	
Waterpipes (Hookahs)	—	—	—	—	—	—	—	9.7	8.3	6.2 ^b	
								(8.2-11.5)	(7.1-9.6)	(5.1-7.3)	
Smokeless (Chewing) Tobacco	—	—	—	—	—	—	4.6	5.7	6.3	5.4	
							(3.9-5.5)	(4.6-7.0)	(4.9-8.1)	(3.6-7.9)	
Alcohol	66.0	63.9	66.2	62.0	61.2	58.2	54.9	49.5	45.8	42.5 ^b	
	(63.6-68.3)	(60.8-67.0)	(64.1-68.4)	(59.3-64.7)	(58.9-63.5)	(55.7-60.6)	(52.1-57.6)	(46.4-52.5)	(42.9-48.7)	(39.5-45.5)	
Cannabis	28.0	28.6	29.6	26.5	25.6	25.6	22.0	23.0	21.3	19.0 ^b	
	(26.0-30.1)	(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)	
Synthetic Cannabis (“Spice,” “K2”)	—	—	—	—	—	—	—	1.8	1.3	1.5	
								(1.2-2.6)	(0.9-1.7)	(1.1-2.2)	
Inhalants (Glue or Solvents)	8.9	7.2	7.0	6.0	6.4	6.0	5.6	3.4	2.8	3.4 ^b	
	(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)	
Salvia Divinorum	—	—	—	—	—	4.4	3.7	2.6	1.6	0.6 ^{ab}	
						(3.3-5.7)	(2.8-4.8)	(1.7-3.8)	(1.1-2.3)	(0.4-1.0)	
OTC Cough/Cold Medication	—	—	—	—	—	7.2	6.9	9.7	6.4	9.2 ^a	
						(6.1-8.5)	(5.5-8.7)	(8.2-11.4)	(5.3-7.6)	(8.0-10.6)	
High-Caffeine Energy Drinks	—	—	—	—	—	—	49.5	39.7	34.8	34.1 ^b	
							(46.3-52.7)	(37.8-41.7)	(32.8-36.9)	(31.7-36.6)	
Opioid Pain Relievers (NM)	—	—	—	—	20.6	17.8	14.0	12.4	10.0	10.6 ^b	
					(18.9-23.5)	(16.6-18.9)	(12.8-15.3)	(11.2-13.6)	(9.0-11.0)	(9.5-12.0)	
ADHD Drugs (NM)	—	—	—	—	1.0	1.6	1.0	1.4	2.1	2.3 ^b	
					(0.7-1.5)	(1.3-2.1)	(0.7-1.3)	(1.0-2.0)	(1.6-2.7)	(1.7-3.1)	
AMONG GRADES 9–12 ONLY	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
LSD	8.8	6.3	3.7	2.2	2.0	2.4	1.5	1.5	1.5	1.5 ^b	
	(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)	
Mushrooms/Mescaline	17.1	15.3	13.2	9.0	7.6	6.8	5.0	3.7	3.2	4.0 ^b	
	(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)	
Jimson Weed	—	—	—	—	3.1	3.1	2.0	1.3	1.8	0.8 ^{ab}	
					(2.3-4.3)	(2.3-4.1)	(1.1-3.5)	(0.7-2.4)	(1.3-2.6)	(0.5-1.3)	
Methamphetamine	6.3	5.3	5.5	3.1	2.3	2.0	1.2	1.0	1.1	0.6 ^b	
	(4.6-8.7)	(3.5-7.8)	(4.5-6.7)	(2.4-4.0)	(1.7-2.9)	(1.4-2.7)	(0.7-2.0)	(0.6-1.5)	(0.7-1.8)	(0.3-1.1)	
Cocaine	4.0	5.2	5.7	5.7	4.0	3.2	2.4	2.4	2.5	3.1 ^b	
	(3.2-5.0)	(4.1-6.6)	(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)	
Crack	3.2	2.6	3.1	2.3	1.2	1.3	0.8	0.7	†	0.6 ^b	
	(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)	
Ecstasy (MDMA)	5.3	7.9	5.5	6.2	4.7	4.3	4.4	3.3	5.4	3.4 ^{ab}	
	(4.0-7.1)	(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)	
Heroin	2.1	1.2	1.5	0.9	1.0	0.8	†	†	0.5	† ^b	
	(1.5-2.7)	(0.8-1.7)	(1.1-1.9)	(0.7-1.2)	(0.7-1.5)	(0.6-1.2)			(0.3-0.7)		
Mephedrone (“Bath Salts”)	—	—	—	—	—	—	—	†	0.7	†	
									(0.4-1.2)		
Tranquillizers/Sedatives (NM)	2.5	2.7	2.8	2.1	2.2	2.0	2.5	2.4	2.1	2.7	
	(1.9-3.3)	(1.8-3.9)	(1.2-3.4)	(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)	
Any Prescription Drug (NM)	—	—	—	—	23.5	21.4	17.0	15.2	12.1	13.7 ^b	
					(21.5-25.6)	(20.0-22.9)	(15.3-18.9)	(13.8-16.7)	(11.0-13.4)	(12.4-15.2)	
Any Drug Including Cannabis	39.2	40.0	39.8	37.4	36.1	35.3	29.9	30.7	29.0	26.4 ^b	
	(35.9-42.6)	(36.1-44.0)	(37.3-42.3)	(35.0-40.0)	(33.5-38.8)	(33.2-37.5)	(28.0-31.9)	(27.7-33.8)	(26.3-31.9)	(24.1-28.8)	
Any Drug Excluding Cannabis	22.8	20.5	17.0	14.2	11.9	10.6	9.5	7.9	9.1	7.8 ^b	
	(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)	(6.7-9.0)	

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) ^a 2017 vs. 2015 significant difference, p<.01; (4) ^b 2017 vs. 1999 significant difference, p<.01 (vs. 2001 for ecstasy, vs. 2003 for cocaine, vs. first year of monitoring for other drugs); (5) NM = nonmedical use, without a doctor’s prescription; (6) OTC = over-the-counter drug used to “get high”; (7) ADHD = Attention-Deficit/Hyperactivity Disorder; (8) “Any NM Use of a Prescription Drug” refers to nonmedical use of prescription opioids, ADHD drugs, or tranquilizers/sedatives; (9) the “Any Drug” indices used for trend purposes are restricted to use of any one of the following drugs: cannabis, LSD, mushrooms, methamphetamine, cocaine, crack, heroin, ecstasy, or tranquilizers/sedatives (NM). Source: OSDUHS, Centre for Addiction & Mental Health

Long-Term Trends, 1977–2017 (Grades 7, 9, and 11 only)

(Figures 3.2.3–3.2.7; Table 3.2.1b)

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:

- tobacco cigarettes
- alcohol
- LSD
- methamphetamine (includes crystal methamphetamine).

Pattern 2: Prevalence in 2017 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:

- binge drinking
- 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:

- cannabis.

Pattern 4: Prevalence shows only one peak in the late 1990s or early 2000s (or the late 1970s for tranquilizers), followed by a decline, and stability:

- ecstasy
- crack
- tranquilizers/sedatives (NM).

Pattern 5: Prevalence was very low and stable for decades, reaching an all-time low in recent years:

- heroin.

Figure 3.2.3
Pattern 1: Long-Term Drug Use Trends, 1977–2017 OSDUHS

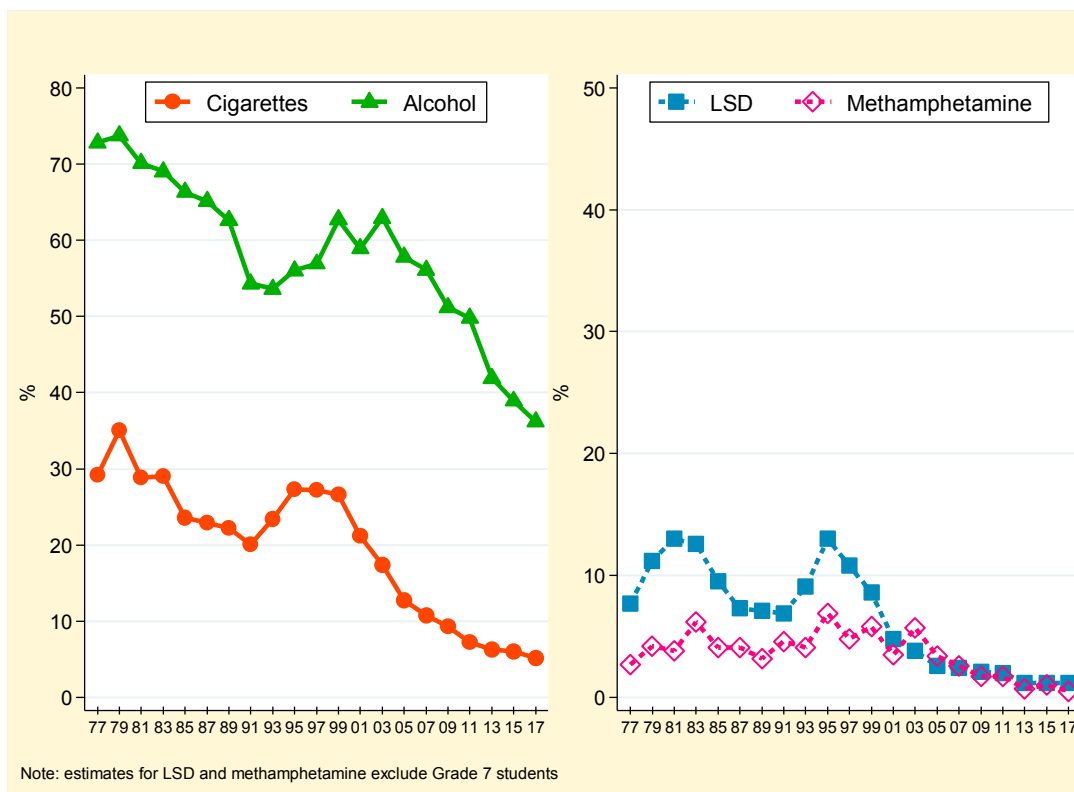


Figure 3.2.4
 Pattern 2: Long-Term Drug Use Trends, 1977–2017 OSDUHS

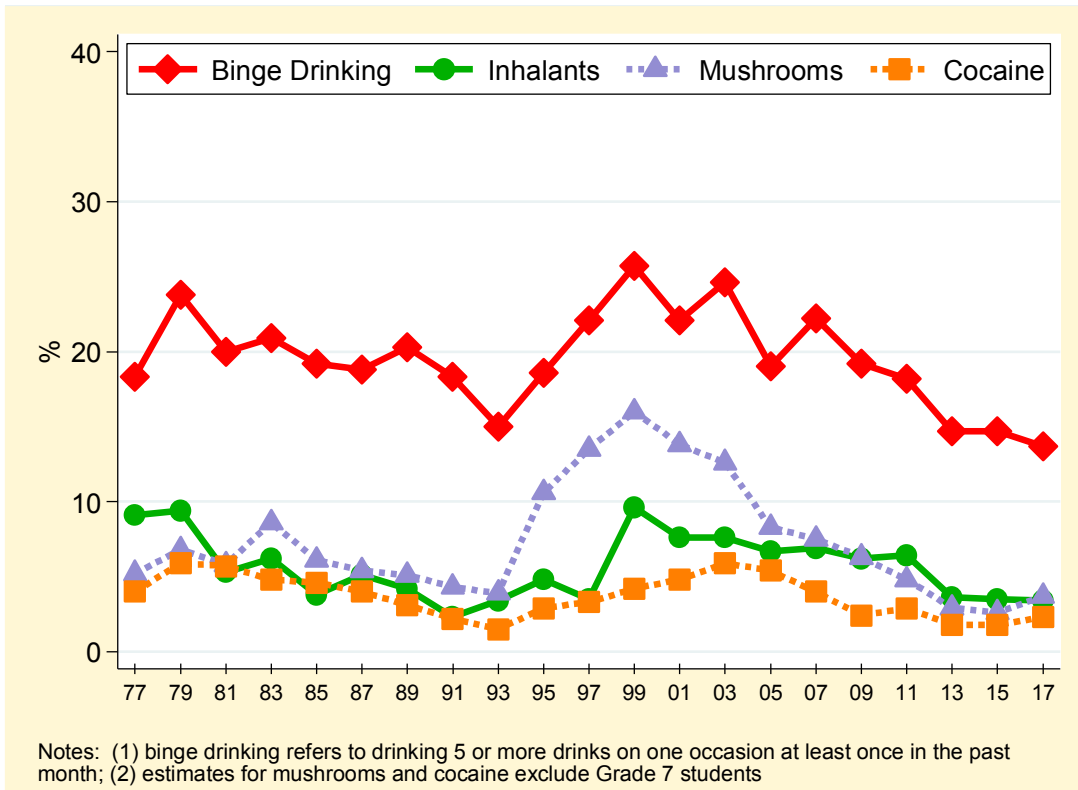


Figure 3.2.5
 Pattern 3: Long-Term Drug Use Trends, 1977–2015 OSDUHS

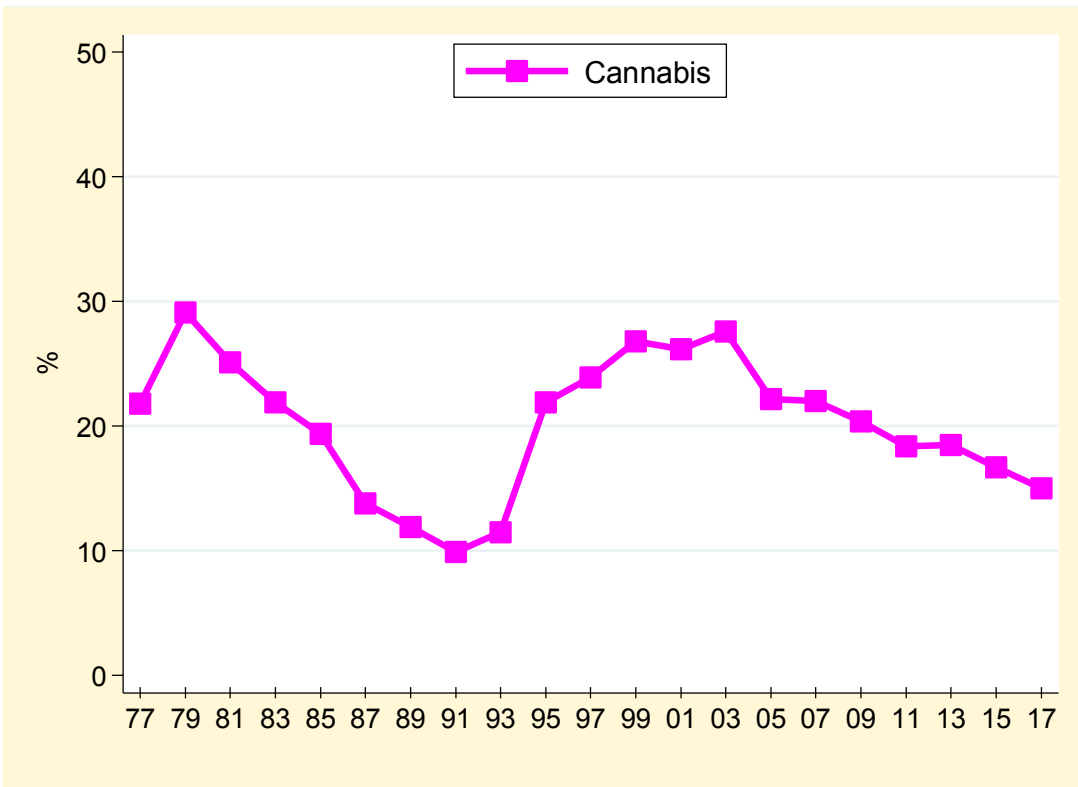


Figure 3.2.6
 Pattern 4: Long-Term Drug Use Trends, 1977–2017 OSDUHS

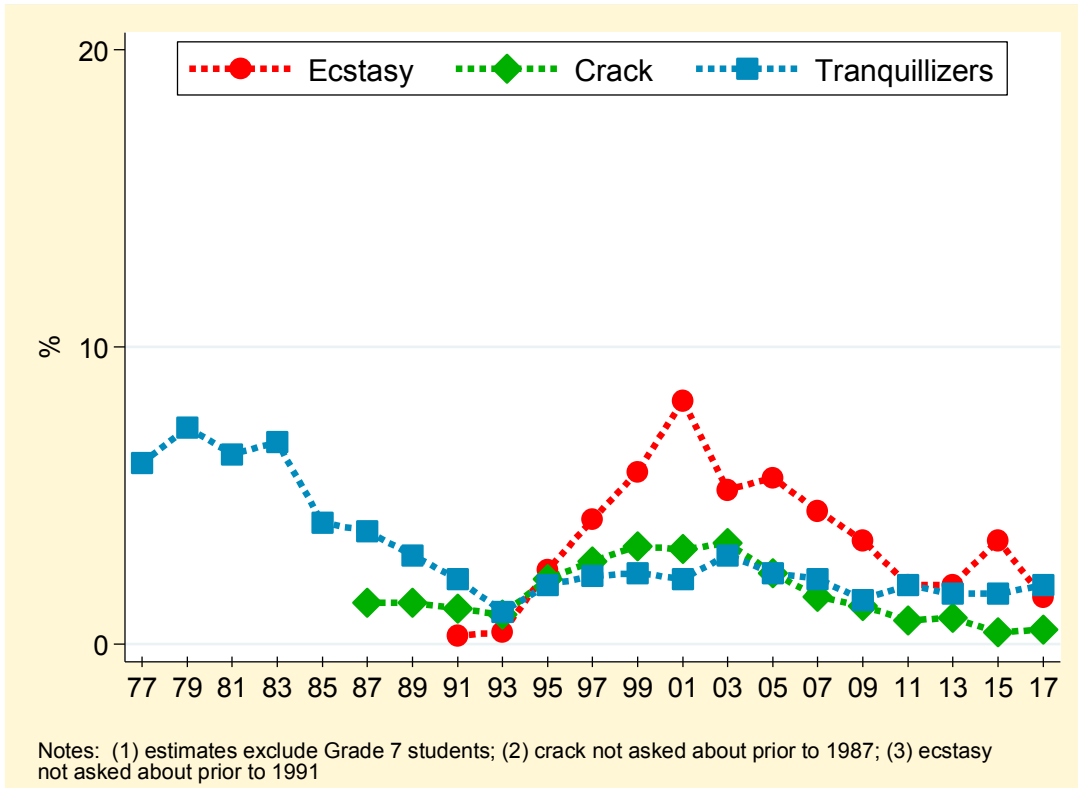


Figure 3.2.7
 Pattern 5: Long-Term Drug Use Trends, 1977–2017 OSDUHS

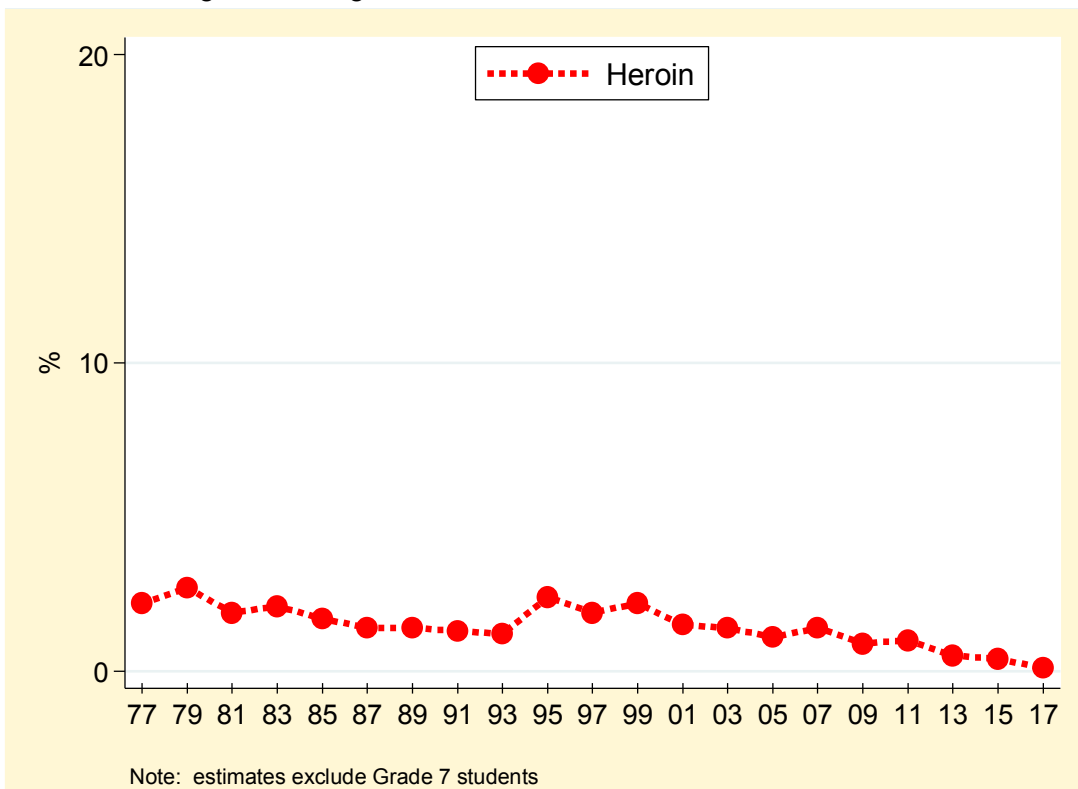


Table 3.2.1b: Percentage Using the Drug in the Past Year, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
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)
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)
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)
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)
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)
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)
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 (9.5-17.4)	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)
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)
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 (3.5-9.6)	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)
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)
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)
Steroids	—	—	—	—	—	—	1.5 (1.0-2.4)	1.9 (1.5-2.6)	1.9 (1.2-2.9)	1.5 (1.0-2.1)	1.5 (0.9-2.4)	3.8 (2.6-5.5)	4.0 (2.7-5.8)	3.1 (2.2-4.3)	2.3 (1.6-3.4)	1.2 (0.7-2.1)	1.2 (0.6-2.4)	1.9 (1.0-3.4)	†	†	—
Any Drug	32.3 (28.9-35.8)	40.9 (36.7-45.1)	36.2 (32.5-40.0)	34.7 (31.0-38.7)	28.8 (23.8-34.3)	21.3 (16.5-27.0)	20.3 (16.8-24.3)	20.0 (16.8-23.7)	20.6 (16.7-25.1)	34.8 (29.4-40.7)	36.6 (34.1-39.2)	38.2 (33.7-42.9)	38.3 (32.9-44.1)	38.1 (34.9-41.4)	32.9 (30.2-35.7)	32.1 (28.7-35.8)	29.6 (26.8-32.6)	25.4 (23.3-27.7)	25.9 (22.7-29.4)	23.9 (21.3-26.8)	21.3 (18.1-24.9)
Any Drug excl Cannabis	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)

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" indices used for trend purposes are restricted to use of any one of the following drugs: cannabis, LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), tranquilizers/sedatives (NM).

Source: OSDUHS, Centre for Addiction & Mental Health

Frequent Drug Use Trends

(Tables 3.2.2a, 3.2.2b)

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 2017 are shown in Table 3.2.2a. Between 2015 and 2017, frequent use of cannabis significantly decreased from 12.4% to 9.8%, and frequent use of ecstasy significantly decreased from 1.9% to 0.7%. Frequent use of the following drugs significantly decreased: prescription opioid pain relievers (from 8.0% in 2007 to 3.4%), LSD (from 2.5% in 1999 to 0.6%), and mushrooms/mescaline (from 5.6% in 1999 to 0.5%).

As seen in Table 3.2.2b, only cannabis has shown marked fluctuations in frequent use since 1977. Frequent cannabis use was at an elevated level in the late 1970s, dipped in the 1980s, and started to increase again in the late 1990s and early 2000s. Currently, frequent cannabis use is lower than the two historical peaks, and is similar to the lows seen in the late 1980s and early 1990s.

Table 3.2.2a: Frequent Drug Use: Percentage Using the Drug Six Times or More Often in the Past Year, 1999–2017 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
Among Grades 7–12	(n=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
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 ^{ab} (7.8-8.4)	
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)	
Salvia Divinorum	—	—	—	—	—	1.2 (0.7-2.2)	0.8 (0.5-1.5)	†	†	†	
OTC 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)	
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 ^b (2.9-4.1)	
Among Grades 9–12	(n=)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
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 ^b (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 ^b (0.3-0.9)	
Jimson Weed	—	—	—	—	1.3 (0.8-2.2)	1.0 (0.6-1.6)	†	†	0.7 (0.4-1.4)	†	
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)	
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 ^a (0.4-1.1)	
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)	†	

Notes: (1) entries in brackets are 95% confidence intervals; (2) ^a 2017 vs. 2015 significant difference, $p < .01$. ^b 2017 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) OTC = over-the-counter drug used to "get high"; (6) 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

Table 3.2.2b: Frequent Drug Use: Percentage Reporting Using the Drug Six Times or More Often in the Past Year, 1977–2017 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	
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)	
Cannabis	12.8 (11.1-14.7)	18.0 (15.5-20.8)	15.2 (12.4-18.5)	11.6 (10.1-13.3)	9.4 (7.7-11.5)	6.2 (4.6-8.2)	4.8 (3.5-6.4)	4.6 (3.7-5.7)	4.9 (3.7-6.6)	11.4 (9.3-14.0)	15.2 (13.1-17.7)	14.9 (12.8-17.3)	15.4 (12.4-18.8)	16.0 (13.8-18.4)	12.8 (11.3-14.6)	12.0 (10.2-14.0)	11.2 (9.6-13.1)	11.0 (8.8-13.4)	10.1 (8.1-12.6)	10.0 (8.5-11.8)	6.4 (5.2-7.9)	
Inhalants	1.4 (1.0-2.0)	1.6 (1.1-2.2)	1.2 (0.8-1.6)	0.7 (0.5-0.9)	†	†	†	0.6 (0.3-1.0)	0.5 (0.3-0.8)	0.7 (0.4-1.0)	0.7 (0.4-1.3)	2.0 (1.3-3.0)	1.1 (0.6-1.7)	1.8 (1.3-2.4)	1.5 (0.9-2.5)	1.8 (1.1-2.7)	†	1.9 (1.2-2.9)	†	†	1.2 (0.7-2.0)	
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)	
LSD	2.0 (1.5-2.8)	3.0 (2.2-4.0)	4.8 (2.9-7.9)	5.4 (3.9-7.4)	3.4 (2.0-5.5)	3.0 (1.9-4.5)	2.3 (1.5-3.5)	2.4 (1.6-3.6)	3.6 (2.9-4.4)	4.6 (3.2-6.6)	3.4 (2.2-5.2)	3.0 (1.8-5.1)	†	0.9 (0.6-1.4)	†	0.6 (0.3-1.1)	†	†	†	†	†	†
Mushrooms/Mesc.	1.2 (0.8-1.8)	1.7 (1.2-2.3)	1.4 (0.6-3.2)	1.9 (1.0-3.5)	0.9 (0.5-1.5)	1.2 (0.5-2.4)	1.3 (0.6-2.7)	0.8 (0.6-1.0)	0.7 (0.4-1.3)	2.2 (1.2-3.8)	3.5 (2.2-5.5)	5.6 (4.0-7.8)	4.6 (3.2-6.4)	3.5 (2.7-4.5)	1.9 (1.3-2.8)	1.6 (1.0-2.4)	1.1 (0.6-1.8)	0.8 (0.4-1.4)	†	†	0.5 (0.3-0.9)	†
Methamphetamine	0.5 (0.3-0.8)	0.8 (0.5-1.2)	0.9 (0.5-1.5)	†	0.7 (0.3-1.5)	1.1 (0.5-2.4)	0.6 (0.4-1.1)	†	†	†	1.2 (0.6-2.4)	1.8 (0.9-3.5)	†	1.7 (1.1-2.6)	1.1 (0.6-1.9)	0.8 (0.5-1.3)	†	†	†	†	†	†
Cocaine	0.8 (0.6-1.2)	1.1 (0.7-1.6)	1.0 (0.7-1.4)	1.1 (0.8-1.6)	1.2 (0.8-1.6)	1.2 (0.7-2.0)	0.8 (0.4-1.7)	†	0.9 (0.4-1.8)	0.8 (0.4-1.3)	0.8 (0.4-1.6)	1.6 (0.8-2.9)	1.5 (0.8-2.7)	2.2 (1.5-3.1)	1.8 (1.3-2.4)	1.4 (0.9-2.2)	0.7 (0.4-1.1)	1.2 (0.8-1.8)	†	0.7 (0.4-1.2)	0.5 (0.3-0.9)	
Heroin	0.5 (0.3-0.9)	0.6 (0.4-1.0)	0.5 (0.3-0.9)	0.8 (0.5-1.3)	†	†	†	0.9 (0.6-1.4)	0.6 (0.3-1.1)	1.1 (0.6-1.9)	1.2 (0.9-1.6)	0.8 (0.5-1.5)	†	0.6 (0.3-1.1)	†	†	†	†	†	†	†	†
Ecstasy (MDMA)	—	—	—	—	—	—	—	†	†	†	†	1.7 (0.9-3.2)	2.0 (1.2-3.4)	1.8 (1.2-2.8)	2.2 (1.4-3.2)	1.7 (1.1-2.5)	1.2 (0.7-2.0)	1.9 (1.3-2.8)	†	1.0 (0.7-1.6)	†	
Tranquillizers	1.2 (0.8-1.7)	1.2 (0.8-1.7)	1.2 (0.6-2.2)	1.9 (1.2-3.1)	0.7 (0.5-0.9)	1.0 (0.5-1.9)	†	†	†	†	†	†	†	0.8 (0.5-1.2)	0.5 (0.3-0.8)	0.5 (0.3-0.9)	0.5 (0.3-0.9)	†	†	†	0.6 (0.3-1.1)	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability (< 0.5%); (3) estimates for ecstasy are based on a random half sample between 1991 and 1999; (4) Tranquillizers refers to nonmedical use, without a doctor's prescription; (5) estimates for crack are not presented, all years 0.5% or less.

Source: OSDUHS, Centre for Addiction & Mental Health

3.3 Use of Tobacco and Alternative Smoking Devices

Past Year Tobacco Cigarette Smoking

(Figures 3.3.1–3.3.3; Table 3.3.1)

	Tobacco Cigarette Smoking in 2017 (Grades 7–12)	Trends in Tobacco Cigarette Smoking
Total Sample	<ul style="list-style-type: none"> Overall, 7.0% 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 5.8% and 8.4% (95% CI). The percentage of 7.0% represents about 63,800 Ontario students in grades 7 through 12. 	<ul style="list-style-type: none"> Past year tobacco cigarette smoking among students in grades 7–12 has remained stable since 2011 at about 7%-9%. There has been a dramatic decline in smoking since 1999, when the estimate was at 28.4%, but this decline has levelled off in recent years. Looking back over the past 40 years (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, reached a historical low in 2011, and currently remains at this relatively low level.
Sex	<ul style="list-style-type: none"> In 2017, males (8.1%) are significantly more like than females (5.8%) to smoke tobacco cigarettes. 	<ul style="list-style-type: none"> Between 2015 and 2017, cigarette smoking remained stable among males (9.1% and 8.1%, respectively) and females (8.2% and 5.8% respectively). For both sexes, smoking dramatically declined between 1999 and 2011, and has levelled off since then.
Grade	<ul style="list-style-type: none"> The prevalence of smoking is extremely low (suppressed estimates) among students in grades 7 and 8. About 2.8% of 9th graders smoke cigarettes and the prevalence significantly increases with grade, reaching 15.2% among 12th graders. 	<ul style="list-style-type: none"> Only 10th graders show a significant decrease in smoking between 2015 and 2017, from 10.7% to 6.4%. All grades show significant decreases in cigarette smoking since 1999.
Region	<ul style="list-style-type: none"> Cigarette smoking significantly differs by region, with students in the Greater Toronto Area (GTA) least likely to smoke compared with students in the other three regions (4.6% vs. 8%-9%, respectively). 	<ul style="list-style-type: none"> None of the four regions shows a statistically significant change in smoking between 2015 and 2017. All four regions show significant decreases since 1999.

Figure 3.3.1
 Past Year Tobacco Cigarette Smoking by Sex, Grade, and Region, 2017 OSDUHS

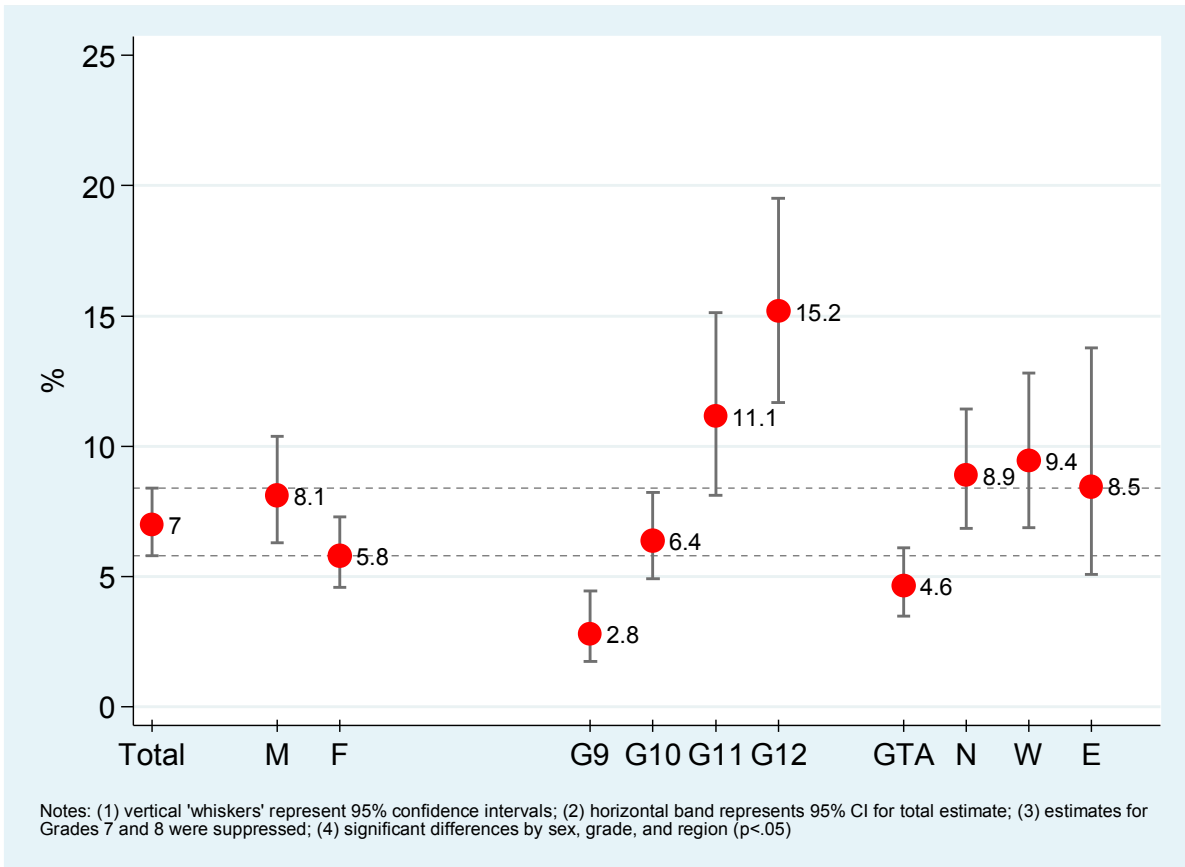


Figure 3.3.2
 Past Year Tobacco Cigarette Smoking, 1999–2017 OSDUHS (Grades 7–12)

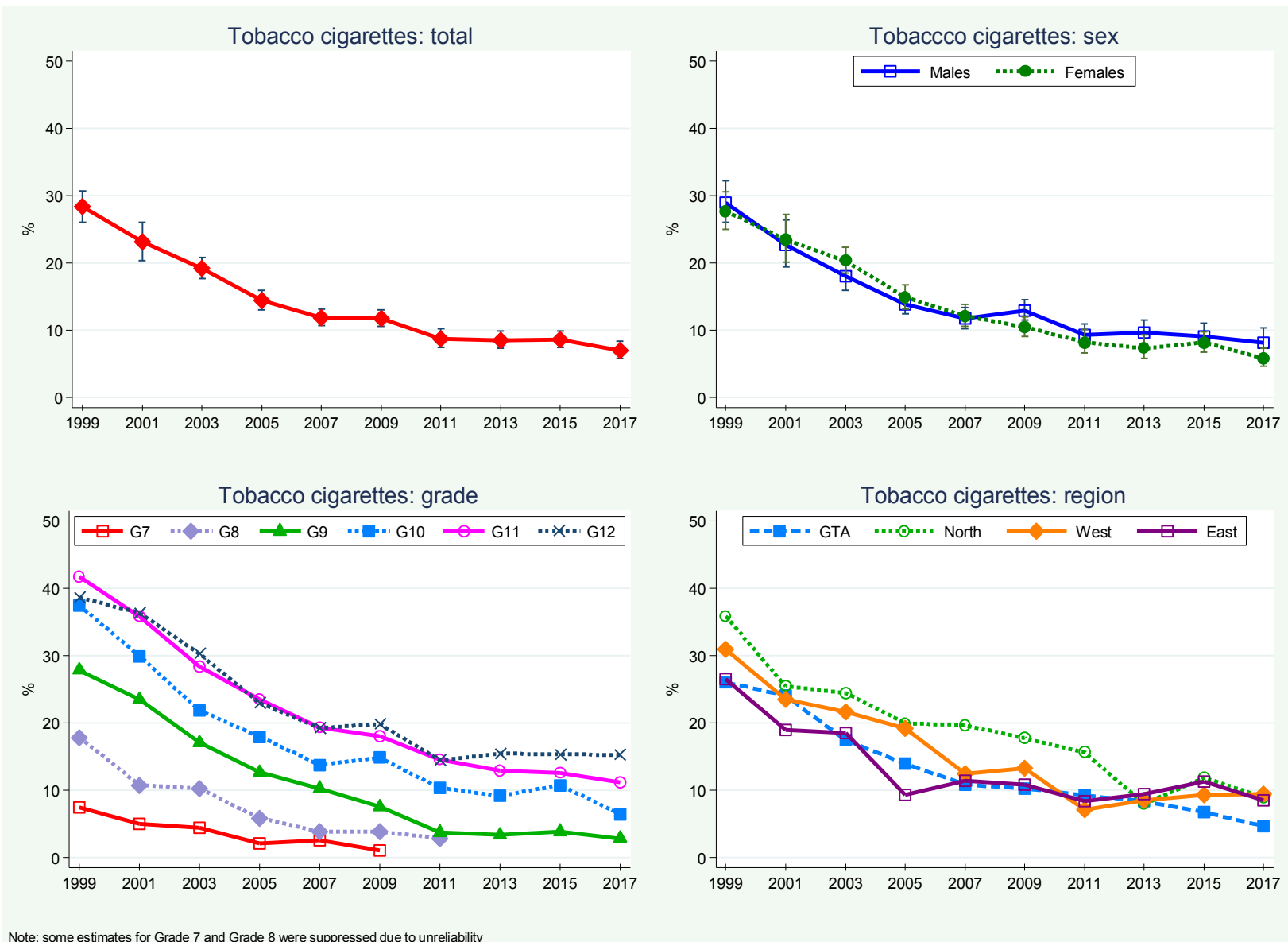


Figure 3.3.3
 Past Year Tobacco Cigarette Smoking, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

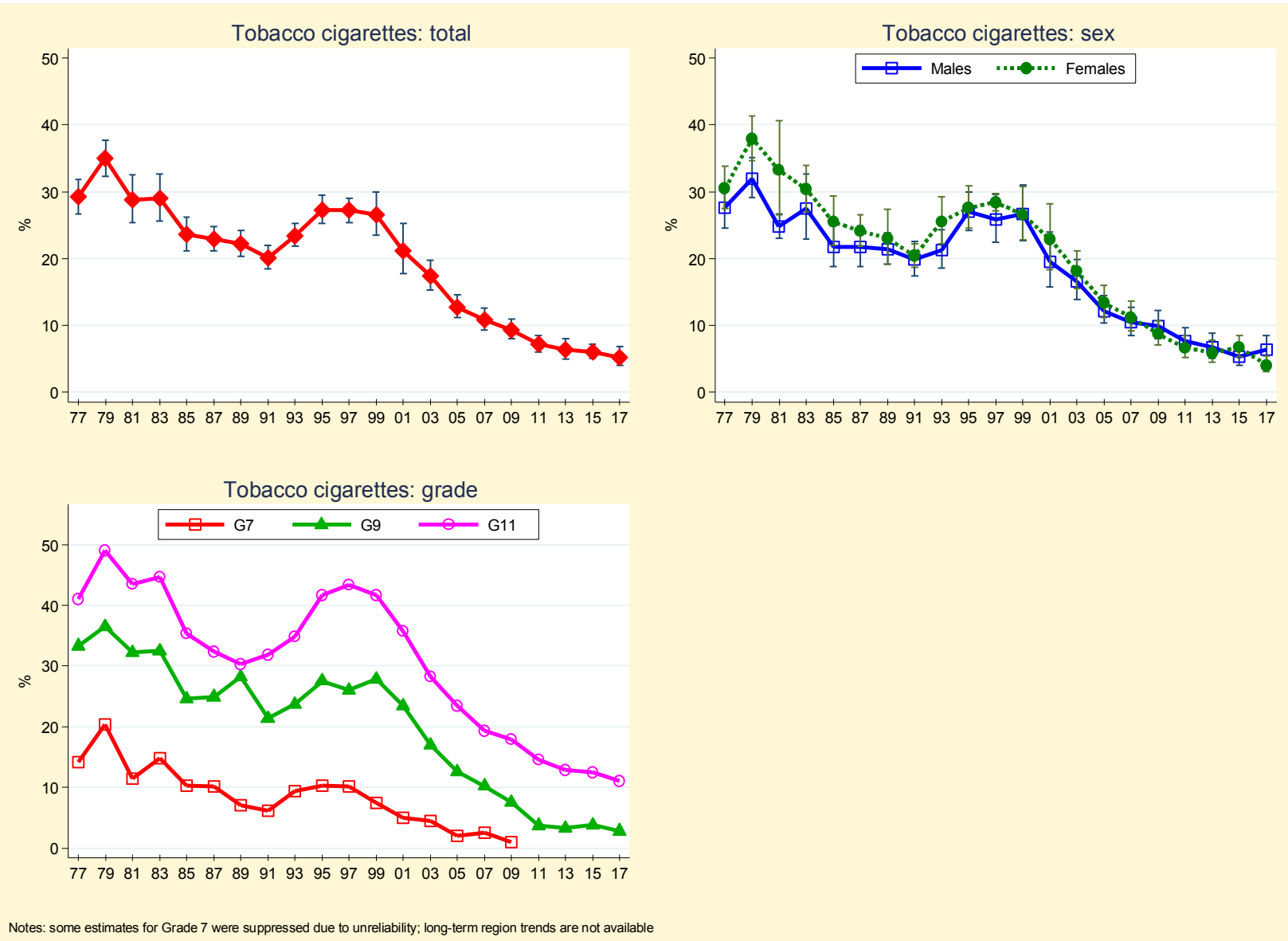


Table 3.3.1: Percentage Reporting Tobacco Cigarette Smoking in the Past Year, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	28.4 (26.1-30.7)	23.1 (20.4-26.1)	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)
Total ²	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 (4.0-6.8)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	29.0 (26.0-32.2)	22.7 (19.4-26.4)	18.0 (15.9-20.4)	13.9 (12.4-15.5)	11.7 (10.2-13.4)	12.9 (11.5-14.5)	9.3 (7.8-10.9)	9.6 (7.9-11.5)	9.1 (7.4-11.0)	8.1 (6.3-10.4)
Males ²	27.6 (24.6-30.9)	32.0 (29.1-35.1)	24.8 (23.0-26.7)	27.5 (22.9-32.7)	21.7 (18.8-24.9)	21.7 (18.8-24.9)	21.4 (19.1-23.9)	19.9 (17.4-22.6)	21.3 (18.6-24.3)	27.0 (24.2-30.0)	25.8 (22.4-29.6)	26.7 (22.7-31.0)	19.5 (15.7-24.0)	16.6 (13.8-19.8)	12.1 (10.3-14.1)	10.4 (8.5-12.7)	9.9 (8.0-12.2)	7.6 (6.1-9.6)	6.7 (5.0-8.8)	5.3 (4.0-7.0)	6.3 (4.6-8.5)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	27.7 (25.0-30.6)	23.5 (20.1-27.2)	20.3 (18.5-22.3)	14.9 (13.1-16.8)	12.1 (10.6-13.8)	10.5 (9.1-12.0)	8.2 (6.6-10.1)	7.3 (5.8-9.3)	8.2 (6.8-9.8)	5.8 (4.6-7.3)
Females ²	30.5 (27.5-33.8)	38.0 (34.7-41.4)	33.2 (26.6-40.6)	30.4 (27.0-34.0)	25.5 (22.0-29.4)	24.1 (21.8-26.5)	23.0 (19.1-27.4)	20.4 (18.7-22.2)	25.5 (22.2-29.2)	27.6 (24.6-30.9)	28.4 (27.1-29.7)	26.6 (22.8-30.8)	22.9 (18.3-28.2)	18.1 (15.5-21.1)	13.4 (11.2-16.0)	11.2 (9.2-13.6)	8.7 (7.0-10.7)	6.6 (5.2-8.5)	5.9 (4.4-7.8)	6.7 (5.3-8.5)	4.0 (3.0-5.4)
Grade																					
7	14.0 (11.1-17.7)	20.4 (17.2-23.9)	11.4 (10.7-12.3)	14.8 (8.9-23.7)	10.3 (7.3-14.4)	10.2 (7.4-13.9)	7.1 (4.6-11.0)	6.1 (4.4-8.4)	9.4 (7.7-11.3)	10.3 (7.2-14.4)	10.2 (8.1-12.7)	7.4 (5.2-10.3)	5.0 (3.2-7.6)	4.4 (2.8-6.8)	2.0 (1.2-3.4)	2.5 (1.2-5.3)	1.0 (0.6-1.8)	†	†	†	† ^b
8	—	—	—	—	—	—	—	—	—	—	—	17.8 (14.3-21.9)	10.7 (8.3-13.8)	10.2 (7.2-14.4)	5.8 (4.3-7.7)	3.8 (2.4-6.1)	3.8 (2.5-5.8)	2.8 (1.5-5.1)	†	†	† ^b
9	33.3 (28.9-38.1)	36.5 (32.2-41.0)	32.2 (27.0-37.9)	32.5 (30.8-34.3)	24.6 (19.8-30.1)	24.9 (21.3-28.9)	28.2 (26.2-30.4)	21.4 (18.5-24.5)	23.7 (22.8-24.8)	27.5 (25.8-29.1)	26.0 (23.5-28.6)	27.8 (23.6-32.5)	23.4 (17.5-30.6)	17.0 (13.9-20.6)	12.6 (10.4-15.1)	10.2 (8.1-12.9)	7.5 (5.5-10.2)	3.7 (2.5-5.5)	3.3 (2.3-4.7)	3.8 (2.8-5.2)	2.8 (1.7-4.5)
10	—	—	—	—	—	—	—	—	—	—	—	37.4 (32.0-43.1)	29.9 (25.6-34.6)	21.8 (18.4-25.6)	17.9 (15.2-20.8)	13.7 (11.4-16.5)	14.8 (12.1-17.9)	10.3 (7.2-14.5)	9.1 (6.8-12.0)	10.7 (8.2-13.8)	6.4 (4.9-8.2)
11	41.1 (36.6-45.7)	49.1 (44.4-53.9)	43.4 (37.6-49.4)	44.6 (38.4-51.0)	35.4 (31.1-40.0)	32.4 (28.1-37.0)	30.3 (26.4-34.5)	31.9 (28.7-35.3)	34.9 (30.6-39.5)	41.7 (36.7-46.8)	43.4 (39.3-47.6)	41.7 (35.4-48.4)	35.8 (29.8-42.2)	28.3 (24.3-32.6)	23.5 (20.0-27.2)	19.3 (16.3-22.7)	17.9 (14.9-21.5)	14.5 (12.1-17.3)	12.9 (9.7-16.9)	12.5 (10.1-15.3)	11.1 (8.1-15.1)
12	—	—	—	—	—	—	—	—	—	—	—	38.6 (33.3-44.2)	36.3 (27.6-46.1)	30.2 (25.7-35.2)	22.9 (19.2-27.1)	19.2 (16.8-21.8)	19.8 (16.9-23.0)	14.4 (10.6-19.2)	15.4 (12.0-19.4)	15.3 (11.9-19.6)	15.2 (11.7-19.5)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	26.0 (22.4-30.1)	24.0 (18.8-30.2)	17.4 (15.0-20.0)	13.9 (11.7-16.3)	10.8 (8.7-13.3)	10.2 (8.5-12.9)	9.2 (7.4-11.4)	8.3 (6.2-10.9)	6.7 (5.4-8.4)	4.6^b (3.5-6.1)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	35.8 (30.3-41.6)	25.4 (20.3-31.2)	24.4 (19.7-29.7)	19.9 (16.4-24.0)	19.6 (16.4-23.2)	17.7 (15.5-20.2)	15.6 (13.5-18.1)	7.9 (5.9-10.5)	11.8 (9.1-15.3)	8.9^b (6.9-11.4)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	30.9 (26.1-36.1)	23.5 (18.6-29.2)	21.6 (18.4-25.2)	19.1 (15.7-23.1)	12.4 (9.8-15.6)	13.2 (10.5-16.5)	7.1 (4.8-10.3)	8.4 (6.2-11.3)	9.3 (6.6-13.0)	9.4^b (6.9-12.8)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	26.5 (19.6-34.9)	18.9 (14.2-24.7)	18.4 (15.1-22.2)	9.3 (7.0-12.2)	11.3 (9.1-14.0)	10.8 (8.4-13.6)	8.3 (6.4-10.6)	9.4 (7.5-11.7)	11.2 (8.7-14.4)	8.5^b (5.1-13.8)	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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; Table 3.3.2)

	Daily Tobacco Cigarette Smoking in 2017 (Grades 7–12)	Trends in Daily Tobacco Cigarette Smoking
Total Sample	<ul style="list-style-type: none"> Overall, 2.3% of students report smoking one or more cigarettes on a daily basis during the past 12 months. This percentage represents about 21,300 students in grades 7 through 12 across Ontario. 	<ul style="list-style-type: none"> Daily smoking among grades 7–12 remained stable between 2015 (3.1%) and 2017 (2.3%). Daily smoking significantly decreased between 1999 (22.0%) and 2011 (3.9%), and has since remained stable. Looking back over the past 40 years, (among grades 7, 9, and 11 only), daily smoking peaked in the late 1970s and again in the late 1990s. Daily smoking began a dramatic downward trend after 1999 and has levelled off in recent years.
Sex	<ul style="list-style-type: none"> Males are significantly more likely than females to smoke cigarettes daily (3.4% vs. 1.2%, respectively). 	<ul style="list-style-type: none"> Daily smoking among males remained stable between 2015 and 2017 (both years at 3.4%). Females show a significant decrease between 2015 and 2017, from 2.7% to 1.2%. While daily smoking estimates for both males and females show dramatic declines since 1999, the estimate for females reached an all-time low in 2017.
Grade	<ul style="list-style-type: none"> The likelihood of daily smoking significantly increases with grade, from 1.9% among 10th graders to 5.5% among 12th graders. 	<ul style="list-style-type: none"> Daily smoking remained stable between 2015 and 2017 for all grade levels. However, all grades show a significant decrease in daily smoking since 1999 and stability in recent years.
Region	<ul style="list-style-type: none"> Daily cigarette smoking does not significantly differ among the four regions. 	<ul style="list-style-type: none"> Daily smoking remained stable between 2015 and 2017 within all four regions. However, 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,
 2017 OSDUHS

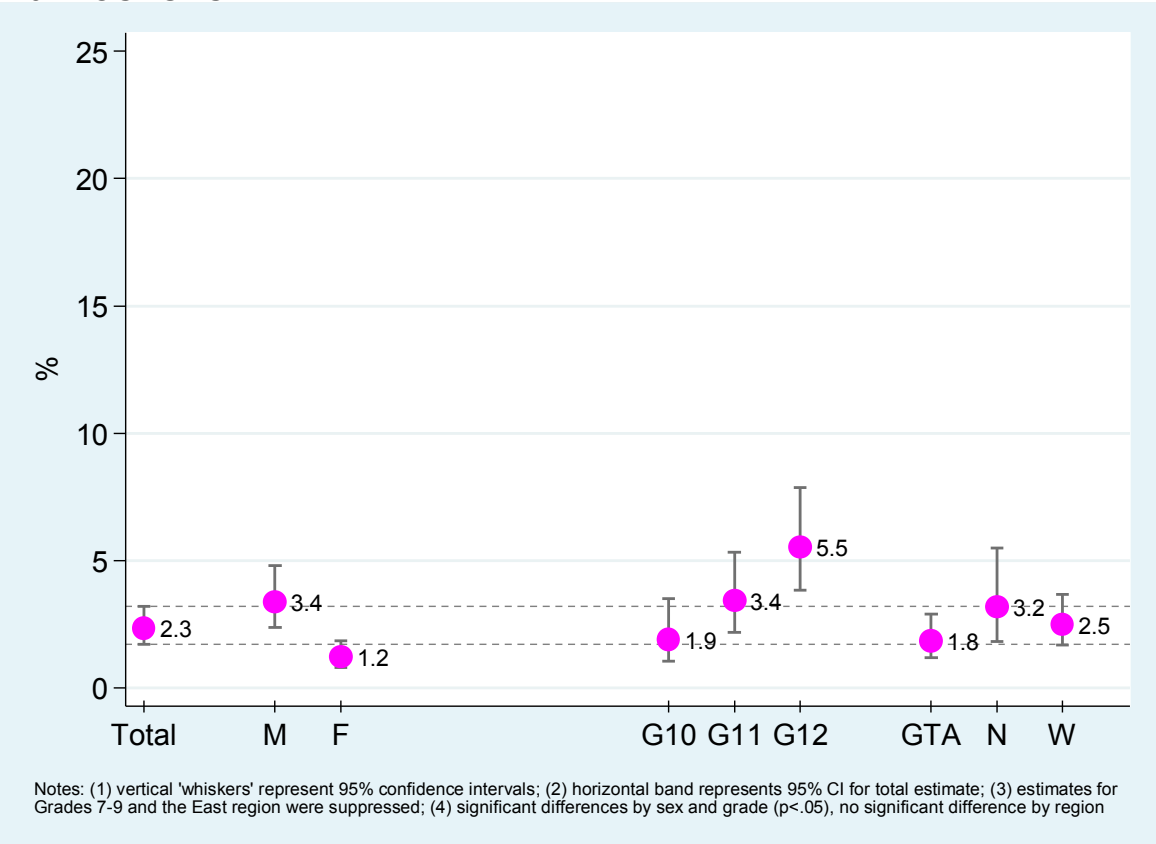


Figure 3.3.5
 Past Year Daily Tobacco Cigarette Smoking, 1999–2017 OSDUHS (Grades 7–12)

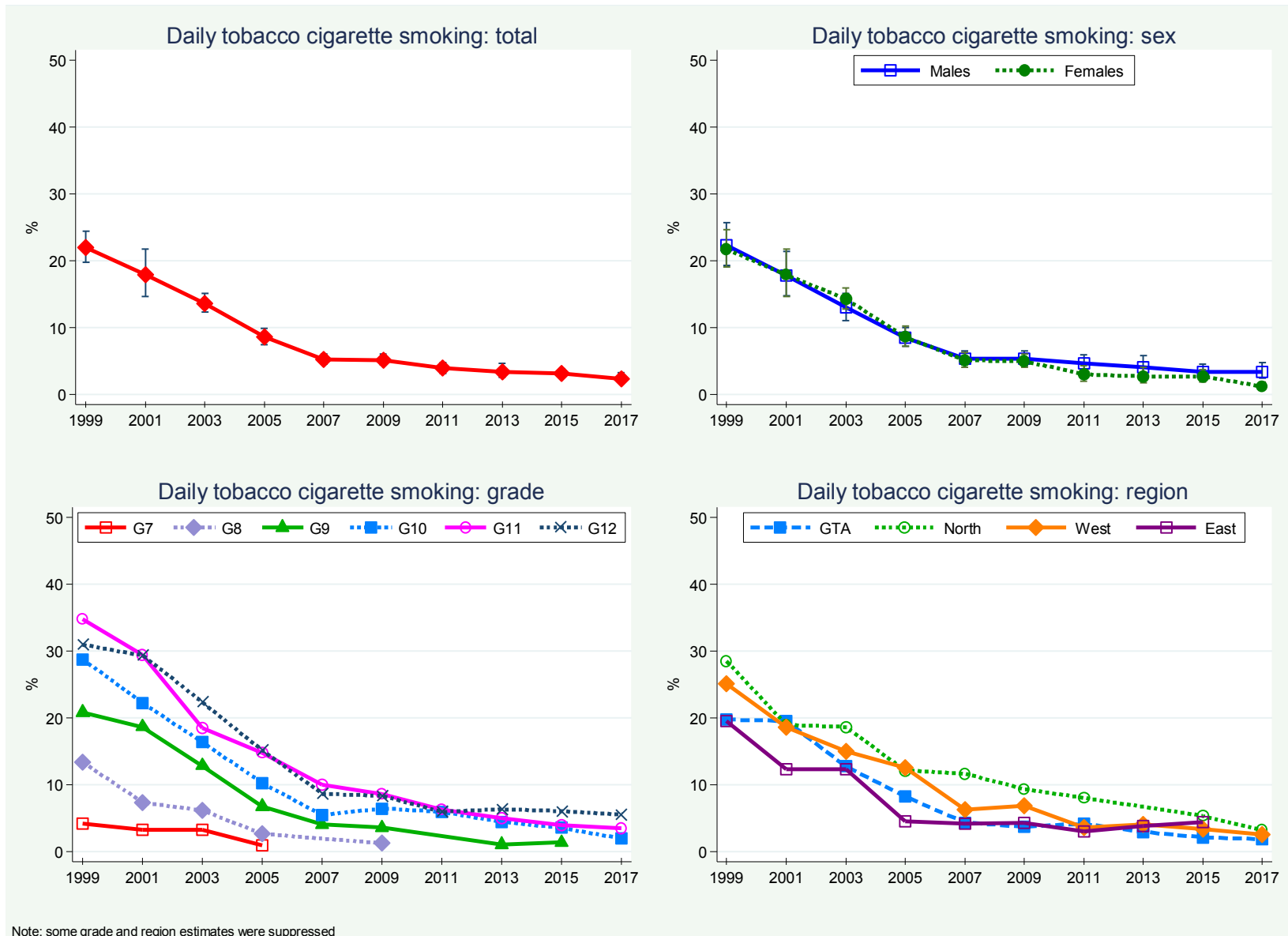


Figure 3.3.6
 Past Year Daily Tobacco Cigarette Smoking, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

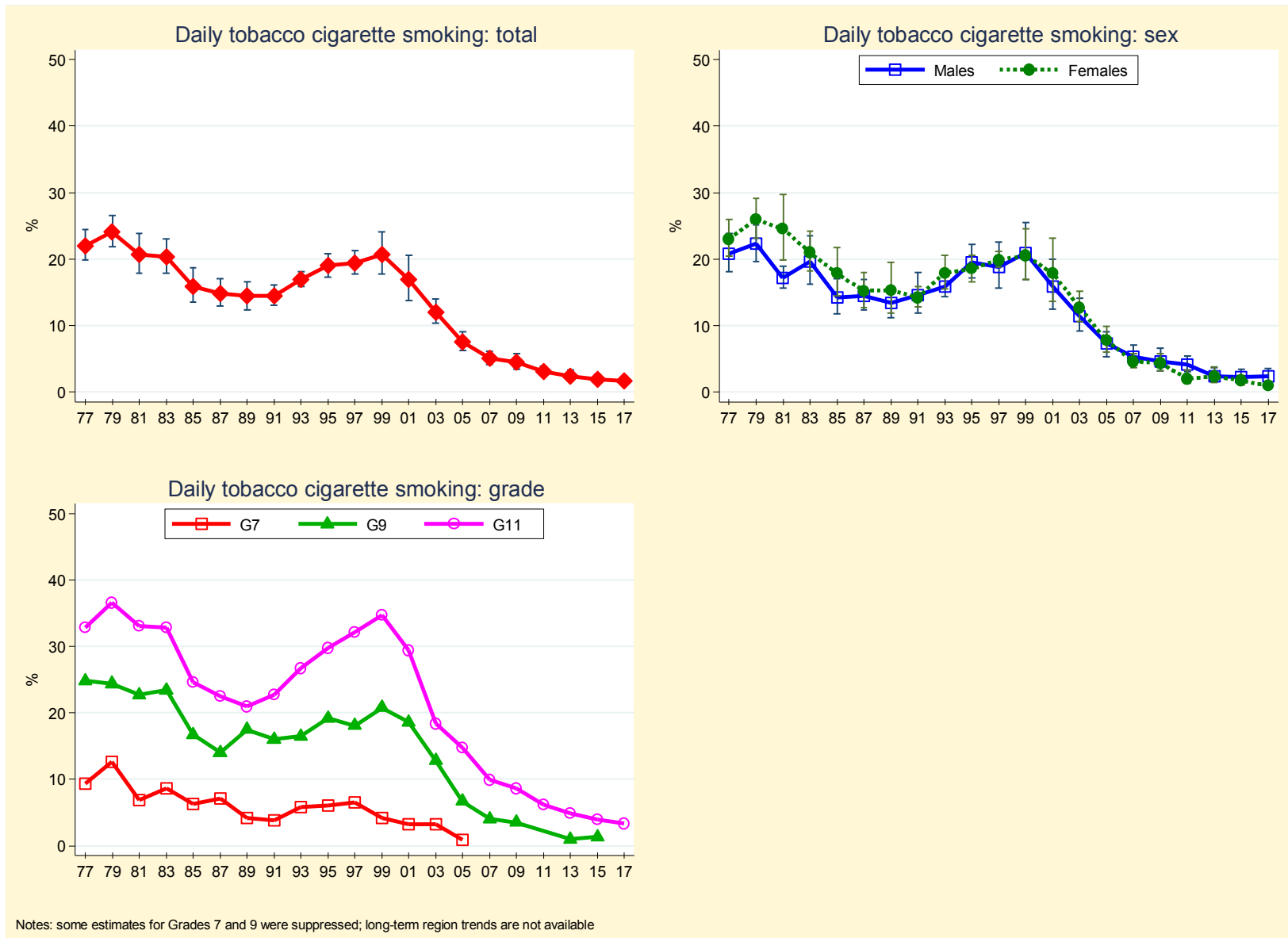


Table 3.3.2: Percentage Reporting Daily Tobacco Cigarette Smoking in the Past Year, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	22.0 (19.8-24.4)	17.9 (14.7-21.7)	13.6 (12.3-15.1)	8.6 (7.4-9.9)	5.2 (4.5-6.1)	5.1 (4.4-6.1)	3.9 (3.1-4.8)	3.4 (2.6-4.6)	3.1 (2.5-3.8)	2.3 (1.7-3.2)
Total ²	22.0 (19.8-24.4)	24.1 (21.8-26.6)	20.7 (17.8-23.9)	20.3 (17.8-23.0)	15.9 (13.5-18.7)	14.8 (12.9-17.0)	14.4 (12.3-16.6)	14.4 (13.0-16.1)	16.9 (15.8-18.1)	19.0 (17.3-20.8)	19.4 (17.7-21.3)	20.7 (17.7-24.1)	16.9 (13.7-20.6)	12.0 (10.3-14.0)	7.5 (6.2-9.0)	5.0 (4.1-6.1)	4.5 (3.4-5.8)	3.1 (2.4-3.9)	2.3 (1.6-3.3)	1.9 (1.4-2.6)	1.6 (1.1-2.3)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	22.3 (19.3-25.7)	17.8 (14.8-21.4)	13.0 (11.1-15.1)	8.5 (7.2-10.0)	5.3 (4.4-6.5)	5.3 (4.3-6.5)	4.7 (3.8-5.9)	4.1 (2.8-5.8)	3.4 (2.6-4.5)	3.4 (2.4-4.8)
Males ²	20.8 (18.1-23.9)	22.3 (19.6-25.1)	17.2 (15.6-18.9)	19.6 (16.2-23.5)	14.2 (11.7-17.0)	14.5 (12.3-16.9)	13.4 (11.2-15.9)	14.6 (11.8-18.0)	15.9 (14.3-17.6)	19.5 (17.1-22.2)	18.8 (15.6-22.5)	20.9 (16.9-25.5)	15.9 (12.4-20.0)	11.4 (9.1-14.1)	7.3 (5.8-9.0)	5.3 (4.0-7.0)	4.6 (3.2-6.6)	4.1 (3.1-5.4)	2.3 (1.5-3.6)	2.2 (1.4-3.4)	2.3 (1.5-3.5)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	21.7 (19.1-24.6)	17.9 (14.7-21.7)	14.3 (12.8-15.9)	8.6 (7.2-10.2)	5.1 (4.1-6.3)	5.0 (4.1-6.1)	3.0 (2.0-4.3)	2.7 (1.8-4.1)	2.7 (1.9-3.7)	1.2 (0.8-1.9)
Females ²	23.0 (20.4-25.9)	26.0 (23.1-29.1)	24.5 (19.9-29.7)	21.0 (18.2-24.2)	17.8 (14.4-21.7)	15.2 (12.7-18.0)	15.3 (11.9-19.5)	14.2 (12.8-15.8)	17.9 (15.5-20.6)	18.5 (16.6-20.5)	19.9 (18.8-21.2)	20.5 (16.9-24.6)	17.9 (13.6-23.1)	12.7 (10.6-15.1)	7.7 (6.0-9.9)	4.6 (3.6-5.8)	4.3 (3.2-5.7)	2.0 (1.3-3.3)	2.3 (1.4-3.7)	1.7 (1.1-2.5)	0.9 (0.5-1.5)
Grade																					
7	9.4 (7.1-12.4)	12.6 (10.3-15.4)	6.9 (5.5-8.8)	8.6 (4.9-14.9)	6.3 (3.9-10.0)	7.1 (4.9-10.2)	4.2 (2.7-6.3)	3.8 (1.9-7.6)	5.8 (4.4-7.7)	6.0 (3.2-11.0)	6.5 (4.5-9.3)	4.2 (2.8-6.2)	3.2 (1.6-6.0)	3.2 (1.8-5.6)	0.9 (0.5-1.7)	†	†	†	†	†	†
8	—	—	—	—	—	—	—	—	—	—	—	13.3 (10.1-17.2)	7.3 (5.2-10.2)	6.1 (4.0-9.4)	2.6 (1.7-3.7)	†	†	†	†	†	†
9	24.8 (20.9-29.2)	24.4 (20.7-28.5)	22.7 (18.7-27.3)	23.4 (20.3-26.9)	16.7 (12.0-22.8)	14.0 (11.3-17.3)	17.5 (14.3-21.3)	16.0 (14.9-17.1)	16.5 (14.9-18.1)	19.2 (16.6-22.0)	18.1 (16.0-20.4)	20.8 (16.8-25.5)	18.6 (13.0-25.8)	12.8 (10.0-16.3)	6.7 (5.2-8.7)	4.0 (2.8-5.6)	3.5 (2.1-6.0)	†	1.0 (0.6-1.7)	1.3 (0.7-2.5)	†
10	—	—	—	—	—	—	—	—	—	—	—	28.7 (23.6-34.4)	22.2 (17.9-27.2)	16.3 (13.3-20.0)	10.2 (8.0-12.9)	5.4 (4.0-7.3)	6.4 (4.8-8.5)	5.9 (3.6-9.6)	4.4 (2.8-7.0)	3.5 (2.4-5.2)	1.9 (1.0-3.5)
11	32.8 (28.6-37.3)	36.6 (31.6-41.8)	33.1 (27.5-39.2)	32.9 (28.4-37.7)	24.6 (20.1-29.8)	22.5 (18.1-27.7)	21.0 (16.8-26.0)	22.7 (19.4-26.5)	26.7 (23.6-30.1)	29.8 (27.4-32.4)	32.2 (28.1-36.6)	34.7 (28.5-41.5)	29.4 (24.1-35.4)	18.4 (15.0-22.3)	14.7 (11.6-18.4)	9.9 (8.0-12.3)	8.6 (6.2-11.7)	6.2 (4.6-8.1)	4.9 (3.2-7.4)	3.9 (2.9-5.4)	3.4 (2.2-5.3)
12	—	—	—	—	—	—	—	—	—	—	—	30.9 (25.9-36.4)	29.3 (20.3-40.2)	22.3 (18.0-27.4)	15.1 (12.1-18.6)	8.6 (6.8-10.9)	8.3 (6.3-10.7)	5.9 (4.1-8.5)	6.3 (3.9-10.2)	6.0 (4.1-8.5)	5.5 (3.8-7.9)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	19.7 (16.6-23.4)	19.5 (14.5-25.5)	12.7 (10.8-14.8)	8.2 (6.7-10.1)	4.3 (3.4-5.4)	3.7 (2.7-5.0)	4.1 (3.1-5.3)	2.9 (1.8-4.6)	2.1 (1.4-3.0)	1.8 ^b (1.2-2.9)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	28.4 (22.9-34.6)	18.9 (14.1-24.9)	18.6 (13.4-25.2)	12.1 (9.0-16.1)	11.6 (8.9-15.0)	9.3 (7.4-11.6)	8.0 (5.1-12.2)	†	5.3 (3.7-7.5)	3.2 ^b (1.8-5.5)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	25.1 (20.0-31.1)	18.6 (13.9-24.4)	14.9 (12.0-18.5)	12.5 (9.2-16.7)	6.2 (4.3-8.8)	6.8 (4.9-9.4)	3.5 (1.8-6.5)	4.0 (2.3-7.0)	3.3 (2.2-4.9)	2.5 ^b (1.7-3.7)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	19.5 (13.8-26.9)	12.3 (8.9-16.9)	12.3 (9.5-15.7)	4.5 (3.1-6.6)	4.1 (2.8-6.0)	4.3 (3.2-5.6)	3.0 (1.9-4.5)	3.8 (2.2-6.4)	4.4 (2.9-6.8)	† ^b	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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)

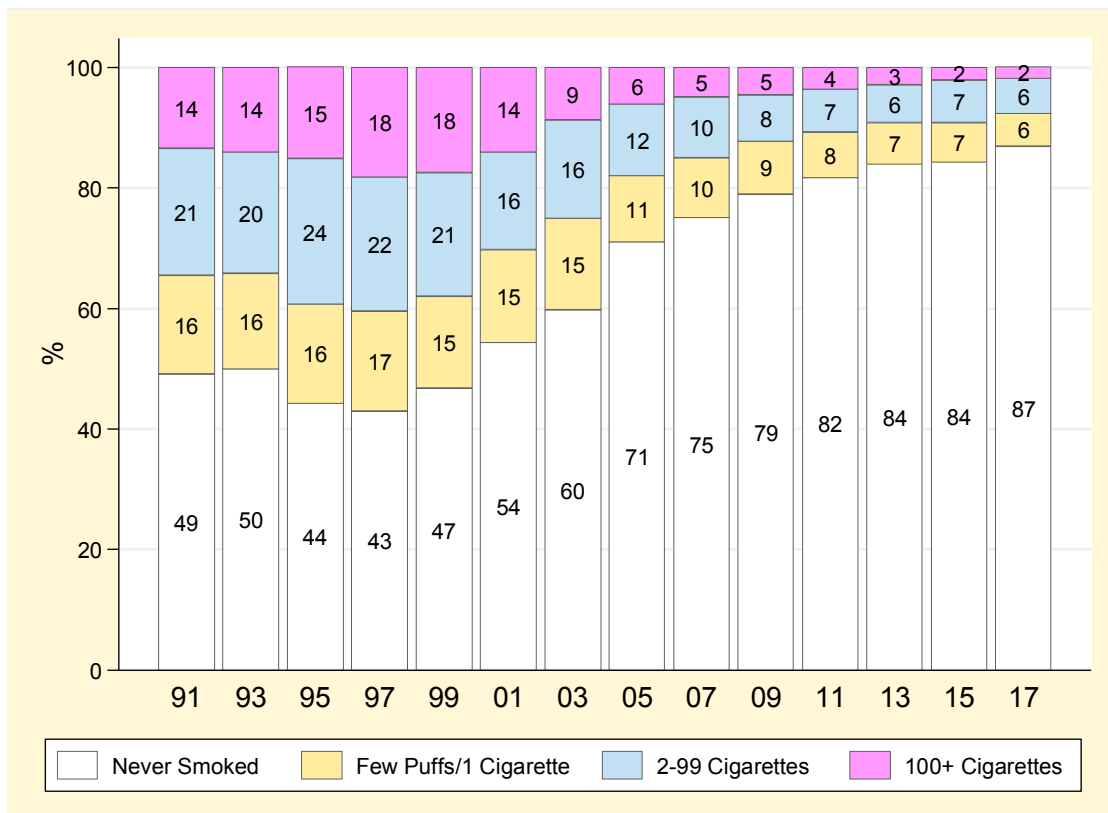
2017: Grades 7–12

■ Although 7% of all students in grades 7 through 12 are considered to be current smokers, about one-in-six (16%) 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 7% have consumed less than 100 cigarettes, and 3% have consumed 100 or more cigarettes in their lifetime.

1991–2017: 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 in their lifetime, from about half of students in 1991 to well over three-quarters of students in 2017.

Figure 3.3.7
Lifetime Tobacco Cigarette Smoking, 1991–2017 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 Nations communities during the 12 months preceding the survey. These cigarettes usually come in clear plastic bags, although some are professionally packaged with standard health warnings. These cigarettes are illegally sold outside of the communities without payment of all requisite taxes, and their lower price makes them especially attractive to youth.

	Contraband Cigarette Smoking in 2017 (Grades 7–12)	2009–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> Among the total sample, 2.9% report smoking contraband cigarettes during the past year. This percentage represents about 21,300 students in Ontario. Among past year smokers, the percentage reporting smoking contraband cigarettes is 43% (95% CI: 35%-52%). 	<ul style="list-style-type: none"> The percentage of students smoking contraband cigarettes in 2017 (2.9%) does not significantly differ from 2015 (3.4%). The percentage significantly decreased between 2009 (6.4%) and 2011 (3.9%) and has remained stable since then.
Sex	<ul style="list-style-type: none"> Males (3.3%) and females (2.4%) are equally likely to report smoking contraband cigarettes. 	<ul style="list-style-type: none"> Contraband cigarette smoking remained stable between 2015 and 2017 for both sexes. Both show a significant decrease between 2009 and 2011 and stability since then.
Grade	<ul style="list-style-type: none"> There are significant grade differences, with the likelihood of smoking contraband cigarettes highest among 11th and 12th graders (about 5%-6%). 	<ul style="list-style-type: none"> No grade shows a significant change since 2015. Only 11th graders show a significant decrease since 2009 (from 11.7% to 5.2%).
Region	<ul style="list-style-type: none"> GTA students are significantly less likely to smoke contraband cigarettes than students in the other regions. 	<ul style="list-style-type: none"> No region shows a significant change since 2015. GTA and Northern students show a significant decrease since 2009.

Figure 3.3.8
Past Year Contraband Cigarette Smoking by Sex, Grade, and Region, 2017 OSDUHS

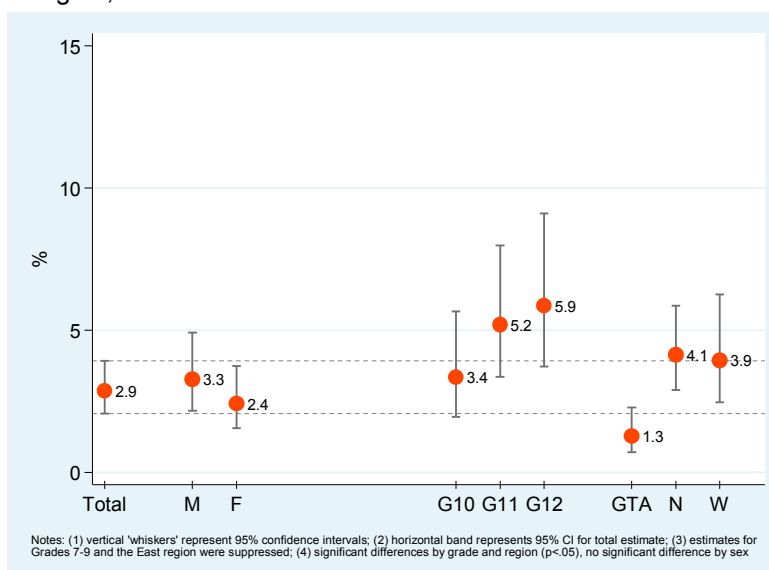


Table 3.3.3: Percentage Reporting Smoking Contraband Cigarettes in the Past Year, 2009–2017 OSDUHS

	(n=)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
Total (95% CI)		6.4 (5.1-7.9)	3.9 (2.8-5.3)	2.8 (2.0-3.7)	3.4 (2.6-4.5)	2.9^b (2.1-3.9)
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^b (2.2-4.9)
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^b (1.6-3.8)
Grade						
7		†	†	†	†	†
8		†	†	†	†	†
9		†	†	†	1.1 (0.6-1.9)	†
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)
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^b (3.4-8.0)
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)
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^b (0.7-2.3)
North		8.9 (6.1-12.8)	8.5 (6.1-11.8)	†	8.0 (4.2-14.6)	4.1^b (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)
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)	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) question asked of a random half sample in each year; (4) no significant differences 2017 vs. 2015; ^b 2017 vs. 2009 significant difference, p<.01

Q: In the last 12 months, how often did you smoke cigarettes made on Native 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

Attempts to Quit Tobacco Cigarette Smoking (Among Past Year Smokers)

(Table 3.3.4)

A random half sample of about 5,000 students in grades 7–12 was asked about the number of times they tried to quit smoking during the 12 months before the survey. Students had the option of responding that they did not smoke during the past 12 months or that they had never smoked in their lifetime.

2017: Grades 7–12

- In 2017, just over one-third (38.8%) of smokers in all grades reported at least one quit attempt during the 12 months before the survey. Among the 125 smokers who attempted to quit, over half reported attempting to do so twice or more often.

Table 3.3.4: Attempts to Quit Smoking Tobacco Cigarettes in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(Among Smokers)	(n=549)	(n=397)	(n=591)	(n=556)	(n=349)	(n=322)	(n=365)	(n=389)	(n=455)	(n=355)
% tried to quit smoking	66.2	64.1	62.4	57.6	52.7	53.9	63.1	38.1	36.5	38.8
(Among Quitters)	(n=363)	(n=269)	(n=373)	(n=323)	(n=190)	(n=179)	(n=207)	(n=154)	(n=164)	(n=125)
Number of times tried to quit:										
Once	29.9	38.9	42.7	45.2	45.9	32.4	43.6	48.1	50.3	45.5
Twice	26.4	25.3	27.0	22.4	19.8	28.1	21.6	21.2	19.5	27.4
Three or more times	43.6	35.8	30.3	32.4	34.3	39.5	34.8	30.7	30.2	27.1

Notes: (1) entries are percentages; (2) question asked of a random half sample in each year; (3) in 2013, the question's response option format changed to a closed-ended format, whereas in years prior it was an open-ended question asking students to write down the number of quit attempts.

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Electronic Cigarette Use

(Figures 3.3.9-3.3.11; Table 3.3.5)

An electronic cigarette (e-cigarette) is a battery-powered cigarette-shaped canister used to simulate the sensation of smoking. Other names for an e-cigarette include “vape pen,” “hookah pen,” and “e-hookah.” A liquid-filled cartridge is heated and releases vapour. The vapour, which resembles smoke, is inhaled. Some e-cigarettes contain nicotine, and most are flavoured. In Canada, the sale of e-cigarettes with nicotine is prohibited, yet they are widely available over the Internet. E-cigarettes without nicotine can be legally sold in Canada (although most provinces including Ontario ban sales to minors) and they are not regulated. To date, Health Canada has not approved an e-cigarette product and warns that e-cigarettes with or without nicotine may pose health risks.

Starting in 2015, we asked students in grades 7–12 how often they used e-cigarettes in the past year.⁷⁵ A follow-up question asked students whether the e-cigarettes they usually smoked in the past year contained nicotine: “If you smoked e-cigarettes (also known as ‘vape pipes,’ ‘hookah pens,’ and ‘e-hookahs’) in the last 12 months, were they usually the types with nicotine in them?”

	Electronic Cigarette Use in 2017 (Grades 7–12)	2015–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ Among the total sample, 10.7% report using more than just a few puffs of an electronic cigarette in the past year. This percentage represents about 80,800 students in Ontario. About 1.6% of students use an electronic cigarette on a daily basis (represents about 12,200 students). ■ Among those who used more than a few puffs of an electronic cigarette in the past year, the most common type used was without nicotine (39.9% of users report using non-nicotine e-cigarettes). About 28.3% of users report usually using e-cigarettes with nicotine, 18.8% used both types, and 13.0% are not sure what they used. 	<ul style="list-style-type: none"> □ The percentage of students reporting using e-cigarettes in the past year remained stable between 2015 (11.7%) and 2017 (10.7%).
Sex	<ul style="list-style-type: none"> ■ Males (13.0%) are significantly more likely than females (8.2%) to use e-cigarettes. 	<ul style="list-style-type: none"> □ Neither males nor females show a significant change between 2015 and 2017.
Grade	<ul style="list-style-type: none"> ■ Use significantly increases with grade level, with 11th grade (16.1%) and 12th grade (18.9%) students most likely to use. 	<ul style="list-style-type: none"> □ No grade shows a significant change between 2015 and 2017.
Region	<ul style="list-style-type: none"> ■ Despite some variation, there are no significant regional differences. 	<ul style="list-style-type: none"> □ No region shows a significant change between 2015 and 2017.

⁷⁵ 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 data from 2015 and 2017 for comparison purposes, we found that 28.2% of secondary school students in 2015 reported using even just a few puffs of an electronic cigarette in their lifetime, and the 2017 estimate is 29.2%.

Figure 3.3.9
 Past Year Electronic Cigarette Use (Any Type) by Sex, Grade, and Region,
 2017 OSDUHS

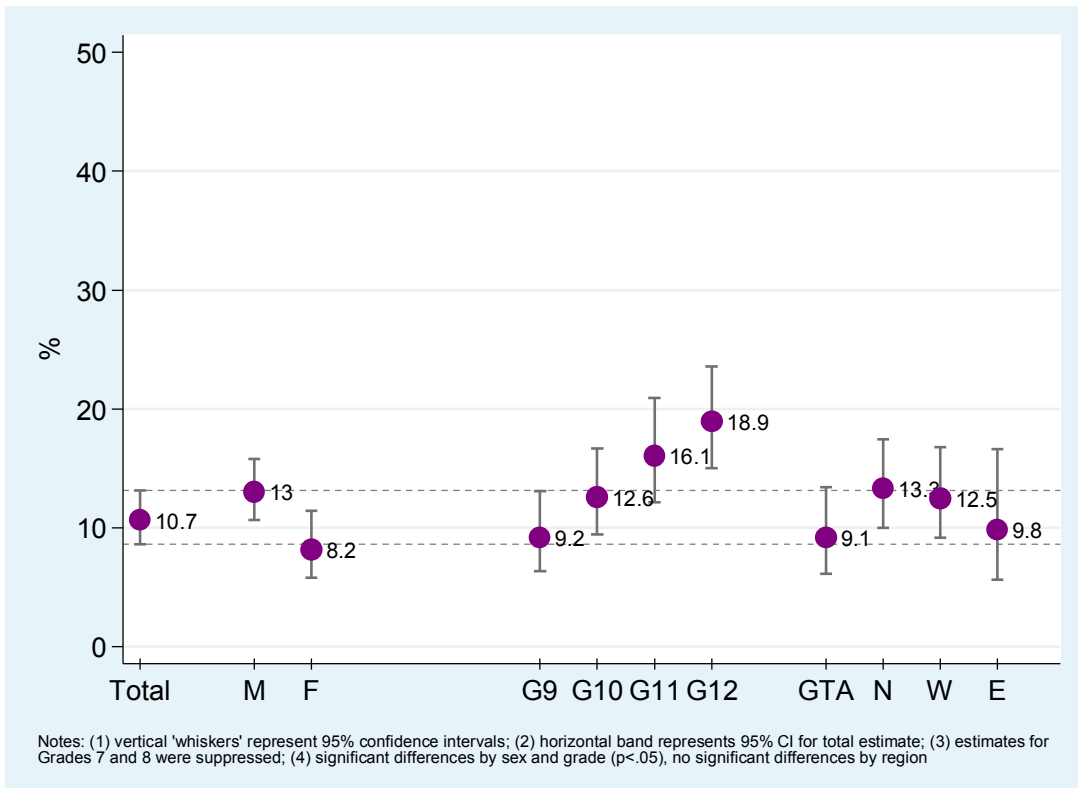


Figure 3.3.10
 Usual Type of Electronic Cigarette Used (Among Past Year Users in Grades
 7–12), 2017 OSDUHS

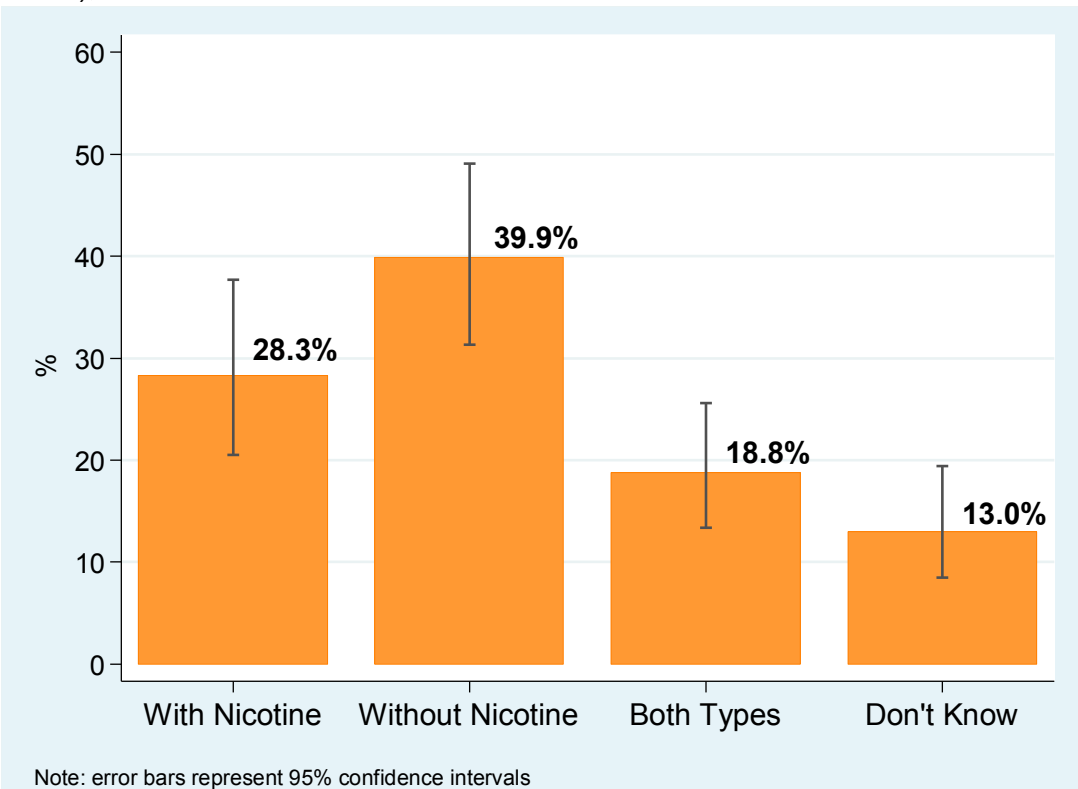


Figure 3.3.11
Past Year Electronic Cigarette Use by Sex, 2015–2017 OSDUHS (Grades 7–12)

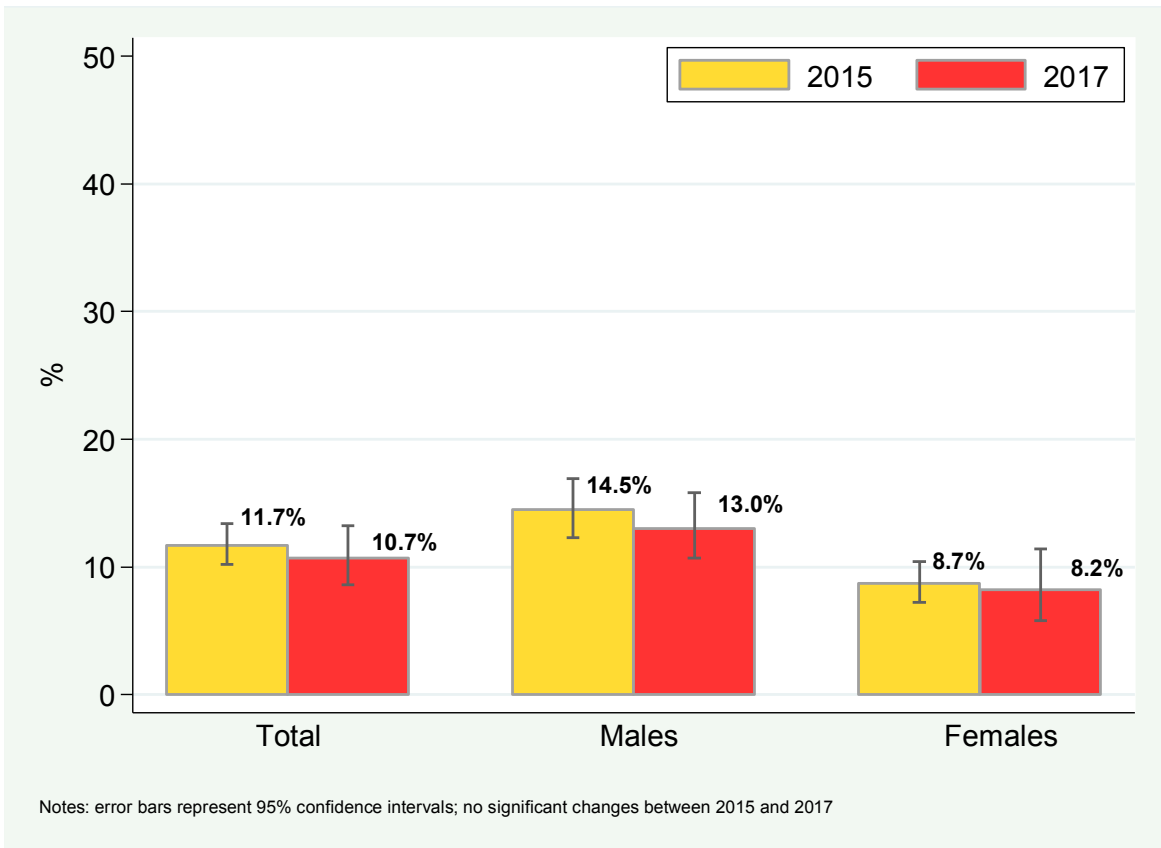


Table 3.3.5: Percentage Reporting Electronic Cigarette Use in the Past Year, 2015–2017 OSDUHS

	2015 (n=5023)	2017 (n=5071)
Total (95% CI)	11.7 (10.2-13.4)	10.7 (8.6-13.2)
Sex		
Males	14.5 (12.3-16.9)	13.0 (10.7-15.8)
Females	8.7 (7.2-10.4)	8.2 (5.8-11.4)
Grade		
7	†	†
8	†	†
9	8.8 (6.6-11.8)	9.2 (6.4-13.1)
10	12.3 (9.7-15.4)	12.6 (9.4-16.7)
11	19.7 (16.6-23.2)	16.1 (12.1-20.9)
12	17.2 (12.8-22.6)	18.9 (15.0-23.6)
Region		
Greater Toronto Area	9.3 (7.7-11.3)	9.1 (6.1-13.4)
North	12.2 (8.6-17.0)	13.3 (10.0-17.5)
West	10.4 (7.2-14.7)	12.5 (9.2-16.8)
East	19.6 (14.8-25.4)	9.8 (5.7-16.6)

Notes: (1) question asked of a random half sample in both years; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) no significant changes over time.

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

Past Year Waterpipe (Hookah) Use

(Figures 3.3.12-3.3.14; 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 the addictive drug 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. Second-hand smoke is also an issue due to the burning of charcoal used in the process.

Starting in 2017, a random half sample of secondary students (grades 9–12) was further asked about what was usually smoked in the waterpipe, if they used one in the past year. The question was “*If you smoked from a waterpipe (hookah, shisha, narghile) in the last 12 months, what did you usually smoke in the pipe?*” The response options were: *tobacco only (flavoured or unflavoured), cannabis (marijuana or hashish) only, both tobacco and cannabis, or another substance*. Students also had the options of responding that they did not use a waterpipe or did not know what it was.

	Waterpipe Use in 2017 (Grades 7–12)	2013–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ Among students in grades 7–12, 6.2% used a waterpipe at least once in the past year (this excludes smoking “only a few puffs”). This percentage represents about 46,600 students in Ontario. ■ Among students in grades 9–12 who report using a waterpipe in the past year, 31.4% report usually smoking tobacco in the waterpipe, 38.1% report usually smoking cannabis, 20.6% usually smoke both substances, and 9.9% usually smoke another substance. 	<ul style="list-style-type: none"> □ While the percentage of students reporting using a waterpipe in the past year decreased somewhat in 2017 (6.2%) vs. 2015 (8.3%), this decrease was not statistically significant. However, the 2017 estimate is significantly lower than the estimate found in 2013 (9.7%), the first year of monitoring.
Sex	<ul style="list-style-type: none"> ■ Males (7.7%) are significantly more likely than females (4.5%) to use a waterpipe. 	<ul style="list-style-type: none"> □ Females show a significant decrease in waterpipe use in 2017 (4.5%) compared with 2013 (7.9%) and 2015 (7.5%). Use among males has remained stable.
Grade	<ul style="list-style-type: none"> ■ Use of a waterpipe significantly increases with grade, ranging from 3.3% of 9th graders to 11%-12% of 11th and 12th graders. 	<ul style="list-style-type: none"> □ No grade shows a significant change between 2013 and 2017.
Region	<ul style="list-style-type: none"> ■ There are no significant differences among the four regions. 	<ul style="list-style-type: none"> □ The GTA and the East region show significant decreases in 2017 compared with their respective 2013 estimates. No significant changes were found among students in the North or West regions.

Figure 3.3.12
Past Year Waterpipe (Hookah) Use by Sex, Grade, and Region, 2017 OSDUHS

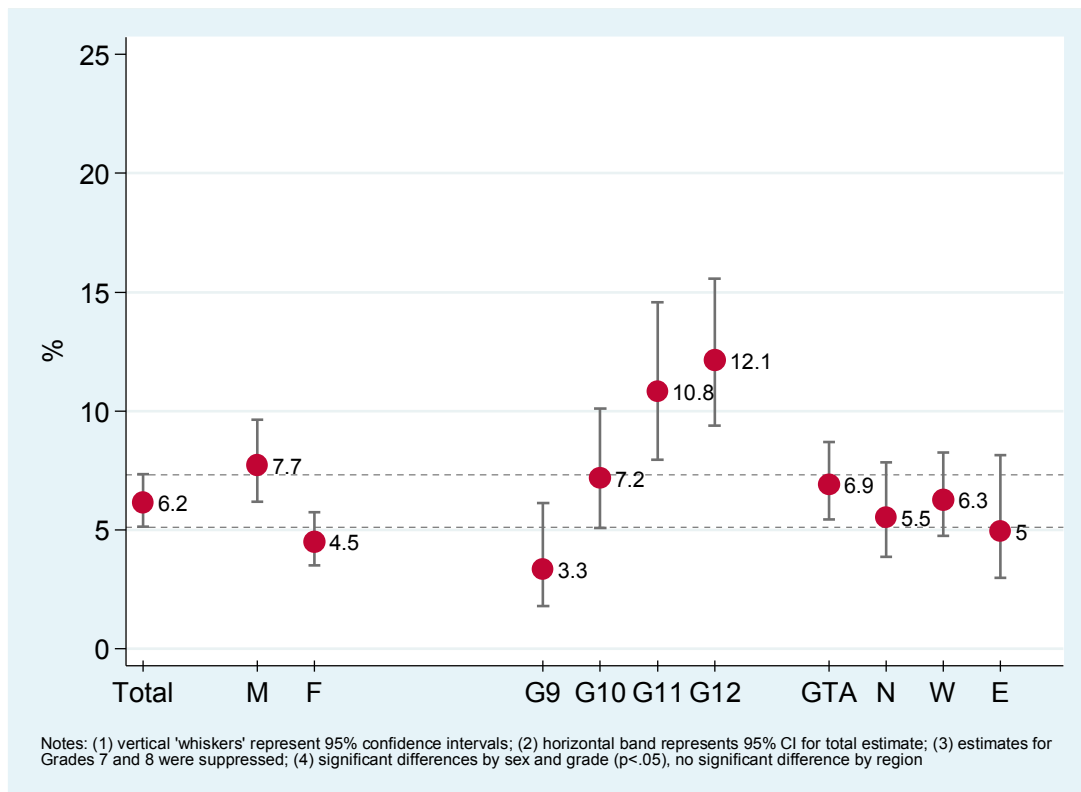


Figure 3.3.13
Past Year Waterpipe (Hookah) Use by Sex, 2013–2017 OSDUHS (Grades 7–12)

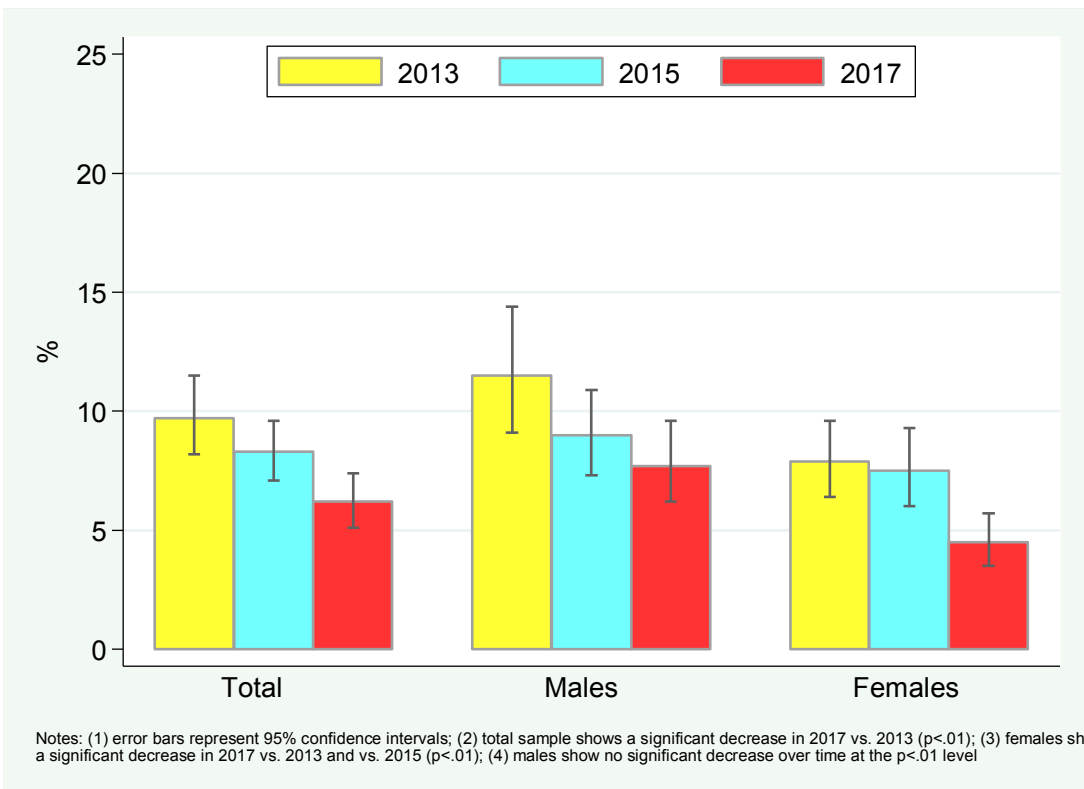


Figure 3.3.14
Usual Contents in Waterpipe (Among Past Year Users in Grades 9–12),
2017 OSDUHS

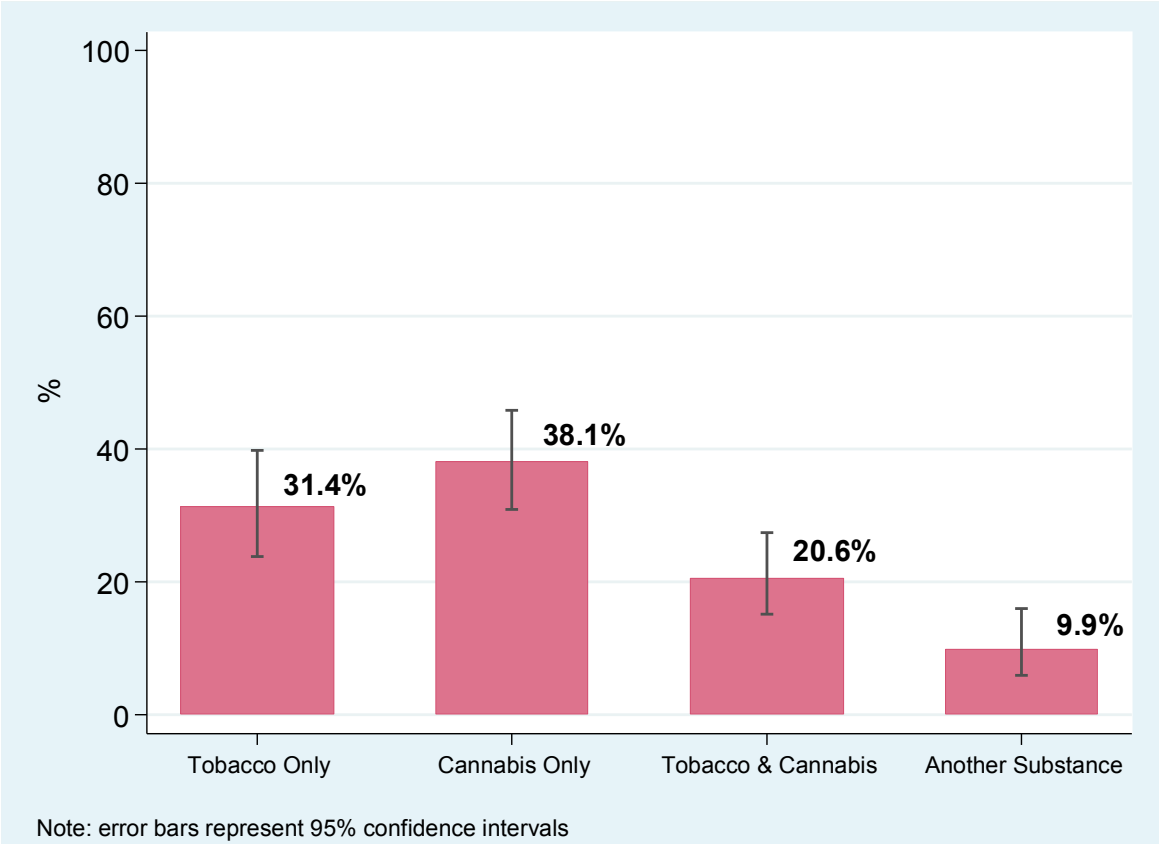


Table 3.3.6: Percentage Reporting Waterpipe (Hookah) Use in the Past Year, 2013–2017 OSDUHS

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

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) question asked of a random half sample since 2013; (4) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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

(Figure 3.3.15; 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 2017 (Grades 7–12)	2011–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ About 5.4% of students in grades 7–12 report using smokeless tobacco in the past year. This estimate represents about 40,800 students in Ontario. 	<ul style="list-style-type: none"> □ Among the total sample, the past year use of smokeless tobacco has remained stable since 2011, the first year of monitoring (ranging from about 5%-6%).
Sex	<ul style="list-style-type: none"> ■ Males (8.1%) are significantly more likely than females (2.6%) to use smokeless tobacco. 	<ul style="list-style-type: none"> □ Neither males nor females show a significant change in smokeless tobacco use since 2011.
Grade	<ul style="list-style-type: none"> ■ There is significant grade variation, showing that older students are more likely to use than younger students. 	<ul style="list-style-type: none"> □ Only 9th graders show a significant change since 2011, increasing from 1.4% to 6.3% in 2017.
Region	<ul style="list-style-type: none"> ■ There are no significant differences among the regions. 	<ul style="list-style-type: none"> □ No region shows a significant change since 2011.

Figure 3.3.15
Past Year Smokeless (Chewing) Tobacco Use by Sex, Grade, and Region, 2017 OSDUHS

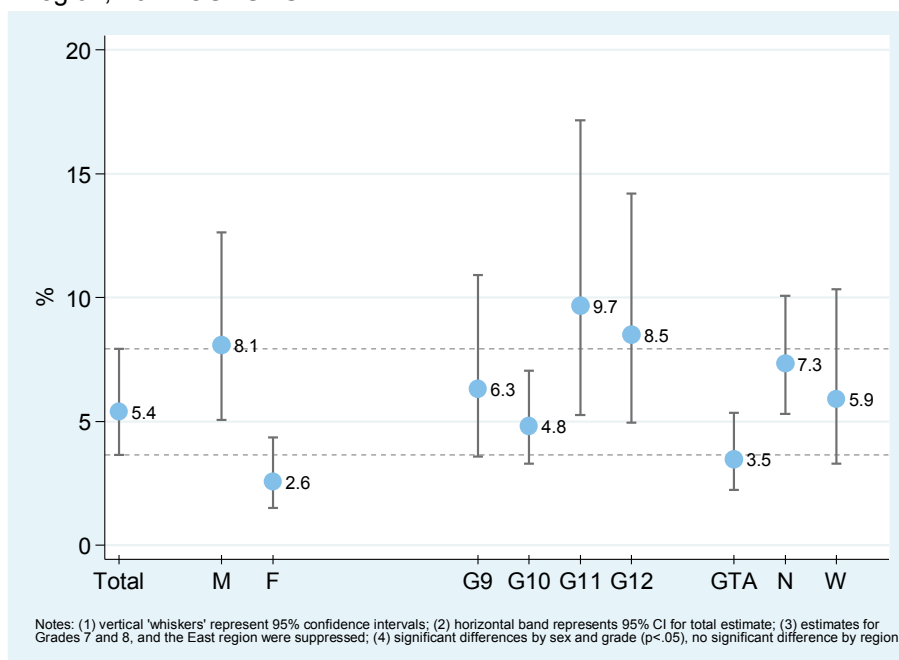


Table 3.3.7: Percentage Reporting Smokeless (Chewing) Tobacco Use in the Past Year, 2011–2017 OSDUHS

	2011 (n=9288)	2013 (n=4794)	2015 (n=5023)	2017 (n=5071)
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)
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)
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)
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 ^b (3.6-10.9)
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)
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)
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)
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)
North	6.2 (4.8-8.1)	†	7.7 (5.1-11.6)	7.3 (5.3-10.1)
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)
East	6.0 (4.7-7.6)	7.0 (4.1-11.6)	11.6 (6.4-20.1)	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) question asked of a random half sample since 2013; (4) no significant differences 2017 vs. 2015; ^b 2017 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; Table 3.4.1)

	Alcohol Use in 2017 (Grades 7–12)	Trends in Alcohol Use
Total Sample	<ul style="list-style-type: none"> Overall, 42.5% 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 45.5% (95% CI). The percentage of 42.5% represents about 385,300 students in grades 7–12 in Ontario. 	<ul style="list-style-type: none"> The percentage of students drinking in the past year did not significantly change between 2015 (45.8%) and 2017 (42.5%). Drinking has been on a significant downward trend since 1999 reaching historical lows in recent years. The 2017 estimate is significantly lower than all prior estimates except that seen in 2015. Looking back over the past 40 years, rates of 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 once again reaching historical lows. The current level is significantly lower than the peaks seen in the late 1970s and again in the late 1990s/early 2000s.
Sex	<ul style="list-style-type: none"> The prevalence of drinking alcohol does not significantly differ between males (42.7%) and females (42.2%). 	<ul style="list-style-type: none"> Although both sexes show a slight drop in past year drinking between 2015 and 2017, these were not statistically significant. Both sexes do show a significant downward trend since 1999, and their 2017 estimates are significantly lower than all prior estimates except those from 2015.
Grade	<ul style="list-style-type: none"> Drinking significantly increases as grade level increases, from lows of 11%-12% among 7th and 8th graders to a high of 68.3% among 12th graders. 	<ul style="list-style-type: none"> No grade shows a significant change between 2015 and 2017. However, all grades show significant downward trends in past year drinking since 1999.
Region	<ul style="list-style-type: none"> Although there is some variation in past year drinking according to region of the province, these differences are not statistically significant. 	<ul style="list-style-type: none"> No region shows a significant change in past year drinking between 2015 and 2017. All regions show downward trends since 1999.

Figure 3.4.1
 Past Year Alcohol Use by Sex, Grade, and Region, 2017 OSDUHS

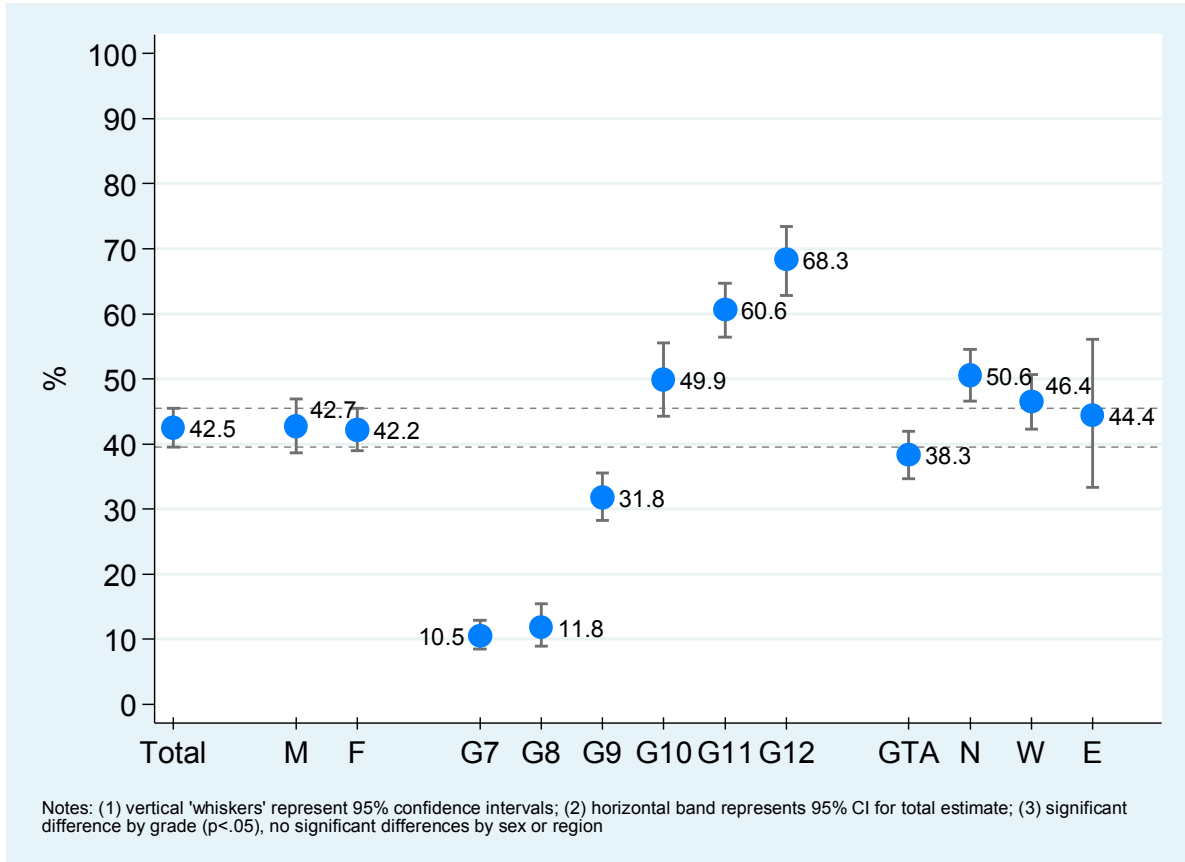


Figure 3.4.2
 Past Year Alcohol Use, 1999–2017 OSDUHS (Grades 7–12)

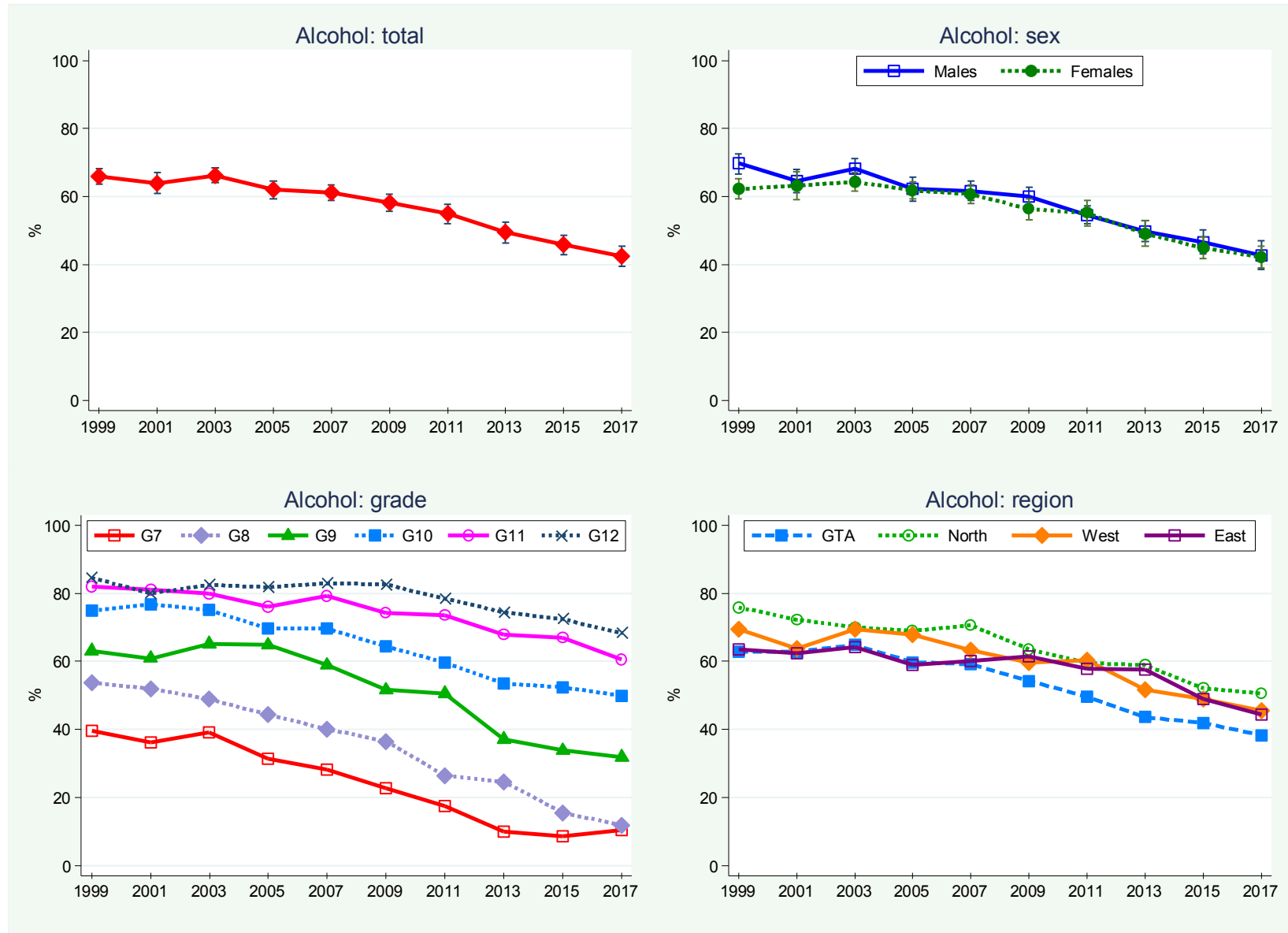


Figure 3.4.3
 Past Year Alcohol Use, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

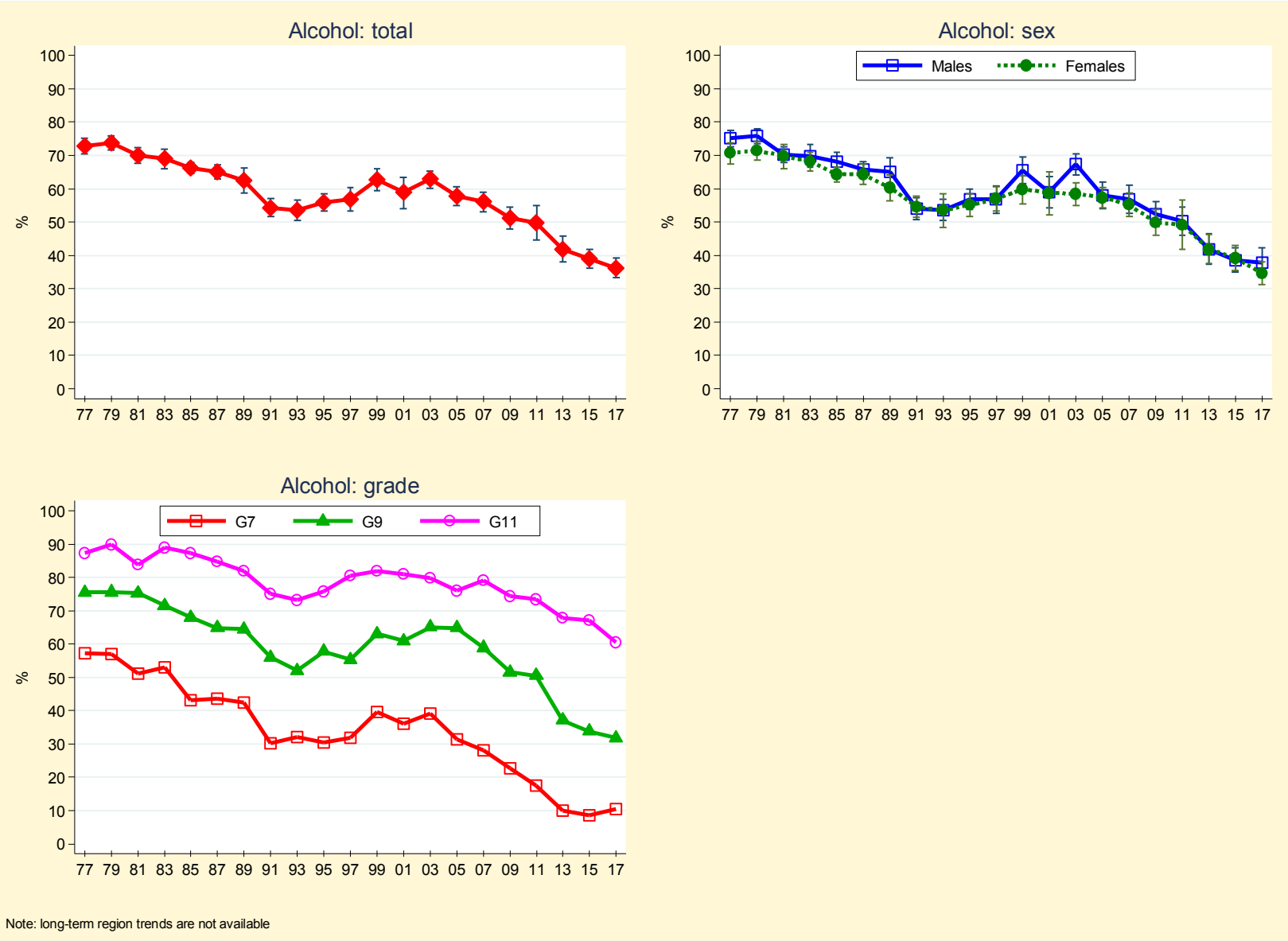


Table 3.4.1: Percentage Reporting Drinking Alcohol in the Past Year, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	66.0	63.9	66.2	62.0	61.2	58.2	54.9	49.5	45.8	42.5
												(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)
Total ²	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
	(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)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	69.7	64.6	68.3	62.3	61.7	60.0	54.6	49.8	46.6	42.7
												(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)
Males ²	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
	(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)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	62.2	63.2	64.3	61.8	60.7	56.3	55.1	49.1	44.9	42.2
												(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)
Females ²	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
	(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)
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
	(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)
8	—	—	—	—	—	—	—	—	—	—	—	53.7	52.0	48.9	44.3	40.1	36.5	26.4	24.6	15.5	11.8
												(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)
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
	(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)
10	—	—	—	—	—	—	—	—	—	—	—	74.9	76.8	75.1	69.6	69.6	64.5	59.6	53.5	52.4	49.9
												(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)
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
	(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)
12	—	—	—	—	—	—	—	—	—	—	—	84.6	80.0	82.5	81.8	83.0	82.6	78.4	74.4	72.4	68.3
												(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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)	
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	62.9	62.9	64.8	59.7	59.2	54.3	49.6	43.6	41.9	38.3 ^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)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	75.9	72.3	70.0	69.0	70.6	63.6	59.5	58.9	52.1	50.6 ^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)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	69.4	63.8	69.5	67.9	63.3	59.7	60.3	51.7	49.0	46.4 ^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)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	63.5	62.4	64.1	58.9	60.1	61.5	57.8	57.5	49.0	44.4 ^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)	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) no significant differences 2017 vs. 2015; ^b 2017 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)

2017: Grades 7–12

■ As seen in Table 3.4.2, almost one-in-five (18.8%) students restrict their drinking to special occasions, 9.4% drink once a month or less often, another 8.4% drink two or three times a month, and about 5.7% 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.

1999–2017: Grades 7–12

□ Table 3.4.2 also presents the past year drinking frequencies since 1999 among the total sample. The percentage of students reporting no drinking is higher today than in 1999, and the percentage reporting drinking at least once a week is lower.

1987–2017: Grades 7, 9, 11

□ Figure 3.4.4 presents trends in the frequency of past year drinking between 1987 and 2017 among the total sample. Compared with students in the late 1980s, the percentage of students reporting no drinking is higher today, and the percentage reporting drinking once a week or more often is currently lower.

Figure 3.4.4
Frequency of Drinking Alcohol in the Past Year, 1987–2017 OSDUHS
(Grades 7, 9, and 11 only)

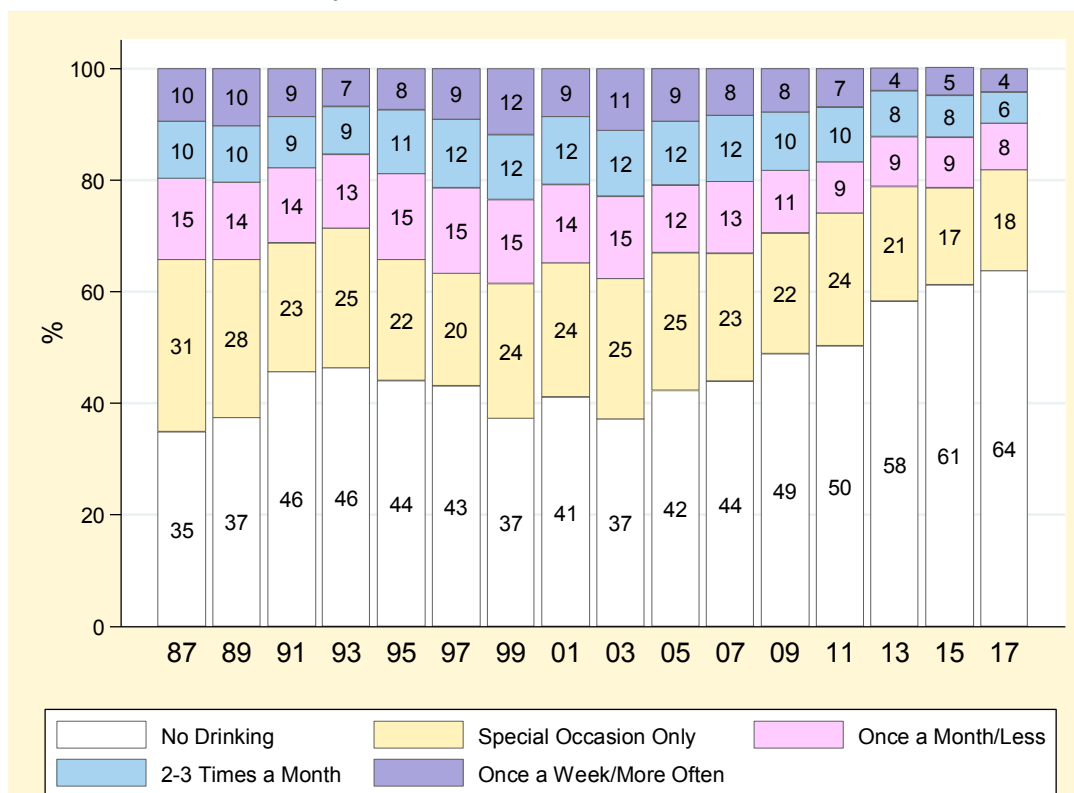


Table 3.4.2: Frequency of Drinking Alcohol in the Past Year Among the Total Sample, 1999–2017 OSDUHS (Grades 7–12)

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

Notes: (1) the “No Drinking” category includes those who reported they had a sip just to try; (2) † 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.

2017: Grades 7–12

- As seen in Table 3.4.3, 69.6% of students did not drink alcohol during the month before the survey (therefore, 30.4% did drink). About one-in-five (21.7%) students drank only once or twice in the past month, 5.8% drank once or twice per week, and 2.8% drank three or more times per week during the past month.

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

- As expected, the older students are most likely to report drinking more frequently during the past month.

1999–2017: Grades 7–12

- Table 3.4.3 also presents the past month drinking frequencies since 1999. The percentage of students reporting not drinking at all in the past month in 2017 (69.6%) is similar to the estimate from 2015 (68.9%), but significantly higher than the estimate in 1999 (48.3%). The percentage drinking three or more times per week has remained stable.

1987–2017: Grades 7, 9, and 11

- Figure 3.4.5 presents the past month drinking frequency from 1987 to 2017, among grades 7, 9, and 11 only. Over the long-term, abstention in the past month has increased, while drinking once or twice in the past month has decreased. Drinking at the higher frequencies (e.g., three or more times per week) has remained stable.

Figure 3.4.5
Frequency of Drinking Alcohol in the Past Month, 1987–2017 OSDUHS
(Grades 7, 9, and 11 only)

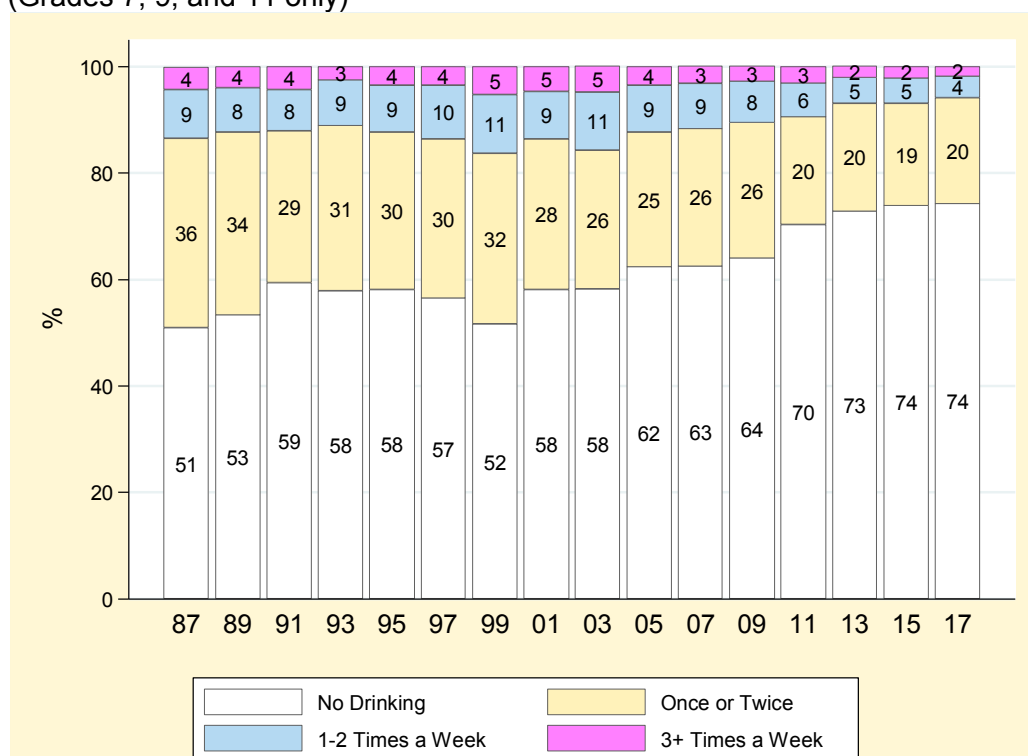


Table 3.4.3: Frequency of Drinking Alcohol in the Past Month Among the Total Sample, 1999–2017 OSDUHS (Grades 7–12)

	1999 (n=)	2001 (4447)	2003 (3898)	2005 (6616)	2007 (7726)	2009 (6323)	2011 (9112)	2013 (9288)	2015 (10272)	2017 (10426)	2017 (11435)
Total											
Not in Past 4 Weeks	48.3	53.7	54.7	57.3	57.5	58.1	65.3	66.6	68.9	69.6	^b
Once or Twice	33.5	30.0	28.7	28.6	28.6	28.4	23.3	24.1	22.1	21.7	
Once or Twice a Week	12.5	11.5	11.6	10.2	9.9	9.4	8.2	6.7	6.3	5.8	
3 + Times a Week	5.7	4.8	5.0	3.9	4.0	4.0	3.1	2.6	2.7	2.8	
Males											
Not in Past 4 Weeks	44.3	50.7	53.4	56.0	57.5	56.2	66.1	66.1	69.1	70.1	
Once or Twice	33.9	28.6	27.6	27.3	27.2	28.2	22.2	23.7	20.6	20.4	
Once or Twice a Week	13.5	14.5	12.7	11.3	10.5	10.2	8.3	7.2	7.0	6.2	
3 + Times a Week	8.3	6.2	6.3	5.4	4.7	5.3	3.3	3.0	3.2	3.3	
Females											
Not in Past 4 Weeks	52.5	56.6	56.0	58.7	57.4	60.1	64.4	67.2	68.7	69.1	
Once or Twice	33.1	31.4	29.7	30.1	30.1	28.7	24.5	24.6	23.6	23.1	
Once or Twice a Week	11.4	8.6	10.6	8.9	9.2	8.5	8.2	6.1	6.0	5.5	
3 + Times a Week	3.1	3.4	3.7	2.3	3.3	2.6	2.9	2.1	2.1	2.3	
Grade 7											
Not in Past 4 Weeks	76.4	83.0	82.4	85.4	85.6	88.6	93.5	95.3	94.2	94.1	
Once or Twice	20.1	14.2	13.0	13.1	12.4	9.8	5.8	4.2	5.6	5.1	
Once or Twice a Week	2.7	1.3	2.8	1.0	0.9	1.4	†	†	†	†	
3 + Times a Week	0.8	1.5	1.8	†	1.1	†	†	†	†	†	
Grade 8											
Not in Past 4 Weeks	58.8	69.2	74.9	72.6	77.4	79.9	87.1	88.3	89.3	92.1	
Once or Twice	31.7	24.5	20.1	22.6	18.3	17.0	11.0	10.3	10.0	7.3	
Once or Twice a Week	6.2	4.7	3.5	2.7	2.7	1.9	1.2	1.0	†	†	
3 + Times a Week	3.3	1.6	1.5	2.1	1.6	1.2	†	†	†	†	
Grade 9											
Not in Past 4 Weeks	50.8	54.9	55.7	59.9	62.4	63.0	69.9	77.9	80.2	77.8	
Once or Twice	33.4	32.9	30.2	28.0	26.7	28.9	23.4	18.6	16.5	17.6	
Once or Twice a Week	10.3	9.0	8.9	8.7	7.7	5.7	4.5	2.3	2.5	3.2	
3 + Times a Week	5.5	3.2	5.2	3.4	3.2	2.3	†	1.2	0.9	1.4	
Grade 10											
Not in Past 4 Weeks	42.0	40.9	47.3	52.1	51.0	54.3	63.2	65.4	66.7	64.5	
Once or Twice	34.9	33.2	34.5	33.6	33.3	32.3	26.1	26.2	25.2	26.9	
Once or Twice a Week	15.0	19.4	13.1	10.4	11.1	9.7	6.9	6.0	6.2	5.9	
3 + Times a Week	8.0	6.6	5.1	3.9	4.6	3.6	3.8	2.4	1.9	2.7	
Grade 11											
Not in Past 4 Weeks	31.6	35.6	41.0	42.3	41.2	44.5	53.0	53.0	52.5	54.8	
Once or Twice	40.5	37.6	32.5	34.2	37.1	35.1	28.4	32.3	31.6	33.9	
Once or Twice a Week	19.1	16.8	19.4	16.5	16.4	15.1	12.3	10.6	11.0	8.0	
3 + Times a Week	8.8	9.9	7.1	6.9	5.3	5.3	6.3	4.1	4.9	3.3	
Grade 12											
Not in Past 4 Weeks	29.2	34.9	34.1	35.5	35.6	34.0	43.9	44.3	49.1	50.5	
Once or Twice	40.2	39.8	38.3	38.5	39.4	39.5	34.5	37.5	32.6	30.4	
Once or Twice a Week	22.6	18.9	19.4	19.9	17.6	17.6	17.4	13.4	12.6	12.4	
3 + Times a Week	8.0	6.4	8.2	6.1	7.4	8.9	4.2	4.8	5.7	6.7	

Notes: (1) † estimate suppressed due to unreliability; (2) no significant difference 2017 vs. 2015 among the total sample; ^b 2017 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

Heavy Episodic Drinking in the Past Month

(Figures 3.4.6–3.4.12; Tables 3.4.4–3.4.6)

We use two indicators of heavy episodic drinking in this report: consuming five or more drinks on a single occasion (“binge drinking”), and getting drunk (i.e., drinking until becoming ill). Both refer to the past-4-week period (past month). We also examine the frequency of binge drinking in the past month.

Heavy Episodic Drinking in 2017 (Grades 7–12)	Trends in Heavy Episodic Drinking
<p>Total Sample</p> <ul style="list-style-type: none"> ■ One-in-six (16.9%) students report binge drinking at least once during the four weeks before the survey. This percentage represents about 153,300 students in grades 7 through 12 in Ontario. ■ About 5.6% of all students report binge drinking two to three times during the month before the survey. Another 2.7% report binge drinking four or more times (see Table 3.4.5). ■ A similar proportion (16.2%) report becoming drunk at least once during the four weeks before the survey, representing about 147,000 students in Ontario. 	<ul style="list-style-type: none"> □ The percentage of students reporting at least one binge drinking episode in the past month, as well as the percentage reporting becoming drunk, did not significantly change between 2015 and 2017. □ Both measures show a significant downward trend since 1999/early 2000s – when about one-quarter of students reported these behaviours – and stabilizing in recent years (since 2013). □ Looking back over the past 40 years, 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 declined. The current level is significantly lower than the peaks seen in the late 1970s and late 1990s/early 2000s, but is similar to the lows seen in the early 1990s. Frequent binge drinking (e.g., four or more times in the past month) remained stable during the 1980s, decreased in 1993–1995, increased gradually during the late 1990s/early 2000s, followed by another decrease, and then stability in recent years (see Figure 3.4.10). □ Over the long-term, drunkenness remained stable between 1977 and the early 1990s, increased during the second half of the 1990s and early 2000s, followed by a decrease, and stability in recent years.

Sex	<ul style="list-style-type: none"> ■ Binge drinking does not significantly differ between males (17.6%) and females (16.1%). Nor is there a difference in reported drunkenness between males (16.4%) and females (15.9%). 	<ul style="list-style-type: none"> □ Neither sex shows a significant change in binge drinking between 2015 and 2017. Both sexes show a significant downward trend in binge drinking and drunkenness since 1999, and stability in recent years (since 2013).
Grade	<ul style="list-style-type: none"> ■ Heavy episodic drinking significantly increases with grade level: binge drinking is lowest among 7th and 8th graders (suppressed estimates) and climbs to 32.3% among 12th graders. Drunkenness is lowest among 7th and 8th graders (suppressed estimates) and climbs to 30.5% among 12th graders. 	<ul style="list-style-type: none"> □ No grade shows a significant change in heavy episodic drinking between 2015 and 2017. All grades show a significant downward trend in both binge drinking and drunkenness between 1999 and 2017.
Region	<ul style="list-style-type: none"> ■ While there is some regional variation in binge drinking, these differences did not reach statistical significance. Reported drunkenness does significantly vary by region, with GTA students (13.4%) least likely to report drunkenness in the past month, and students in the West (19.8%) most likely. 	<ul style="list-style-type: none"> □ No region shows a significant change in heavy episodic drinking between 2015 and 2017. Students in all regions, except the East, show significant decreases in binge drinking and drunkenness compared with their respective 1999 estimates.

Figure 3.4.6
Binge Drinking in the Past Month by Sex, Grade, and Region, 2017 OSDUHS

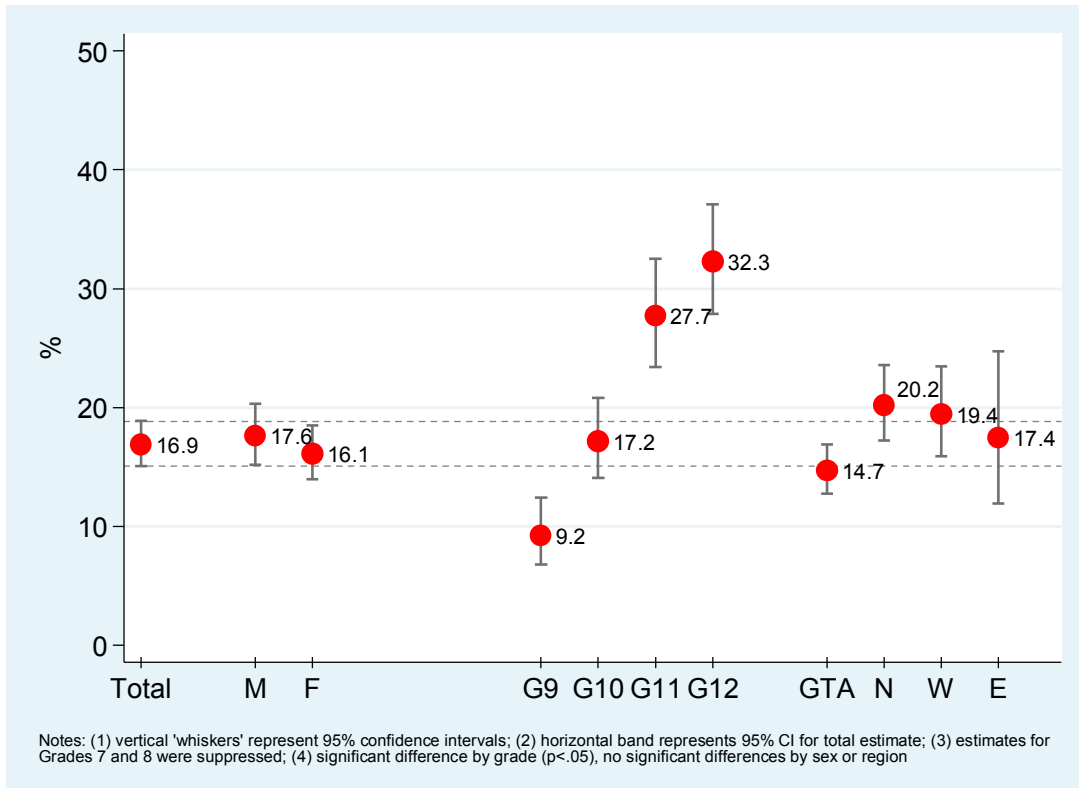


Figure 3.4.7
Drunkenness in the Past Month by Sex, Grade, and Region, 2017 OSDUHS

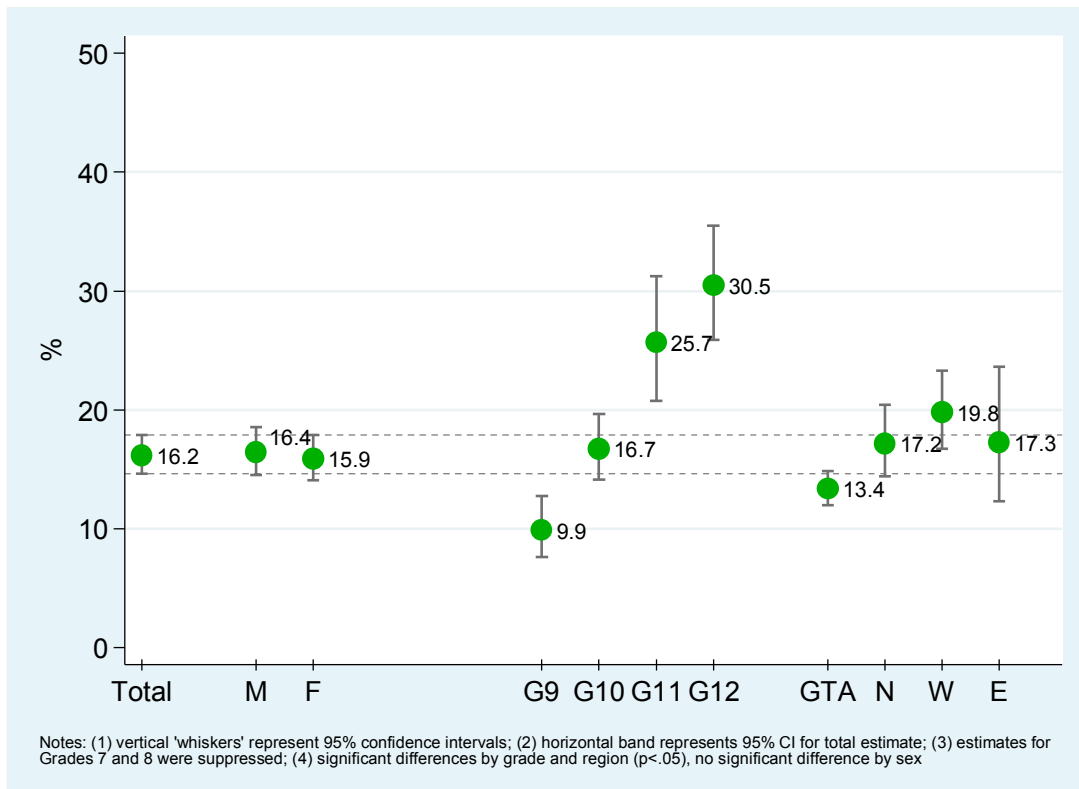


Figure 3.4.8
Binge Drinking in the Past Month, 1999–2017 OSDUHS (Grades 7–12)

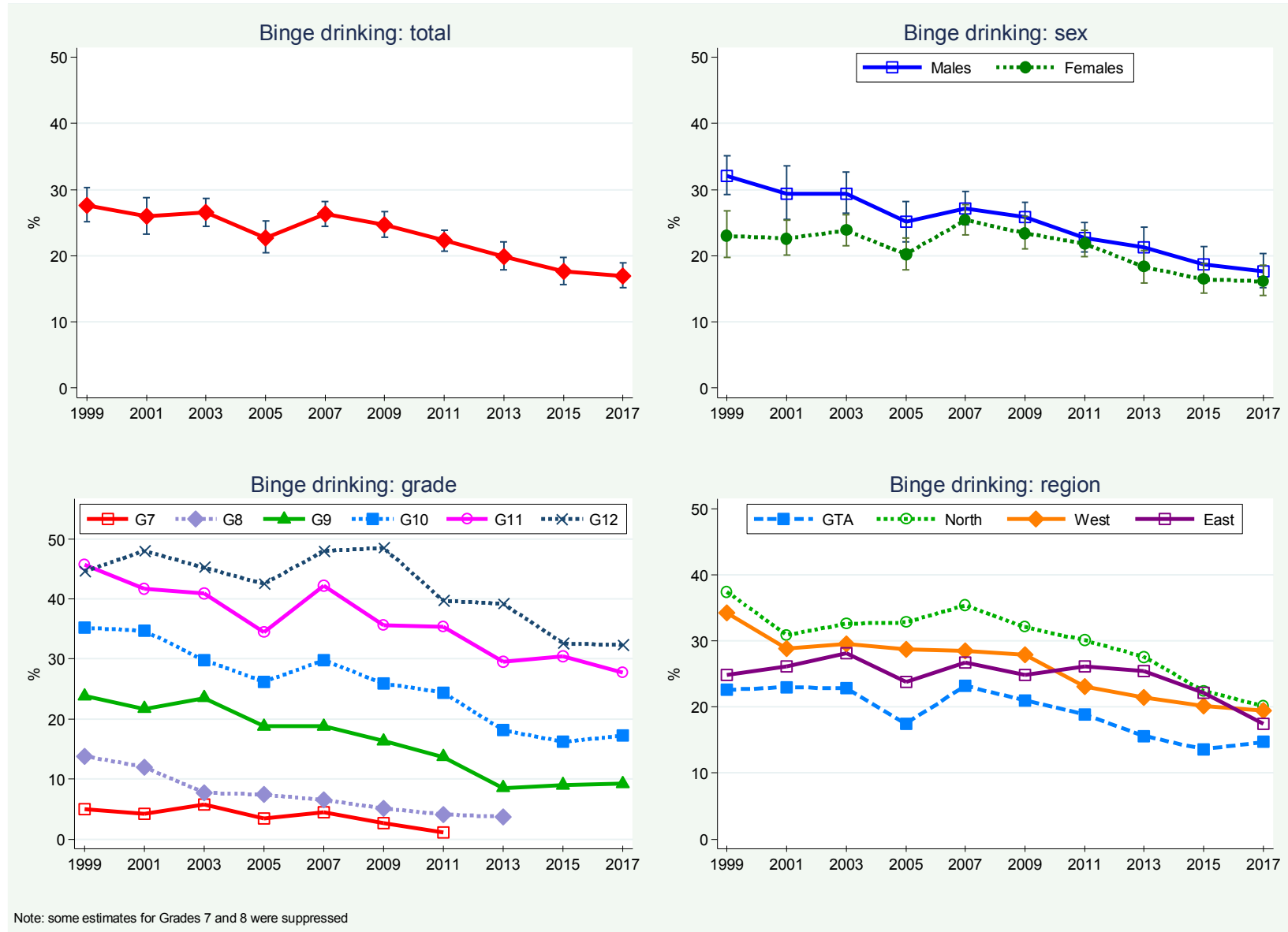
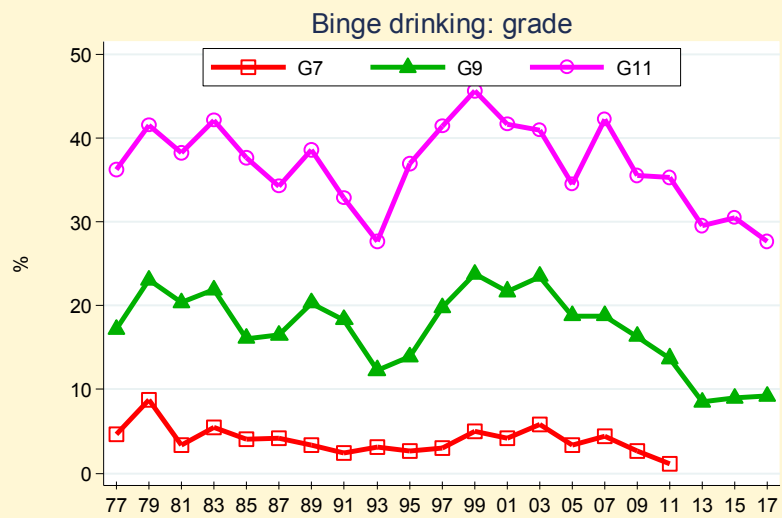
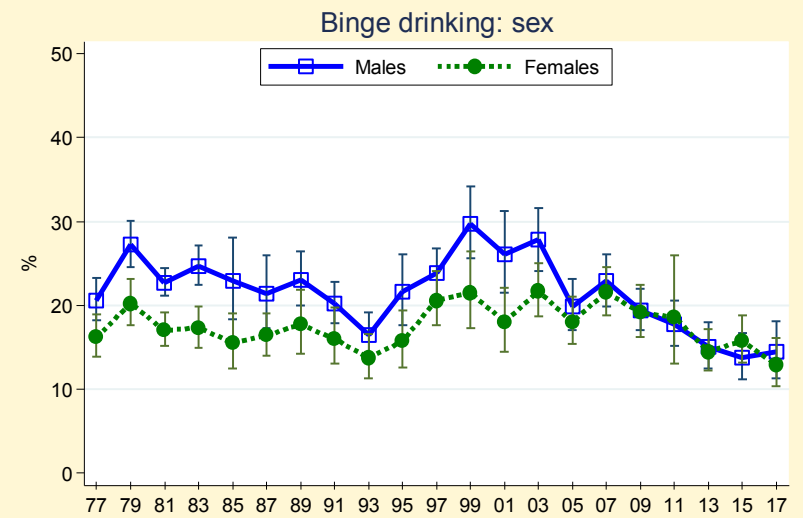
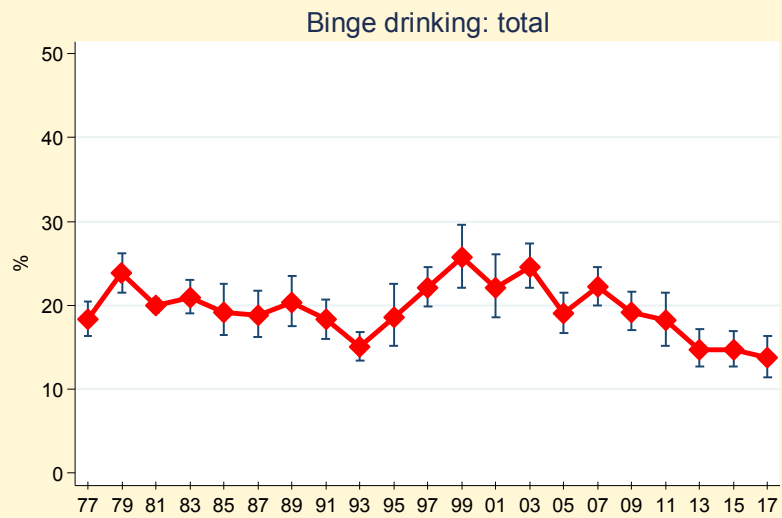


Figure 3.4.9
 Binge Drinking in the Past Month, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)



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

Figure 3.4.10
 Frequency of Binge Drinking in the Past Month, 1979–2017 OSDUHS
 (Grades 7, 9, and 11 only)

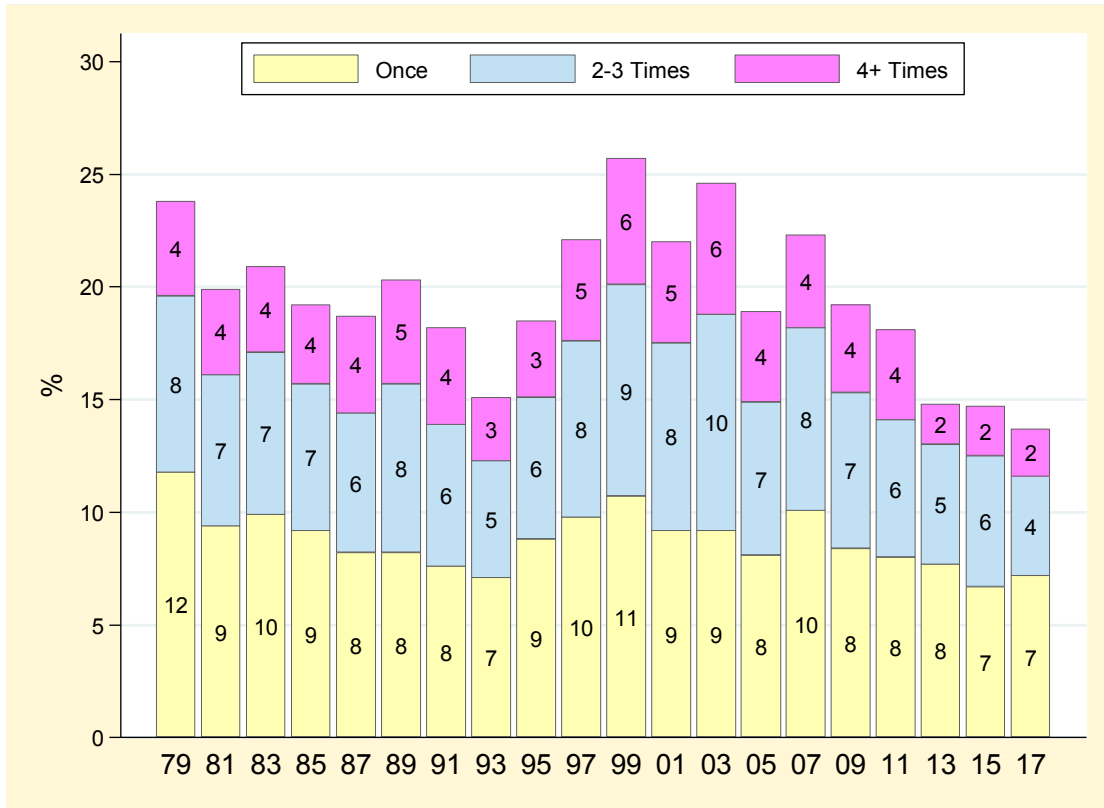


Figure 3.4.11
 Drunkenness in the Past Month, 1999–2017 OSDUHS (Grades 7–12)



Figure 3.4.12
 Drunkenness in the Past Month, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

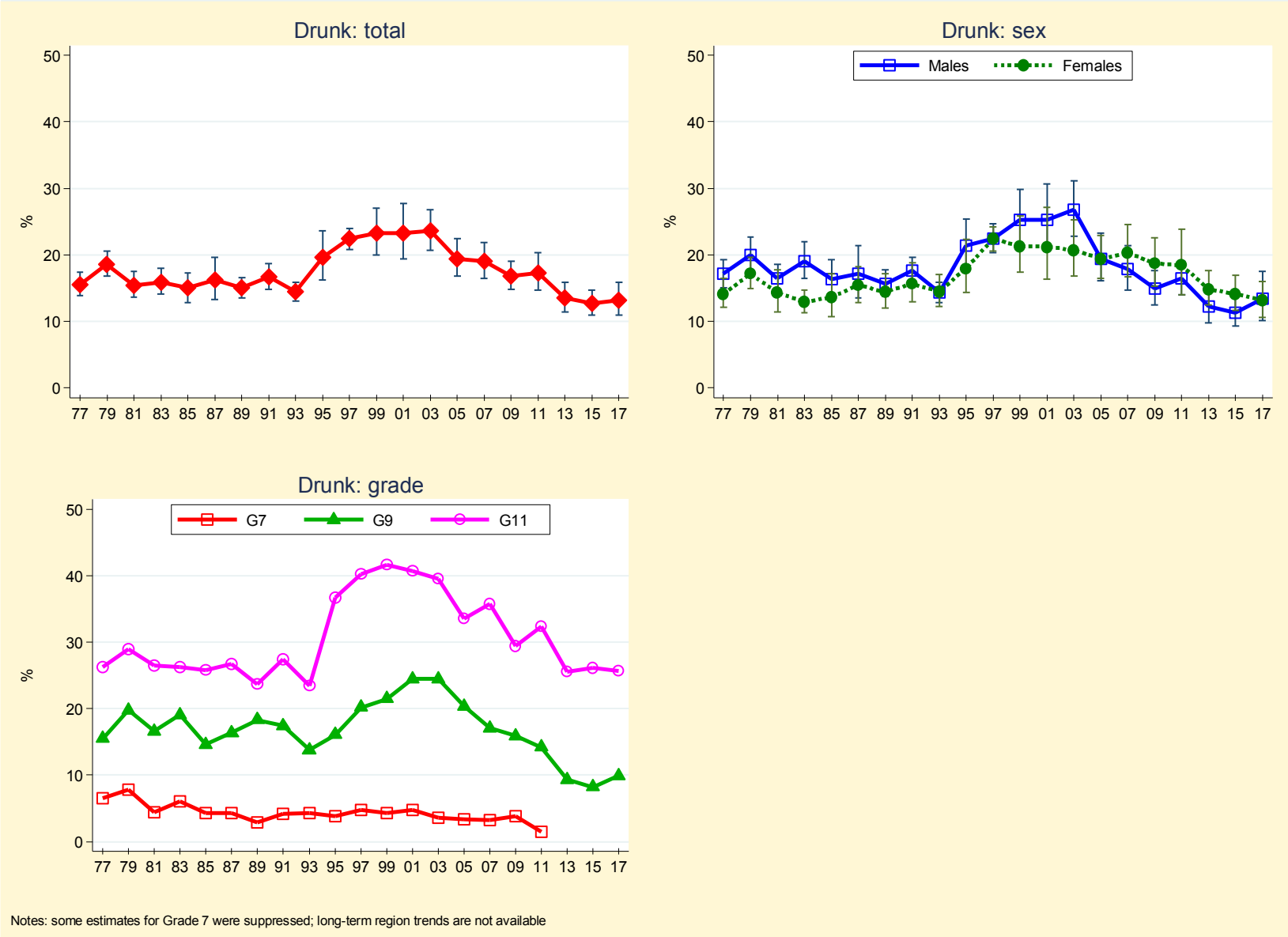


Table 3.4.4: Percentage Reporting Binge Drinking in the Past Month, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	27.6	26.0	26.5	22.7	26.3	24.7	22.3	19.8	17.6	16.9 ^{bcd}
												(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)
Total ²	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 ^{cd}
	(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)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	32.1	29.4	29.4	25.1	27.1	25.9	22.7	21.3	18.7	17.6 ^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)
Males ²	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
	(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)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	23.0	22.6	23.8	20.2	25.4	23.4	21.8	18.3	16.4	16.1 ^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)
Females ²	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
	(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)
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	†	†	† ^b
	(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)			
8	—	—	—	—	—	—	—	—	—	—	—	13.8	12.0	7.7	7.4	6.5	5.0	4.1	3.7	†	† ^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)		
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 ^b
	(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)
10	—	—	—	—	—	—	—	—	—	—	—	35.2	34.7	29.8	26.2	29.8	25.9	24.4	18.1	16.2	17.2 ^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	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 ^b
	(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)
12	—	—	—	—	—	—	—	—	—	—	—	44.6	48.0	45.2	42.5	48.0	48.5	39.7	39.2	32.6	32.3 ^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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Region																					
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	22.6	23.0	22.8	17.5	23.2	21.0	18.9	15.6	13.6	14.7 ^b
												(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)
North ¹	—	—	—	—	—	—	—	—	—	—	—	37.4	30.9	32.6	32.8	35.4	32.1	30.1	27.6	22.4	20.2 ^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)
West ¹	—	—	—	—	—	—	—	—	—	—	—	34.2	28.8	29.6	28.7	28.5	27.9	23.1	21.4	20.2	19.4 ^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)
East ¹	—	—	—	—	—	—	—	—	—	—	—	24.8	26.2	28.2	23.8	26.7	24.9	26.1	25.4	22.1	17.4
												(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)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) no significant differences 2017 vs. 2015; ^b 2017 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

Table 3.4.5: Frequency of Binge Drinking in the Past Month, 1999–2017 OSDUHS (Grades 7–12)

	Percentage of Total Sample									
(n=)	1999 (4447)	2001 (3898)	2003 (6616)	2005 (7726)	2007 (6323)	2009 (9112)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (11435)
Total										
Did Not	72.4	74.0	73.5	77.3	73.7	75.3	77.8	80.2	82.4	82.1
Once	11.3	10.7	10.1	9.3	11.4	9.7	9.2	8.9	8.0	8.6
2 to 3 times	10.2	9.9	9.9	8.5	9.6	9.2	8.2	7.1	6.3	5.6
4 + times	6.1	5.4	6.4	4.9	5.2	5.8	4.8	3.8	3.3	2.7
Males										
Did Not	67.9	70.6	70.6	74.9	72.9	74.1	77.3	78.7	81.3	82.4
Once	11.0	10.8	10.7	9.1	11.3	9.4	9.1	8.9	7.8	8.6
2 to 3 times	12.8	11.4	10.2	9.6	9.5	9.6	8.4	7.9	6.6	6.0
4 + times	8.3	7.1	8.4	6.3	6.3	6.9	5.2	4.6	4.3	3.0
Females										
Did Not	77.0	77.4	76.2	79.8	74.6	76.6	78.2	81.8	83.6	83.9
Once	11.7	10.6	9.6	9.5	11.5	10.0	9.3	8.9	8.1	8.6
2 to 3 times	7.5	8.4	9.6	7.3	9.7	8.8	8.0	6.5	6.1	5.1
4 + times	3.9	3.6	4.5	3.4	4.1	4.6	4.4	2.9	2.2	2.4
Grade 7										
Did Not	95.0	95.8	94.2	96.6	95.6	97.3	98.9	98.7	99.0	99.1
Once	3.2	2.2	3.2	2.6	2.7	1.5	†	†	†	†
2 to 3 times	1.1	1.5	2.3	0.6	1.2	†	†	†	†	†
4 + times	†	†	†	†	†	†	†	†	†	†
Grade 8										
Did Not	86.2	88.0	92.3	92.6	93.5	95.0	95.9	96.3	97.0	98.0
Once	7.6	8.7	5.0	3.4	4.1	2.8	2.7	†	†	†
2 to 3 times	4.4	2.8	2.0	3.1	1.8	1.7	0.8	†	†	†
4 + times	1.8	†	†	†	†	†	†	†	†	†
Grade 9										
Did Not	76.2	78.3	76.5	81.2	81.2	83.7	86.3	91.5	91.0	90.8
Once	11.4	10.6	10.3	8.5	8.8	9.0	6.5	6.6	5.4	4.8
2 to 3 times	8.8	7.9	9.3	7.2	6.6	5.0	5.7	1.6	2.7	3.2
4 + times	3.6	3.2	3.9	3.0	3.3	2.3	1.4	†	†	†
Grade 10										
Did Not	64.8	65.3	70.2	73.8	70.2	74.1	75.6	82.0	83.8	82.8
Once	12.6	12.9	11.5	11.9	14.0	10.9	10.0	8.1	8.1	9.3
2 to 3 times	16.3	14.6	11.0	10.2	10.7	10.4	9.7	6.8	6.1	5.5
4 + times	6.4	7.1	7.3	4.1	5.2	4.7	4.6	3.2	1.9	2.4
Grade 11										
Did Not	54.3	58.3	59.1	65.5	57.8	64.4	64.7	70.5	69.5	72.3
Once	16.3	15.0	13.0	13.1	18.2	13.6	15.0	13.1	12.4	14.7
2 to 3 times	17.1	16.1	15.8	12.5	15.9	13.5	10.8	12.1	13.2	8.7
4 + times	12.3	10.5	12.1	8.9	8.2	8.4	9.6	4.3	5.0	4.3
Grade 12										
Did Not	55.4	52.0	54.8	57.5	52.0	51.6	60.3	60.8	67.4	67.7
Once	17.4	16.5	16.2	15.5	18.0	16.0	14.8	15.3	13.3	15.5
2 to 3 times	14.2	18.5	16.6	15.9	18.4	18.3	15.7	14.2	11.0	11.2
4 + times	13.1	13.0	12.4	11.1	11.6	14.1	9.2	9.7	8.3	5.6

Notes: † estimate suppressed due to unreliability

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 3.4.6: Percentage Reporting Drunkenness in the Past Month, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
	(n ¹)											(2148)	(1837)	(3152)	(3648)	(2935)	(4851)	(9288)	(10272)	(10426)	(11435)	
	(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(1168)	(953)	(1618)	(1862)	(1488)	(2355)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	25.0	26.0	23.9	22.5	24.4	22.6	19.9	17.6	15.9	16.2 ^{bc}	
												(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)	
Total ²	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 ^d	
	(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)	
Sex																						
Males ¹	—	—	—	—	—	—	—	—	—	—	—	27.4	28.5	25.8	23.3	24.7	22.3	19.6	17.9	16.0	16.4 ^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)	
Males ²	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	
	(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)	
Females ¹	—	—	—	—	—	—	—	—	—	—	—	22.6	23.7	22.2	21.6	24.2	22.8	20.3	17.3	15.9	15.9 ^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)	
Females ²	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	
	(12.1-16.4)	(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)	
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	†	†	† ^b	
	(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)				
8	—	—	—	—	—	—	—	—	—	—	—	12.8	12.8	6.2	7.0	7.9	7.1	4.4	3.0	†	† ^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)			
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 ^b	
	(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)	
10	—	—	—	—	—	—	—	—	—	—	—	31.7	36.0	25.8	26.9	29.0	25.2	20.8	17.9	16.0	16.7 ^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	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 ^b	
	(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)	
12	—	—	—	—	—	—	—	—	—	—	—	40.0	38.3	38.7	39.3	45.8	43.3	33.8	33.3	29.4	30.5 ^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)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(2148)	(1837)	(3152)	(3648)	(2935)	(4851)	(9288)	(10272)	(10426)	(11435)	
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(1168)	(953)	(1618)	(1862)	(1488)	(2355)	(4669)	(5211)	(5225)	(5686)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	—	20.2 (16.6-24.2)	24.9 (19.1-31.8)	19.8 (15.6-24.8)	17.6 (14.0-21.8)	20.9 (17.2-25.2)	19.1 (15.6-23.2)	16.1 (13.5-19.1)	14.2 (10.8-18.3)	12.4 (10.2-14.9)	13.4 ^b (12.0-14.9)
North ¹	—	—	—	—	—	—	—	—	—	—	—	—	33.8 (28.6-39.3)	29.4 (25.2-33.9)	29.8 (24.2-36.0)	32.3 (27.0-38.0)	35.0 (30.0-40.4)	27.8 (22.6-33.6)	26.2 (22.3-30.4)	22.2 (19.6-25.1)	19.0 (15.8-22.7)	17.2 ^b (14.4-20.4)
West ¹	—	—	—	—	—	—	—	—	—	—	—	—	31.8 (25.6-38.7)	27.4 (22.8-32.6)	27.7 (22.2-34.0)	26.7 (22.0-32.1)	27.3 (23.0-32.1)	25.3 (21.6-29.4)	21.3 (18.4-24.6)	18.9 (14.5-24.3)	18.3 (14.3-23.0)	19.8 ^b (16.7-23.3)
East ¹	—	—	—	—	—	—	—	—	—	—	—	—	22.1 (16.6-28.7)	25.1 (19.0-32.4)	26.5 (21.3-32.4)	25.5 (19.3-32.9)	24.6 (19.8-30.1)	23.3 (19.7-27.5)	24.5 (20.7-28.8)	22.9 (20.7-25.2)	20.4 (16.1-25.4)	17.3 (12.3-23.6)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) no significant differences 2017 vs. 2015; ^b 2017 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 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

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

(Figures 3.4.13-3.4.15; 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 (Cronbach’s $\alpha=.86$).

	Hazardous/Harmful Drinking in 2017 (Grades 9–12)	1999–2017 Trends (Grades 9–12)
Total Sample	<ul style="list-style-type: none"> About one-in-six (16%) 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 about one-in-twelve (8%) report that they were injured or someone else was injured because of their drinking, during the past 12 months. One-in seven (14.1%) secondary students report hazardous/harmful drinking (that is, scoring eight or higher of 40). This represents about 110,600 students in grades 9–12. Among past-year drinkers, about one-quarter (27.3%) drink hazardously/harmfully. 	<ul style="list-style-type: none"> Among the total sample of secondary students, there was significant decrease in hazardous/harmful drinking between 2015 (19.8%) and 2017 (14.1%). In fact, the estimate reached an all-time low in 2017, as it is significantly lower than all estimates seen since monitoring first began in 1999.
Sex	<ul style="list-style-type: none"> Males (14.2%) and females (14.1%) are equally likely to drink hazardously/harmfully. 	<ul style="list-style-type: none"> Both males and females show a significant decrease between 2015 and 2017. Males reached an all-time low in 2017. The 2017 estimate for females is the lowest seen since 2005.
Grade	<ul style="list-style-type: none"> The likelihood of hazardous/harmful drinking significantly increases with grade, from 4.2% of 9th graders to 23.4% of 12th graders. 	<ul style="list-style-type: none"> Only 10th graders show a statistically significant decrease between 2015 and 2017 (from 15.7% to 10.8%). All other grades show a significant decrease over time, but the decrease among 12th graders only began in recent years.
Region	<ul style="list-style-type: none"> There is significant variation among the regions, showing that students in the West (20.1%) are most likely to drink hazardously or harmfully, and students in the GTA and East least likely (about 12%). 	<ul style="list-style-type: none"> Students in the North and East regions show a significant decrease between 2015 and 2017, and the current estimate is lower than 1999. Students in the GTA show a decrease in recent years (since 2011), while students in the West show stability in recent years.

Table 3.4.7: Percentage of the Total Sample, and of Past Year Drinkers, Reporting AUDIT Indicators, 2017 OSDUHS (Grades 9–12)

AUDIT Item	% "yes"	
	Total Sample (n=4298)	Past Year Drinkers (n=2250)
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)	32.6	61.8
3. Consumed 5 or more drinks on one occasion during the past 12 months	29.7	56.2
Dependence Indicators (past 12 months)		
4. Were not able to stop drinking once you had started	6.9	13.4
5. Failed to do what was normally expected from you because of your drinking	10.4	19.8
6. Needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session	3.0	5.6
Adverse Consequences		
7. Had a feeling of guilt or remorse after drinking, during the past 12 months	10.2	19.3
8. Been unable to remember what happened the night before because you had been drinking, during the past 12 months	15.7	30.0
9. You or someone else been injured as a result of your drinking		
Yes, but not in the past 12 months:	3.3	5.5
Yes, in the past 12 months:	8.0	15.0
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:	0.8	1.1
Yes, in the past 12 months:	3.0	5.4
AUDIT 8+ Score (95% CI)	14.1% (12.2-16.3)	27.3% (23.7-31.3)

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 3.4.13
 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, 2017 OSDUHS (Grades 9–12)

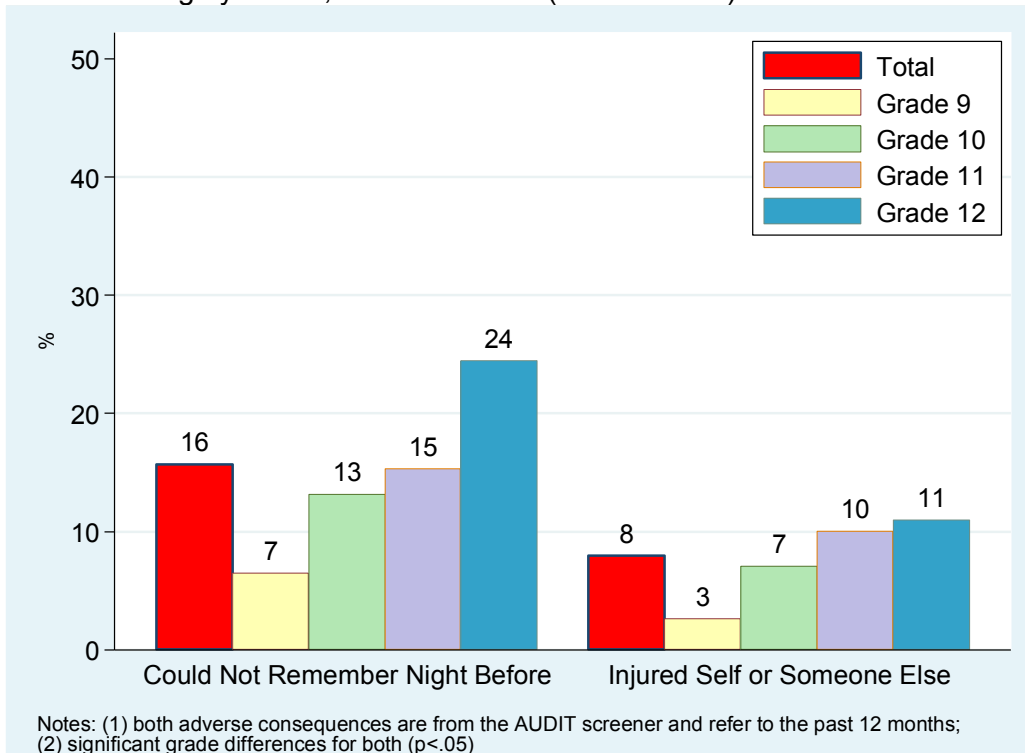


Figure 3.4.14
 Percentage Reporting Hazardous/Harmful Drinking (AUDIT 8+) by Sex, Grade, and Region, 2017 OSDUHS

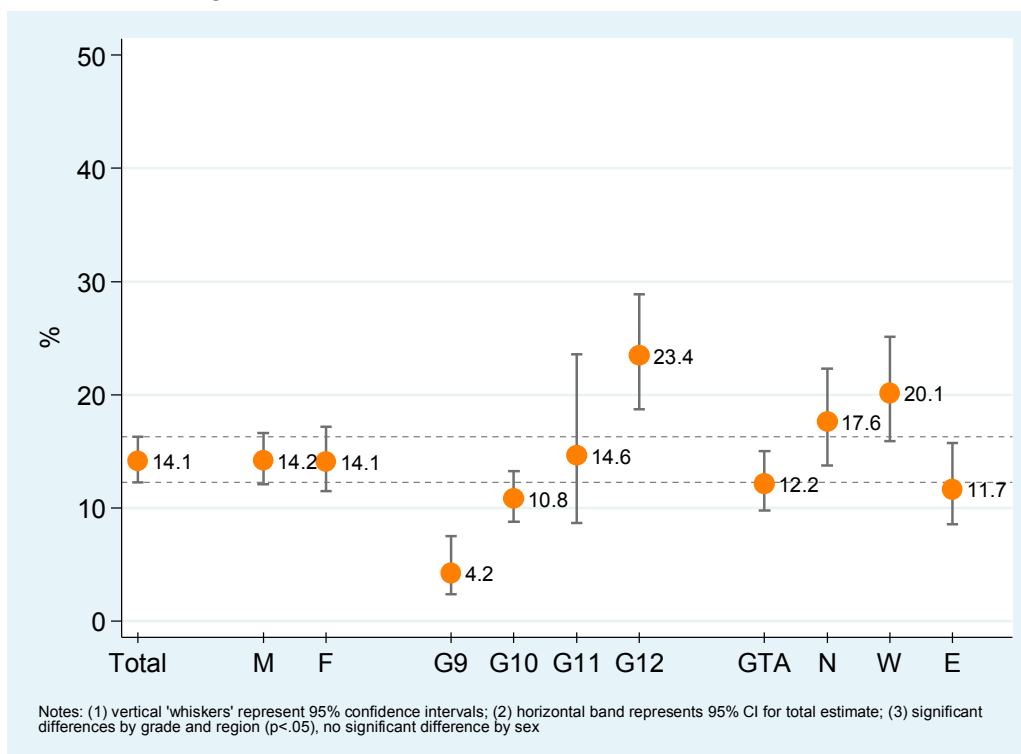


Figure 3.4.15
 Hazardous/Harmful Drinking (AUDIT 8+), 1999–2017 OSDUHS (Grades 9–12)

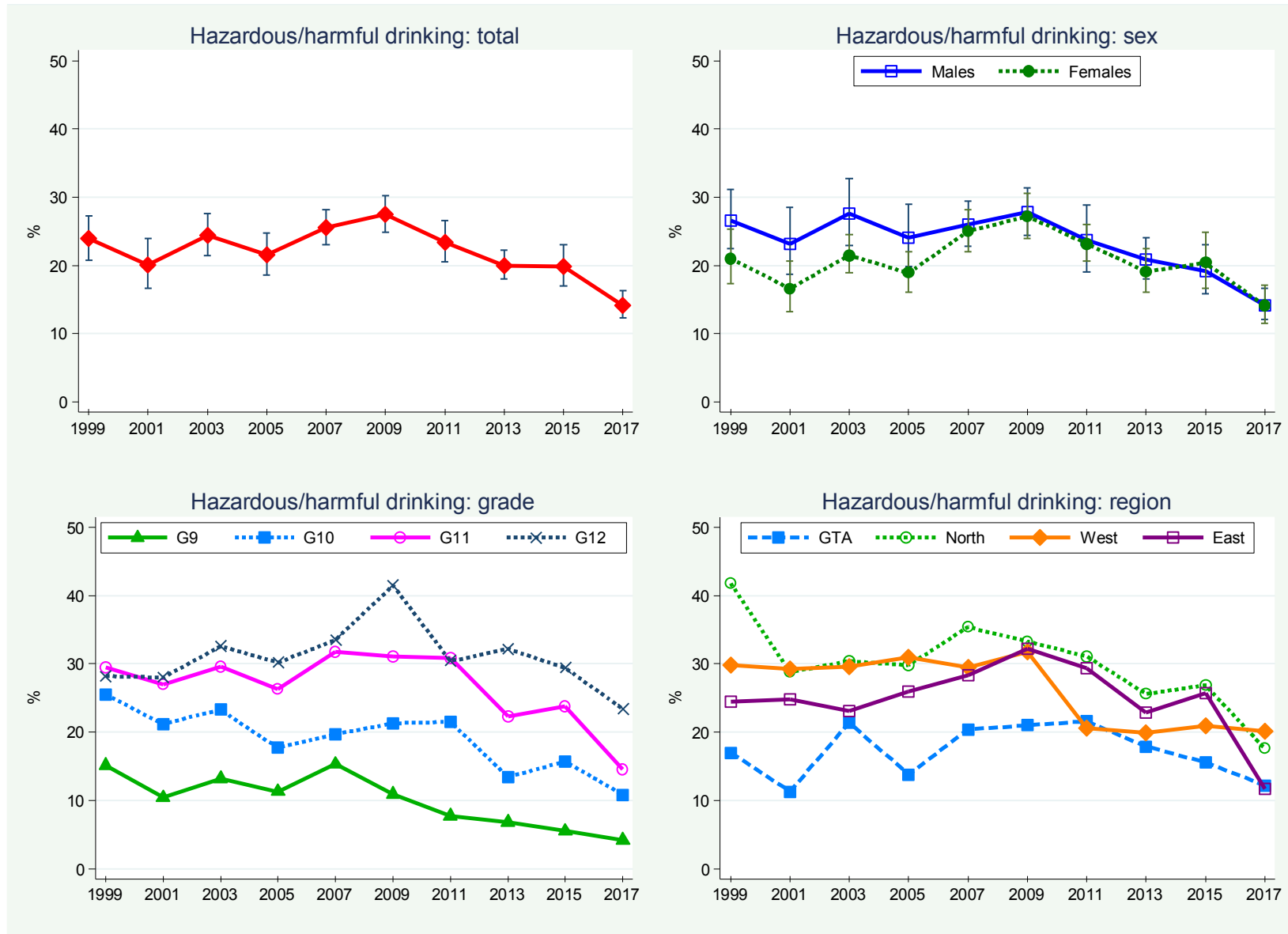


Table 3.4.8: Percentage of the Total Sample Reporting Hazardous/Harmful Drinking (AUDIT 8+), 1999–2017 OSDUHS (Grades 9–12)

	1999 (n=)	2001 (1495)	2003 (1278)	2005 (2455)	2007 (3069)	2009 (2587)	2011 (3055)	2013 (3358)	2015 (3264)	2017 (3426)	2017 (4298)
Total	23.9	20.1	24.4	21.6	25.5	27.5	23.4	20.0	19.8	14.1	14.1 ^{abcd}
(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)	
Sex											
Males	26.6	23.2	27.6	24.1	26.0	27.8	23.7	20.9	19.2	14.2	14.2 ^{ab}
	(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)	
Females	21.0	16.6	21.5	18.9	25.0	27.2	23.2	19.1	20.4	14.1	14.1 ^{ab}
	(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)	
Grade											
9	15.1	10.4	13.2	11.3	15.3	10.9	7.7	6.8	5.5	4.2	4.2 ^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)	
10	25.5	21.2	23.3	17.7	19.7	21.3	21.5	13.4	15.7	10.8	10.8 ^{ab}
	(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)	
11	29.5	27.0	29.6	26.3	31.8	31.1	30.8	22.3	23.8	14.6	14.6 ^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)	
12	28.2	27.9	32.6	30.2	33.5	41.5	30.4	32.2	29.4	23.4	23.4
	(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)	
Region											
GTA	17.0	11.3	21.4	13.8	20.4	21.0	21.6	17.9	15.6	12.2	12.2
	(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)	
North	41.8	28.8	30.4	29.8	35.4	33.3	31.1	25.6	26.9	17.6	17.6 ^{ab}
	(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)	
West	29.8	29.3	29.6	31.0	29.5	31.8	20.6	19.9	20.9	20.1	20.1
	(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)	
East	24.5	24.8	23.1	25.9	28.4	32.2	29.4	22.9	25.7	11.7	11.7 ^{ab}
	(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)	

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) based on a random half sample in each year; (4) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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; Table 3.5.1)

	Cannabis Use in 2017 (Grades 7–12)	Trends in Cannabis Use
Total Sample	<ul style="list-style-type: none"> ■ About one-in-five (19.0%) students report using cannabis at least once during the 12 months before the survey. With the sampling error, we estimate that between 17.1% and 21.0% of students in grades 7 through 12 use cannabis (95% CI). The percentage of 19.0% represents about 172,200 students in Ontario. 	<ul style="list-style-type: none"> □ Among the total sample of students in grades 7 through 12, cannabis use in 2017 (19.0%) is not significantly different from 2015 (21.3%), however use is currently significantly lower than estimates seen in most of the previous cycles going back to 1999 (except for the 2011 cycle). □ Looking back over the past 40 years (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	<ul style="list-style-type: none"> ■ Males (19.6%) and females (18.3%) are equally likely to use cannabis. 	<ul style="list-style-type: none"> □ Neither sex shows a significant change in cannabis use between 2015 and 2017. However, both show a significant downward trend in use over time. The 2017 estimate for males is among the lowest on record. Females show a decline from 2003 to 2011, and stability since then.
Grade	<ul style="list-style-type: none"> ■ Cannabis use significantly increases with grade, from about 2% of 7th and 8th graders reporting past year use up to 36.9% of 12th graders. 	<ul style="list-style-type: none"> □ No grade shows a significant change in cannabis use between 2015 and 2017. Students in grades 7–11 show a significant downward trend in use since 1999/2001. Students in 12th grade show an increase in use between 1999 and 2009, a decline in 2011, and stability since then.
Region	<ul style="list-style-type: none"> ■ Despite some variation, there are no significant regional differences in cannabis use in 2017. 	<ul style="list-style-type: none"> □ No region shows a significant change in cannabis use between 2015 and 2017. All regions, except the East, show a significant downward trend since 1999.

Figure 3.5.1
 Past Year Cannabis Use by Sex, Grade, and Region, 2017 OSDUHS

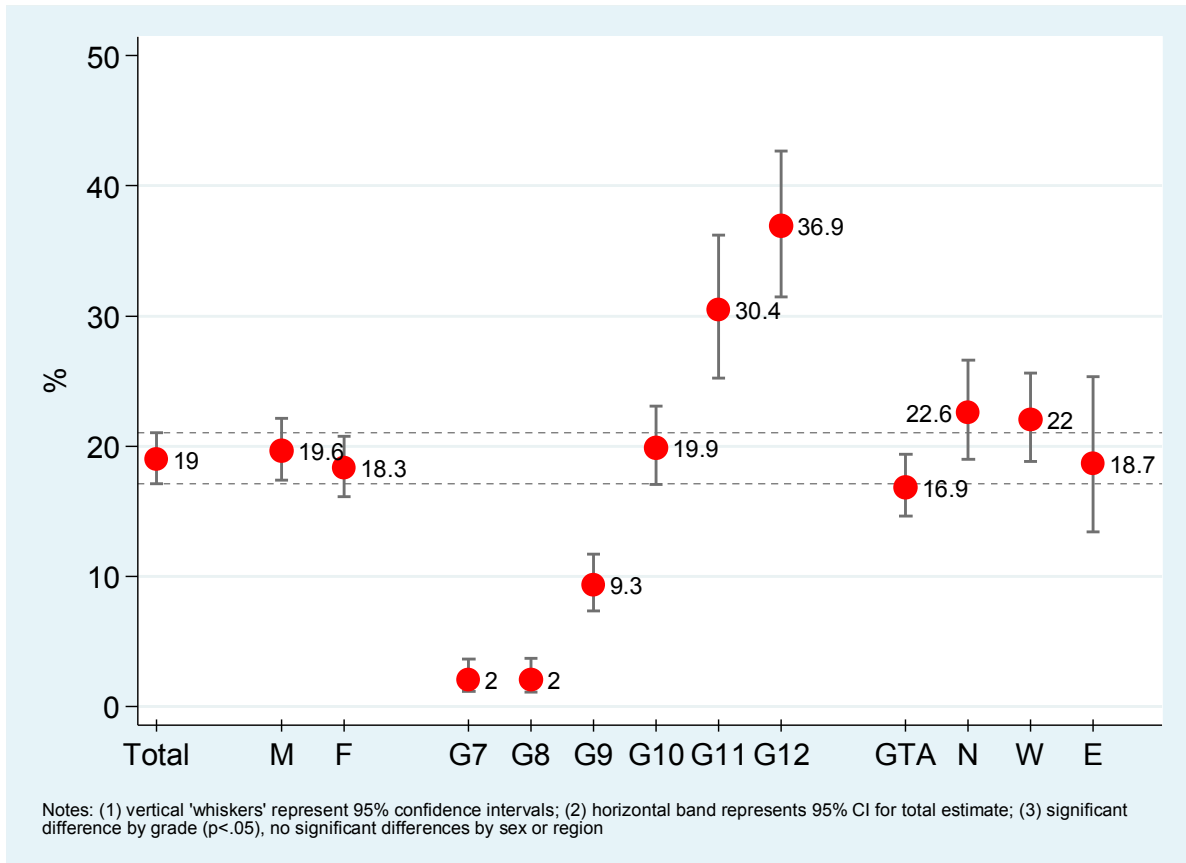


Figure 3.5.2
 Past Year Cannabis Use, 1999–2017 OSDUHS (Grades 7–12)

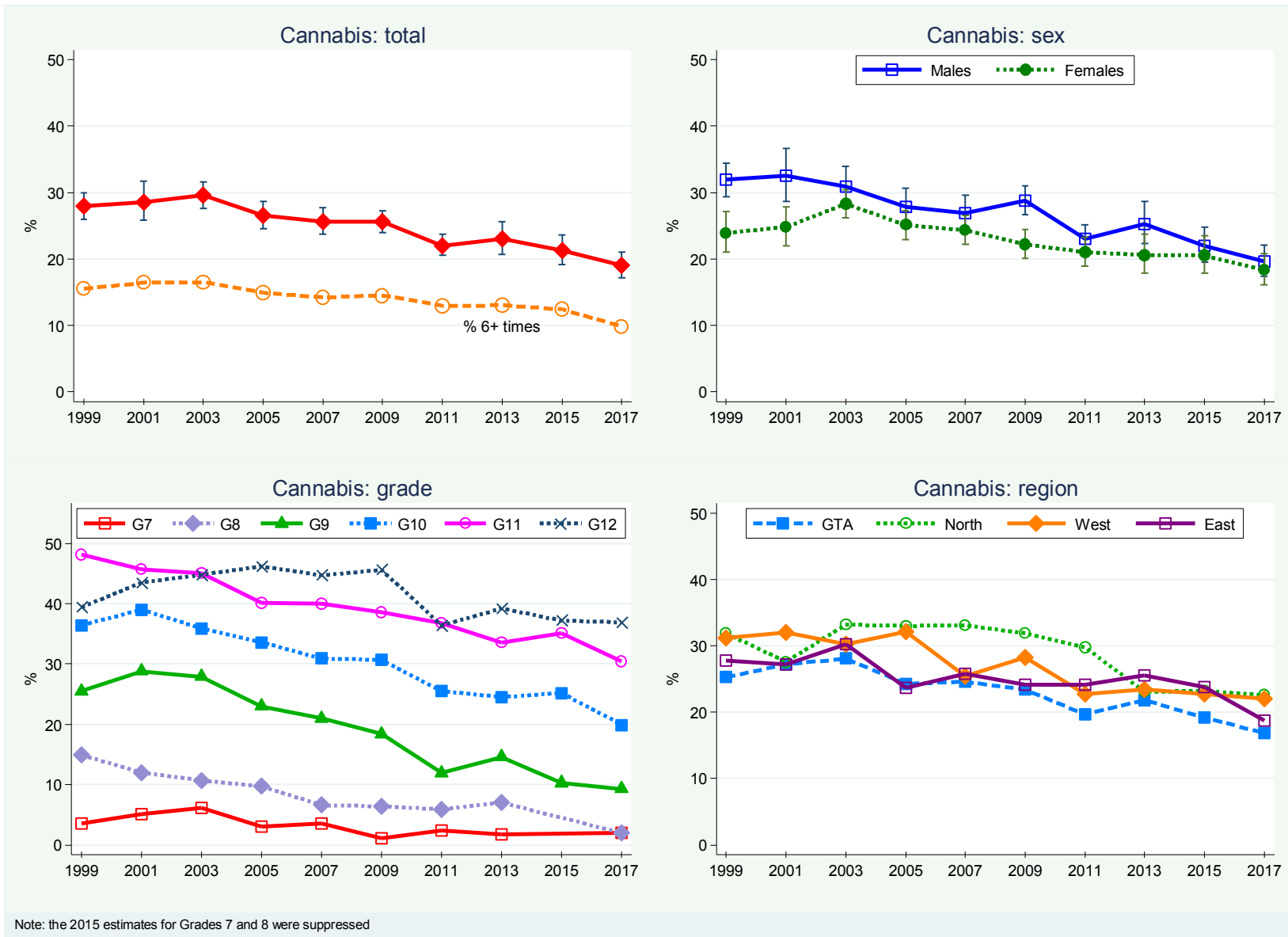


Figure 3.5.3
 Past Year Cannabis Use, 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

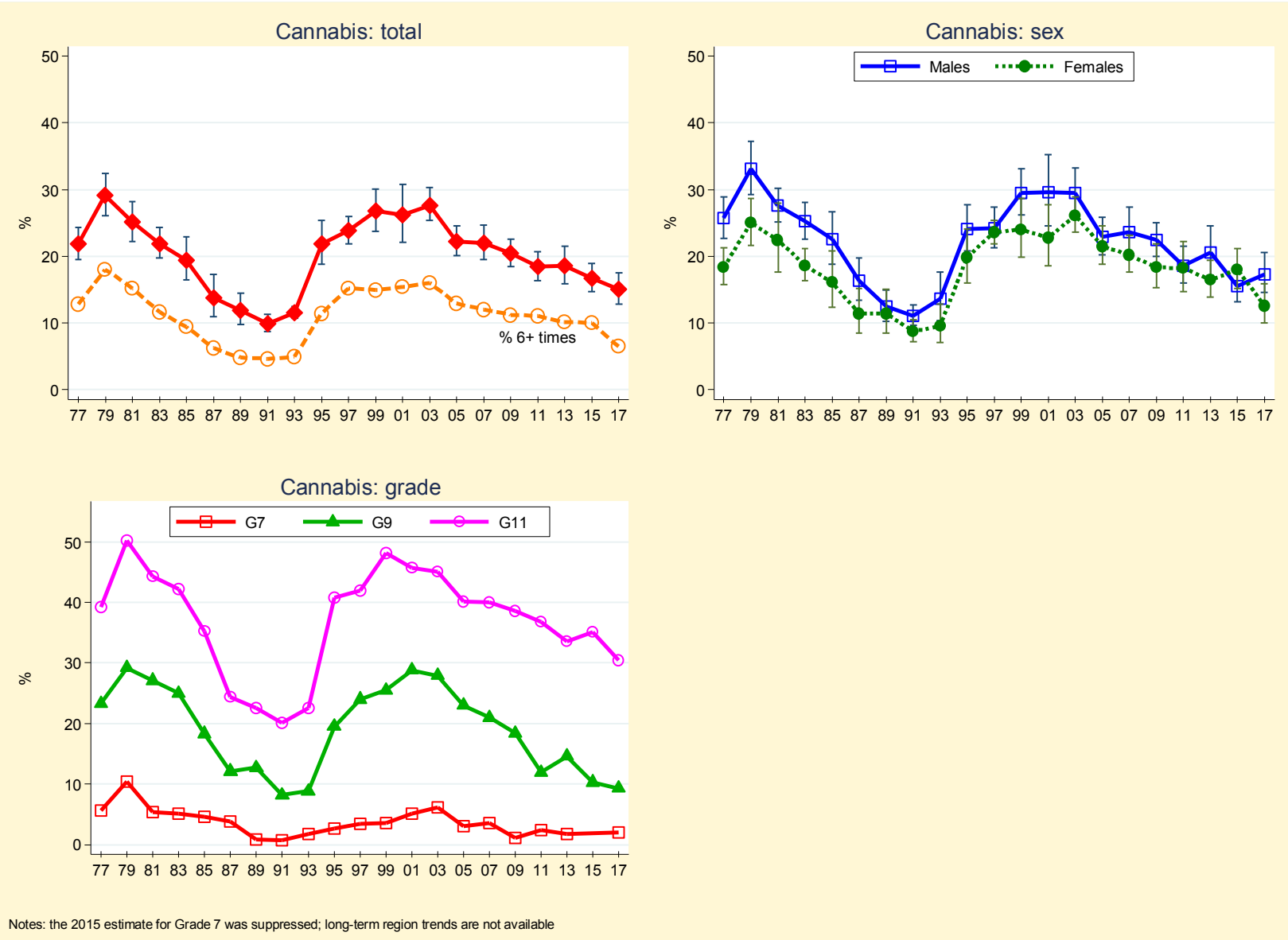


Table 3.5.1: Percentage Reporting Cannabis Use in the Past Year, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Total ¹ (95% CI)	–	–	–	–	–	–	–	–	–	–	–	28.0	28.6	29.6	26.5	25.6	25.6	22.0	23.0	21.3	19.0 ^{bc}
												(26.0-34.0)	(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)
Total ²	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 ^d
	(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)
Sex																					
Males ¹	–	–	–	–	–	–	–	–	–	–	–	31.9	32.5	30.9	27.9	26.9	28.8	23.0	25.3	22.0	19.6 ^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)
Males ²	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
	(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)
Females ¹	–	–	–	–	–	–	–	–	–	–	–	23.9	24.8	28.3	25.1	24.3	22.2	21.0	20.6	20.5	18.3 ^b
												(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)
Females ²	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
	(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)
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
	(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)
8	–	–	–	–	–	–	–	–	–	–	–	14.9	12.0	10.7	9.7	6.6	6.4	5.9	7.0	†	2.0 ^b
												(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)
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 ^b
	(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	–	–	–	–	–	–	–	–	–	–	–	36.4	39.0	35.9	33.6	30.9	30.7	25.5	24.5	25.2	19.9 ^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)
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 ^b
	(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)
12	–	–	–	–	–	–	–	–	–	–	–	39.4	43.5	44.8	46.2	44.7	45.6	36.4	39.2	37.2	36.9
												(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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	(10426)	(11435)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
Region																					
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	25.3	27.2	28.1	24.3	24.6	23.4	19.7	21.8	19.2	16.9 ^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)
North ¹	—	—	—	—	—	—	—	—	—	—	—	31.9	27.6	33.2	33.0	33.1	31.9	29.8	23.1	23.2	22.6 ^b
												(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)
West ¹	—	—	—	—	—	—	—	—	—	—	—	31.2	32.0	30.3	32.1	25.4	28.3	22.7	23.4	22.7	22.0 ^b
												(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)
East ¹	—	—	—	—	—	—	—	—	—	—	—	27.8	27.2	30.3	23.7	25.8	24.1	24.1	25.6	23.8	18.7
												(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)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) no significant differences 2017 vs. 2015; ^b 2017 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 3.5.2–3.5.6; Tables 3.2.2a, 3.2.2b, 3.5.2a–3.5.3)

2017: Grades 7–12

- About one-in-ten (9.8%) students report using cannabis six or more times in the past year (see Table 3.2.2a and Table 3.2.2b for trends). About 9.2% report using between one and five times in the past year.

- During the month (4 weeks) before the survey, 12.1% (95% CI: 10.4%-14.0%) of students used cannabis at least once.

- About 1.4% (95% CI: 1.1%-1.9%) used on a daily basis during the past month – representing about 13,100 Ontario students.

- Daily cannabis use is significantly more likely among males (2.1%) than females (0.7%).

- Older students are significantly more likely to use cannabis daily than younger students.

- There are significant regional differences as well showing that students in the GTA are least likely to use cannabis daily.

1999–2017: Grades 7–12

- Cannabis use six or more times in the past year has not significantly changed since 2015, but is currently lower than all other cycles going back to 1999.

- The percentage reporting any cannabis use in the past month in 2017 (12.1%) is similar to the estimate from 2015 (13.8%) and estimates seen in recent years, but significantly lower than estimates seen in 1999 and the early 2000s (about 21%-22%).

- While daily cannabis use did not significantly change between 2015 (2.1%) and 2017 (1.4%), the current estimate is significantly lower than estimates seen in prior years, especially those seen in 1999 and the early 2000s (about 3%-4%).

1981–2017: 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, and is similar to the lows seen in the late 1980s and early 1990s (see Tables 3.2.2b and 3.5.2b).

- Similarly, as seen in Figure 3.5.6, frequent cannabis use (three or more times per week in the past month) is lower than the peaks seen in the late 1990s/early 2000s, and is similar to those seen in the late 1980s and early 1990s.

Table 3.5.2a: Frequency of Cannabis Use in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

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

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 3.5.2b: Frequency of Cannabis Use in the Past Year, 1981–2017 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
(n=)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	(5225)	(5686)
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
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
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
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
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
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
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

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

Figure 3.5.4
 Frequency of Cannabis Use in the Past Month, 2017 OSDUHS (Grades 7–12)

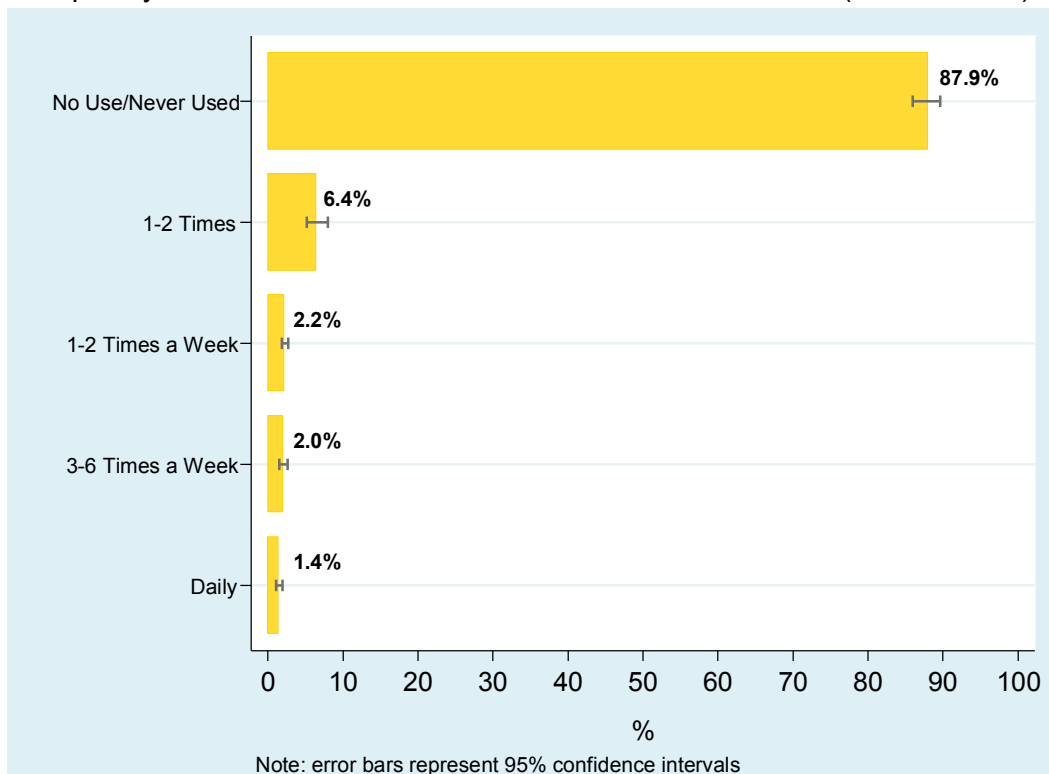


Figure 3.5.5
 Daily Cannabis Use in the Past Month by Sex, Grade, and Region, 2017 OSDUHS

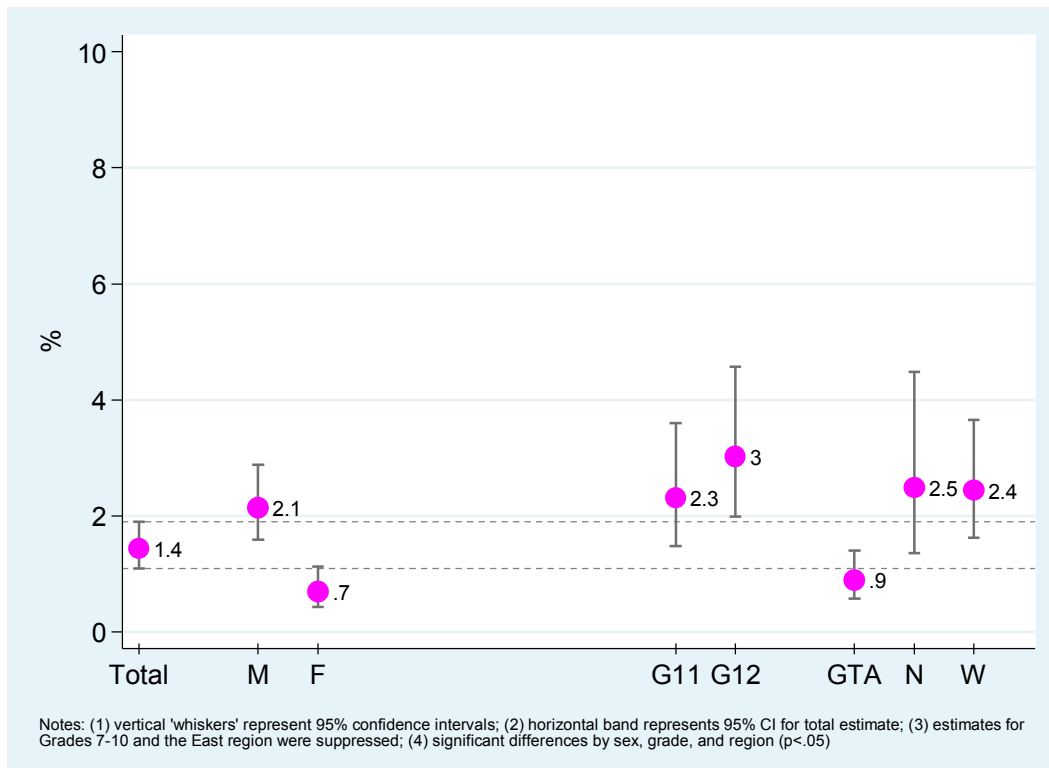


Table 3.5.3: Frequency of Cannabis Use in the Past Month, 1999–2017 OSDUHS (Grades 7–12)

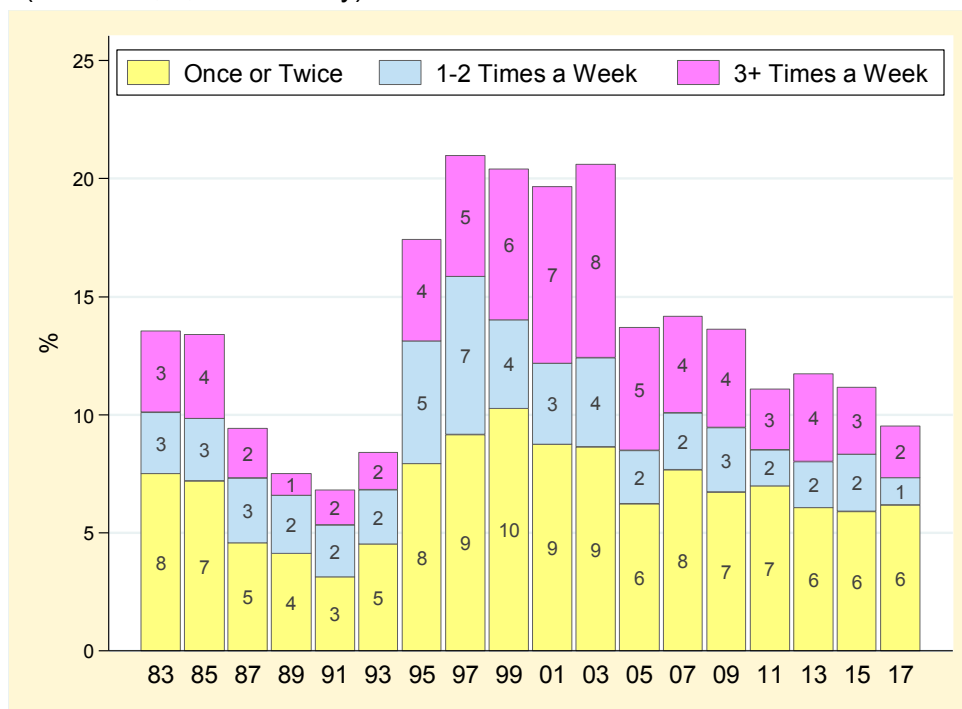
	(n=)	1999 (4447)	2001 (1837)	2003 (3152)	2005 (4078)	2007 (3388)	2009 (4851)	2011 (4816)	2013 (10272)	2015 (10426)	2017 (11435)
Not Used in the Past Month											
Total		79.1	78.4	79.4	83.9	83.9	86.6	82.8	85.8	86.2	87.9^b
Sex	Males	75.2	75.4	76.2	82.1	82.5	84.0	81.0	83.6	85.3	86.7
	Females	83.2	81.4	82.4	85.8	85.3	89.2	84.6	88.3	87.2	89.1
1-2 Times											
Total		10.2	10.1	8.8	7.8	8.8	7.4	8.9	7.0	6.9	6.4
Sex	Males	10.6	10.0	8.4	7.1	8.2	7.8	8.8	7.4	6.9	6.2
	Females	9.8	10.3	9.3	8.5	9.4	7.0	8.9	6.6	6.9	6.7
1-2 Times Each Week											
Total		4.3	3.9	3.7	2.4	2.9	2.0	2.9	2.4	2.7	2.2
Sex	Males	5.2	5.1	4.1	2.6	2.6	2.6	3.1	2.7	3.0	2.5
	Females	3.3	2.7	3.2	2.1	3.2	1.3	2.7	2.0	2.3	2.0
3-6 Times Each Week											
Total		3.8	4.5	4.0	2.8	1.9	1.7	2.5	2.1	2.1	2.0
Sex	Males	5.2	4.6	5.1	3.4	2.6	2.0	3.3	2.5	2.5	2.5
	Females	2.5	4.4	3.8	2.0	1.2	1.4	1.6	1.8	1.7	1.5
Daily Use											
Total		2.5	3.1	4.2	3.2	2.5	2.3	2.9	2.7	2.1	1.4
Sex	Males	3.8	5.0	6.2	4.8	4.1	3.5	3.8	3.9	2.3	2.1
	Females	1.2	1.2	2.2	1.6	1.0	†	2.1	1.3	1.9	0.7

Notes: (1) question asked of a random half sample between 2001 and 2011; (2) † estimate suppressed due to unreliability; (3) no significant differences 2017 vs. 2015; ^b 2017 vs. 1999 significant difference, p<.01.

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

Figure 3.5.6
Frequency of Cannabis Use in the Past Month, 1983–2017 OSDUHS
(Grades 7, 9, and 11 only)



Cannabis and Alcohol Use on the Same Occasion

(Figure 3.5.7)

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. We also compare the 2017 estimate with the estimate from 2013, which was the previous cycle that included this question.

- Males (13.7%) and females (12.5%) are equally likely to use cannabis and alcohol on the same occasion.
- Students in grades 11 and 12 are most likely to use both drugs on the same occasion (about 24%-29%).
- There are no significant regional differences.

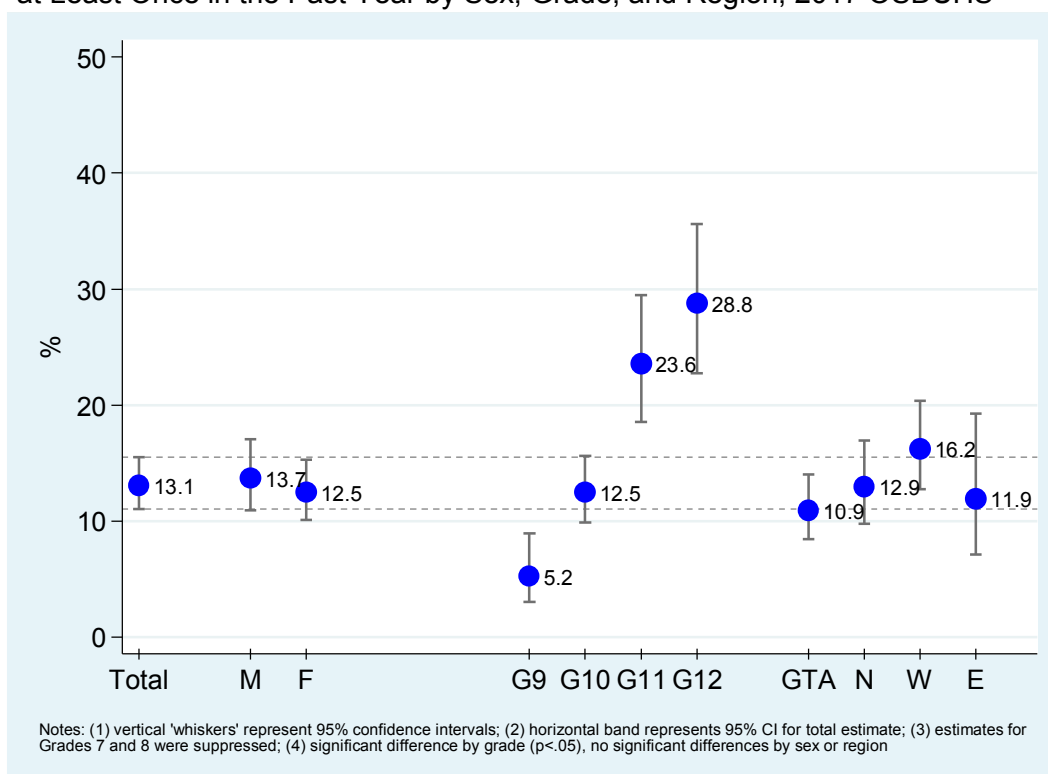
2017: Grades 7–12

- About one-in-eight (13.1%) students used alcohol and cannabis on the same occasion at least once in the past year. This percentage represents about 98,900 Ontario students in grades 7-12.

2017 vs. 2013: Grades 7–12

- The percentage using cannabis and alcohol on the same occasion in 2017 does not significantly differ from the previous estimate in 2013 (16.0%; 95% CI: 13.5%-18.8%). Neither males nor females show a significant difference in 2017 compared with their respective 2013 estimates.

Figure 3.5.7
Percentage Reporting Using Cannabis and Alcohol on the Same Occasion at Least Once in the Past Year by Sex, Grade, and Region, 2017 OSDUHS



Modes of Cannabis Use

(Figures 3.5.8 and 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); and Had a drink that contained cannabis (such as a tea).*

2017: Grades 9–12

- Among secondary students, the most common mode of using cannabis is smoking it in a pipe or bong (21.4%), followed by smoking it in a joint (19.8%). The least common mode is to use cannabis in a drink, such as a tea (2.4%).
- There are some significant differences in the modes of cannabis use according to sex. Males are significantly more likely than females to use cannabis in an electronic cigarette, a waterpipe, and in a drink.
- There are significant grade differences for all modes of use, with older students more likely to use each mode than younger students (data not shown).

2017 vs 2015: Grades 9–12

- The 2015 cycle of the OSDUHS asked secondary students if they used cannabis in an electronic cigarette in the past 12 months.⁷⁶ The 2015 estimate was 5.1% (95% CI: 4.2%-6.2%). This does not significantly differ from the 2017 estimate for cannabis use in an electronic cigarette (6.9%).

⁷⁶ The question used 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 OSDUHS (Grades 9–12)

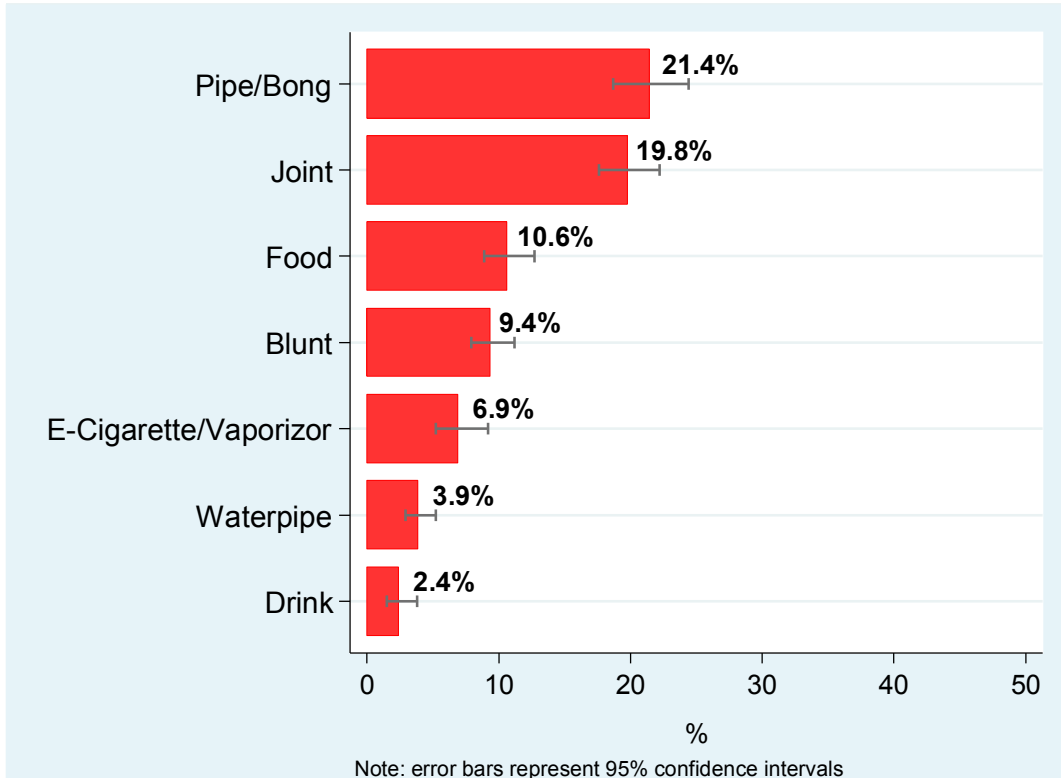
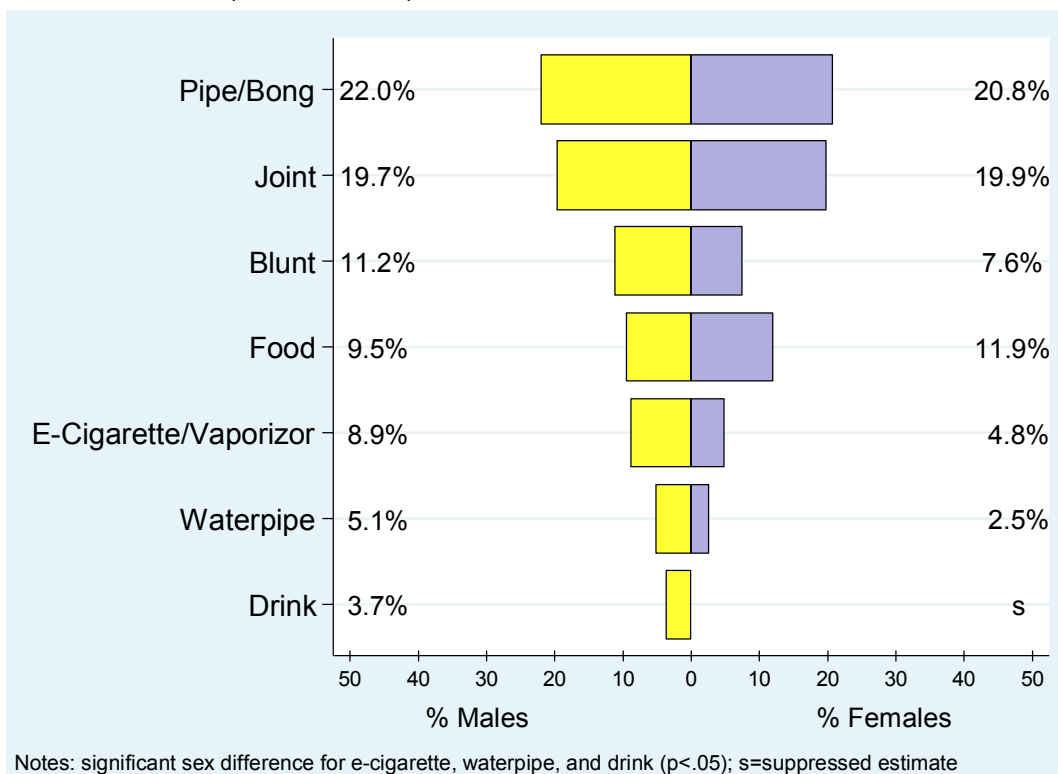


Figure 3.5.9
 Percentage Reporting Modes of Cannabis Use in the Past Year by Sex,
 2017 OSDUHS (Grades 9–12)



Cannabis Use for Medical Purposes

(Figure 3.5.10)

Starting in 2017, secondary students were asked about using cannabis for medical purposes. The question, asked of a random half sample, was “*In the last 12 months, have you used cannabis (in any form) to manage pain, nausea, or any other medical problem?*” Here we present the percentage responding “yes.”

2017: Grades 9–12

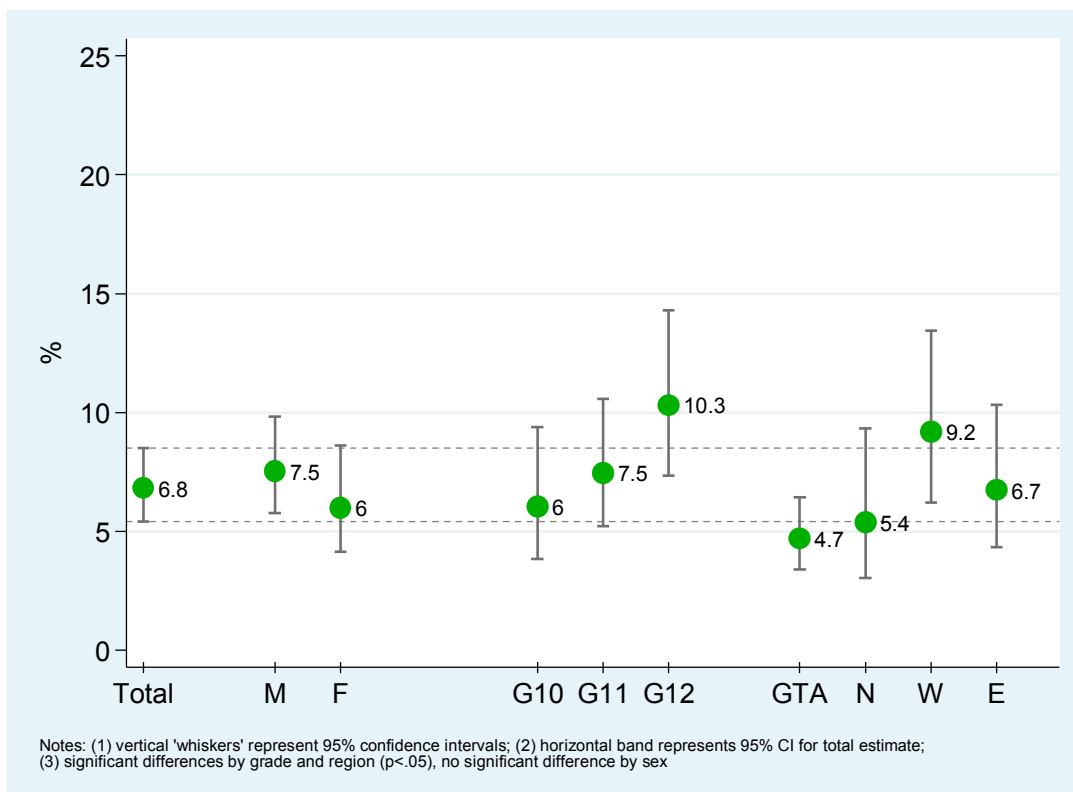
- About 6.8% (95% CI: 5.4%-8.5%) of secondary students report using cannabis for medical purposes in the past year. This percentage represents about 35,000 students in grades 9–12.

- Males (7.5%) and females (6.0%) are equally likely to report using cannabis for medical purposes.

- There is significant grade variation, with 12th graders (10.3%) more likely to report using cannabis for medical purposes than younger students.

- There is significant regional variation, with students in the West region (9.2%) most likely to report using cannabis for medical purposes.

Figure 3.5.10
Percentage Reporting Using Cannabis for Medical Purposes in the Past Year by Sex, Grade, and Region, 2017 OSDUHS (Grades 9–12)



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 Always*. 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 ($\alpha=0.79$).

2017: Grades 9–12 (Among the Total Sample)

- An estimated 1.9% of students in grades 9 through 12 report symptoms of cannabis dependence. This percentage represents about 9,800 Ontario secondary students. Males (2.2%) and females (1.6%) are equally likely to report dependence symptoms.

2017: Grades 9–12 (Among Cannabis Users)

- When we look at the results among users only, about 7.2% of past year cannabis users in grades 9–12 report dependence symptoms.

2007–2017: Grades 9–12

- Among the total sample, the percentage reporting symptoms of cannabis dependence in 2017 is similar to the percentage in 2015, but is significantly lower than estimates from a decade ago (2007 and 2009).

Table 3.5.4: Percentage of the Total Sample, and of Past Year Cannabis Users, Reporting Severity of Dependence (SDS) Indicators Experienced in the Past Three Months, 2017 OSDUHS (Grades 9–12)

	Total Sample (n=3,289)	Past Year Users (n=789)
1. Your cannabis use was out of control *	3.7	13.7
2. Idea of missing a smoke of cannabis made you very anxious or worried *	5.1	17.9
3. Worried about your use of cannabis †	5.8	21.8
4. Wished you could stop using cannabis *	3.7	13.8
5. Would be difficult for you to stop or go without using cannabis ‡	1.6	5.4
% SDS Score 4+ (95 % CI)	1.9 (1.3-2.8)	7.2 (5.0-10.3)

Notes: based on a random half sample of secondary school students; 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), 2007–2017 OSDUHS (Grades 9–12)

	(n=)	2007 (2587)	2009 (3055)	2011 (3358)	2013 (3264)	2015 (3171)	2017 (3289)
Total		3.5	3.6	2.7	2.7	2.2	1.9 ^{bc}
(95% CI)		(2.8-4.4)	(2.7-4.7)	(1.8-4.3)	(1.9-3.8)	(1.5-3.2)	(1.3-2.8)
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)
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)
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)	†
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)
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)
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)
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)	†
West		3.6 (2.4-5.4)	†	†	2.9 (1.3-6.4)	2.5 (1.5-4.2)	†
East		3.5 (2.4-5.1)	6.6 (4.0-10.8)	3.6 (2.0-6.1)	†	†	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) † estimate suppressed due to unreliability; (4) cannabis dependence is indicated by a score of 4 or higher (of 15) on the SDS; (5) scale asked of a random half sample of secondary school students; (6) no significant differences 2017 vs. 2015; ^b 2017 vs. 2007 significant difference, p<.01; ^c significant linear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Synthetic Cannabis (“Spice,” “K2”) Use

(Table 3.5.6)

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 is 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.

	“Spice” Use in 2017 (Grades 7–12)	2013–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ Among students in grades 7 through 12, the percentage reporting using synthetic cannabis at least once in the past year is 1.5%. This estimate represents about 13,800 students in Ontario. 	<ul style="list-style-type: none"> □ Among all students, the past year use of synthetic cannabis has remained stable since 2013, at about 1%-2%.
Sex	<ul style="list-style-type: none"> ■ There is no significant difference between males (1.6%) and females (1.4%). 	<ul style="list-style-type: none"> □ Neither males nor females show a significant change in use since 2013.
Grade	<ul style="list-style-type: none"> ■ There is variation by grade. Students in grades 7–9 report almost no use of synthetic cannabis in the past year (suppressed estimates). About 2% of students in the older grades report use. 	<ul style="list-style-type: none"> □ No grade shows a significant change since 2013.
Region	<ul style="list-style-type: none"> ■ There is no significant regional variation. 	<ul style="list-style-type: none"> □ No region shows a significant change since 2013.

Table 3.5.6: Percentage Reporting Synthetic Cannabis (“Spice,” “K2”) Use in the Past Year, 2013–2017 OSDUHS

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

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) 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 Other Illicit Drug Use

3.6.1 Other Illicit Drug Use Among Grades 7–12

Past Year Inhalant Use: Glue or Solvents

(Figures 3.6.1–3.6.3; Table 3.6.1)

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 2017 (Grades 7–12)	Trends in Inhalant Use
Total Sample	<ul style="list-style-type: none"> Overall, 3.4% 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 4.1% (95% CI) of students inhaled glue or solvents. The current estimate of 3.4% represents about 25,400 students in grades 7 through 12 in Ontario. 	<ul style="list-style-type: none"> The percentage of students in grades 7–12 who inhale glue or solvents in 2017 (3.4%) is not significantly different from the estimate seen in 2015 (2.8%) or in 2013 (3.4%). However, the current percentage is significantly lower than the estimates from 1999 to 2011. Looking back over the past 40 years (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 late 1980s and early 1990s.
Sex	<ul style="list-style-type: none"> There is no significant difference in use between males (3.0%) and females (3.7%). 	<ul style="list-style-type: none"> Neither sex shows a significant change in use between 2015 and 2017. Both sexes show a significant decreasing linear trend from 1999 to 2013 and stability since then.
Grade	<ul style="list-style-type: none"> Inhaling glue or solvents significantly decreases with grade, from 6.2% of 7th graders to 1.9% of 11th graders. 	<ul style="list-style-type: none"> No grade shows a significant change in use between 2015 and 2017. All grades, except grades 10 and 12, show a significant downward trend since 1999 and stability in recent years.
Region	<ul style="list-style-type: none"> There are significant regional differences, with GTA students (4.8%) most likely to use compared with students in the other three regions (2%-3%). 	<ul style="list-style-type: none"> No region shows a significant change in use between 2015 and 2017. All regions, except the East, show a significant downward trend since 1999 and stability in recent years.

Figure 3.6.1
 Past Year Inhalant Use (Glue or Solvents) by Sex, Grade, and Region,
 2017 OSDUHS

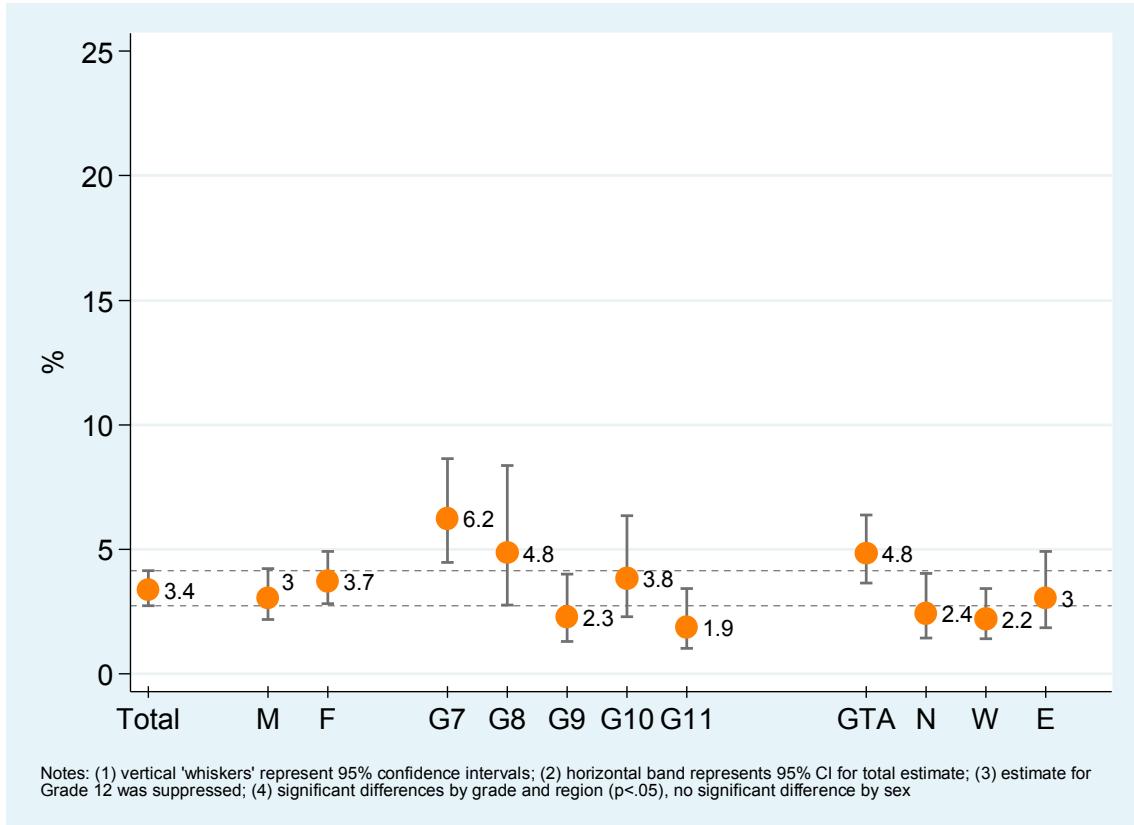


Figure 3.6.2
 Past Year Inhalant Use (Glue or Solvents), 1999–2017 OSDUHS (Grades 7–12)

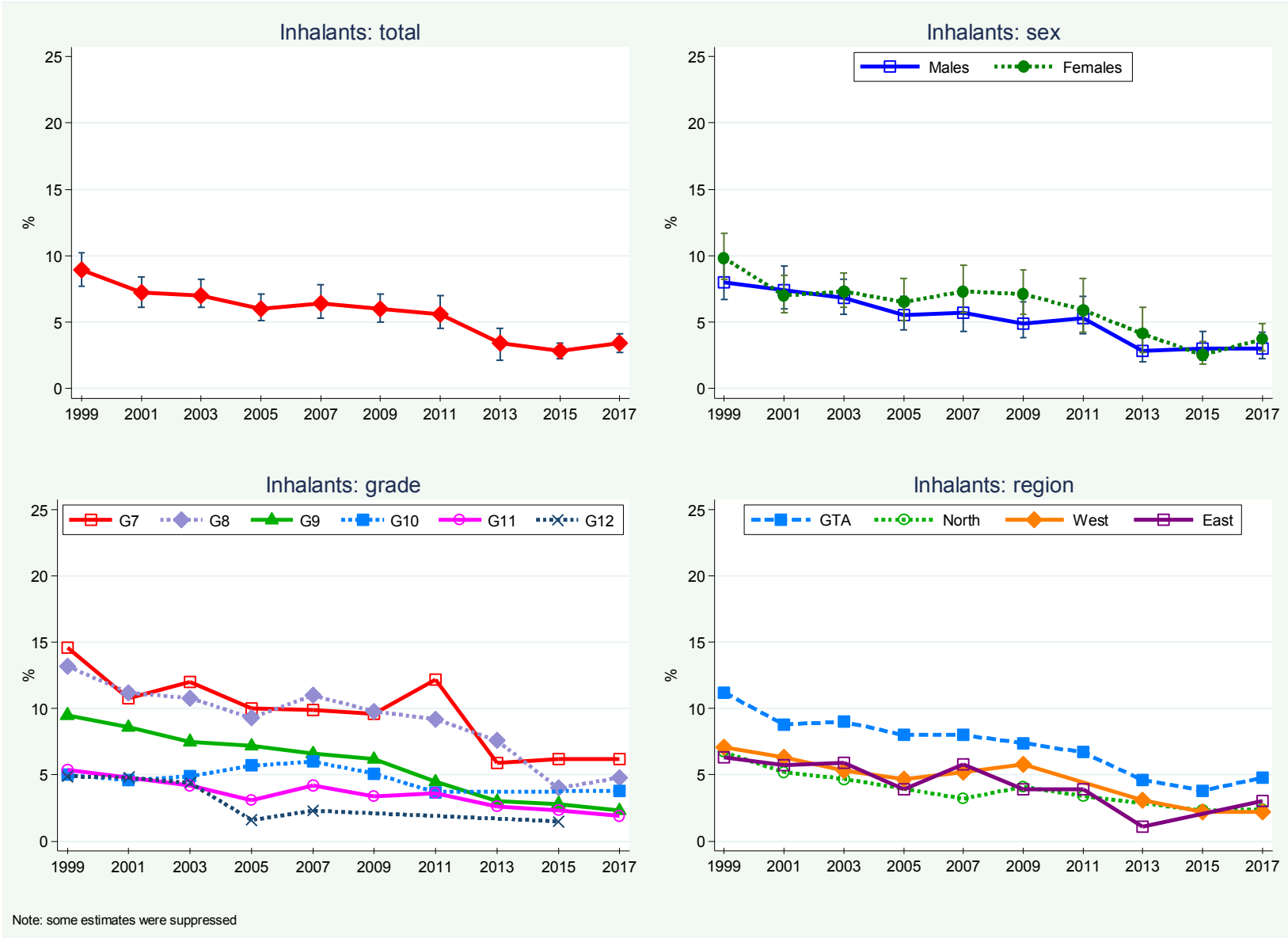


Figure 3.6.3
 Past Year Inhalant Use (Glue or Solvents), 1977–2017 OSDUHS (Grades 7, 9, and 11 only)

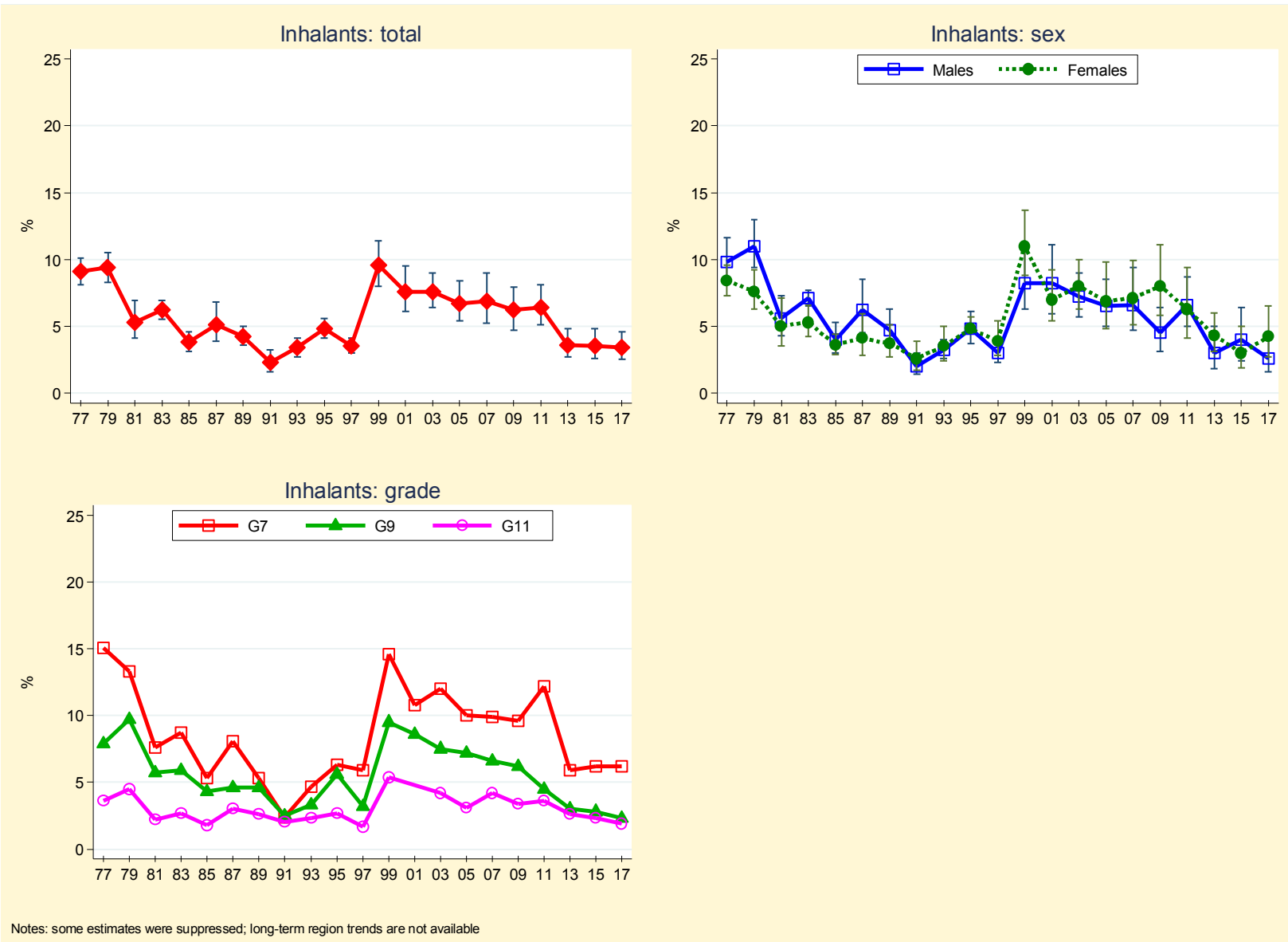


Table 3.6.1: Percentage Reporting Inhalant Use (Glue or Solvents) During the Past Year, 1977–2017 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	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 ^{bc} (2.7-4.1)
Total ²	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 ^{cd} (2.5-4.6)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	8.0 (6.7-9.5)	7.4 (6.0-9.2)	6.8 (5.6-8.2)	5.5 (4.4-6.9)	5.7 (4.3-7.5)	4.9 (3.8-6.5)	5.3 (4.1-6.9)	2.8 (2.0-4.0)	3.0 (2.1-4.3)	3.0 ^b (2.2-4.2)
Males ²	9.8 (8.2-11.6)	11.0 (9.4-13.0)	5.6 (4.3-7.3)	7.1 (6.5-7.7)	4.0 (3.0-5.3)	6.2 (4.5-8.5)	4.7 (3.6-6.3)	2.0 (1.4-3.0)	3.2 (2.6-4.0)	4.8 (3.7-6.1)	3.0 (2.3-4.0)	8.2 (6.3-10.6)	8.2 (5.9-11.1)	7.2 (5.7-9.0)	6.5 (5.0-8.5)	6.6 (4.7-9.4)	4.5 (3.1-6.4)	6.6 (5.0-8.7)	3.0 (1.8-5.0)	4.0 (2.4-6.4)	2.6 (1.6-4.3)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	9.8 (8.2-11.7)	7.0 (5.7-8.5)	7.3 (6.1-8.7)	6.5 (5.1-8.3)	7.3 (5.7-9.3)	7.1 (5.6-8.9)	5.9 (4.2-8.2)	4.1 (2.7-6.1)	2.5 (1.8-3.5)	3.7 ^b (2.8-4.9)
Females ²	8.4 (7.3-9.6)	7.6 (6.3-9.2)	5.0 (3.5-7.1)	5.3 (4.2-6.6)	3.6 (2.9-4.4)	4.1 (2.8-5.9)	3.7 (2.7-5.1)	2.6 (1.7-3.9)	3.5 (2.4-5.0)	4.8 (4.9-5.7)	3.9 (2.8-5.4)	11.0 (8.8-13.7)	7.0 (5.4-9.2)	8.0 (6.3-10.0)	6.9 (4.8-9.8)	7.1 (5.1-9.9)	8.0 (5.8-11.1)	6.3 (4.1-9.4)	4.3 (3.1-6.0)	3.0 (1.9-5.0)	4.2 (2.7-6.5)
Grade																					
7	15.1 (13.2-17.1)	13.3 (11.5-15.3)	7.6 (4.6-12.6)	8.7 (7.4-10.3)	5.3 (3.9-7.2)	8.1 (5.2-12.4)	5.3 (3.9-7.1)	2.4 (1.2-4.46)	4.7 (3.4-6.4)	6.3 (4.8-8.1)	5.9 (4.7-7.3)	14.6 (11.6-18.1)	10.8 (8.4-13.8)	12.0 (8.6-16.4)	10.0 (7.0-14.2)	9.9 (6.3-15.4)	9.6 (6.4-14.1)	12.2 (8.9-16.6)	5.9 (4.1-8.4)	6.2 (3.7-10.2)	6.2 ^b (4.5-8.6)
8	—	—	—	—	—	—	—	—	—	—	—	13.2 (10.5-16.5)	11.2 (8.9-14.1)	10.8 (8.1-14.3)	9.3 (7.1-12.3)	11.0 (8.4-14.5)	9.8 (7.3-13.2)	9.2 (6.6-12.8)	7.6 (4.9-11.6)	4.0 (2.5-6.3)	4.8 ^b (2.8-8.4)
9	7.9 (6.7-9.4)	9.7 (7.9-11.9)	5.7 (4.6-7.2)	5.9 (5.0-7.0)	4.3 (3.2-5.8)	4.6 (3.3-6.2)	4.6 (3.7-5.8)	2.5 (1.7-3.8)	3.3 (3.1-3.5)	5.6 (4.5-6.8)	3.2 (2.5-4.2)	9.5 (7.3-12.3)	8.6 (6.3-11.6)	7.5 (6.0-9.3)	7.2 (5.1-10.1)	6.6 (4.2-10.4)	6.2 (3.9-9.8)	4.5 (3.2-6.5)	3.0 (1.9-4.7)	2.8 (1.6-4.7)	2.3 ^b (1.3-4.0)
10	—	—	—	—	—	—	—	—	—	—	—	5.0 (3.3-7.6)	4.6 (2.9-7.4)	4.9 (3.6-6.6)	5.7 (4.0-8.2)	6.0 (4.1-8.7)	5.1 (3.5-7.6)	3.7 (2.2-6.2)	†	†	3.8 (2.3-6.3)
11	3.6 (2.5-5.0)	4.5 (3.3-6.2)	2.2 (1.3-3.6)	2.7 (2.1-3.6)	1.8 (1.1-2.9)	3.0 (1.9-4.8)	2.6 (2.0-3.4)	2.0 (1.0-3.6)	2.3 (1.3-4.0)	2.7 (1.7-4.2)	1.7 (1.0-2.8)	5.4 (3.4-8.6)	†	4.2 (3.0-5.9)	3.1 (1.9-5.2)	4.2 (2.6-6.8)	3.4 (2.0-5.8)	3.6 (1.9-6.6)	2.6 (1.4-4.8)	2.3 (1.3-4.1)	1.9 ^b (1.0-3.4)
12	—	—	—	—	—	—	—	—	—	—	—	4.9 (3.1-7.7)	4.8 (3.0-7.5)	4.4 (3.1-6.3)	1.6 (0.8-2.9)	2.3 (1.4-4.0)	†	†	†	1.5 (0.8-2.7)	†

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)	
(n ²)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	11.2	8.8	9.0	8.0	8.0	7.4	6.7	4.6	3.8	4.8 ^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)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	6.7	5.2	4.7	†	3.2	4.1	3.4	†	2.3	2.4 ^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)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	7.1	6.3	5.3	4.7	5.2	5.8	†	3.1	2.2	2.2 ^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)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	6.3	5.7	5.9	3.9	5.8	3.9	3.9	1.1	†	3.0	
												(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)	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) † estimate suppressed due to unreliability; (5) GTA=Greater Toronto Area; (6) long-term region trends are not available; (7) question asked of a random half sample starting in 2005; (8) estimates prior to 2011 are based on two separate questions (glue and solvent use) in the questionnaire; (9) no significant differences 2017 vs. 2015; ^b 2017 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 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 Salvia Divinorum Use

(Table 3.6.2)

Salvia divinorum (also known as “salvia,” “magic mint”) is a legal plant that can be purchased online or in “head shops.” This drug can be ingested either by chewing the fresh leaves, drinking their extracted juices, or smoking the dried leaves. Its effects include short-lived hallucinations and delusions, feeling detached from one’s body, and loss of coordination. Use was first monitored in the 2009 cycle.

	Salvia Divinorum Use in 2017 (Grades 7–12)	2009–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ In 2017, 0.6% of students in grades 7 through 12 report using salvia divinorum at least once in the past year. This percentage represents roughly 4,600 students in Ontario. 	<ul style="list-style-type: none"> □ Salvia use in 2017 (0.6%) is significantly lower than in 2015 (1.6%). In fact, the 2017 estimate is the lowest seen since 2009 (4.4%), the first year of monitoring.
Sex	<ul style="list-style-type: none"> ■ There is no significant difference in use between males (0.9%) and females (estimate suppressed). 	<ul style="list-style-type: none"> □ Neither males nor females show a significant change in 2017 compared with their respective 2015 estimates. However, both sexes show a significant linear decline over time.
Grade	<ul style="list-style-type: none"> ■ Estimates by grade were suppressed. 	<ul style="list-style-type: none"> □ No grade shows a significant change between 2015 and 2017. Students in the older grades show a significant decline over time.
Region	<ul style="list-style-type: none"> ■ Estimates by region were suppressed. 	<ul style="list-style-type: none"> □ No region shows a significant change between 2015 and 2017. All regions show a significant decline over time.

Table 3.6.2: Percentage Reporting Salvia Divinorum Use in the Past Year, 2009–2017 OSDUHS

	(n=)	2009 (4220)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
Total		4.4	3.7	2.6	1.6	0.6 ^{abc}
(95% CI)		(3.3-5.7)	(2.8-4.8)	(1.7-3.8)	(1.1-2.3)	(0.4-1.0)
Sex						
Males		6.2	5.1	3.6	2.2	0.9 ^b
		(4.7-8.2)	(3.7-6.8)	(2.2-5.8)	(1.4-3.5)	(0.5-1.6)
Females		2.3	2.1	1.5	1.0	†
		(1.5-3.5)	(1.1-4.0)	(0.9-2.2)	(0.6-1.7)	
Grade						
7		†	†	†	†	†
8		†	†	†	†	†
9		†	3.1	†	†	†
			(1.7-5.4)			
10		4.7	5.0	2.7	†	† ^b
		(2.9-7.3)	(3.2-7.8)	(1.6-4.4)		
11		8.6	5.2	4.3	2.2	† ^b
		(6.4-11.4)	(3.5-7.6)	(2.4-7.4)	(1.3-3.6)	
12		8.4	6.2	4.4	4.1	† ^b
		(5.4-12.7)	(3.3-11.3)	(2.4-7.8)	(2.4-7.1)	
Region						
Greater Toronto Area		3.4	2.5	2.8	1.6	† ^b
		(2.3-4.8)	(1.7-3.6)	(1.6-4.7)	(1.0-2.5)	
North		9.2	4.9	†	†	† ^b
		(6.5-12.8)	(2.8-8.6)			
West		5.4	†	1.9	1.0	† ^b
		(2.9-9.6)		(1.0-3.5)	(0.5-1.9)	
East		3.5	5.3	†	†	† ^b
		(2.4-5.0)	(4.0-7.1)			

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 vs. 2009 significant difference, p<.01; ^c significant linear trend, p<.01.

Q: In the last 12 months, how often did you use salvia divinorum (also known as “sally-D”, “magic mint”, “sadi”)?

Source: OSDUHS, Centre for Addiction & Mental Health

3.6.2 Other Illicit Drug Use Among Grades 9–12

Past Year LSD Use

(Figures 3.6.4, 3.6.5; Table 3.6.3)

LSD (also known as “acid”) is a semi-synthetic hallucinogenic substance, originally derived from a fungus. LSD is usually taken orally. 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 2017 (Grades 9–12)	Trends in LSD Use
Total Sample	<ul style="list-style-type: none"> ■ LSD use is reported by 1.5% of Ontario students in grades 9 through 12 (representing about 9,900 students). With the sampling error, we estimate that between 1.1% and 2.0% (95% CI) of students in Ontario use LSD. 	<ul style="list-style-type: none"> □ LSD use remained stable between 2015 and 2017 (both years at 1.5%) among the total sample of secondary students. There was a significant downward trend between 1999 and 2005 (from 8.8% down to 2.2%), followed by low and stable estimates between 2005 and 2017. □ Looking back over the past 40 years (among grades 9 and 11 only), LSD use decreased in the 1980s and early 1990s, made a brief comeback between 1991 and 1995, and has been moving downward since then, recently reaching the lowest levels on record.
Sex	<ul style="list-style-type: none"> ■ Males (2.0%) are significantly more likely than females (1.0%) to use LSD. 	<ul style="list-style-type: none"> □ No sex shows a significant change in LSD use between 2015 and 2017. Both males and females show a significant decline in use between 1999 and 2005, followed by low and stable estimates.
Grade	<ul style="list-style-type: none"> ■ LSD use does not significantly vary by grade. 	<ul style="list-style-type: none"> □ No grade shows a significant change in LSD use between 2015 and 2017. All four grades show a significant decline since 1999.
Region	<ul style="list-style-type: none"> ■ LSD use does not significantly differ by region. 	<ul style="list-style-type: none"> □ No region shows a significant change in LSD use between 2015 and 2017. All four regions show a significant decline since 1999.

Figure 3.6.4
 Past Year LSD Use, 1999–2017 OSDUHS (Grades 9–12)

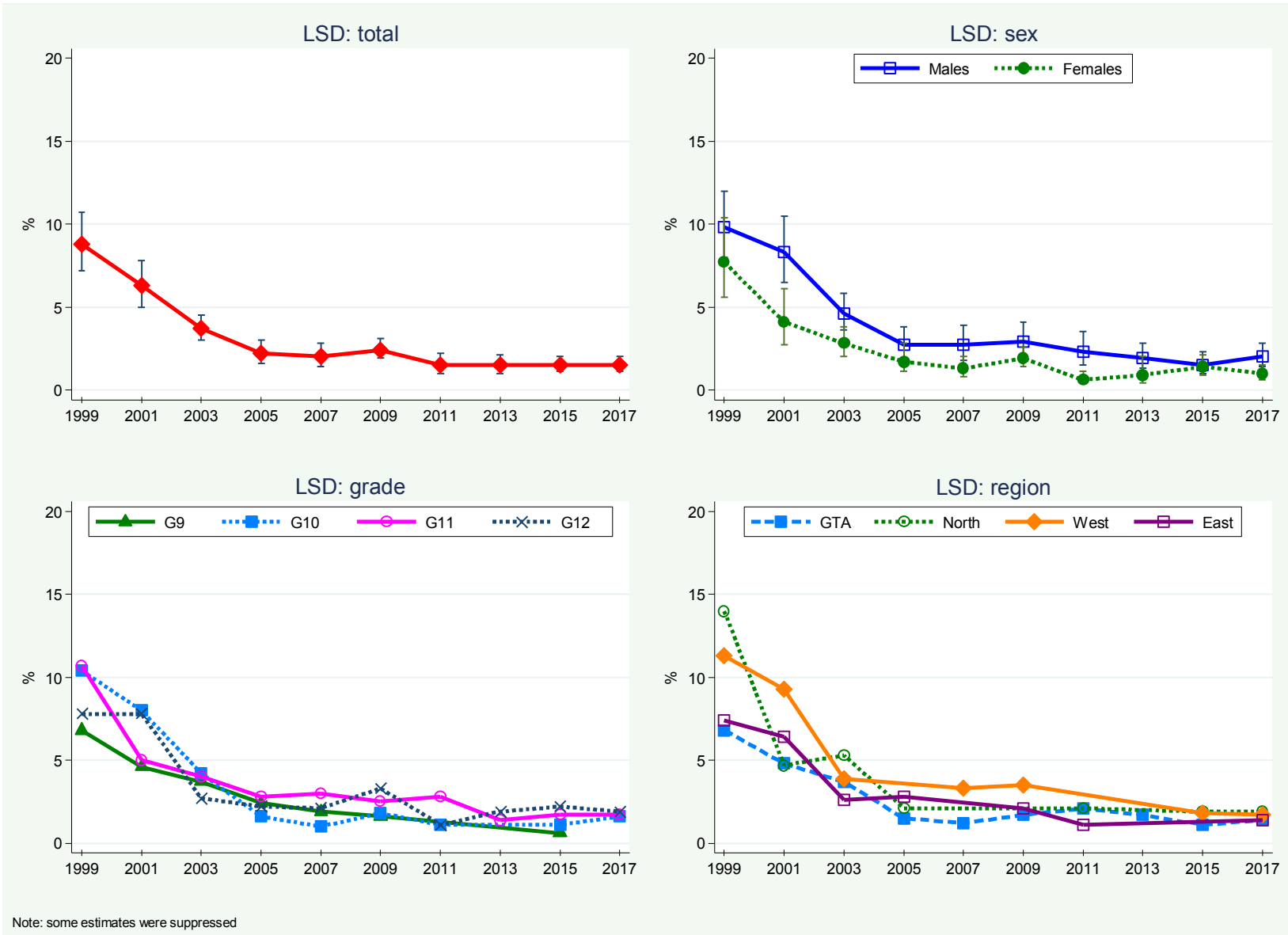


Figure 3.6.5
 Past Year LSD Use, 1977–2017 OSDUHS (Grades 9 and 11 only)

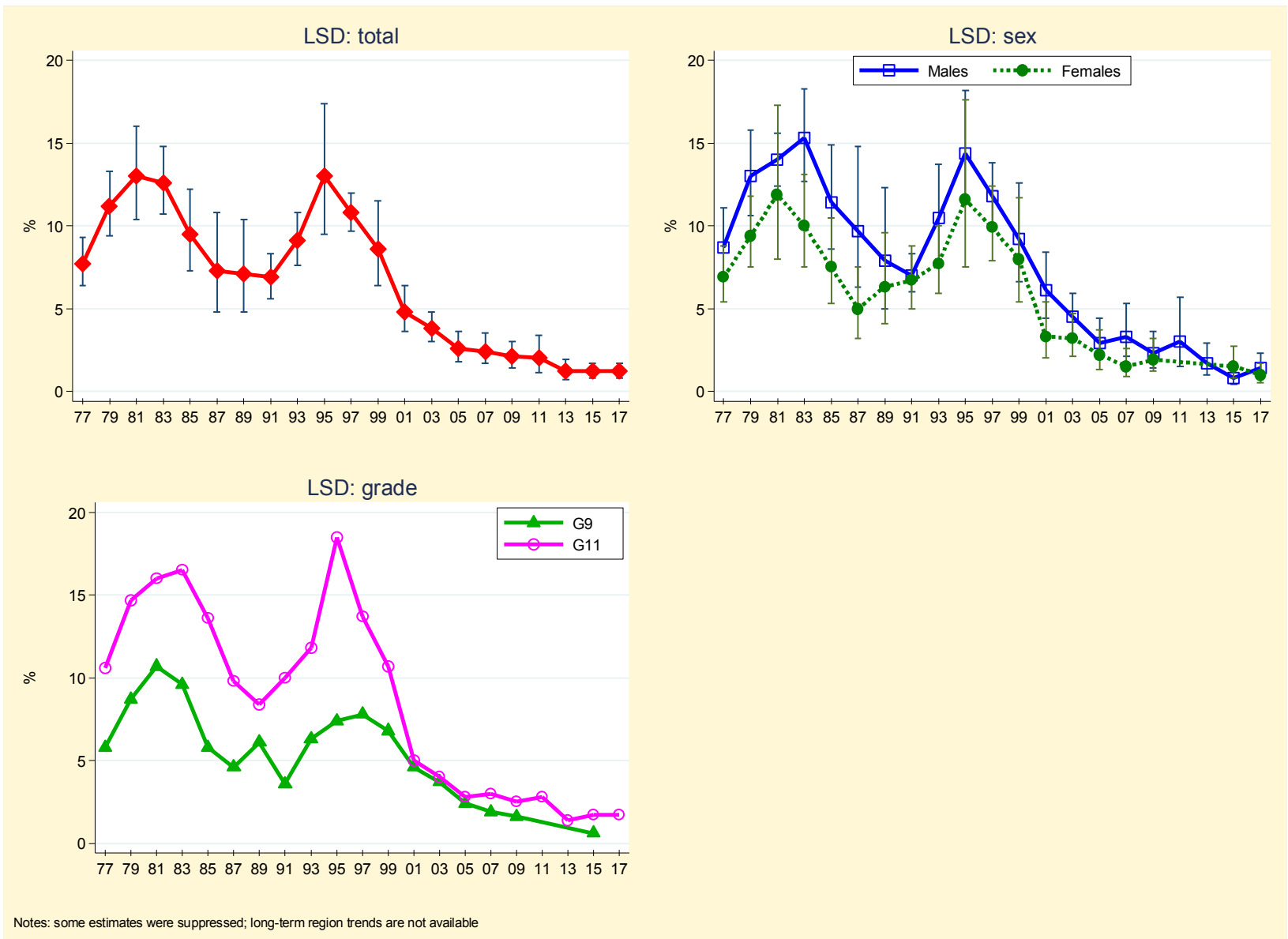


Table 3.6.3: Percentage Reporting LSD Use in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2404)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	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)
Total ²	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 (9.5-17.4)	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)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	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)
Males ²	8.7 (6.8-11.1)	13.0 (10.6-15.8)	14.0 (12.4-15.6)	15.3 (12.7-18.3)	11.4 (8.6-14.9)	9.7 (6.3-14.8)	7.9 (5.0-12.3)	7.0 (6.0-8.3)	10.5 (8.0-13.7)	14.4 (11.3-18.2)	11.8 (10.0-13.8)	9.2 (6.6-12.6)	6.1 (4.4-8.4)	4.5 (3.4-5.9)	2.9 (1.9-4.4)	3.3 (2.1-5.3)	2.3 (1.4-3.6)	3.0 (1.5-5.7)	1.7 (1.0-2.9)	0.8 (0.4-1.6)	1.4 (0.8-2.3)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	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)
Females ²	6.9 (5.4-8.8)	9.4 (7.5-11.8)	11.9 (8.0-17.3)	10.0 (7.5-13.1)	7.5 (5.3-10.5)	5.0 (3.2-7.5)	6.3 (4.1-9.6)	6.7 (5.0-8.8)	7.7 (5.9-10.0)	11.6 (7.5-17.6)	9.9 (7.9-12.4)	8.0 (5.4-11.7)	3.3 (2.0-5.4)	3.2 (2.1-4.7)	2.2 (1.3-3.7)	1.5 (0.9-2.6)	1.9 (1.2-3.2)	†	†	1.5 (0.9-2.6)	1.0 (0.5-1.7)
Grade																					
9	5.8 (4.4-7.6)	8.7 (6.9-11.1)	10.7 (8.4-13.6)	9.6 (8.2-11.2)	5.8 (3.9-8.4)	4.6 (2.2-9.2)	6.1 (3.3-11.2)	3.6 (2.8-4.7)	6.3 (5.0-8.1)	7.4 (4.3-12.5)	7.8 (6.2-9.9)	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)	†
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)
11	10.6 (8.5-13.3)	14.7 (11.6-18.5)	16.0 (11.5-21.9)	16.5 (12.7-21.0)	13.6 (9.9-18.2)	9.8 (5.8-15.9)	8.4 (5.4-12.8)	10.0 (8.1-12.2)	11.8 (9.1-15.2)	18.5 (12.6-26.1)	13.7 (12.2-15.3)	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)
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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2404)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (0.8-2.4)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (1.2-2.9)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (1.1-2.6)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (0.8-2.5)	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) no significant differences 2017 vs. 2015; ^b 2017 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; Table 3.6.4)

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 through 12 only (not asked of grades 7 and 8).

	Mushroom/Mescaline Use in 2017 (Grades 9–12)	Trends in Mushroom/Mescaline Use
Total Sample	<ul style="list-style-type: none"> Psilocybin (“mushrooms”) or mescaline use is reported by 4.0% of Ontario students in grades 9 through 12. This estimate represents about 26,000 secondary students in Ontario. With the sampling error, we estimate that between 3.3% and 4.8% (95% CI) of students use these hallucinogens. 	<ul style="list-style-type: none"> Mushroom/mescaline use did not significantly change between 2015 (3.2%) and 2017 (4.0%). Use has been stable in recent years (since 2011), but is dramatically lower today than in 1999 (17.1%). Looking back over the past 40 years (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, but has recently stabilized. The current level remains below the two peaks, and is similar to the lows seen in the late 1980s and early 1990s.
Sex	<ul style="list-style-type: none"> Males (5.4%) are significantly more likely than females (2.4%) to use mushrooms/mescaline. 	<ul style="list-style-type: none"> No sex shows a significant change in use between 2015 and 2017. For both males and females, use has been stable in recent years (since 2011) and is much lower today than in 1999.
Grade	<ul style="list-style-type: none"> Use significantly varies by grade, and is most likely among 11th and 12th graders (about 5%-6%). 	<ul style="list-style-type: none"> No grade shows a significant change in use between 2015 and 2017. All four grades showed significant declines since 1999.
Region	<ul style="list-style-type: none"> Use significantly varies by region, with students in the GTA (2.8%) least likely to use compared with students in the other three regions (about 5%). 	<ul style="list-style-type: none"> No region shows a significant change in use between 2015 and 2017. All four regions show significant declines since 1999.

Figure 3.6.6
 Past Year Mushroom/Mescaline Use by Sex, Grade, and Region, 2017 OSDUHS

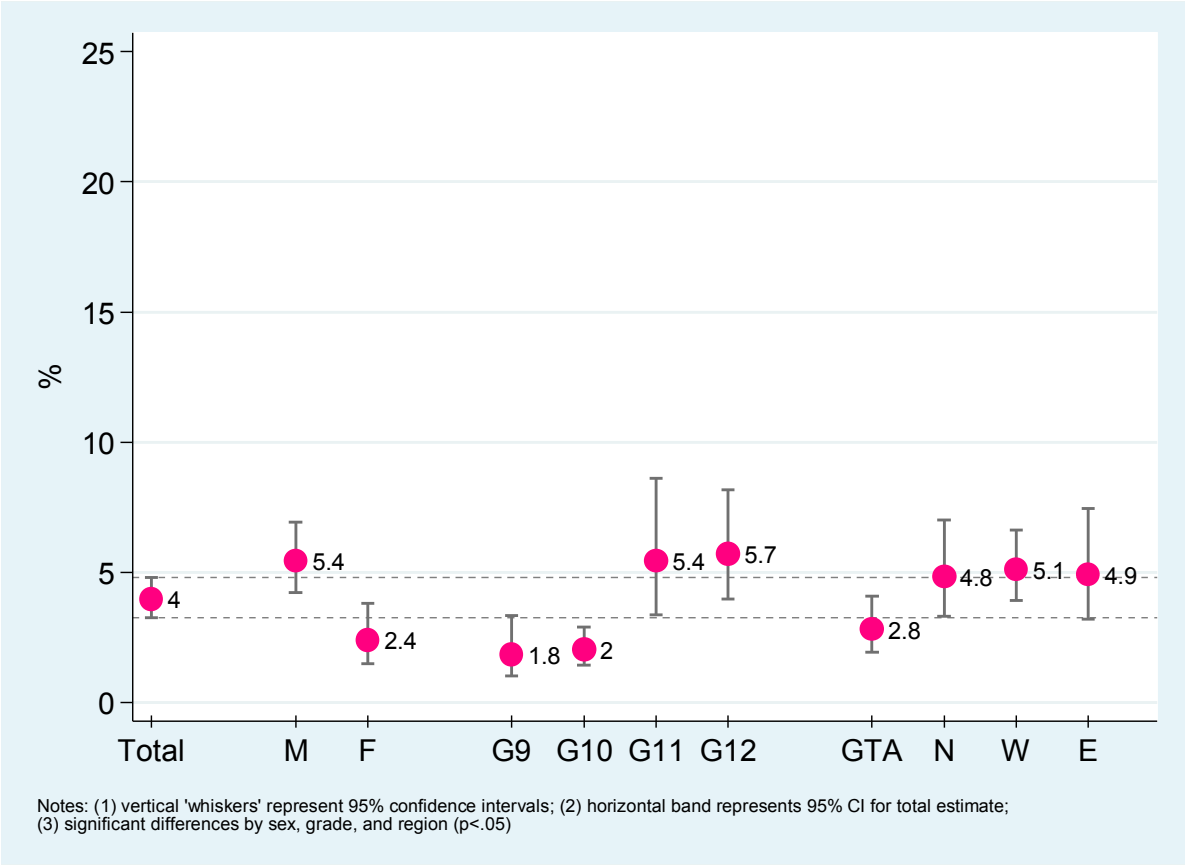


Figure 3.6.7
 Past Year Mushroom/Mescaline Use, 1999–2017 OSDUHS (Grades 9–12)

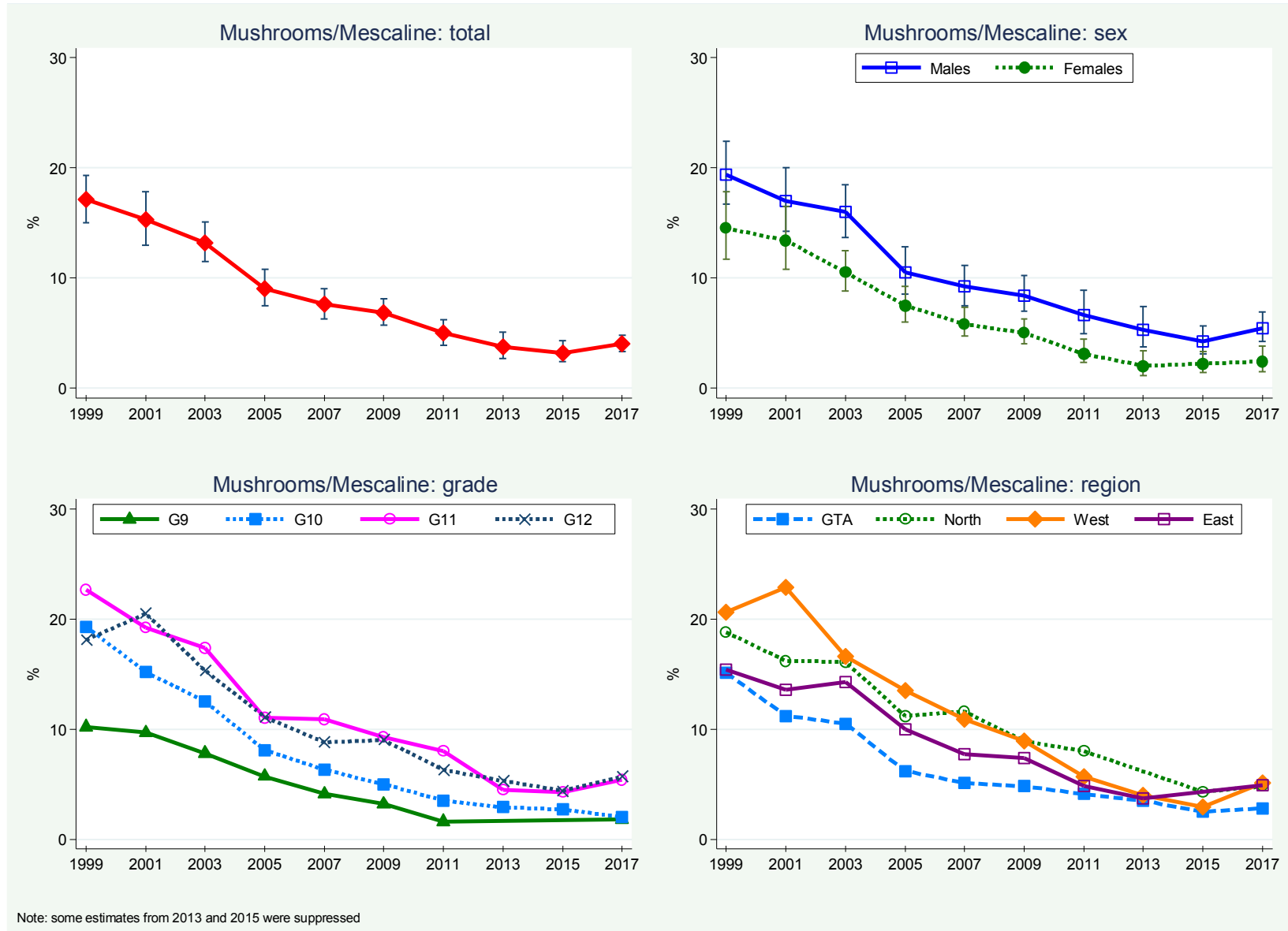


Figure 3.6.8

Past Year Mushroom/Mescaline Use, 1977–2017 OSDUHS (Grades 9 and 11 only)



Table 3.6.4: Percentage Reporting Mushroom or Mescaline Use in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	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 ^{bc} (3.3-4.8)
Total ²	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 (7.4-14.7)	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 ^{cd} (2.6-5.3)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	19.4 (16.7-22.4)	17.0 (14.2-20.2)	16.0 (13.7-18.5)	10.5 (8.5-12.8)	9.2 (7.5-11.1)	8.4 (7.0-10.2)	6.6 (4.9-8.9)	5.3 (3.7-7.4)	4.2 (3.1-5.6)	5.4 ^b (4.2-6.9)
Males ²	6.6 (5.1-8.6)	7.5 (5.7-9.9)	6.7 (4.4-10.1)	11.3 (9.6-13.2)	7.5 (5.3-10.5)	7.2 (4.0-12.5)	5.5 (3.6-8.4)	5.1 (4.3-6.0)	4.9 (3.1-7.7)	12.4 (9.0-16.8)	14.1 (11.7-16.9)	16.1 (12.8-20.1)	14.7 (11.3-19.0)	15.0 (12.0-18.6)	8.9 (6.9-11.5)	8.9 (7.0-11.3)	7.0 (5.1-9.4)	5.7 (4.1-7.9)	4.2 (2.6-6.8)	3.1 (2.1-4.5)	5.4 (3.2-9.0)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	14.5 (11.7-17.8)	13.4 (10.8-16.5)	10.5 (8.8-12.5)	7.5 (6.0-9.2)	5.8 (4.7-7.3)	5.0 (4.0-6.3)	3.1 (2.3-4.4)	2.0 (1.1-3.4)	2.2 (1.4-3.3)	2.4 ^b (1.5-3.8)
Females ²	4.0 (3.0-5.4)	6.0 (4.6-8.0)	4.9 (3.0-7.9)	5.9 (4.1-8.5)	4.6 (3.1-6.7)	3.7 (2.0-6.5)	4.8 (2.9-7.8)	3.2 (2.2-4.8)	3.0 (1.5-5.8)	8.9 (5.9-13.2)	13.0 (10.6-15.7)	15.8 (11.7-21.0)	12.8 (9.5-17.0)	10.2 (8.3-12.5)	7.7 (5.6-10.4)	5.9 (4.5-7.7)	5.6 (4.0-7.7)	3.8 (2.4-6.2)	†	2.1 (1.3-3.4)	1.9 (1.3-2.9)
Grade																					
9	3.4 (2.4-4.6)	4.0 (3.0-5.3)	4.8 (2.4-9.5)	6.4 (4.5-9.0)	3.9 (2.5-6.2)	†	†	1.9 (1.5-2.5)	†	4.5 (3.1-6.6)	9.9 (6.8-14.4)	10.2 (7.6-13.5)	9.7 (7.0-13.4)	7.8 (6.1-10.0)	5.7 (4.4-7.5)	4.1 (2.9-5.7)	3.2 (2.0-5.0)	1.6 (0.9-2.6)	†	†	1.8 ^b (1.0-3.3)
10	—	—	—	—	—	—	—	—	—	—	—	19.3 (15.0-24.4)	15.2 (11.9-19.2)	12.5 (9.9-15.7)	8.1 (6.0-10.7)	6.3 (4.7-8.4)	5.0 (3.7-6.7)	3.5 (2.2-5.3)	2.9 (1.8-4.6)	2.7 (1.9-3.9)	2.0 ^b (1.4-2.9)
11	8.0 (6.2-10.3)	10.7 (8.2-14.0)	7.2 (4.8-10.8)	11.5 (7.9-16.3)	8.4 (5.9-11.8)	7.6 (4.1-13.5)	7.2 (5.3-9.8)	6.5 (5.0-8.5)	6.4 (5.0-8.0)	16.6 (10.8-24.6)	17.0 (14.8-19.4)	22.7 (17.9-28.3)	19.2 (14.9-24.5)	17.4 (14.3-21.1)	11.1 (8.8-13.9)	10.9 (8.8-13.5)	9.3 (6.6-12.9)	8.0 (5.8-10.9)	4.5 (2.8-7.3)	4.3 (3.1-6.0)	5.4 ^b (3.4-8.6)
12	—	—	—	—	—	—	—	—	—	—	—	18.1 (14.1-22.9)	20.5 (13.9-29.3)	15.3 (12.3-18.9)	11.1 (8.7-14.0)	8.8 (6.7-11.5)	9.0 (6.7-12.0)	6.3 (3.8-10.2)	5.3 (3.1-8.8)	4.4 (2.6-7.5)	5.7 ^b (4.0-8.2)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
	(n ¹)											(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
	(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	15.1 (12.5-18.0)	11.2 (8.0-15.6)	10.5 (8.4-12.9)	6.2 (4.7-8.1)	5.1 (3.8-6.7)	4.8 (3.6-6.3)	4.1 (2.6-6.5)	3.5 (2.1-5.9)	2.5 (1.8-3.2)	2.8 ^b (1.9-4.1)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	18.8 (14.4-24.1)	16.2 (12.1-21.3)	16.1 (12.6-20.4)	11.2 (8.5-14.5)	11.6 (8.8-15.3)	8.9 (5.7-13.8)	8.0 (5.7-11.2)	†	4.3 (2.9-6.4)	4.8 ^b (3.3-7.0)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	20.6 (15.8-26.5)	22.9 (18.9-27.4)	16.6 (13.2-20.7)	13.5 (10.0-18.0)	10.9 (7.9-14.7)	8.9 (6.4-12.2)	5.7 (3.6-8.9)	4.0 (2.1-7.3)	2.9 (2.0-4.2)	5.1 ^b (3.9-6.6)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	15.4 (11.3-20.7)	13.6 (10.3-17.8)	14.3 (10.1-19.9)	10.0 (6.9-14.5)	7.7 (5.7-10.3)	7.4 (5.5-9.8)	4.8 (3.5-6.5)	3.7 (2.0-6.8)	†	4.9 ^b (3.2-7.5)	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed or less than 0.5%; (7) no significant differences 2017 vs. 2015; ^b 2017 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 Jimson Weed Use

(Table 3.6.5)

Jimson weed (also known as “stinkweed” or “locoweed”) is a legal, yet poisonous plant with hallucinogenic properties. Users can ingest the seeds, brew the leaves as tea, or smoke the dried leaves. It produces euphoria and hallucinations, and can easily cause accidental poisoning in large dosages. The use of jimson weed was first surveyed in 2007. Starting in 2013, jimson weed use was asked of students in grades 9 through 12 only (not asked of grades 7 and 8).

	Jimson Weed Use in 2017 (Grades 9–12)	2007–2017 Trends (Grades 9–12)
Total Sample	<ul style="list-style-type: none"> Overall, 0.8% of secondary students report using jimson weed at least once during the past year. This represents about 4,000 Ontario students in grades 9 through 12. 	<ul style="list-style-type: none"> Jimson weed use significantly decreased between 2015 (1.8%) and 2017 (0.8%) among secondary students. Use is currently significantly lower than a decade or so ago when estimates were about 3%.
Sex	<ul style="list-style-type: none"> Estimates by sex were suppressed. 	<ul style="list-style-type: none"> Use by both males and females significantly declined over the past decade or so.
Grade	<ul style="list-style-type: none"> Estimates by grade were suppressed. 	<ul style="list-style-type: none"> Most grades show a significant decline over the past decade.
Region	<ul style="list-style-type: none"> Estimates by region were suppressed. 	<ul style="list-style-type: none"> Use by students in the GTA and West region significantly declined over the past decade. Students in the North and East show no change.

Table 3.6.5: Percentage Reporting Jimson Weed Use in the Past Year, 2007–2017 OSDUHS (Grades 9–12)

	(n=)	2007 (2247)	2009 (2728)	2011 (3025)	2013 (2895)	2015 (3171)	2017 (3289)
Total		3.1	3.1	2.0	1.3	1.8	0.8 ^{abc}
(95% CI)		(2.3-4.3)	(2.3-4.1)	(1.1-3.5)	(0.7-2.4)	(1.3-2.6)	(0.5-1.3)
Sex							
Males		3.1 (1.9-5.0)	3.7 (2.6-5.4)	2.5 (1.3-4.6)	†	1.6 (1.0-2.7)	† ^b
Females		3.1 (2.2-4.4)	2.3 (1.5-3.7)	1.5 (0.8-2.7)	†	2.0 (1.1-3.5)	† ^b
Grade							
9		†	†	†	†	†	†
10		3.1 (1.8-5.4)	2.5 (1.4-4.4)	2.8 (1.6-4.9)	†	†	†
11		3.3 (2.1-5.0)	4.2 (2.6-7.0)	2.8 (1.2-6.6)	†	†	† ^b
12		3.4 (1.9-6.0)	3.4 (1.9-6.1)	1.2 (0.5-2.7)	†	†	† ^b
Region							
Greater Toronto Area		2.5 (1.5-4.1)	2.3 (1.4-3.8)	†	†	1.0 (0.6-1.7)	† ^b
North		3.2 (1.9-5.4)	†	†	†	†	†
West		†	4.7 (3.0-7.3)	†	†	3.0 (1.7-5.3)	† ^b
East		3.5 (2.2-5.6)	†	2.2 (1.2-4.0)	†	†	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) ^a 2017 vs. 2015 significant difference, $p < .01$; ^b 2017 vs. 2007 significant difference, $p < .01$; ^c significant linear trend, $p < .01$.

Q: In the last 12 months, how often did you use jimson weed (also known as “locoweed”, “stinkweed”, “mad apple”)?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Methamphetamine or Crystal Methamphetamine Use

(Figures 3.6.9, 3.6.10; Table 3.6.6)

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 2017 (Grades 9–12)	Trends in Methamphetamine Use
Total Sample	<ul style="list-style-type: none"> Overall, 0.6% of secondary students report using methamphetamine at least once during the 12 months before the survey. Taking into account the sampling error, we estimate that between 0.3% and 1.1% (95% CI) of students use methamphetamine. The percentage of 0.6% represents about 4,000 Ontario students in grades 9 through 12. 	<ul style="list-style-type: none"> Methamphetamine use did not significantly change between 2015 (1.1%) and 2017 (0.6%). However, there has been a significant downward trend in use from 1999/early 2000s to 2011, and use has remained stable since then. Looking back over the past 40 years (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 has subsequently declined to historical lows in recent years.
Sex	<ul style="list-style-type: none"> Estimates by sex were suppressed. 	<ul style="list-style-type: none"> Both sexes show a significant decline since 1999/early 2000s.
Grade	<ul style="list-style-type: none"> Estimates by grade were suppressed. 	<ul style="list-style-type: none"> All grades show a significant decline since 1999/early 2000s.
Region	<ul style="list-style-type: none"> Estimates by region were suppressed. 	<ul style="list-style-type: none"> All regions show a significant decline since 1999/early 2000s.

Figure 3.6.9
 Past Year Methamphetamine Use (includes Crystal Methamphetamine),
 1999–2017 OSDUHS (Grades 9–12)

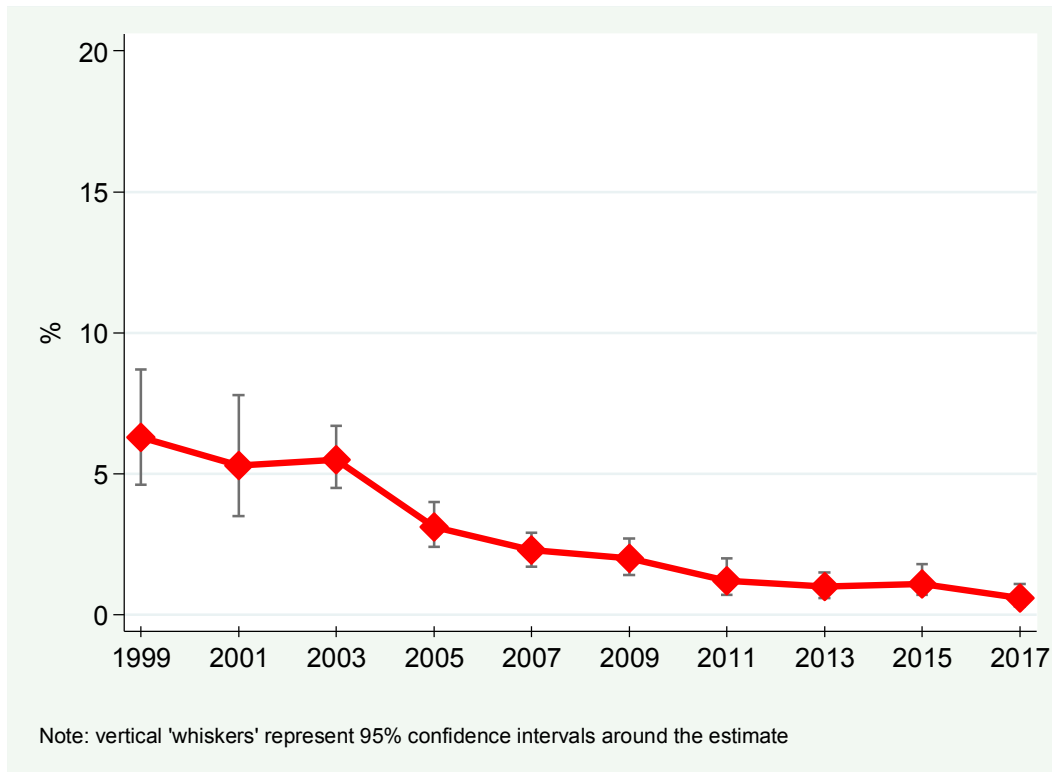


Figure 3.6.10
 Past Year Methamphetamine Use (includes Crystal Methamphetamine),
 1977–2017 OSDUHS (Grades 9 and 11 only)

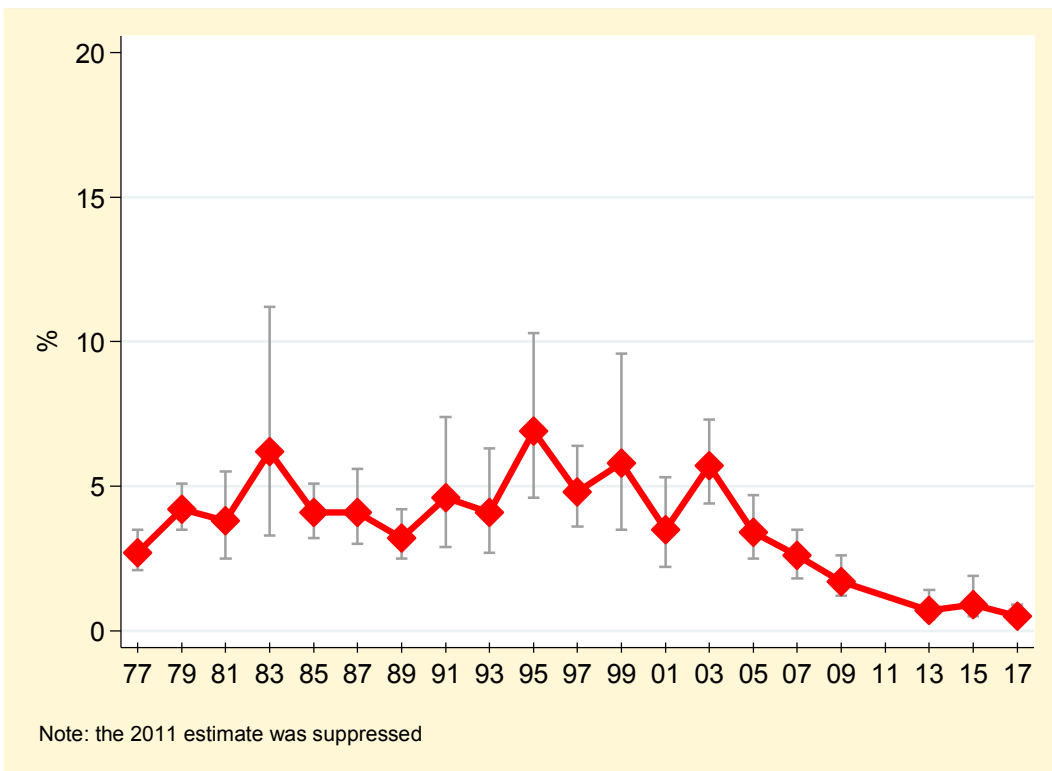


Table 3.6.6: Percentage Reporting Methamphetamine Use (includes Crystal Methamphetamine) in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(1496)	(1278)	(2238)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(656)	(1168)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Total ¹ (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 ^{bc} (0.3-1.1)	
Total ²	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)	3.5 (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 ^{cd} (0.3-0.9)	
Sex																						
Males ¹	—	—	—	—	—	—	—	—	—	—	—	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)	† ^b	
Males ²	3.2 (2.2-4.6)	5.0 (3.9-6.3)	3.5 (2.1-5.7)	8.1 (4.7-13.5)	4.3 (3.3-5.5)	5.3 (3.6-7.9)	3.8 (2.3-6.1)	4.8 (2.8-8.2)	5.8 (3.7-8.9)	8.2 (5.2-12.7)	4.6 (3.5-5.9)	6.3 (3.3-11.8)	4.8 (2.9-7.8)	6.5 (4.5-9.2)	3.8 (2.5-5.8)	2.7 (1.8-3.9)	1.6 (1.0-2.7)	†	†	†	†	
Females ¹	—	—	—	—	—	—	—	—	—	—	—	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	
Females ²	2.3 (1.6-3.2)	3.4 (2.5-4.7)	4.1 (2.6-6.3)	4.3 (2.0-9.0)	3.9 (2.7-5.5)	3.0 (1.9-4.6)	2.7 (1.7-4.2)	†	2.5 (1.2-5.4)	5.7 (3.3-10.0)	5.0 (3.1-7.9)	5.4 (2.9-9.6)	†	4.8 (3.3-7.1)	3.0 (1.8-5.0)	2.4 (1.6-3.8)	1.8 (1.1-2.9)	†	†	†	†	
Grade																						
9	2.8 (2.1-3.8)	4.0 (3.0-5.3)	3.8 (2.0-7.0)	†	3.2 (2.5-4.1)	3.0 (1.9-4.7)	2.9 (1.9-4.4)	4.3 (2.6-7.3)	3.1 (1.9-4.9)	6.0 (2.9-12.2)	3.2 (1.8-5.5)	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	2.5 (1.6-4.0)	4.5 (3.4-5.9)	3.7 (2.6-5.3)	5.3 (3.7-7.4)	5.0 (3.5-7.1)	5.2 (3.4-7.9)	3.6 (2.6-4.9)	4.9 (2.3-10.0)	5.3 (2.8-9.9)	7.8 (5.0-12.1)	6.4 (4.5-9.0)	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	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(1496)	(1278)	(2238)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(656)	(1168)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	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 ¹	—	—	—	—	—	—	—	—	—	—	—	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 ¹	—	—	—	—	—	—	—	—	—	—	—	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 ¹	—	—	—	—	—	—	—	—	—	—	—	†	†	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 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) question asked of a random half sample between 1991 and 2005; (8) all estimates between 1991 and 2009 are based on two separate questions (methamphetamine and crystal methamphetamine) in the questionnaire; (9) all estimates between 1977 and 1989 are based on methamphetamine use only and excludes crystal methamphetamine because it was not measured in those years; (10) no significant differences 2017 vs. 2015; ^b 2017 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 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; Table 3.6.7)

	Cocaine Use in 2017 (Grades 9–12)	Trends in Cocaine Use
Total Sample	<ul style="list-style-type: none"> Overall, 3.1% of secondary students report using cocaine at least once during the 12 months before the survey. Accounting for the sampling error, we project that between 2.2% and 4.2% (95% CI) of Ontario secondary students use cocaine. The 3.1% estimate represents roughly 20,300 students in grades 9 through 12. 	<ul style="list-style-type: none"> Cocaine use did not significantly change between 2015 (2.5%) and 2017 (3.1%). There was a significant increase in use between 1999 and 2003/2005, but the level has since declined and remained stable in recent years. The 2017 estimate is significantly lower than the peak years of use seen over a decade ago in 2003/2005. Looking back over the past 40 years (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 has 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-mid 1990s.
Sex	<ul style="list-style-type: none"> Cocaine use does not significantly differ between males (4.0%) and females (2.0%). 	<ul style="list-style-type: none"> Neither males nor females show a significant change in cocaine use since 2015. However, both sexes show a significant decline in use since 2003/2005, followed by stability in recent years.
Grade	<ul style="list-style-type: none"> Cocaine use significantly increases with grade, up to 5.5% of 12th graders using in the past year. 	<ul style="list-style-type: none"> No grade shows a change in cocaine use between 2015 and 2017. 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	<ul style="list-style-type: none"> There are no significant differences in cocaine use among the four regions. 	<ul style="list-style-type: none"> No region shows a change in cocaine use between 2015 and 2017. Students in the GTA, North, and West 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, 2017 OSDUHS

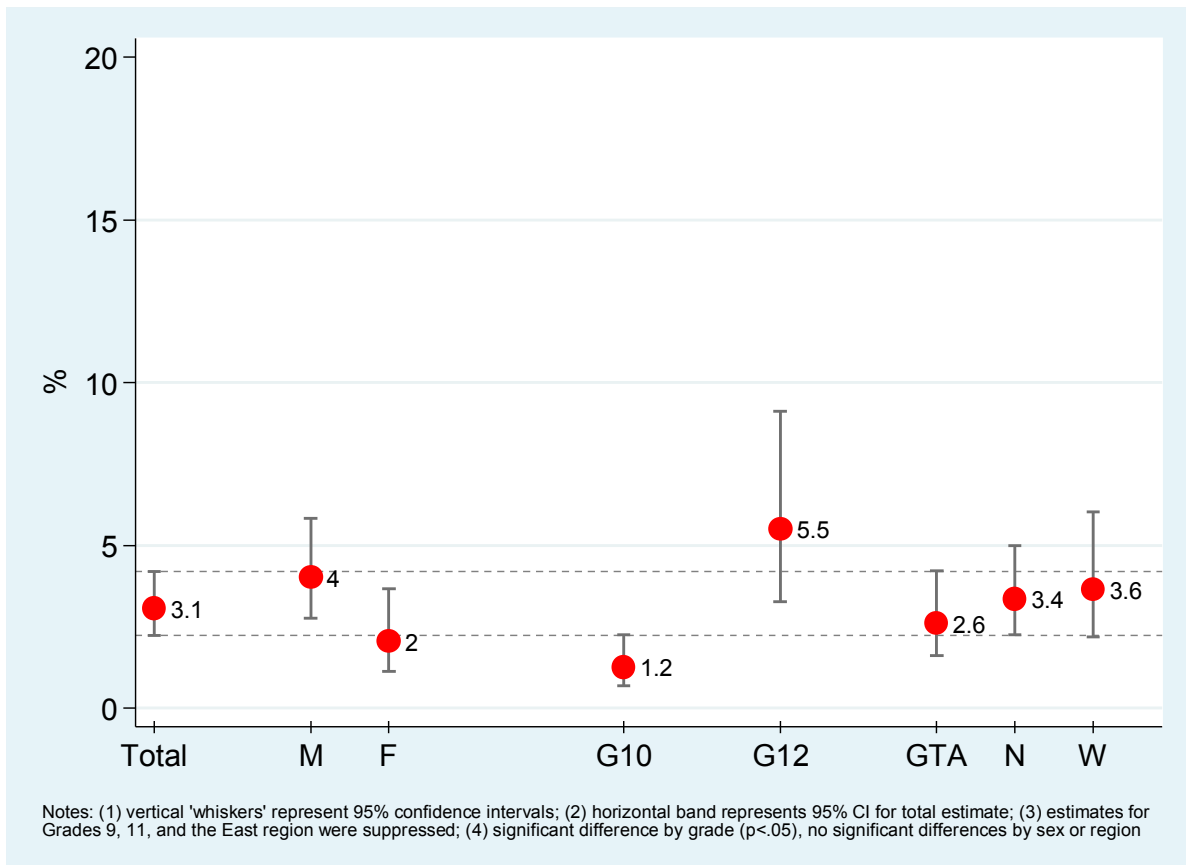
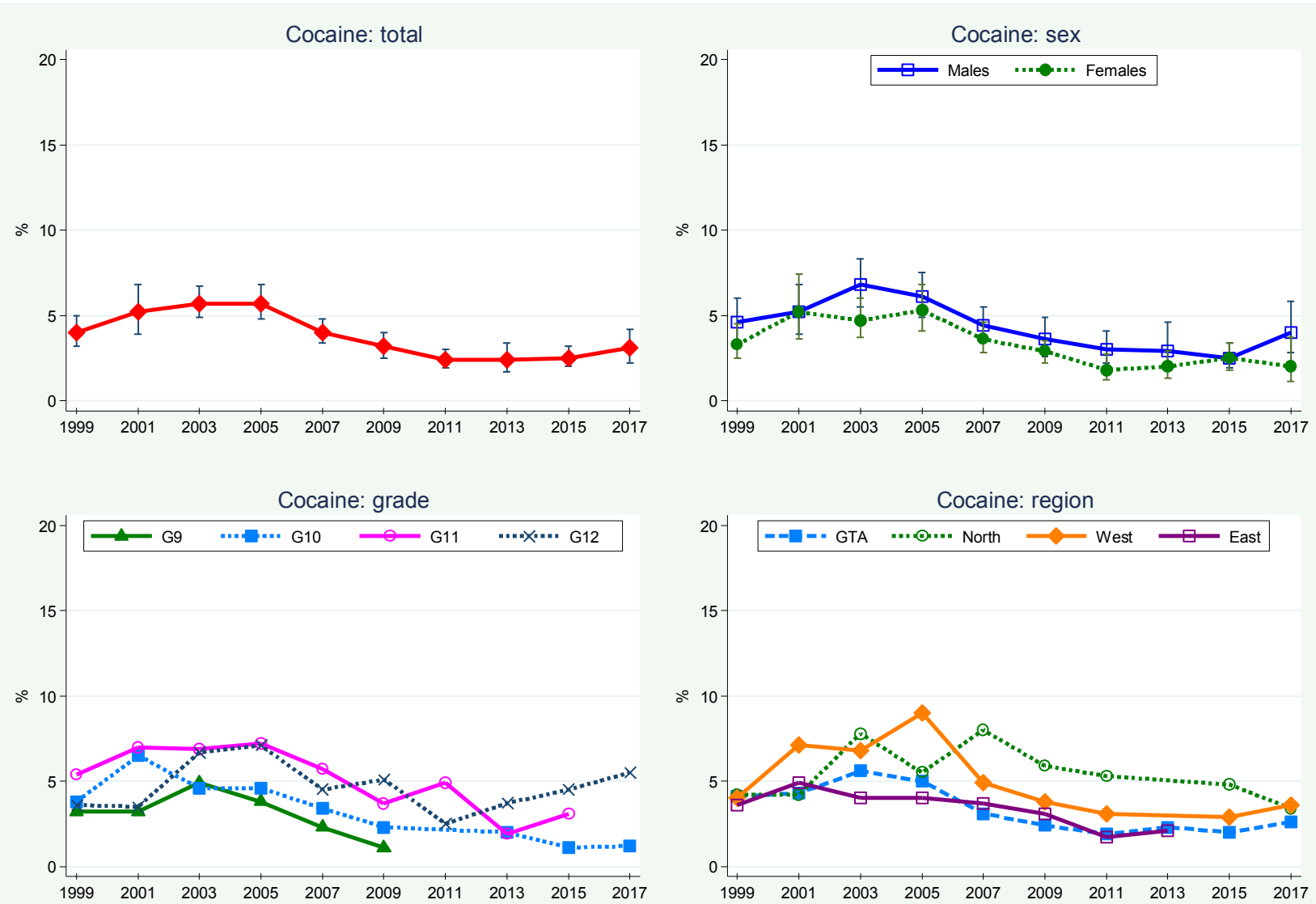


Figure 3.6.12
 Past Year Cocaine Use, 1999–2017 OSDUHS (Grades 9–12)



Note: some estimates were suppressed

Figure 3.6.13
 Past Year Cocaine Use, 1977–2017 OSDUHS (Grades 9 and 11 only)

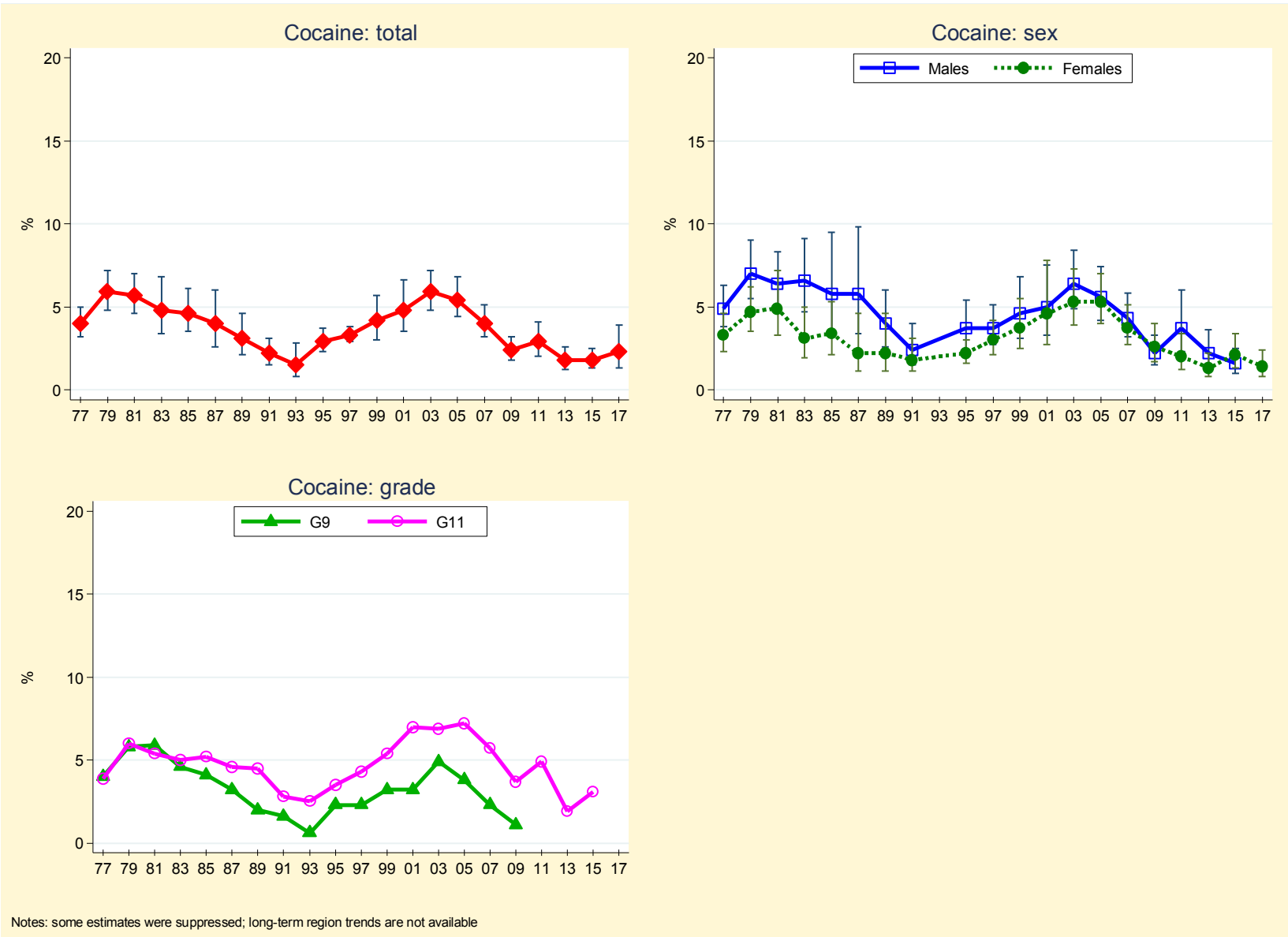


Table 3.6.7: Percentage Reporting Cocaine Use in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	4.0 (3.2-5.0)	5.2 (3.9-6.8)	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)
Total ²	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)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	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)
Males ²	4.9 (3.8-6.3)	7.0 (5.5-9.0)	6.4 (4.9-8.3)	6.6 (4.7-9.1)	5.8 (3.5-9.5)	5.8 (3.4-9.8)	4.0 (2.6-6.0)	2.4 (1.5-4.0)	† (2.4-5.4)	3.7 (2.7-5.1)	3.7 (2.7-5.1)	4.6 (3.1-6.8)	5.0 (3.3-7.5)	6.4 (4.9-8.4)	5.6 (4.2-7.4)	4.3 (3.2-5.8)	2.2 (1.5-3.3)	3.7 (2.3-6.0)	2.2 (1.3-3.6)	1.6 (1.0-2.5)	†
Females ¹	—	—	—	—	—	—	—	—	—	—	—	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)
Females ²	3.3 (2.3-4.6)	4.7 (3.5-6.2)	4.9 (3.3-7.2)	3.1 (1.9-5.0)	3.4 (2.1-5.3)	2.2 (1.1-4.6)	2.2 (1.1-4.6)	1.8 (1.1-3.1)	† (1.6-3.0)	2.2 (1.6-3.0)	3.0 (2.1-4.2)	3.7 (2.5-5.5)	4.6 (2.7-7.8)	5.3 (3.9-7.3)	5.3 (4.0-7.0)	3.7 (2.7-5.1)	2.6 (1.7-4.0)	2.0 (1.2-3.4)	1.3 (0.8-2.2)	2.1 (1.3-3.4)	1.4 (0.8-2.4)
Grade																					
9	4.1 (3.1-5.3)	5.8 (4.3-7.6)	5.8 (4.6-7.4)	4.6 (2.9-7.3)	4.1 (2.5-6.6)	†	2.0 (1.0-3.8)	1.6 (1.0-2.5)	0.6 (0.3-1.1)	2.3 (1.5-3.6)	2.3 (2.0-2.8)	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)	†	†	†	†
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)	† (1.2-3.3)	2.0 (1.2-3.3)	1.1 (0.6-1.8)	1.2 (0.7-2.2)
11	4.0 (2.8-5.6)	6.0 (4.6-7.9)	5.5 (3.6-8.1)	5.0 (3.0-8.3)	5.2 (3.8-7.0)	4.6 (2.8-7.5)	4.5 (2.8-7.1)	2.8 (1.7-4.6)	2.5 (1.2-5.0)	3.5 (2.6-4.6)	4.3 (3.5-5.2)	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)	†
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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (1.6-4.2)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (2.3-5.0)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	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 ^b (2.2-6.0)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	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)	†	†	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) no significant differences 2017 vs. 2015; ^b 2017 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

(Table 3.6.8)

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 2017 (Grades 9–12)	Trends in Crack Cocaine Use
Total Sample	<ul style="list-style-type: none"> ■ The 2017 OSDUHS estimate for past year crack use among the total sample of secondary students is 0.6%. Accounting for the sampling error, we project that between 0.3% and 1.0% (95% CI) of Ontario secondary students use crack. The 0.6% estimate represents roughly 3,700 students in grades 9 through 12. 	<ul style="list-style-type: none"> □ Crack use has remained low and stable during the past decade, at about 1%. 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 (among grades 9 and 11 only), there was a small, but significant, increase in crack use between 1993 and 2003, followed by a gradual decline during the past decade, reaching historical lows in recent years.
Sex	<ul style="list-style-type: none"> ■ Estimates by sex were suppressed. 	<ul style="list-style-type: none"> □ 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	<ul style="list-style-type: none"> ■ Estimates by grade were suppressed. 	<ul style="list-style-type: none"> □ All grades show low and stable levels in recent years, but a significant decline since 1999/early 2000s.
Region	<ul style="list-style-type: none"> ■ Estimates by region were suppressed. 	<ul style="list-style-type: none"> □ All regions show low and stable levels in recent years, but a significant decline since 1999/early 2000s.

Table 3.6.8: Percentage Reporting Crack Cocaine Use in the Past Year, 1987–2017 OSDUHS (Grades 9–12)

	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)							(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	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) ^{bc}
Total ²	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}
Sex																
Males ¹	—	—	—	—	—	—	3.8 (2.7-5.3)	3.0 (1.9-4.8)	3.5 (2.6-4.6)	2.6 (2.0-3.3)	1.1 (0.7-1.7)	1.6 (1.1-2.4)	1.1 (0.6-2.0)	0.9 (0.5-1.5)	†	† ^b
Males ²	† (0.9-3.3)	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 ¹	—	—	—	—	—	—	2.5 (1.8-3.6)	2.2 (1.3-3.5)	2.7 (1.9-3.9)	2.0 (1.6-2.7)	1.2 (0.8-1.9)	0.9 (0.6-1.5)	†	0.5 (0.3-0.9)	†	† ^b
Females ²	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)	†	†	†	†	† ^b
10	—	—	—	—	—	—	3.7 (2.1-6.6)	†	3.0 (2.0-4.5)	2.5 (1.7-3.8)	1.1 (0.6-2.0)	0.9 (0.5-1.6)	†	†	†	† ^b
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)	†	†	†	† ^b
12	—	—	—	—	—	—	†	†	2.5 (1.7-3.7)	2.1 (1.3-3.3)	†	1.5 (0.8-2.8)	†	†	†	† ^b

(cont'd)

	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)							(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Region																
GTA ¹	—	—	—	—	—	—	2.9 (1.9-4.3)	3.2 (2.2-4.6)	2.5 (1.6-3.8)	2.0 (1.5-2.7)	1.1 (0.6-2.0)	1.6 (1.0-2.3)	1.3 (0.8-2.3)	0.6 (0.3-1.1)	†	† ^b
North ¹	—	—	—	—	—	—	†	†	5.6 (4.1-7.6)	2.7 (1.6-4.5)	3.6 (2.0-6.4)	†	†	†	†	†
West ¹	—	—	—	—	—	—	3.8 (2.1-6.7)	†	4.2 (2.7-6.3)	3.1 (2.1-4.6)	0.8 (0.5-1.3)	1.0 (0.6-1.7)	†	†	†	† ^b
East ¹	—	—	—	—	—	—	3.0 (1.8-5.2)	†	2.3 (1.2-4.6)	2.1 (1.3-3.4)	1.1 (0.6-2.0)	1.1 (0.6-2.1)	†	†	†	† ^b

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) no significant differences 2017 vs. 2015; ^b 2017 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

(Table 3.6.9)

	Heroin Use in 2017 (Grades 9–12)	Trends in Heroin Use
Total Sample	<ul style="list-style-type: none"> ■ The 2017 OSDUHS estimate for past year heroin use among the total sample of secondary students was suppressed (less than 0.5%). 	<ul style="list-style-type: none"> □ 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, the use of heroin has been very low and stable for decades and has reached historical lows in recent years (among grades 9 and 11 only).
Sex	<ul style="list-style-type: none"> ■ Estimates by sex were suppressed. 	<ul style="list-style-type: none"> □ 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	<ul style="list-style-type: none"> ■ Estimates by grade were suppressed. 	<ul style="list-style-type: none"> □ Use among the grades has been low and stable for the past decade, but significantly lower than estimates from 1999.
Region	<ul style="list-style-type: none"> ■ Estimates by region were suppressed. 	<ul style="list-style-type: none"> □ Use among the regions has been low and stable for the past decade, but significantly lower than estimates from 1999.

Table 3.6.9: Percentage Reporting Heroin Use in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (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}
Total ²	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 (1.6-2.4)	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)	†	†	†	† ^{cd}
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	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
Males ²	1.7 (1.1-2.7)	3.4 (2.4-4.8)	2.7 (1.6-4.3)	2.6 (1.7-3.9)	2.3 (1.7-3.2)	2.2 (1.1-4.2)	1.9 (1.0-3.5)	1.4 (0.8-2.5)	†	3.6 (2.4-5.2)	2.5 (1.8-3.4)	2.6 (1.5-4.3)	2.1 (1.1-3.9)	1.8 (1.2-2.9)	1.2 (0.7-2.0)	2.3 (1.4-3.6)	†	†	†	†	†
Females ¹	—	—	—	—	—	—	—	—	—	—	—	1.3 (0.7-2.4)	†	0.8 (0.4-1.3)	0.8 (0.5-1.2)	†	†	†	†	†	†
Females ²	2.6 (1.8-3.7)	2.0 (1.3-3.1)	1.1 (0.6-2.1)	1.5 (0.8-3.1)	1.0 (0.5-2.1)	†	†	1.1 (0.7-1.8)	†	1.2 (0.6-2.4)	1.4 (1.1-2.0)	†	†	0.9 (0.5-1.7)	1.0 (0.5-1.8)	†	†	†	†	†	†
Grade																					
9	2.7 (1.8-3.8)	3.2 (2.3-4.6)	2.2 (1.3-3.9)	2.4 (1.5-3.9)	2.0 (1.2-3.3)	†	†	†	1.2 (0.6-2.3)	2.3 (1.6-3.2)	2.1 (1.6-2.7)	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	1.4 (0.8-2.5)	2.0 (1.3-3.1)	1.5 (1.0-2.3)	1.6 (0.8-3.2)	1.3 (0.9-2.1)	1.6 (0.8-3.3)	1.7 (0.8-3.4)	1.4 (0.8-2.3)	1.2 (0.6-2.5)	2.4 (1.2-4.8)	1.8 (1.2-2.5)	†	†	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

(cont'd)

	1977	1979	981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	1.4 (0.8-2.6)	†	†	1.0 (0.6-1.7)	†	†	†	†	†	†	
West ¹	—	—	—	—	—	—	—	—	—	—	—	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 ¹	—	—	—	—	—	—	—	—	—	—	—	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 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) ^b 2017 vs. 1999 significant difference, 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; Table 3.6.10)

“Ecstasy” (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 Use in 2017 (Grades 9–12)	Trends in Ecstasy Use
Total Sample	<ul style="list-style-type: none"> ■ In 2017, 3.4% of students in grades 9 through 12 report using ecstasy at least once during the 12 months before the survey. With the sampling error, we estimate that between 2.6% and 4.4% (95% CI) of students use ecstasy. The estimated number of secondary students in Ontario who use ecstasy is about 22,400. 	<ul style="list-style-type: none"> □ Ecstasy use significantly decreased between 2015 and 2017 (from 5.4% to 3.4%) among students in grades 9–12, returning to a level repeatedly seen during the past decade. Use in 2017 is significantly lower than the peak level of use seen in 2001 (7.9%). □ Since monitoring began in 1991, ecstasy use steadily increased from below 0.5% to a peak in 2001 (among grades 9 and 11 only). Use has been on a general downward trend since that peak.
Sex	<ul style="list-style-type: none"> ■ There is no significant sex difference in past year use (4.2% of males use ecstasy, 2.5% of females). 	<ul style="list-style-type: none"> □ Ecstasy use did not significantly change since 2015 for males or females, and current levels for both are similar to those seen during the past decade. However, both have shown significant decreases since the peak year of use in 2001.
Grade	<ul style="list-style-type: none"> ■ There is a significant difference by grade showing that 12th graders (6.7%) are most likely to use ecstasy than students in the younger grades. 	<ul style="list-style-type: none"> □ Only 11th graders show a significant change in use since 2015, decreasing from 5.8% to 2.5%. Ecstasy use among grades 9, 10, and 11 significantly declined between 2001 and 2017. Use among 12th graders has been relatively stable over time.
Region	<ul style="list-style-type: none"> ■ There is no significant variation among the regions. 	<ul style="list-style-type: none"> □ Only students in the GTA show a significant decrease between 2015 and 2017 (from 6.1% to 3.1%). Students in the GTA, North, and West regions show a significant decline in use since 2001. Students in the East show no significant changes over time.

Figure 3.6.14
 Past Year Ecstasy Use by Sex, Grade, and Region, 2017 OSDUHS

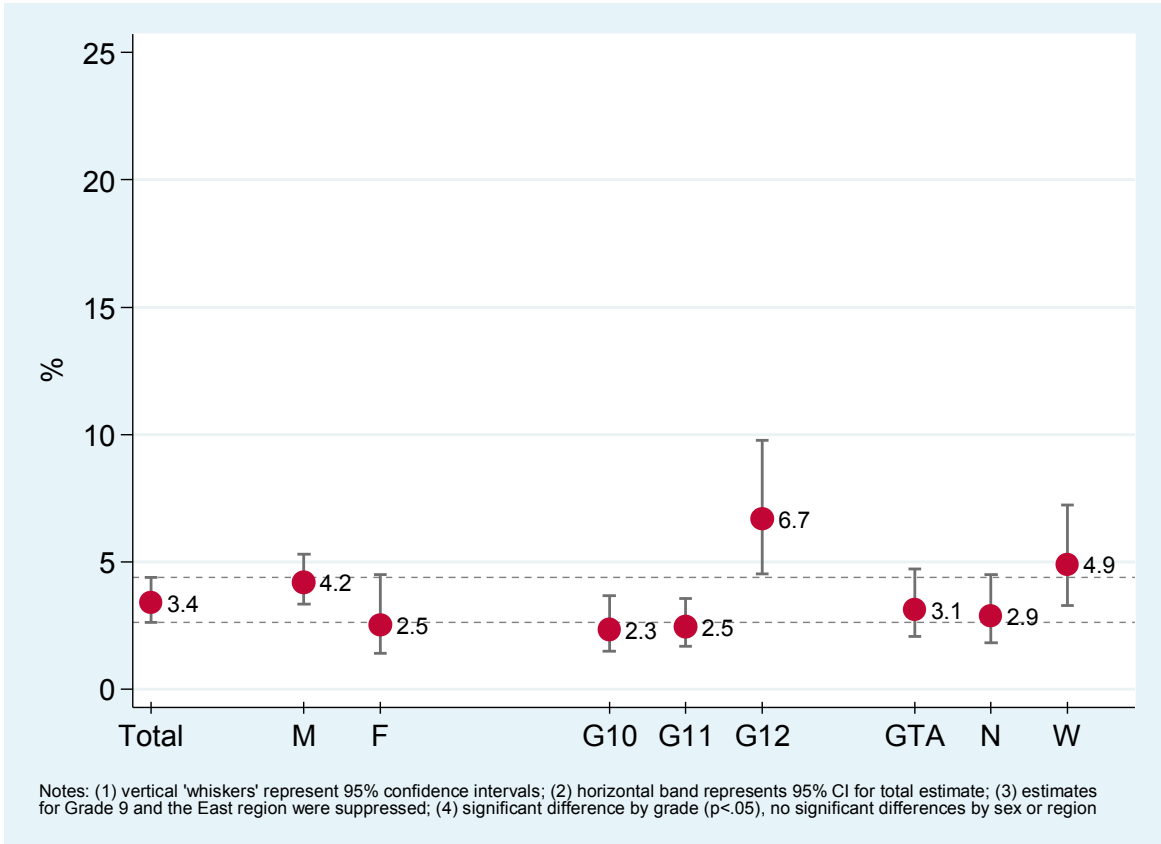


Figure 3.6.15
 Past Year Ecstasy Use, 1999–2017 (Grades 9–12)

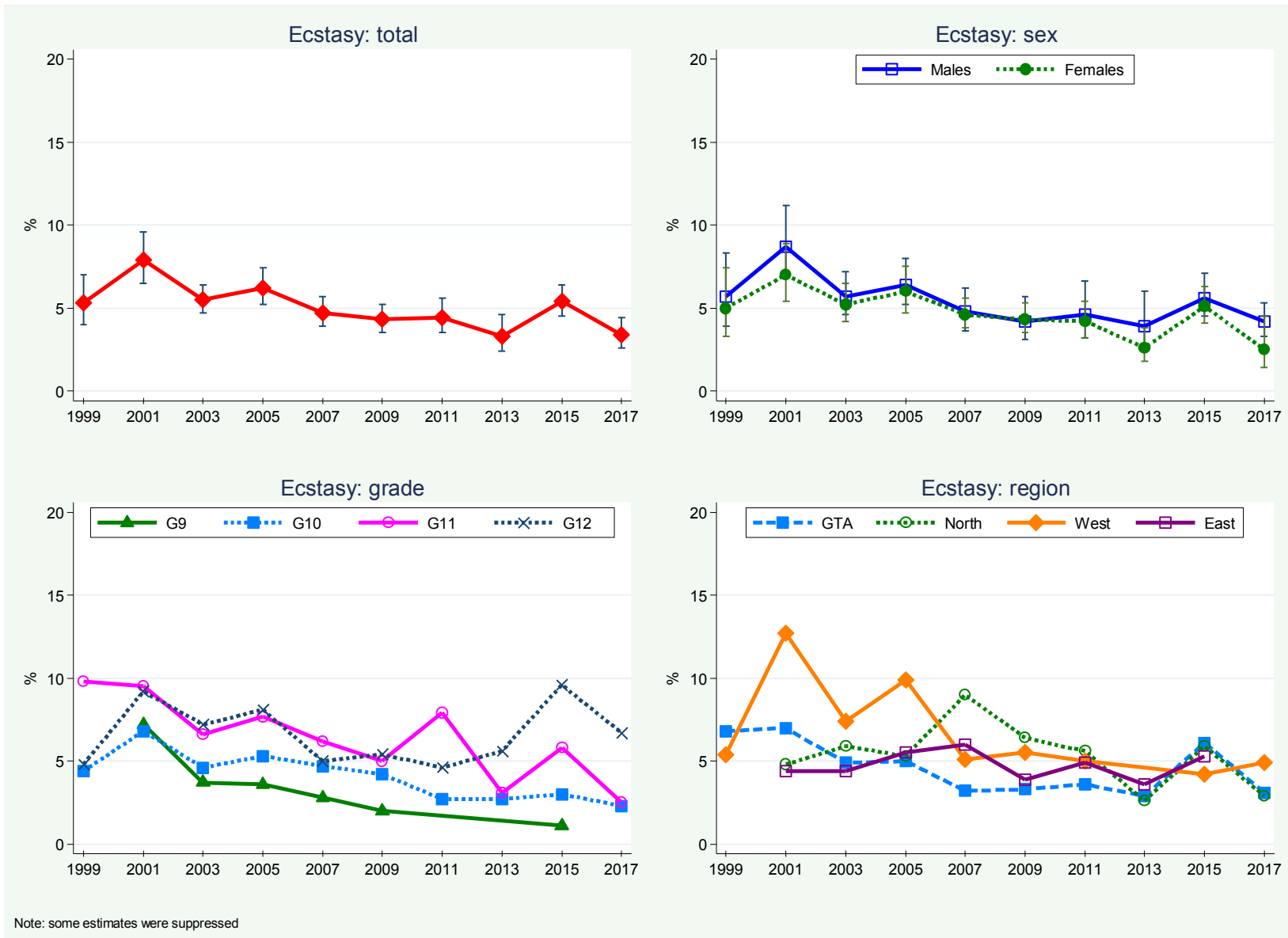
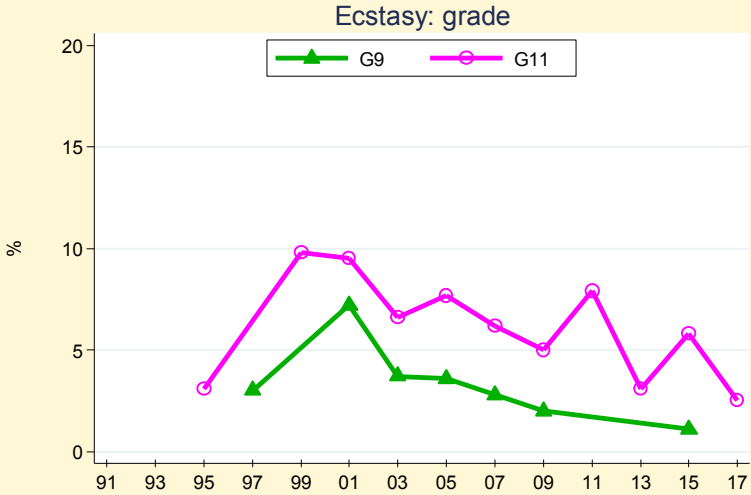
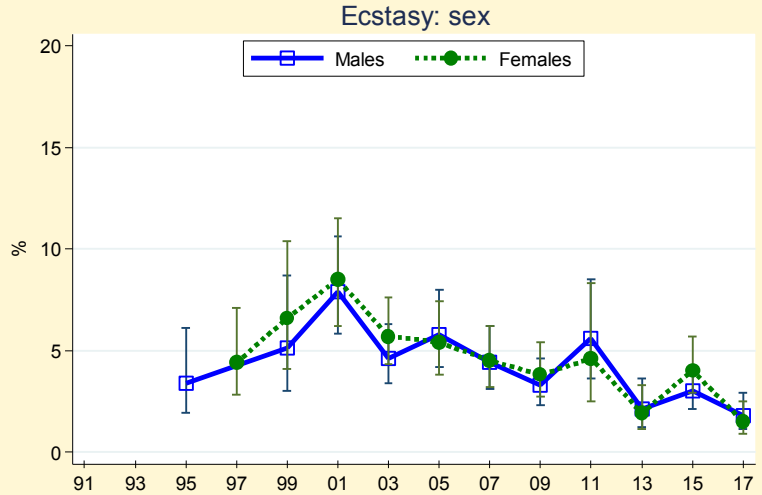
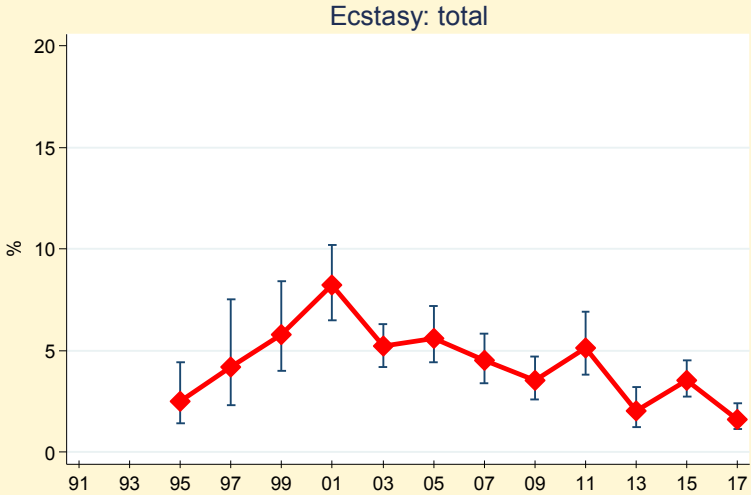


Figure 3.6.16
 Past Year Ecstasy Use, 1991–2017 (Grades 9 and 11 only)



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

Table 3.6.10: Percentage Reporting Ecstasy Use in the Past Year, 1991–2017 OSDUHS (Grades 9–12)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)					(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	5.3 (4.0-7.0)	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) ^{abcd}
Total ²	†	†	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) ^{cd}
Sex														
Males ¹	—	—	—	—	5.7 (3.9-8.3)	8.7 (6.8-11.2)	5.7 (4.6-7.2)	6.4 (5.2-8.0)	4.8 (3.6-6.2)	4.2 (3.1-5.7)	4.6 (3.2-6.6)	3.9 (2.5-6.0)	5.6 (4.5-7.0)	4.2 (3.3-5.3) ^b
Males ²	†	†	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)
Females ¹	—	—	—	—	5.0 (3.3-7.4)	7.0 (5.4-8.9)	5.2 (4.2-6.5)	6.0 (4.7-7.5)	4.6 (3.8-5.6)	4.3 (3.5-5.3)	4.2 (3.2-5.4)	2.6 (1.8-3.8)	5.1 (4.1-6.3)	2.5 (1.4-4.5) ^b
Females ²	†	†	†	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)
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)	† ^b
10	—	—	—	—	4.5 (2.5-7.8)	6.8 (4.6-10.0)	4.6 (3.2-6.4)	5.3 (3.9-7.0)	4.7 (3.5-6.4)	4.2 (3.1-5.7)	2.7 (1.5-4.8)	2.7 (1.5-4.8)	3.0 (2.1-4.3)	2.3 (1.5-3.7) ^b
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 (5.7-10.5)	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) ^{ab}
12	—	—	—	—	4.8 (2.6-8.8)	9.2 (6.0-14.1)	7.2 (5.5-9.4)	8.1 (6.3-10.5)	5.0 (3.8-6.7)	5.4 (3.8-7.6)	4.6 (3.0-7.0)	5.6 (3.6-8.5)	9.6 (7.3-12.6)	6.7 (4.5-9.8)

(cont'd)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)					(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Region														
GTA ¹	—	—	—	—	6.8 (4.8-9.7)	7.0 (5.2-9.4)	4.9 (3.8-6.3)	5.0 (3.9-6.3)	3.2 (2.2-4.8)	3.3 (2.5-4.4)	3.6 (2.2-5.8)	2.9 (1.8-4.6)	6.1 (4.8-7.7)	3.1 ^{ab} (2.1-4.7)
North ¹	—	—	—	—	†	4.8 (3.2-7.0)	5.9 (4.7-7.3)	5.3 (4.0-6.8)	9.0 (5.7-13.8)	6.4 (3.9-10.5)	5.6 (3.9-8.0)	†	5.9 (4.2-8.4)	2.9 ^b (1.8-4.5)
West ¹	—	—	—	—	5.4 (3.2-8.9)	12.7 (9.8-16.4)	7.4 (5.6-9.8)	9.9 (7.5-12.9)	5.1 (3.7-7.0)	5.5 (3.9-7.7)	5.0 (3.5-7.1)	†	4.2 (3.2-5.5)	4.9 ^b (3.3-7.2)
East ¹	—	—	—	—	†	4.4 (2.3-8.3)	4.4 (3.1-6.2)	5.5 (3.5-8.5)	6.0 (4.6-7.8)	3.9 (2.3-6.3)	4.9 (3.2-7.5)	3.6 (2.0-6.3)	5.3 (3.3-8.2)	†

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) question asked of a random half sample between 1991 and 1999; (5) GTA=Greater Toronto Area; (6) long-term region trends are not available; (7) † estimate suppressed due to unreliability; (8) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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 Mephedrone (“Bath Salts”) Use

Starting in 2011, we asked a random half sample of secondary students (grades 9–12) whether they used mephedrone. Mephedrone (4-methylmethcathinone), more commonly known as “bath salts,” is a synthetic stimulant that produces effects similar to methamphetamine in that it can cause rapid heart rate, hallucinations, and violent behaviour. It comes in powder form and is usually snorted, but can be swallowed in pill form or inhaled. Mephedrone, which is illegal in Canada, is sold over the Internet, usually under the guise of plant food or bath salts.

To assess use, students were asked “*In the last 12 months, how often did you use mephedrone (also known as ‘bath salts’, ‘vanilla sky’, ‘drone’, ‘bubbles’, ‘m-cat’)?*”

2017: Grades 9–12

- The percentage of secondary students reporting past year use of mephedrone (“bath salts”) was suppressed in 2017 (less than 0.5%).
- No further breakdown by sex, grade, or region could be presented due to suppressed estimates.

2011–2017: Grades 9–12

- Because the estimates for past year mephedrone use in 2011, 2013, and 2017 were suppressed (due to extremely small numbers), a trend analysis could not be performed.

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’)?*”

2017: Grades 9–12

- The percentage of secondary students reporting past year use of fentanyl was 0.9% (95% CI: 0.5%-1.6%). This percentage represents about 5,800 students in grades 9–12 in Ontario.
- No further breakdown by sex, grade, or region could be presented due to suppressed estimates.

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. In addition to suppressing pain, these drugs may also cause a relaxed or euphoric feeling. Opioids 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 2017 (Grades 7–12)	2007–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> One-in-ten (10.6%) students report using a prescription opioid pain reliever nonmedically at least once during the 12 months before the survey. This estimate represents about 97,100 Ontario students in grades 7 through 12. 	<ul style="list-style-type: none"> Among the total sample of students, nonmedical prescription opioid use in 2017 (10.6%) is similar to the estimate from 2015 (10.0%), and 2013 (12.4%). However, there has been a significant linear downward trend since 2007 – when monitoring began – from 20.6% down to 10.6% in 2017.
Sex	<ul style="list-style-type: none"> There is no significant difference in past year nonmedical opioid use between males (10.2%) and females (11.1%). 	<ul style="list-style-type: none"> Neither males nor females show a significant change in nonmedical prescription opioid use between 2015 and 2017, as levels have remained stable in recent years. However, both sexes do show a significant linear decline since 2007.
Grade	<ul style="list-style-type: none"> Despite some variation among the grades, these differences are not statistically significant. 	<ul style="list-style-type: none"> Only 9th graders show a significant change between 2015 and 2017, from 6.9% up to 11.1%, returning to a level seen in prior years. Students in all grades, except grade 7, show a significant linear decline since 2007.
Region	<ul style="list-style-type: none"> Despite some variation among the regions, these differences are not statistically significant. 	<ul style="list-style-type: none"> No region shows a significant change in use between 2015 and 2017. However, all regions show a significant decline since 2007.

Figure 3.7.1
 Past Year Nonmedical Use of Prescription Opioid Pain Relievers by Sex,
 Grade, and Region, 2017 OSDUHS

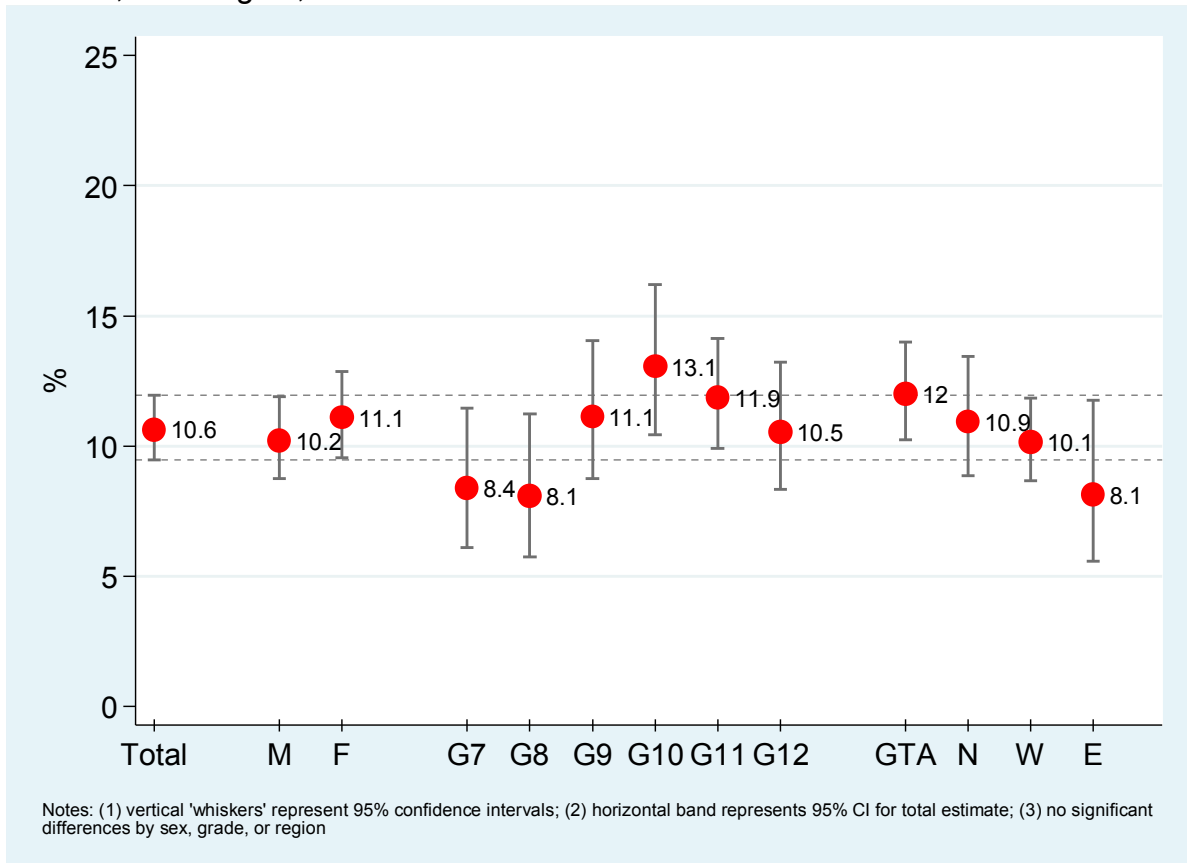


Figure 3.7.2
 Past Year Nonmedical Use of Prescription Opioid Pain Relievers, 2007–2017 OSDUHS (Grades 7–12)

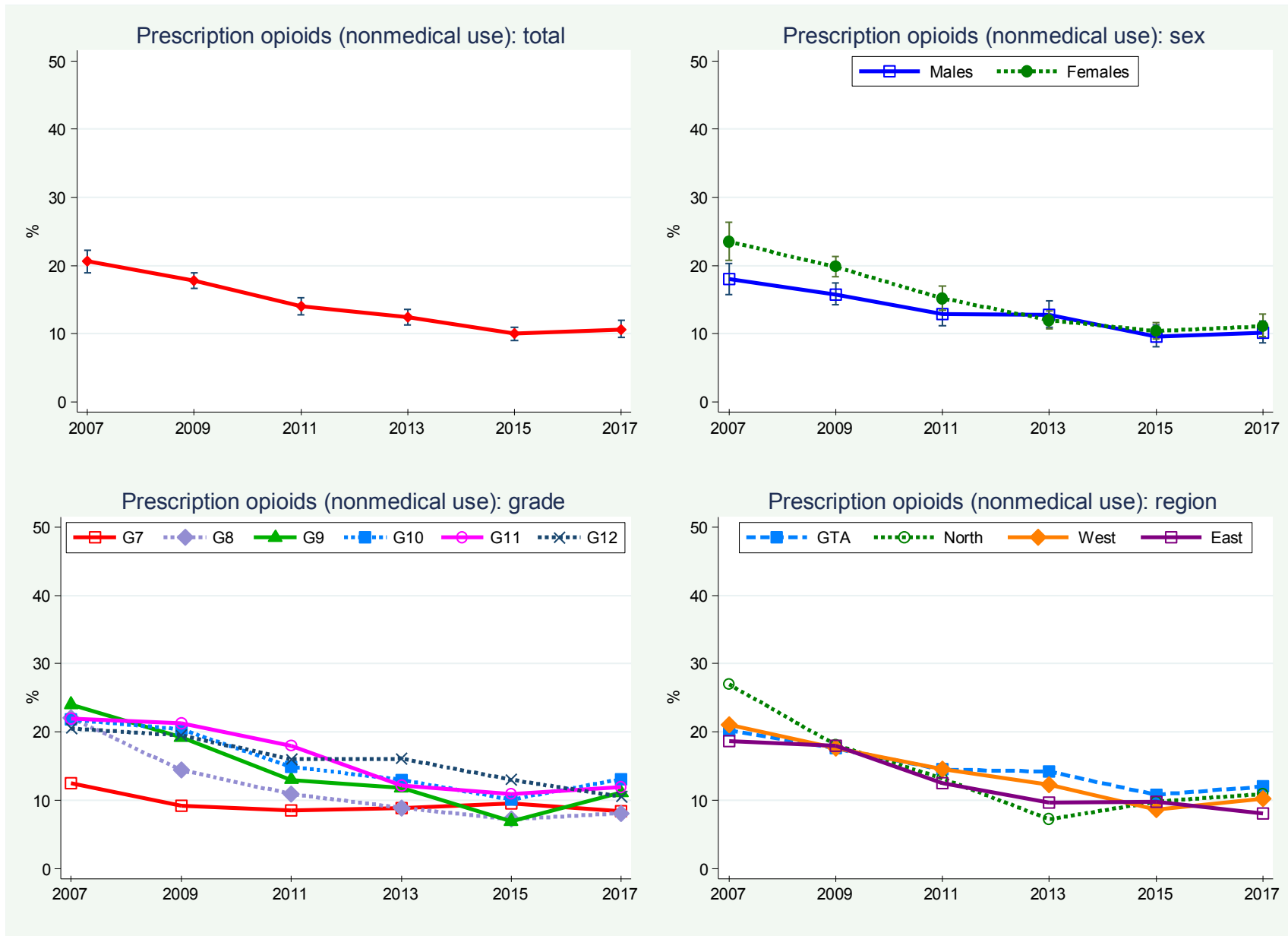


Table 3.7.1: Percentage Reporting Nonmedical Use of Prescription Opioid Pain Relievers in the Past Year, 2007–2017 OSDUHS

	(n=)	2007 (2935)	2009 (9112)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (10435)
Total (95% CI)		20.6 (18.9-22.3)	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 ^{bcd} (9.5-12.0)
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 ^b (8.7-11.9)
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 ^b (9.6-12.8)
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)
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 ^b (5.7-11.2)
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 ^{ab} (8.8-14.0)
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 ^b (10.4-16.2)
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 ^b (9.9-14.1)
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 ^b (8.3-13.2)
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 ^b (10.2-14.0)
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 ^b (8.9-13.4)
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 ^b (8.7-11.8)
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 ^b (5.6-11.8)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in 2007; (3) ^a 2017 vs. 2015 significant difference, $p < .01$; ^b 2017 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

(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 2017 (Grades 7–12)	2007–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> Among all students, 2.3% report using an ADHD drug for nonmedical purposes at least once in the past 12 months. This represents about 20,800 Ontario students in grades 7 through 12. 	<ul style="list-style-type: none"> The nonmedical use of an ADHD drug did not significantly change between 2015 (2.1%) and 2017 (2.3%). However, use is currently higher than the estimate from 2007 (1.0%), the first year of monitoring.
Sex	<ul style="list-style-type: none"> Males (2.6%) and females (1.9%) are equally likely to use an ADHD drug nonmedically. 	<ul style="list-style-type: none"> Neither sex shows a significant change since 2015. Since 2007, use among females has remained stable, but use among males has significantly increased, mainly in the last two cycles.
Grade	<ul style="list-style-type: none"> There is significant grade variation showing that 11th graders (3.3%) and 12th graders (4.5%) are most likely to use. 	<ul style="list-style-type: none"> No grade shows a significant change in use since 2015. Students in grade 12 show a significant increase in use since 2007.
Region	<ul style="list-style-type: none"> There is no significant regional variation. 	<ul style="list-style-type: none"> No region shows a significant change in use over time.

Table 3.7.2: Percentage Reporting Nonmedical Use of an ADHD Drug in the Past Year, 2007–2017 OSDUHS

	(n=)	2007 (2935)	2009 (9112)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (11435)
Total (95% CI)		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 ^{bc} (1.7-3.1)
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 ^b (2.0-3.5)
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)
Grade							
7		†	0.8 (0.4-1.5)	†	†	†	1.5 (0.8-2.7)
8		†	1.2 (0.7-2.3)	†	†	†	0.9 (0.5-1.8)
9		†	1.8 (1.0-3.0)	†	†	0.8 (0.4-1.4)	0.8 (0.4-1.4)
10		†	1.6 (1.0-2.6)	†	1.6 (0.8-3.0)	1.5 (0.9-2.5)	†
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)
12		†	1.7 (1.1-2.7)	†	2.4 (1.2-4.7)	3.8 (2.3-6.1)	4.5 ^b (2.7-7.3)
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)
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)
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)
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)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) question asked of a random half sample in 2007; (4) no significant differences 2017 vs. 2015, p<.01; ^b 2017 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 Ritalin, Concerta, Adderall, Dexedrine) without a prescription or without a doctor telling you to take it?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Nonmedical Use of Over-the-Counter Cough or Cold Medication

(Figures 3.7.3, 3.7.4; Table 3.7.3)

Starting in 2009, the OSDUHS asked students about using over-the-counter (OTC) cough or cold medication that contains the drug dextromethorphan (DXM) in order to “get high.” When misused, DXM takes on qualities of a dissociative drug such as ketamine, producing feelings of detachment from one’s body, distorting perceptions of sight and sound, and impairing motor coordination.

	Use in 2017 (Grades 7–12)	2009–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ About one-in-ten (9.2%) students report using an OTC cough/cold medication to get high at least once in the past year. This estimate represents about 83,300 students in grades 7–12 in Ontario. 	<ul style="list-style-type: none"> □ The percentage of students reporting using an OTC cough/cold medication to get high significantly increased between 2015 (6.4%) and 2017 (9.2%), reverting back up to the level seen in 2013 (9.7%). The current estimate is also similar to that from 2009, when monitoring first began.
Sex	<ul style="list-style-type: none"> ■ Males (11.2%) are significantly more likely than females (7.1%) to use cough/cold medication to get high. 	<ul style="list-style-type: none"> □ Only males show a significant change in the use of an OTC cough/cold medication to get high since 2015, from 6.7% to 11.2%. Males also show a significant increase since 2009 (6.8%), the first year of monitoring. There was no significant change over time among females.
Grade	<ul style="list-style-type: none"> ■ Despite some variation, there are no significant grade differences. 	<ul style="list-style-type: none"> □ Among the grades, only students in grades 9 and 10 show a significant increase in use between 2015 and 2017, reverting back to levels seen in previous years. No other grade shows a significant change in 2017.
Region	<ul style="list-style-type: none"> ■ There are significant regional differences, with GTA students (11.6%) most likely to use compared with students in the other three regions (about 7%-8%). 	<ul style="list-style-type: none"> □ Among the regions, students in the GTA show a significant increase in 2017 (11.6%) compared with 2015 (5.9%). The current level is also significantly higher than 2009, the first year of monitoring. No other region shows a significant change in 2017.

Figure 3.7.3
 Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication
 by Sex, Grade, and Region, 2017 OSDUHS

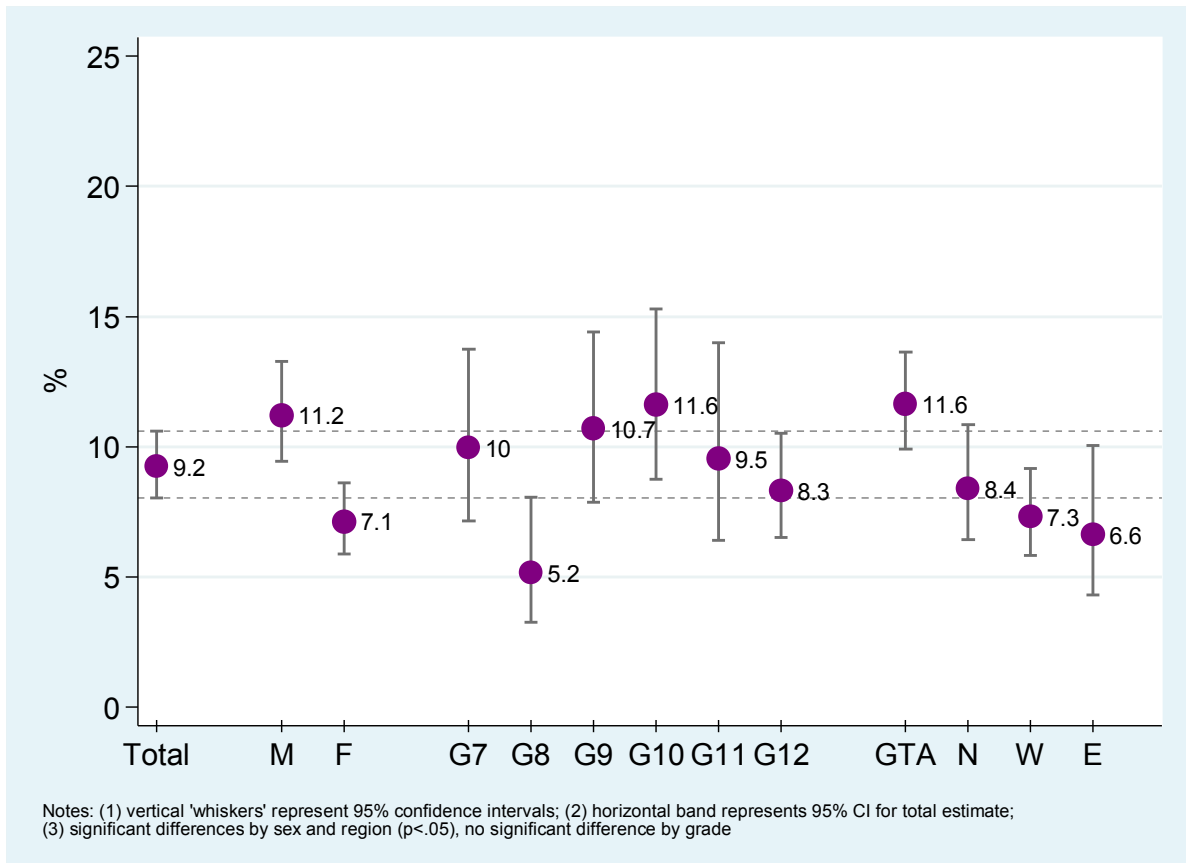


Figure 3.7.4
 Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication,
 2009–2017 OSDUHS (Grades 7–12)

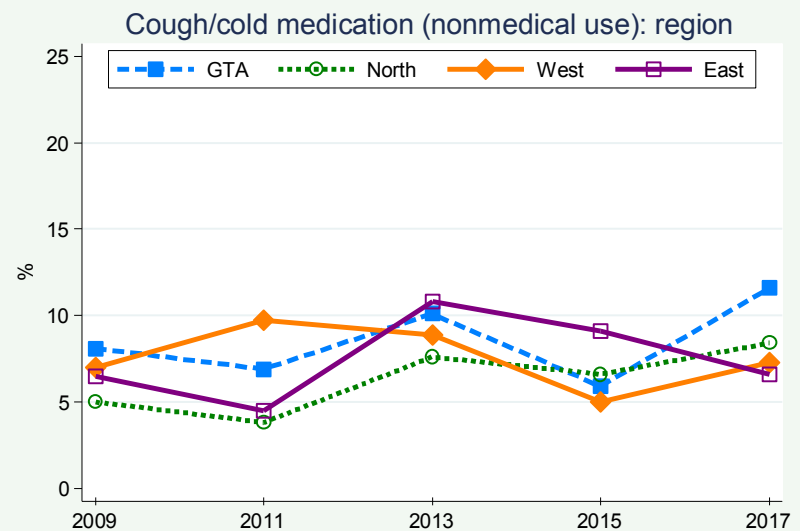
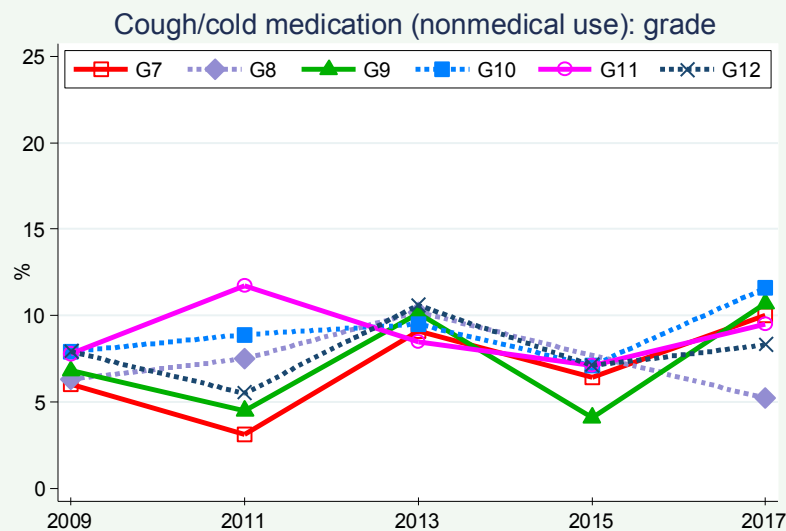
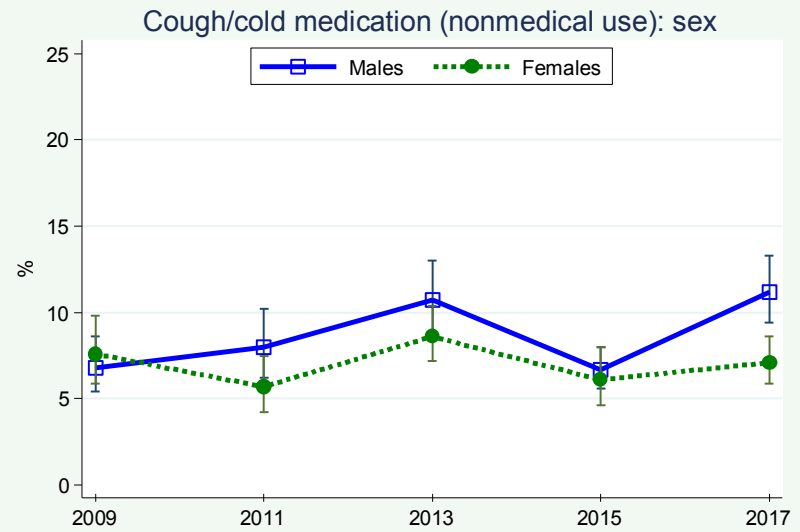
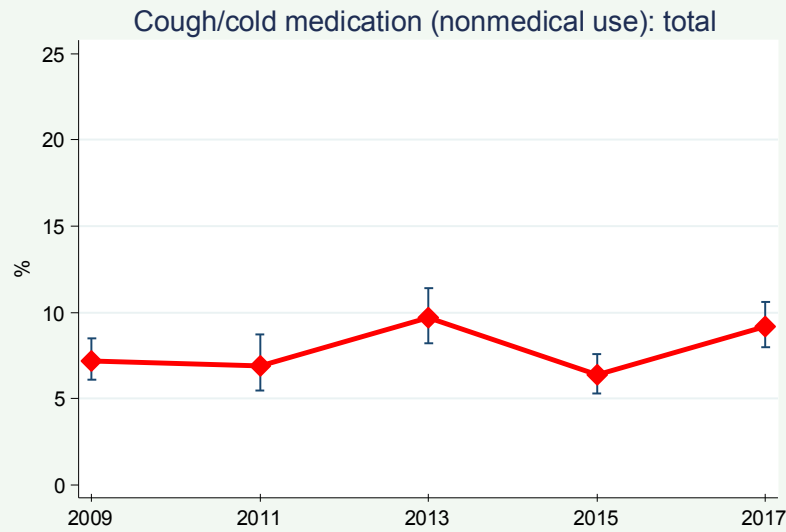


Table 3.7.3: Percentage Reporting Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication in the Past Year, 2009–2017 OSDUHS

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

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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 from a drug store, such as Robitussin DM, Benylin DM (also known as “robos”, “dex”, “DXM”, “sizzurp”, “purple drank”) in order to get high?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Use of High-Caffeine Energy Drinks

(Figures 3.7.5, 3.7.6; 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 2017 (Grades 7–12)	2011–2017 Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> ■ About one-third (34.1%) of students in grades 7 through 12 report drinking an energy drink at least once in the past year. This estimate represents about 304,600 Ontario students. ■ About 12.6% (95% CI: 10.8%-14.7%) report drinking an energy drink at least once in the week (seven days) before the survey. This estimate represents about 112,800 students. ■ About 1.0% (95% CI: 0.7%-1.7%) report drinking an energy drink daily during the week before the survey. This estimate represents about 9,400 students. 	<ul style="list-style-type: none"> □ Among the total sample, past year use of energy drinks remained stable between 2015 (34.8%) and 2017 (34.1%). However, the current estimate is significantly lower than estimates from 2011 (49.5%) and 2013 (39.7%).
Sex	<ul style="list-style-type: none"> ■ Males are more likely than females to report drinking an energy drink in the past year (41.1% vs. 26.9%, respectively). 	<ul style="list-style-type: none"> □ Use of energy drinks among both males and females did not significantly change since 2015. However, use among both males and females has significantly decreased since 2011.
Grade	<ul style="list-style-type: none"> ■ Past year use of energy drinks significantly increases with grade, from 21.8% among 7th graders up to about 37%-40% of students in grades 9-12. 	<ul style="list-style-type: none"> □ No grade shows a significant change since 2015. However, all grades show a significant decrease since 2011.
Region	<ul style="list-style-type: none"> ■ There is significant regional variation showing that students in the GTA (30.2%) are least likely to drink energy drinks compared with students in the other three regions (about 37%-38%). 	<ul style="list-style-type: none"> □ No region shows a significant change since 2015. However, all regions except the East show a significant decrease since 2011.

Figure 3.7.5
 Past Year Use of High-Caffeine Energy Drinks by Sex, Grade, and Region,
 2017 OSDUHS

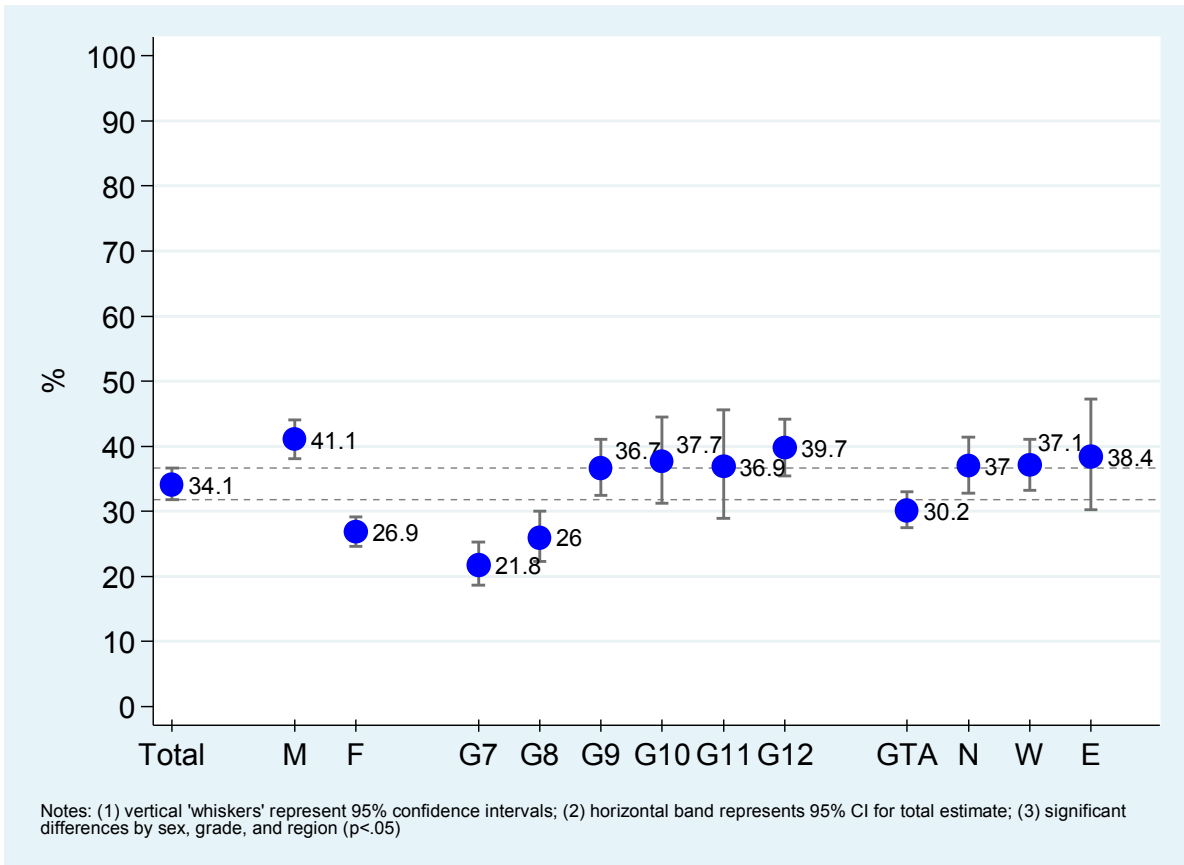


Figure 3.7.6
 Past Year Use of High-Caffeine Energy Drinks, 2011–2017 OSDUHS (Grades 7–12)

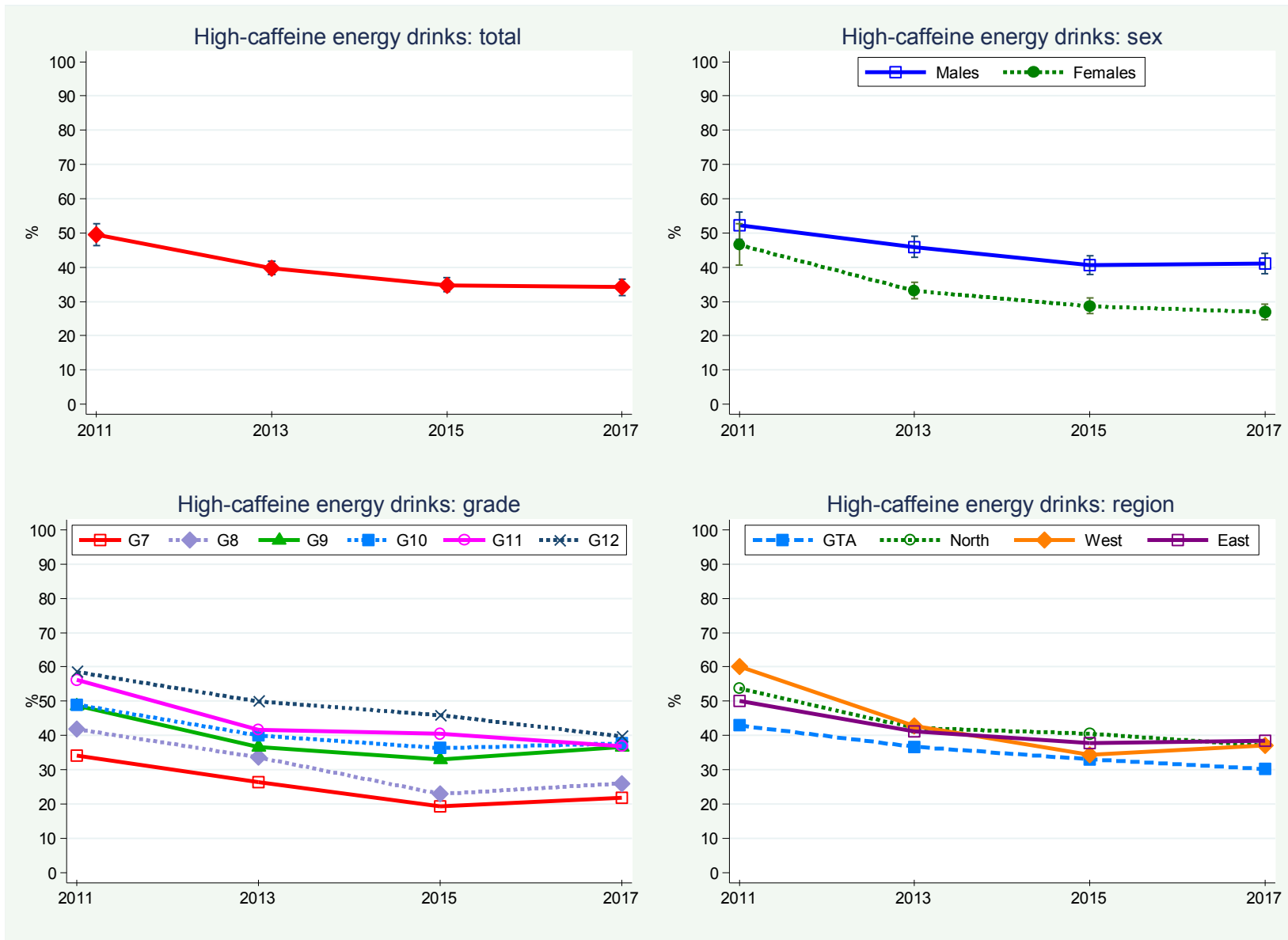


Table 3.7.4: Percentage Reporting Drinking High-Caffeine Energy Drinks in the Past Year, 2011–2017 OSDUHS

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

Notes: (1) entries in brackets are 95% confidence intervals; (2) asked of a random half sample in 2011; (3) no significant differences 2017 vs. 2015; ^b 2017 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, Rockstar, Amp, Full Throttle, Monster, etc.? (Note that one of the response options referred to use in the past year.)

Source: OSDUHS, Centre for Addiction & Mental Health

Other Caffeine Consumption

(Figure 3.7.7)

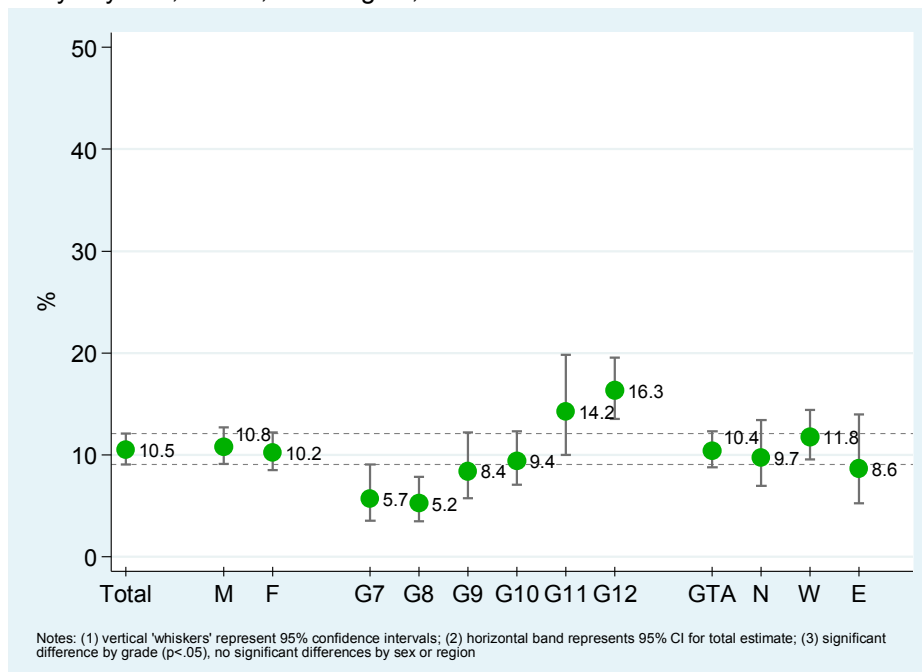
Starting in 2017, students were asked about their consumption of coffee and tea (caffeinated) during the past week. The two questions were: (1) “*In the last 7 days, how often did you drink a cup, can, or bottle of coffee, or coffee drinks such as lattes or cappuccinos (hot or cold)? (Do not include decaffeinated coffee.)*”; and (2) “*In the last 7 days, how often did you drink a cup, can, or bottle of hot or iced tea? (Do not include decaffeinated tea.)*” Here we present the percentage of students who report consuming caffeinated coffee and/or tea daily during the past week.

2017: Grades 7–12

- The percentage of students in grades 7–12 reporting drinking caffeinated coffee daily is 6.3% (95% CI: 5.2%-7.6%). This estimate represents about 45,700 students.
- The percentage of students in grades 7–12 reporting drinking caffeinated tea daily is 5.5% (95% CI: 4.6%-6.6%). This estimate represents about 40,100 students.

- The percentage of students in grades 7–12 reporting drinking coffee and/or caffeinated tea daily is 10.5% (95% CI: 9.1%-12.1%). This estimate represents about 75,500 students.
- Males (10.8%) and females (10.2%) are equally likely to drink coffee and/or caffeinated tea daily.
- Daily consumption of coffee and/or caffeinated tea significantly increases with grade, from 5.7% of 7th graders to 14%-16% of 11th and 12th graders.
- There are no significant differences among the four regions.

Figure 3.7.7
Daily Consumption of Caffeinated Coffee and/or Tea in the Past Seven Days by Sex, Grade, and Region, 2017 OSDUHS



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; Table 3.7.5)

This section presents past year tranquilizer/sedative use (e.g., Valium, Xanax) 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 2017 (Grades 9–12)	Trends in Use
Total Sample	<ul style="list-style-type: none"> Nonmedical tranquilizer/sedative use is reported by 2.7% of students in grades 9 through 12. This percentage represents about 17,500 students. 	<ul style="list-style-type: none"> Among the total sample, there has been no change in tranquilizer/sedative use between 1999 and 2017, as estimates have remained stable at about 2%. Looking back over the past 40 years (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	<ul style="list-style-type: none"> Males (2.7%) and females (2.6%) are equally likely to use tranquilizers nonmedically. 	<ul style="list-style-type: none"> Neither males nor females show a significant change in tranquilizer use since 1999.
Grade	<ul style="list-style-type: none"> Nonmedical tranquilizer use significantly increases with grade, up to 4.1% among 12th graders. 	<ul style="list-style-type: none"> No grade shows a significant change in tranquilizer use since 1999.
Region	<ul style="list-style-type: none"> Use does not significantly vary by region. 	<ul style="list-style-type: none"> No region shows a significant change in tranquilizer use since 1999.

Figure 3.7.8
 Past Year Nonmedical Tranquillizer/Sedative Use by Sex, Grade, and Region,
 2017 OSDUHS

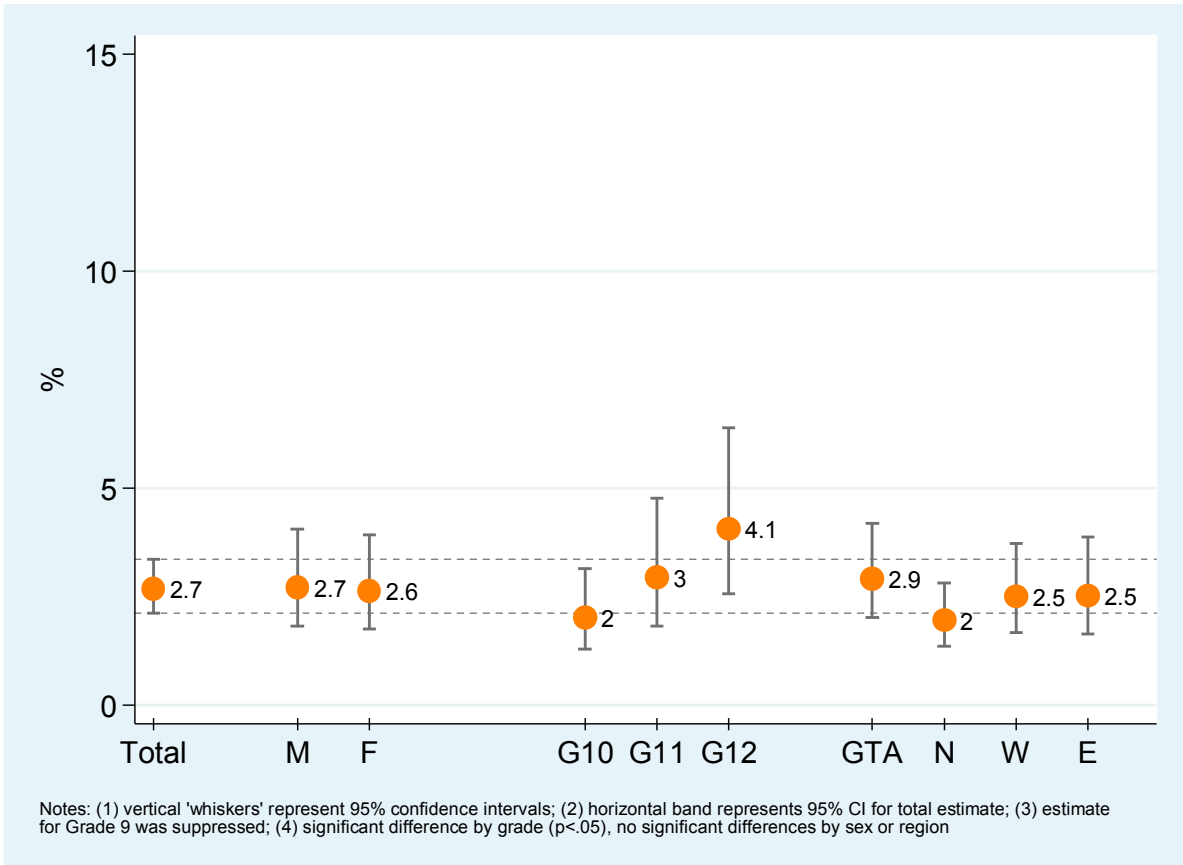


Figure 3.7.9
 Past Year Nonmedical Tranquillizer/Sedative Use, 1999–2017 OSDUHS (Grades 9–12)

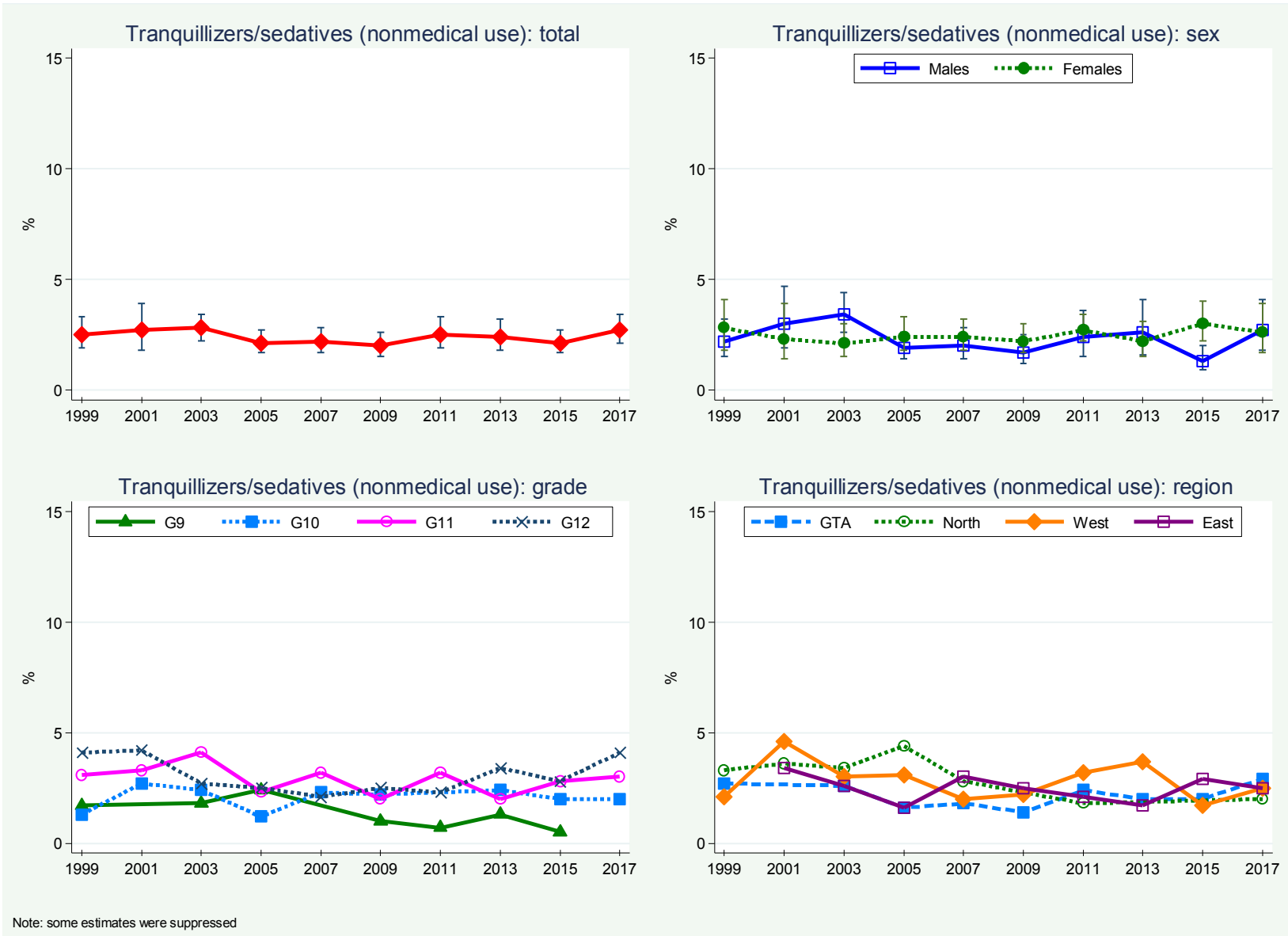
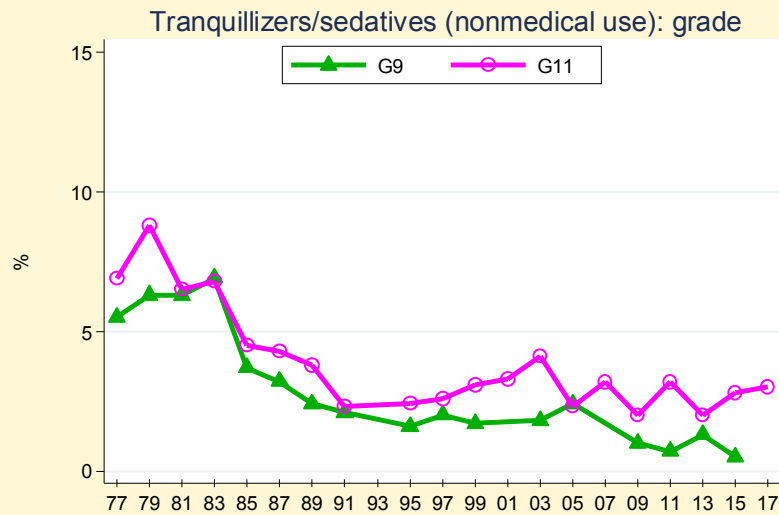
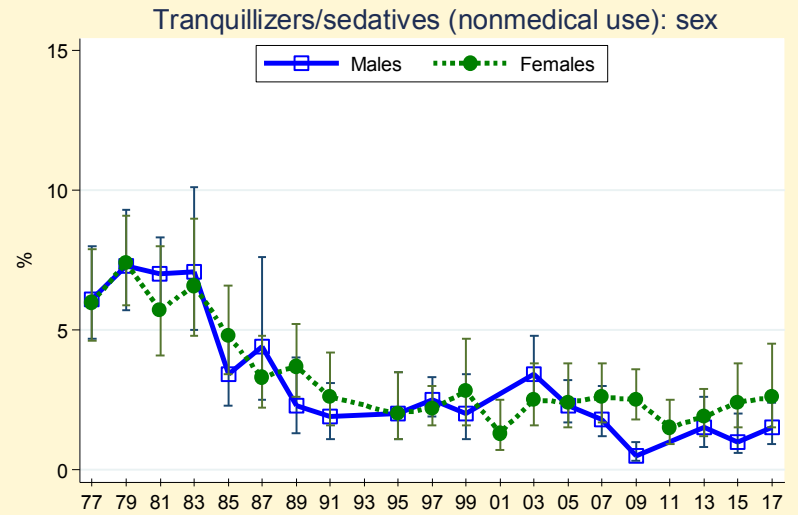
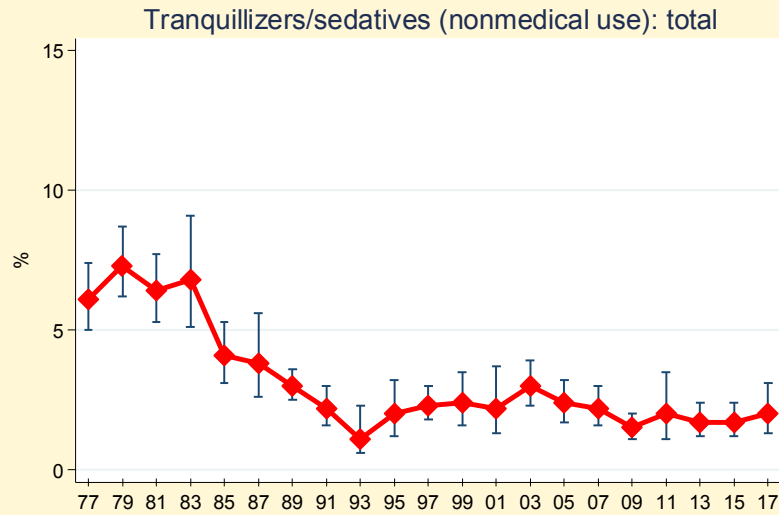


Figure 3.7.10
 Past Year Nonmedical Tranquillizer/Sedative Use, 1977–2017 OSDUHS (Grades 9 and 11 only)



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, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)													(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	2.5 (1.9-3.3)	2.7 (1.8-3.9)	2.8 (2.2-3.4)	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)	
Total ²	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 ^{cd} (1.3-3.1)	
Sex																						
Males ¹	—	—	—	—	—	—	—	—	—	—	—	2.2 (1.5-3.2)	3.0 (1.9-4.7)	3.4 (2.6-4.4)	1.9 (1.4-2.6)	2.0 (1.4-2.8)	1.7 (1.2-2.5)	2.4 (1.5-3.6)	2.6 (1.6-4.1)	1.3 (0.9-2.0)	2.7 (1.8-4.1)	
Males ²	6.1 (4.7-8.0)	7.3 (5.7-9.3)	7.0 (5.9-8.3)	7.1 (5.0-10.1)	3.4 (2.3-4.9)	4.4 (2.5-7.6)	2.3 (1.3-4.0)	1.9 (1.1-3.1)	†	2.0 (1.1-3.5)	2.5 (1.9-3.3)	2.0 (1.1-3.4)	†	3.4 (2.4-4.8)	2.3 (1.7-3.2)	1.8 (1.2-3.0)	0.5 (0.3-1.0)	†	1.5 (0.8-2.6)	1.0 (0.6-2.0)	1.5 (0.9-2.4)	
Females ¹	—	—	—	—	—	—	—	—	—	—	—	2.8 (1.8-4.1)	2.3 (1.4-3.9)	2.1 (1.5-3.0)	2.4 (1.8-3.3)	2.4 (1.8-3.2)	2.2 (1.7-3.0)	2.7 (2.2-3.4)	2.2 (1.5-3.1)	3.0 (2.2-4.0)	2.6 (1.7-3.9)	
Females ²	6.0 (4.6-7.9)	7.4 (5.9-9.1)	5.7 (4.1-8.0)	6.6 (4.8-9.0)	4.8 (3.4-6.6)	3.3 (2.2-4.8)	3.7 (2.6-5.2)	2.6 (1.6-4.2)	†	2.0 (1.1-3.5)	2.2 (1.6-3.0)	2.8 (1.6-4.7)	1.3 (0.7-2.5)	2.5 (1.6-3.8)	2.4 (1.5-3.8)	2.6 (1.7-3.8)	2.5 (1.8-3.6)	1.5 (0.9-2.5)	1.9 (1.2-2.9)	2.4 (1.5-3.8)	2.6 (1.5-4.5)	
Grade																						
9	5.5 (4.3-7.1)	6.3 (5.0-8.0)	6.4 (4.9-8.2)	6.9 (5.2-9.2)	3.7 (2.7-5.0)	3.2 (1.7-6.2)	2.4 (1.8-3.1)	2.1 (1.4-3.1)	†	1.6 (1.0-2.6)	2.0 (1.3-3.1)	1.7 (1.0-2.9)	†	1.8 (1.1-2.9)	2.5 (1.5-3.9)	†	1.0 (0.6-1.8)	0.7 (0.4-1.1)	1.3 (0.8-2.1)	0.5 (0.3-0.9)	†	
10	—	—	—	—	—	—	—	—	—	—	—	1.3 (0.7-2.3)	2.7 (1.6-4.6)	2.4 (1.7-3.5)	1.2 (0.7-2.2)	2.3 (1.4-3.6)	2.1 (1.4-3.3)	†	2.4 (1.5-3.6)	2.0 (1.3-3.1)	2.0 (1.3-3.1)	
11	6.9 (5.1-9.3)	8.8 (6.9-11.1)	6.5 (4.9-8.6)	6.8 (3.8-11.7)	4.5 (2.9-6.8)	4.3 (2.7-7.0)	3.8 (3.1-4.7)	2.3 (1.4-3.7)	†	2.4 (1.2-4.9)	2.6 (2.0-3.4)	3.1 (1.8-5.2)	3.3 (1.7-6.5)	4.1 (2.9-5.9)	2.3 (1.5-3.3)	3.2 (2.2-4.6)	2.0 (1.3-3.1)	3.2 (1.6-6.3)	2.0 (1.3-3.2)	2.8 (1.9-4.2)	3.0 (1.8-4.8)	
12	—	—	—	—	—	—	—	—	—	—	—	4.1 (2.7-6.2)	4.2 (2.0-8.4)	2.7 (1.8-4.2)	2.5 (1.7-3.8)	2.1 (1.2-3.5)	2.5 (1.5-4.1)	2.3 (1.5-3.5)	3.4 (1.8-6.2)	2.8 (1.7-4.5)	4.1 (2.6-6.4)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	2.7 (1.8-4.0)	†	2.6 (1.8-3.7)	1.6 (1.2-2.2)	1.8 (1.1-3.0)	1.4 (1.0-2.0)	2.4 (1.8-3.3)	2.0 (1.3-3.0)	2.0 (1.5-2.6)	2.9 (2.0-4.2)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	3.3 (1.9-5.8)	3.6 (2.1-6.0)	3.4 (2.2-5.0)	4.4 (2.3-8.3)	2.8 (1.7-4.6)	†	1.8 (1.2-2.8)	†	†	2.0 (1.4-2.8)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	2.1 (1.2-3.6)	4.6 (2.6-7.9)	3.0 (2.1-4.3)	3.1 (2.1-4.6)	2.0 (1.2-3.3)	2.2 (1.3-3.9)	3.2 (1.8-5.4)	3.7 (2.2-6.1)	1.7 (1.1-2.8)	2.5 (1.7-3.7)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	†	3.4 (1.9-5.8)	2.6 (1.4-4.8)	1.6 (1.0-2.7)	3.0 (2.0-4.6)	2.5 (1.5-4.1)	2.1 (1.2-3.7)	1.7 (1.2-2.3)	2.9 (1.6-5.4)	2.5 (1.6-3.9)	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) no significant changes between 1999 and 2017; ° significant linear trend; ¢ significant nonlinear trend.

Q: Sedatives or tranquilizers 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 tranquilizers (such as Valium, Ativan, Xanax, also known as “tranqs”, “downers”, etc.) 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 including the nonmedical (NM) use of a prescription drug, but excluding tobacco, alcohol, and caffeinated drinks (among grades 9–12 only); (2) the percentage who used any drug during the past year excluding cannabis (among grades 9–12 only); (3) the percentage who used any prescription drug nonmedically during the past year (among grades 9–12 only); and (4) the percentage who used no drug (abstinence) during the past year (among grades 7–12).

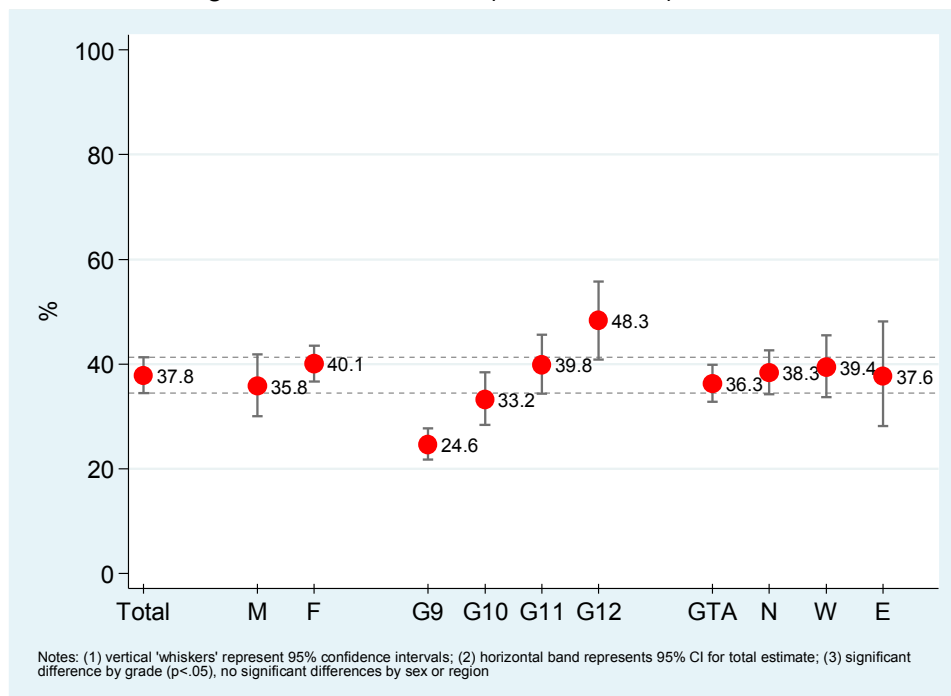
Any Illicit Drug Use Including Cannabis in 2017 (Figure 3.8.1)

This composite measure captures the use of at least one of the following 18 drugs asked about in the 2017 survey: cannabis, synthetic cannabis, inhalants, LSD, mushrooms/mescaline, jimson weed, salvia divinorum, cocaine, crack, methamphetamine, heroin, fentanyl, ecstasy, mephedrone (“bath salts”), tranquilizers/sedatives (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication. Excluded from this index are tobacco cigarettes, electronic cigarettes, waterpipes, alcohol, and caffeinated drinks. These results are among grades 9 through 12 only.

2017: Grades 9–12

- Among secondary students, 37.8% (95% CI: 34.5%-41.2%) report using at least one drug in the past year. This estimate represents about 196,800 Ontario students in grades 9 through 12.
- Males (35.8%) and females (40.1%) are equally likely to report the use of at least one drug.
- Drug use significantly increases with grade, from 24.6% of 9th graders up to almost half (48.3%) of 12th graders.
- There are no significant regional differences.

Figure 3.8.1
Past Year Use of Any Illicit Drug Including Cannabis by Sex, Grade, and Region, 2017 OSDUHS (Grades 9–12)



Any Illicit Drug Use Excluding Cannabis in 2017

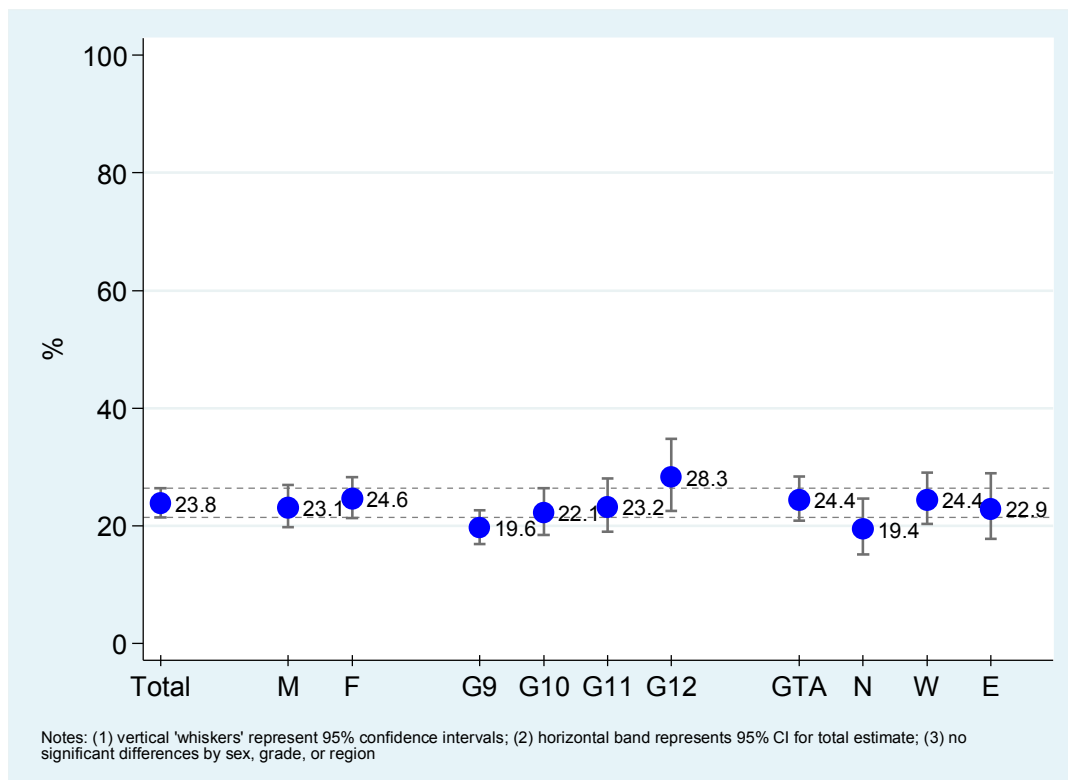
(Figure 3.8.2)

This composite measure captures the use of at least one of the following 17 drugs asked about in the 2017 survey: synthetic cannabis, inhalants, LSD, mushrooms/mescaline, jimson weed, salvia divinorum, cocaine, crack, methamphetamine, heroin, fentanyl, ecstasy, mephedrone (“bath salts”), tranquilizers/sedatives (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication. Excluded from this index are tobacco cigarettes, electronic cigarettes, waterpipes, alcohol, caffeinated drinks, and cannabis. These results are among grades 9 through 12 only.

2017: Grades 9–12

- Among secondary students, 23.8% (95% CI: 21.5%-26.4%) report using at least one drug, excluding cannabis, in the past year. This estimate represents about 124,000 Ontario students in grades 9 through 12.
- Males (23.1%) and females (24.6%) are equally likely to use a drug, excluding cannabis.
- Despite some variation, there are no significant differences among the grades.
- There are no significant differences among the four regions.

Figure 3.8.2
Past Year Use of Any Illicit Drug Excluding Cannabis by Sex, Grade, and Region, 2017 OSDUHS (Grades 9–12)



Trends in Any Illicit Drug Use

(Figures 3.8.3–3.8.6; Tables 3.8.1, 3.8.2)

In this section, we report on changes over time in two estimates of any illicit drug use. The first estimate measures use of any of *nine* drugs that are common to most OSDUHS cycles since 1977: cannabis, LSD, mushrooms/mescaline, methamphetamine, cocaine, crack, heroin, ecstasy, and tranquilizers/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 cigarettes, waterpipes, alcohol, caffeinated drinks, synthetic cannabis, inhalants, jimson weed, salvia divinorum, mephedrone (“bath salts”), fentanyl, prescription ADHD drugs, prescription opioid pain relievers, and any over-the-counter medication.

The second measure of any drug use that is used to show trends is similar to the first, but also excludes cannabis.

1999–2017: Grades 9–12

□ Neither of the two measures for any drug use significantly changed between 2015 and 2017 among the total sample of secondary students. There were no changes between these two years among subgroups.

□ Both measures for any illicit drug use have remained stable in recent years (since 2011). However, both measures show a significant linear downward trend since 1999.

□ Any illicit drug use including cannabis is significantly lower in 2017 compared to 1999 for all subgroups except 12th graders and students in the North.

□ Similarly, any illicit drug use excluding cannabis is currently significantly lower compared to 1999 for all subgroups.

1977–2017: Grades 9 and 11 only

□ Looking back over the past 40 years, any drug use, including cannabis, 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 and has levelled off in recent years. The current estimate is significantly lower than both peak periods, but is similar to the low levels seen in the late 1980s/early 1990s.

□ The long-term trend pattern for the measure excluding cannabis is similar to the one described above, except that the decline in the past decade has been more dramatic. The prevalence of any drug use excluding cannabis reached an all-time low in recent years.

Figure 3.8.3
 Past Year Use of Any Illicit Drug Including Cannabis, 1999–2017 OSDUHS (Grades 9–12)

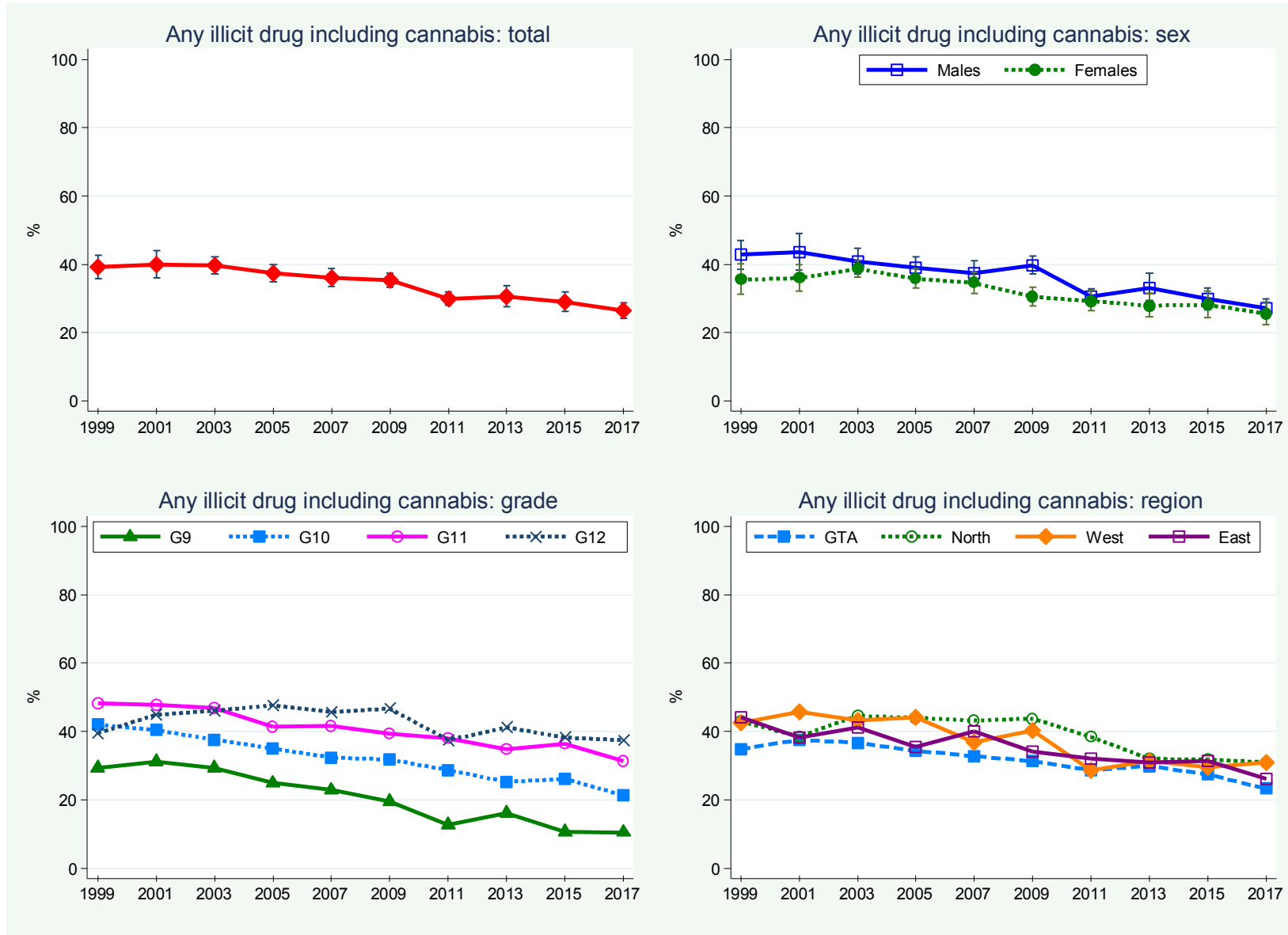
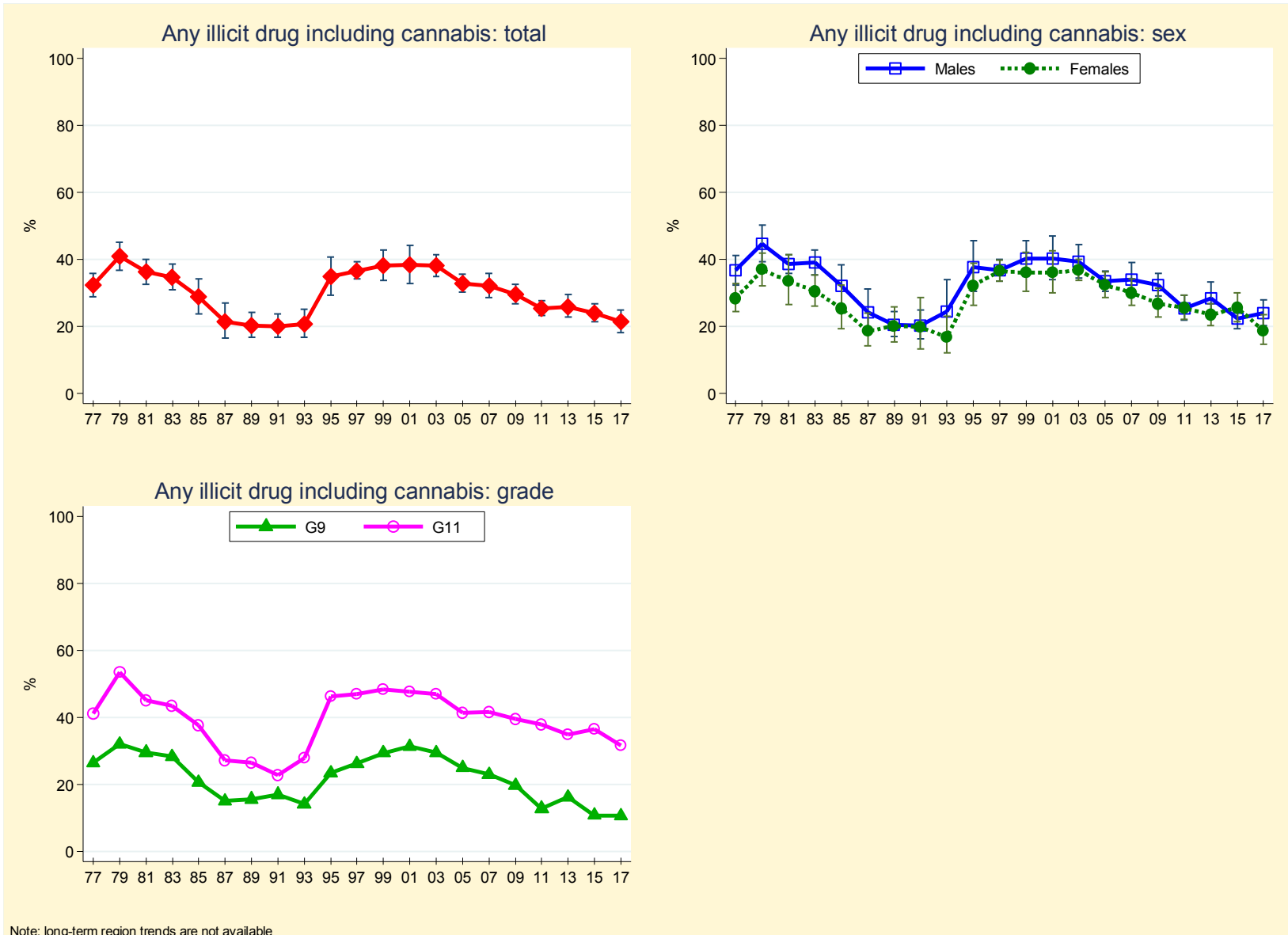


Figure 3.8.4
 Past Year Use of Any Illicit Drug Including Cannabis, 1977–2017 OSDUHS (Grades 9 and 11 only)



Note: long-term region trends are not available

Figure 3.8.5
 Past Year Use of Any Illicit Drug Excluding Cannabis, 1999–2017 OSDUHS (Grades 9–12)

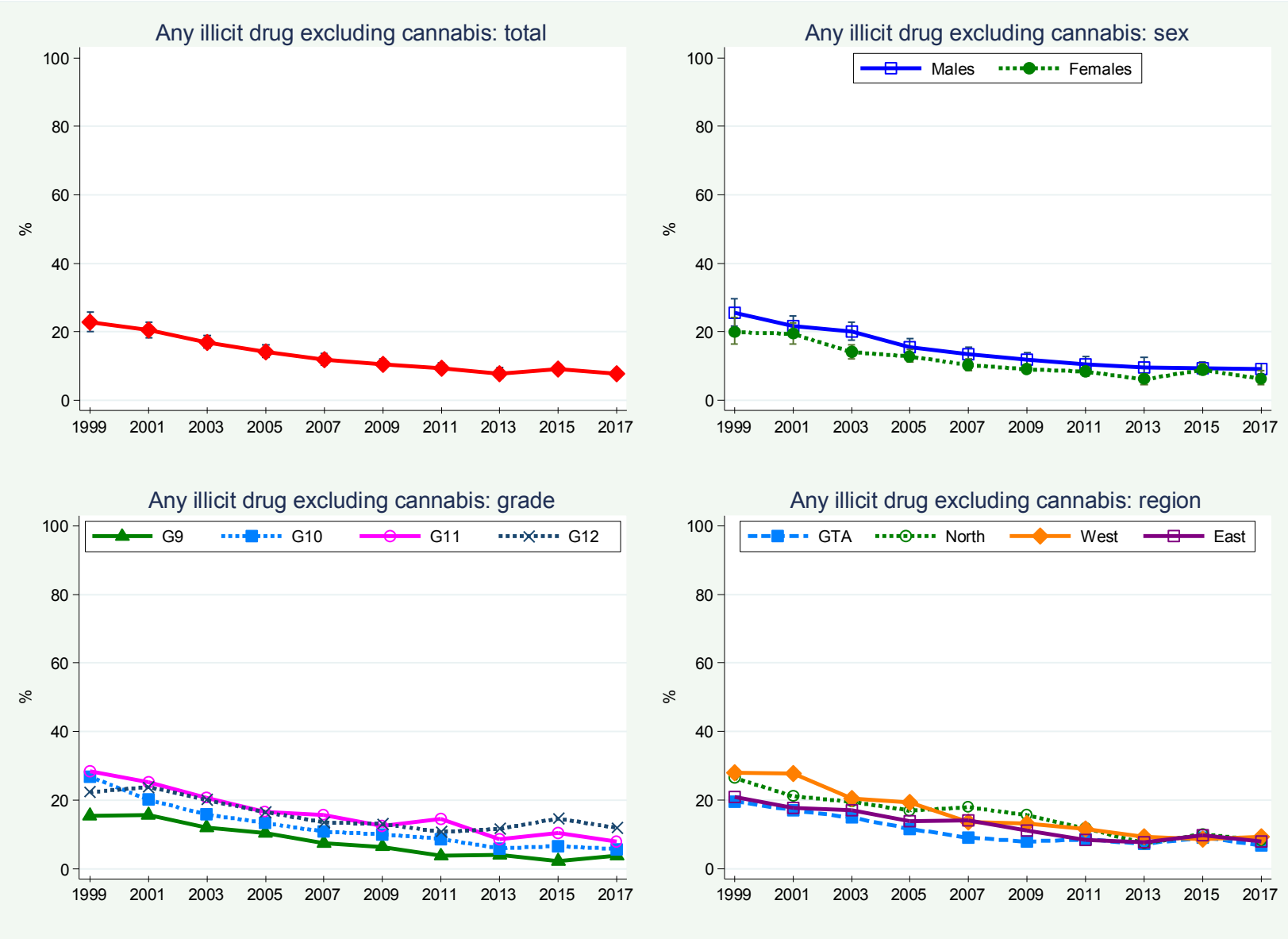
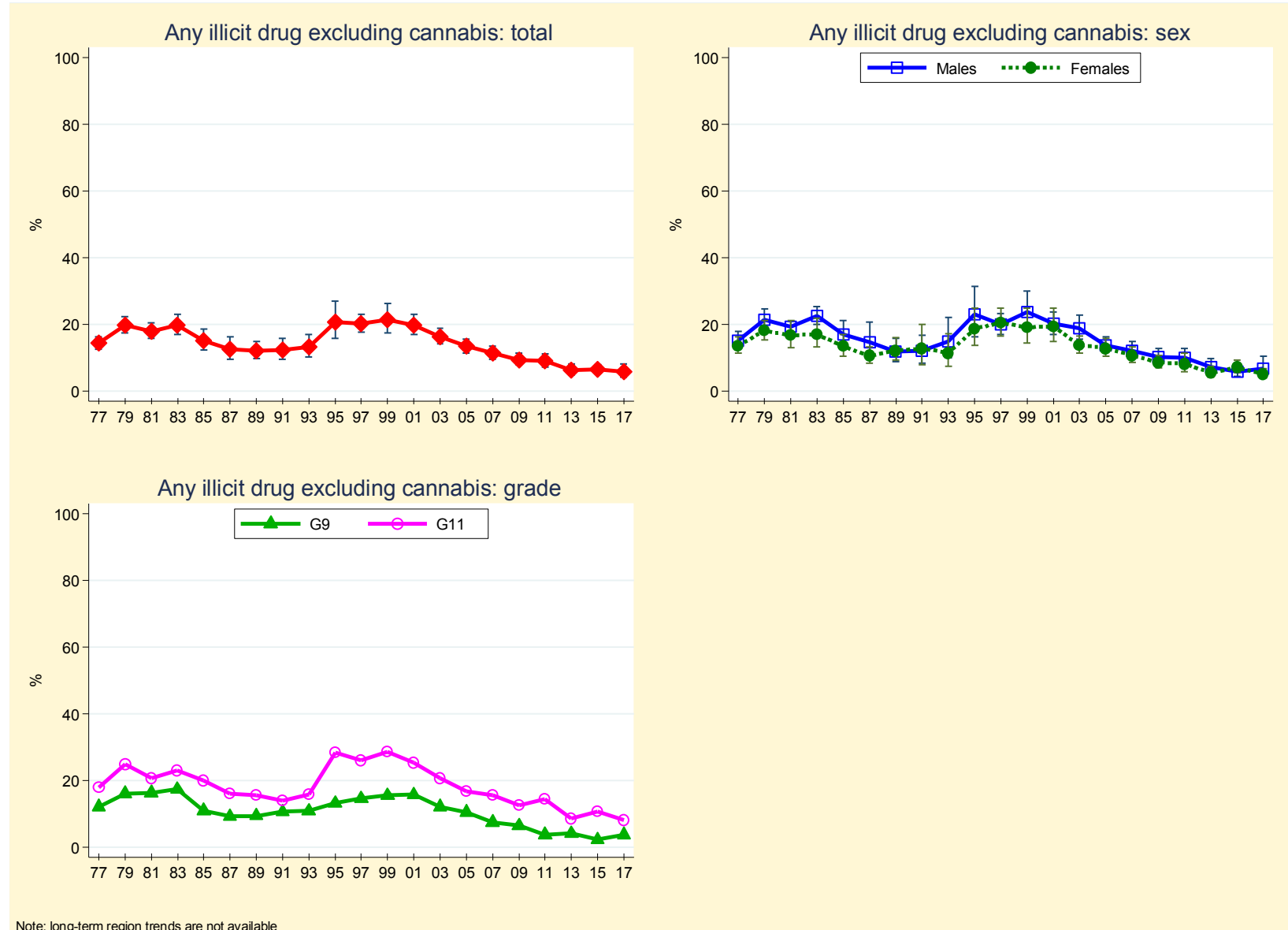


Figure 3.8.6
 Past Year Use of Any Illicit Drug Excluding Cannabis, 1977–2017 OSDUHS (Grades 9 and 11 only)



Note: long-term region trends are not available

Table 3.8.1: Percentage Reporting Any Illicit Drug Use Including Cannabis in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	39.2 (35.9-42.6)	40.0 (36.1-44.0)	39.8 (37.3-42.3)	37.4 (35.0-40.0)	36.1 (33.5-38.8)	35.3 (33.2-37.5)	29.9 (28.0-31.9)	30.7 (27.7-33.8)	29.0 (26.3-31.9)	26.4 ^{bc} (24.1-28.8)
Total ²	32.3 (28.9-35.8)	40.9 (36.7-45.1)	36.2 (32.5-40.0)	34.7 (31.0-38.7)	28.8 (23.8-34.3)	21.3 (16.5-27.0)	20.3 (16.8-24.3)	20.0 (16.8-23.7)	20.6 (16.7-25.1)	34.8 (29.4-40.7)	36.6 (34.1-39.2)	38.2 (33.7-42.9)	38.3 (32.9-44.1)	38.1 (34.9-41.4)	32.9 (30.2-35.7)	32.1 (28.7-35.8)	29.6 (26.8-32.6)	25.4 (23.3-27.7)	25.9 (22.7-29.4)	23.9 (21.3-26.8)	21.3 ^{cd} (18.1-24.9)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	42.8 (38.6-47.0)	43.6 (38.3-49.1)	40.9 (37.1-44.8)	39.0 (35.8-42.2)	37.5 (34.2-41.0)	39.8 (37.1-42.5)	30.5 (28.4-32.8)	33.2 (29.4-37.4)	29.8 (26.7-33.1)	27.2 ^b (24.6-29.8)
Males ²	36.7 (32.4-41.2)	44.7 (39.4-50.2)	38.6 (35.9-41.3)	39.0 (35.4-42.8)	32.0 (26.3-38.4)	24.3 (18.5-31.1)	20.4 (17.0-24.4)	20.2 (16.2-24.8)	24.4 (16.9-33.9)	37.7 (30.5-45.6)	36.7 (33.6-39.9)	40.2 (35.0-45.7)	40.3 (33.9-47.1)	39.3 (34.5-44.4)	33.4 (30.4-36.6)	34.0 (29.4-39.0)	32.3 (29.0-35.8)	25.3 (21.8-29.3)	28.3 (23.8-33.3)	22.4 (19.2-26.0)	23.9 (20.2-28.0)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	35.5 (31.2-40.1)	36.0 (32.2-40.0)	38.7 (36.3-41.1)	35.8 (33.0-38.8)	34.6 (31.6-37.7)	30.5 (27.8-33.4)	29.3 (26.4-32.3)	27.9 (24.6-31.4)	28.2 (24.5-32.2)	25.6 ^b (22.4-29.0)
Females ²	28.4 (24.4-32.8)	36.9 (32.1-41.9)	33.5 (26.5-41.3)	30.5 (26.1-35.3)	25.4 (19.4-32.4)	18.6 (14.2-23.9)	20.1 (15.4-25.9)	19.8 (13.2-28.7)	16.7 (12.1-23.1)	32.2 (26.2-38.8)	36.5 (33.4-39.7)	36.0 (30.4-42.1)	36.0 (29.9-42.6)	36.8 (33.7-40.1)	32.3 (28.6-36.2)	30.1 (26.3-34.2)	26.8 (22.8-31.3)	25.5 (22.1-29.3)	23.4 (20.3-26.8)	25.6 (21.5-30.1)	18.6 (14.6-23.5)
Grade																					
9	26.4 (22.4-30.8)	31.9 (26.7-37.6)	29.5 (26.6-32.6)	28.2 (23.6-33.2)	20.5 (14.9-27.6)	15.0 (7.9-26.6)	15.5 (11.6-20.6)	16.9 (15.9-17.9)	14.0 (10.0-19.3)	23.3 (17.9-29.8)	26.1 (23.9-28.5)	29.3 (24.2-35.1)	31.2 (26.8-36.1)	29.4 (25.9-33.2)	24.9 (22.1-28.0)	22.9 (19.1-27.1)	19.6 (16.1-23.6)	12.7 (10.8-14.8)	16.1 (13.1-19.6)	10.6 (8.5-13.2)	10.5 ^b (8.4-13.0)
10	—	—	—	—	—	—	—	—	—	—	—	42.0 (35.4-48.8)	40.4 (36.4-44.4)	37.6 (32.8-42.6)	35.0 (31.4-38.8)	32.4 (28.7-36.3)	31.8 (27.8-36.2)	28.7 (24.9-32.8)	25.3 (21.7-29.4)	26.1 (22.4-30.2)	21.3 ^b (18.2-24.6)
11	41.0 (36.3-46.0)	53.3 (47.6-60.0)	45.1 (37.2-53.3)	43.3 (37.4-49.4)	37.6 (30.3-45.5)	27.2 (22.2-32.9)	26.4 (21.3-32.2)	22.7 (16.9-29.8)	27.9 (21.0-35.9)	46.3 (37.5-55.3)	47.0 (42.6-51.5)	48.3 (42.5-54.1)	47.7 (39.2-56.2)	46.8 (42.4-51.2)	41.3 (37.5-45.3)	41.6 (37.4-45.9)	39.4 (35.2-43.7)	37.9 (34.3-41.6)	34.9 (30.4-39.8)	36.4 (32.2-40.8)	31.5 ^b (26.0-37.5)
12	—	—	—	—	—	—	—	—	—	—	—	39.5 (33.4-45.9)	44.9 (33.7-56.7)	46.1 (40.6-51.7)	47.7 (43.2-52.2)	45.7 (41.8-50.0)	46.7 (43.1-50.3)	37.5 (32.6-42.6)	41.2 (35.9-46.7)	38.2 (33.2-43.4)	37.5 (32.0-43.3)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	34.9	37.5	36.7	34.3	32.8	31.3	28.7	29.9	27.4	23.3 ^b	
												(29.7-40.5)	(30.2-45.4)	(33.0-40.5)	(30.9-37.8)	(28.5-37.5)	(27.6-35.3)	(25.6-31.9)	(25.2-35.2)	(23.8-31.3)	(20.0-26.9)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	43.0	38.5	44.6	44.0	43.2	43.8	38.4	32.0	31.8	31.0	
												(34.7-51.6)	(31.4-46.1)	(38.3-51.0)	(39.9-48.1)	(37.8-48.6)	(37.2-50.6)	(34.1-42.8)	(24.4-40.7)	(27.3-36.6)	(25.2-37.5)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	42.6	45.8	43.2	44.2	36.8	40.3	28.7	31.3	29.5	31.0 ^b	
												(36.6-48.9)	(41.2-50.4)	(38-48.3)	(39.6-49.0)	(32.5-41.3)	(36.8-43.8)	(25.0-32.8)	(25.7-37.4)	(24.3-35.4)	(26.5-35.9)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	44.2	38.2	41.1	35.4	40.1	34.1	32.1	31.0	31.4	26.2 ^b	
												(37.9-50.7)	(30.8-46.1)	(36.9-45.4)	(29.8-41.5)	(35.4-45.0)	(30.6-37.8)	(29.4-34.9)	(26.5-35.9)	(24.3-39.5)	(23.6-28.9)	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) question asked of a random half sample from 1991 to 1999; (8) the **nine drugs** included in the index are: cannabis, LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), and tranquilizers/sedatives (NM); excluded from the index: cigarettes, waterpipes, alcohol, caffeinated drinks, synthetic cannabis, inhalants, jimson weed, salvia divinorum, mephedrone (“bath salts”), fentanyl, prescription ADHD drugs, prescription opioid pain relievers, and OTC cough/cold medication; (9) no significant differences 2017 vs. 2015; ^b 2017 vs. 1999 significant difference, p<.01; ^c significant linear trend; ^d significant nonlinear trend.

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.8.2: Percentage Reporting Any Illicit Drug Use Excluding Cannabis in the Past Year, 1977–2017 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	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 ^{bc} (6.6-9.0)
Total ²	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 ^{cd} (4.3-8.2)
Sex																					
Males ¹	—	—	—	—	—	—	—	—	—	—	—	25.5 (21.6-29.7)	21.6 (18.8-24.6)	20.1 (17.6-22.9)	15.5 (13.3-18.0)	13.4 (11.5-15.5)	12.0 (10.4-13.9)	10.5 (8.6-12.8)	9.6 (7.2-12.6)	9.3 (7.7-11.3)	9.1 ^b (7.7-10.8)
Males ²	15.2 (12.8-18.0)	21.4 (18.4-24.7)	19.3 (17.7-20.9)	22.6 (20.0-25.3)	16.9 (13.4-21.1)	14.7 (10.3-20.6)	11.9 (8.8-15.9)	12.0 (8.4-16.7)	15.0 (9.9-22.0)	23.1 (16.4-31.5)	20.0 (17.0-23.3)	23.8 (18.5-30.0)	20.2 (16.9-23.8)	18.9 (15.6-22.8)	13.8 (11.6-16.4)	12.1 (9.9-14.8)	10.2 (7.9-12.9)	9.9 (7.6-12.8)	7.1 (5.1-9.7)	5.9 (4.4-7.8)	6.6 (4.2-10.4)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	19.9 (16.4-24.1)	19.4 (16.4-22.7)	14.1 (12.1-16.3)	12.8 (11.2-14.8)	10.3 (8.7-12.2)	9.1 (7.9-10.6)	8.4 (7.2-9.9)	6.0 (4.7-7.7)	8.9 (7.5-10.6)	6.3 ^b (4.5-8.7)
Females ²	13.6 (11.3-16.3)	18.1 (15.4-21.1)	16.7 (13.0-21.2)	17.1 (13.2-21.8)	13.4 (10.5-17.1)	10.6 (8.4-13.3)	12.2 (9.3-16.0)	12.8 (7.9-20.0)	11.5 (7.4-17.3)	18.7 (13.8-24.9)	20.5 (16.6-25.0)	19.1 (14.4-25.0)	19.4 (15.0-24.8)	13.8 (11.4-16.6)	12.9 (10.4-15.9)	10.7 (8.6-13.3)	8.6 (7.0-10.7)	8.2 (5.8-11.5)	5.5 (4.1-7.4)	7.1 (5.4-9.2)	5.2 (3.9-6.8)
Grade																					
9	12.0 (9.9-14.6)	16.0 (13.4-19.1)	16.2 (13.6-19.2)	17.3 (13.4-22.1)	10.9 (7.6-15.4)	9.1 (5.4-14.8)	9.3 (6.6-13.0)	10.6 (9.0-12.4)	10.8 (7.8-14.7)	13.1 (10.5-16.1)	14.5 (10.1-20.3)	15.4 (11.1-21.0)	15.7 (12.9-19.0)	12.0 (9.8-14.8)	10.4 (8.5-12.5)	7.4 (5.6-9.6)	6.4 (4.6-8.7)	3.7 (2.5-5.4)	4.0 (2.5-6.3)	2.2 (1.5-3.3)	3.7 ^b (2.4-5.5)
10	—	—	—	—	—	—	—	—	—	—	—	26.9 (21.5-33.2)	20.1 (16.9-23.8)	15.8 (12.8-19.3)	13.3 (11.1-15.9)	10.8 (8.6-13.5)	10.0 (7.8-12.7)	8.7 (6.5-11.6)	5.9 (4.1-8.4)	6.6 (5.1-8.7)	5.7 ^b (4.3-7.5)
11	17.8 (14.9-21.2)	24.9 (21.1-29.2)	20.5 (17.1-24.4)	23.0 (18.9-27.7)	19.9 (16.0-24.4)	15.9 (11.4-21.7)	15.6 (12.6-19.1)	13.8 (9.1-20.3)	15.8 (10.8-22.7)	28.4 (19.2-39.9)	26.0 (23.5-28.6)	28.5 (22.5-35.2)	25.3 (20.5-30.8)	20.7 (17.2-24.6)	16.6 (13.9-19.8)	15.6 (13.0-18.6)	12.4 (9.5-15.9)	14.4 (11.2-18.3)	8.5 (6.4-11.2)	10.5 (8.5-13.0)	8.0 ^b (5.1-12.5)
12	—	—	—	—	—	—	—	—	—	—	—	22.3 (17.9-27.4)	23.8 (17.2-32.0)	20.0 (16.7-23.9)	16.5 (13.5-20.0)	13.5 (10.9-16.6)	13.0 (10.4-16.1)	10.7 (7.6-15.0)	11.6 (8.1-16.3)	14.6 (11.4-18.4)	11.8 ^b (8.8-15.7)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
(n ¹)												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	(6597)	(7587)	
(n ²)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	(3351)	(3886)	
Region																						
GTA ¹	—	—	—	—	—	—	—	—	—	—	—	19.6	17.1	14.9	11.6	9.0	7.9	8.5	7.2	9.1	6.8 ^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)	
North ¹	—	—	—	—	—	—	—	—	—	—	—	26.5	21.1	19.5	16.9	17.9	15.6	11.7	7.4	10.0	8.3 ^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)	
West ¹	—	—	—	—	—	—	—	—	—	—	—	27.9	27.8	20.5	19.3	13.7	13.2	11.5	9.2	8.6	9.2 ^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)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	21.0	17.8	17.0	13.9	14.0	11.2	8.4	7.6	9.7	7.9 ^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)	

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term region trends are not available; (6) † estimate suppressed due to unreliability; (7) question asked of a random half sample from 1991 to 1999; (8) 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 tranquilizers/sedatives (NM); excluded from the index: cigarettes, waterpipes, alcohol, caffeinated drinks, cannabis, synthetic cannabis, inhalants, jimson weed, salvia divinorum, mephedrone ("bath salts"), fentanyl, prescription ADHD drugs, prescription opioid pain relievers, and OTC cough/cold medication; (9) no significant differences 2017 vs. 2015; ^b 2017 vs. 1999 significant difference, p<.01; ^c significant linear trend; ^d significant nonlinear trend.

Source: OSDUHS, Centre for Addiction & Mental Health

Any Nonmedical Prescription Drug Use

(Figures 3.8.7, 3.8.8; Table 3.8.3)

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 tranquilizers/sedatives.

Nonmedical use is defined as use without one's own prescription. These results are among grades 9 through 12 only.

	Nonmedical Prescription Drug Use in 2017 (Grades 9–12)	2007–2017 Trends (Grades 9–12)
Total Sample	<ul style="list-style-type: none"> One-in-seven (13.7%) secondary students report using a prescription drug nonmedically in the past year. This estimate represents about 91,100 Ontario students in grades 9 through 12. 	<ul style="list-style-type: none"> The nonmedical use of a prescription drug did not significantly change between 2015 (12.1%) and 2017 (13.7%), and the estimate has been stable since 2013. However, there has been a decrease since 2007, the first year of monitoring, when the estimates was 23%. The decrease in this index is likely due to the corresponding decrease in nonmedical use of prescription opioids.
Sex	<ul style="list-style-type: none"> There is no significant difference between males (13.5%) and females (14.0%). 	<ul style="list-style-type: none"> Neither sex shows a significant change in use between 2015 and 2017, and estimates have been stable for both since 2013. However, both do show a significant decrease since 2007.
Grade	<ul style="list-style-type: none"> Nonmedical use of a prescription drug does not significantly vary by grade. 	<ul style="list-style-type: none"> Only 9th graders show a significant increase since 2015, returning to a level seen in 2013. All grades show significant decreases since 2007.
Region	<ul style="list-style-type: none"> Nonmedical use of a prescription drug does not significantly vary by region. 	<ul style="list-style-type: none"> No region shows a significant change since 2015. All regions show a significant decrease since 2007.

Figure 3.8.7
Past Year Nonmedical Prescription Drug Use by Sex, Grade, and Region, 2017 OSDUHS

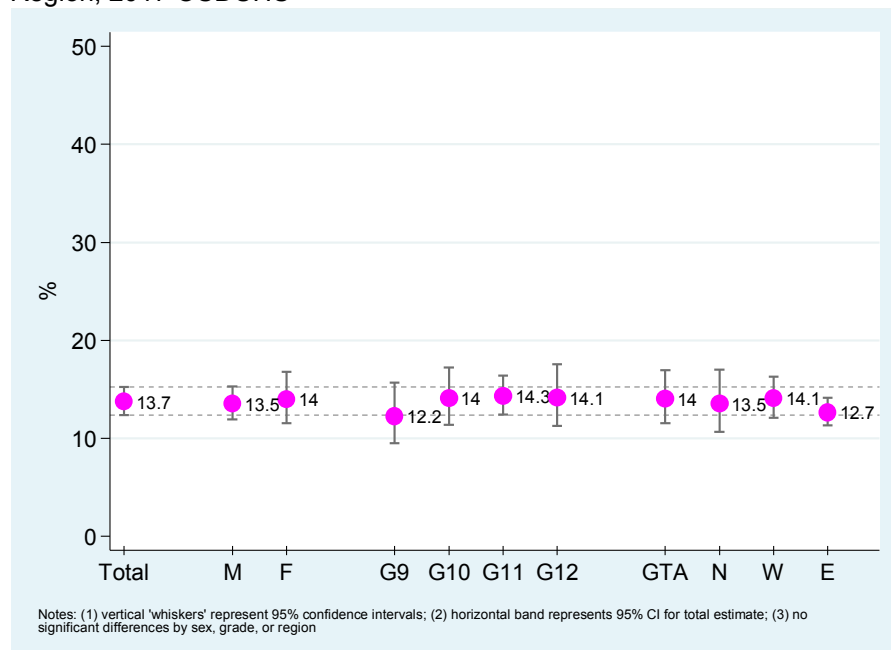


Figure 3.8.8
 Past Year Nonmedical Prescription Drug Use, 2007–2017 OSDUHS (Grades 9–12)

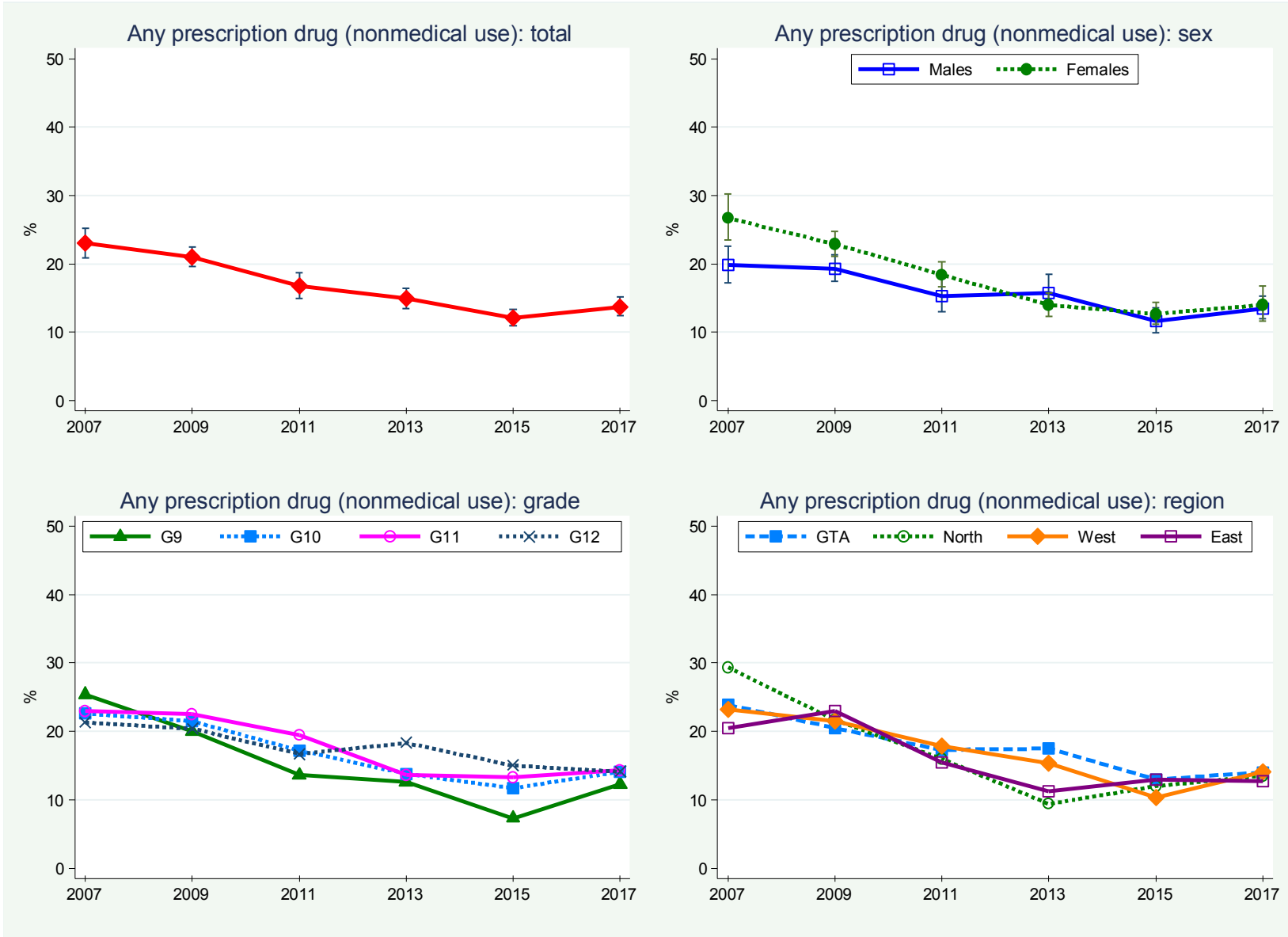


Table 3.8.3: Percentage Reporting Nonmedical Prescription Drug Use in the Past Year, 2007–2017 OSDUHS (Grades 9–12)

	(n=)	2007 (2247)	2009 (5783)	2011 (6383)	2013 (6159)	2015 (6597)	2017 (7587)
Total		23.0	21.0	16.8	14.9	12.1	13.7
(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)
Sex							
Males		19.8	19.3	15.3	15.8	11.6	13.5
(95% CI)		(17.2-22.6)	(17.5-21.3)	(13.0-17.9)	(13.5-18.5)	(9.9-13.6)	(12.0-15.3)
Females		26.7	22.9	18.4	14.0	12.7	14.0
(95% CI)		(23.5-30.2)	(21.1-24.7)	(16.6-20.3)	(12.3-15.8)	(11.2-14.4)	(11.6-16.8)
Grade							
9		25.4	20.0	13.6	12.6	7.3	12.2
(95% CI)		(21.0-30.4)	(17.5-23.1)	(11.2-16.5)	(9.9-16.0)	(5.8-9.1)	(9.5-15.7)
10		22.6	21.5	17.2	13.8	11.7	14.0
(95% CI)		(18.7-27.1)	(18.0-25.4)	(14.9-19.9)	(11.1-16.9)	(9.7-14.0)	(11.4-17.2)
11		23.0	22.5	19.5	13.6	13.3	14.3
(95% CI)		(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		21.3	20.4	16.7	18.3	15.0	14.1
(95% CI)		(17.3-25.9)	(17.7-23.4)	(13.9-20.0)	(15.1-22.0)	(12.1-18.4)	(11.3-17.6)
Region							
Greater Toronto Area		23.9	20.5	17.3	17.5	13.0	14.0
(95% CI)		(21.0-27.1)	(18.7-22.5)	(14.8-20.0)	(15.3-19.9)	(11.4-14.7)	(11.5-17.0)
North		29.4	21.7	16.0	9.4	12.0	13.5
(95% CI)		(22.6-37.3)	(19.3-24.4)	(11.4-21.8)	(7.6-11.6)	(9.0-15.8)	(10.6-17.0)
West		23.2	21.5	17.9	15.4	10.3	14.1
(95% CI)		(19.5-27.4)	(17.9-25.5)	(14.1-22.5)	(13.0-18.2)	(7.9-13.3)	(12.1-16.3)
East		20.5	23.0	15.5	11.2	12.9	12.7
(95% CI)		(17.0-24.5)	(20.4-25.8)	(13.4-17.8)	(8.7-14.4)	(10.5-15.7)	(11.3-14.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) based on a random half sample in 2007; (3) the nonmedical use of a prescription drug is defined as the use of a prescription opioid, an ADHD medication, or a tranquilizer/sedative without one's own prescription, at least once in the past year; (4) ^a 2017 vs. 2015 significant difference, $p < .01$; ^b 2017 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 3.8.9–3.8.11; Table 3.8.4)

In this section, we report trends in abstinence – no drug use, including tobacco/nicotine and alcohol (but excluding caffeinated drinks) – during the past year. Readers should note that the number of drugs 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 all or at least most of the drugs available at the time. These results are among grades 7 through 12.

	Abstinence in 2017 (Grades 7–12)	Trends (Grades 7–12)
Total Sample	<ul style="list-style-type: none"> Four-in-ten (43.7%) students in grades 7 through 12 report using no drug at all during the past year – this includes alcohol, cigarettes, and other smoking devices. This percentage represents about 332,000 students in Ontario. 	<ul style="list-style-type: none"> Among the total sample, there was no significant change between 2015 (41.5%) and 2017 (43.7%) in the percentage of students reporting no drug use. However, there has been a significant upward trend in abstinence since 1999, with a sharp increase over the past few cycles. The 2017 estimate is higher than all others seen between 1999 and 2013. Looking back over the past 40 years, 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 (see Figure 3.8.12). 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 in recent years.
Sex	<ul style="list-style-type: none"> Males (43.2%) and females (44.2%) are equally likely to report no drug use. 	<ul style="list-style-type: none"> Neither sex shows a significant change in abstinence since 2015. However, both males and females show a significant increase since 1999.
Grade	<ul style="list-style-type: none"> Past year abstinence significantly decreases with grade, from over two-thirds of 7th and 8th graders down to one-quarter of 11th and 12th graders. 	<ul style="list-style-type: none"> No grade shows a significant change in abstinence since 2015. However, all grades show a significant increase since 1999.
Region	<ul style="list-style-type: none"> There are no significant differences among the four regions. 	<ul style="list-style-type: none"> No region shows a significant change in abstinence since 2015. 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 3.8.9
 Percentage Reporting No Drug Use in the Past Year, by Sex, Grade, and Region, 2017 OSDUHS

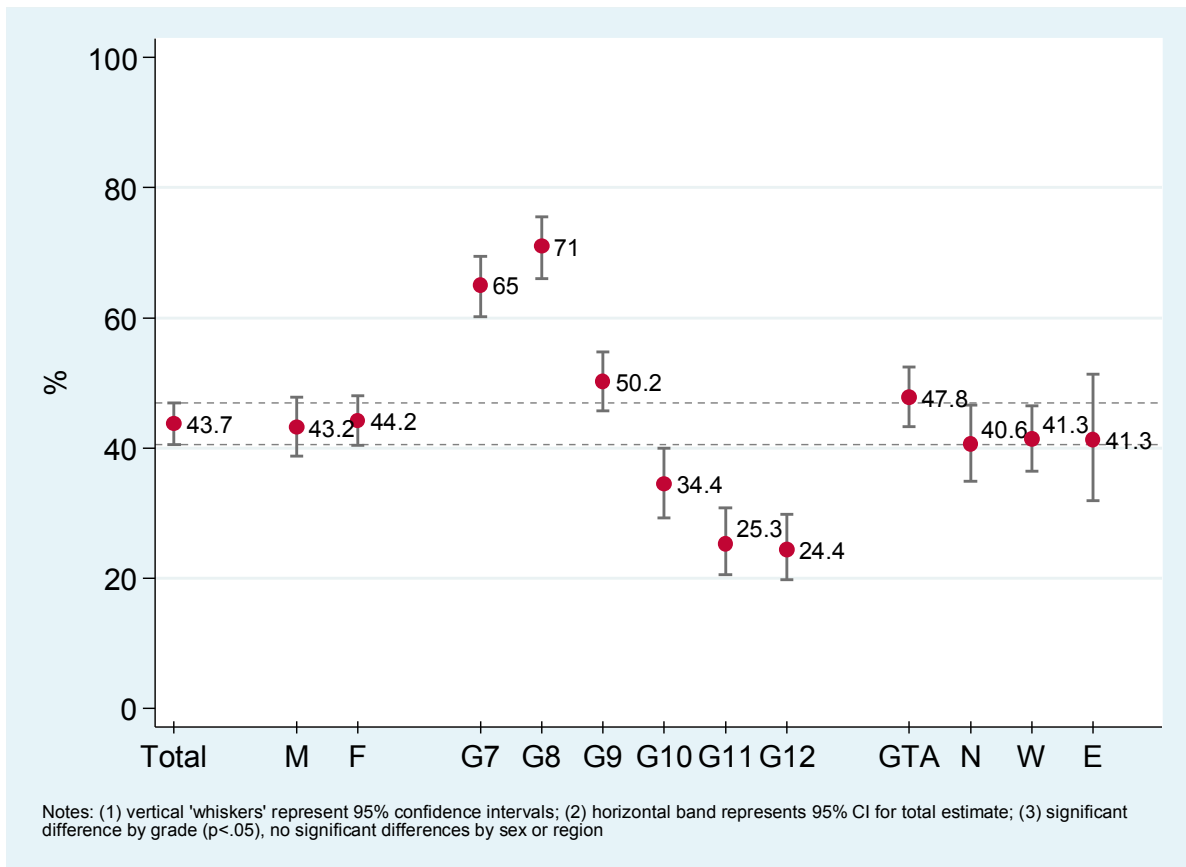


Figure 3.8.10
 Percentage Reporting No Drug Use in the Past Year, 1999–2017 OSDUHS
 (Grades 7–12)

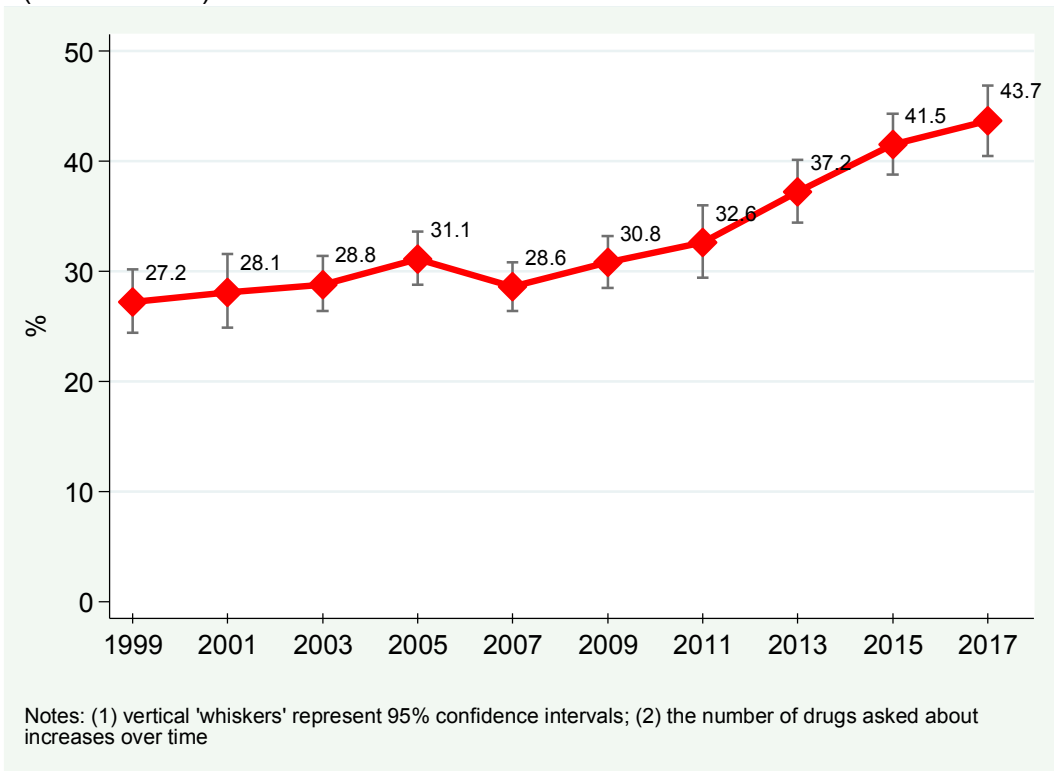


Figure 3.8.11
 Percentage Reporting No Drug Use in the Past Year, 1977–2017 OSDUHS
 (Grades 7, 9, and 11 only)

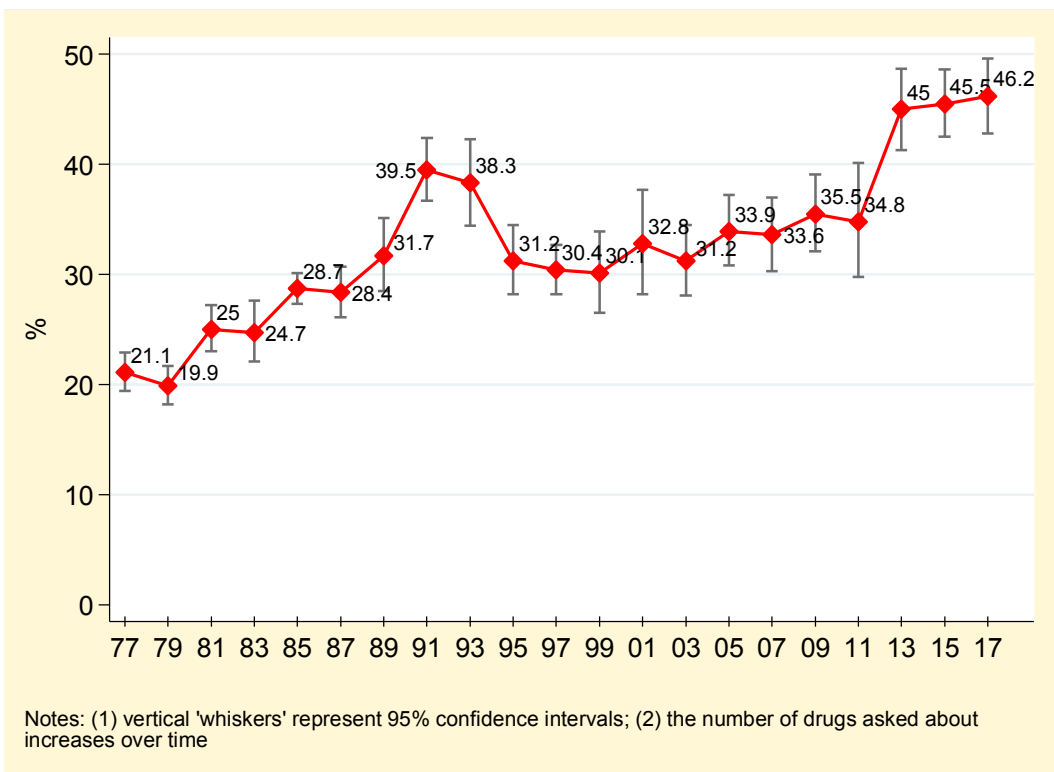


Table 3.8.4: Percentage Reporting No Drug Use in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

	1999 (n=)	2001 (1837)	2003 (3152)	2005 (3648)	2007 (2395)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)	
Total	27.2 (24.4-30.2)	28.1 (24.9-31.6)	28.8 (26.4-31.4)	31.1 (28.8-33.6)	28.6 (26.4-30.8)	30.8 (28.5-33.2)	32.6 (29.4-36.0)	37.2 (34.4-40.1)	41.5 (38.8-44.2)	43.7 (40.5-46.9)	^{bcd}
Sex											
Males	24.7 (21.5-28.2)	27.2 (23.7-30.9)	25.7 (22.3-29.4)	29.3 (26.5-32.2)	28.9 (26.2-31.8)	28.9 (25.9-32.0)	31.9 (28.5-35.5)	35.0 (31.4-38.8)	39.6 (36.2-43.0)	43.2 (38.7-47.8)	^b
Females	29.8 (25.7-34.3)	29.0 (24.7-33.7)	31.8 (28.7-35.0)	33.2 (30.1-36.4)	28.2 (25.4-31.2)	33.0 (30.2-35.8)	33.4 (28.7-38.5)	39.6 (36.2-42.9)	43.6 (39.5-47.8)	44.2 (40.4-48.0)	^b
Grade											
7	47.3 (39.0-55.7)	49.4 (42.0-56.9)	47.5 (42.1-53.0)	54.5 (48.0-60.8)	54.1 (46.9-61.1)	55.5 (49.0-61.8)	56.6 (50.8-62.3)	69.5 (65.5-73.2)	68.5 (61.5-74.8)	65.0 (60.2-69.5)	^b
8	36.0 (31.5-40.7)	37.5 (30.1-45.5)	44.2 (39.0-49.4)	48.3 (43.8-52.8)	40.2 (34.0-46.8)	42.4 (36.9-48.0)	55.0 (49.6-60.3)	55.7 (47.2-63.9)	68.7 (62.8-74.1)	71.0 (66.0-75.5)	^b
9	29.7 (24.5-35.4)	29.7 (22.2-38.5)	30.3 (25.4-35.8)	30.5 (26.0-35.4)	31.5 (25.6-38.0)	35.6 (29.7-42.0)	33.0 (25.7-41.3)	51.5 (45.7-57.4)	52.5 (47.8-57.1)	50.2 (45.7-54.7)	^b
10	20.8 (14.7-28.6)	17.1 (12.8-22.4)	21.5 (16.9-26.9)	25.0 (21.0-29.3)	24.0 (19.4-29.3)	27.8 (23.1-32.9)	30.9 (25.2-37.3)	31.7 (25.3-38.8)	37.6 (33.1-42.2)	34.4 (29.3-39.9)	^b
11	15.9 (12.0-20.8)	19.2 (12.9-27.6)	18.3 (14.5-22.9)	18.0 (14.5-22.2)	16.2 (13.2-19.8)	19.8 (15.8-24.5)	18.7 (13.9-24.6)	22.0 (17.6-27.2)	22.7 (17.8-28.5)	25.3 (20.5-30.8)	^b
12	11.9 (8.1-17.1)	14.0 (8.1-22.9)	15.5 (11.2-21.1)	15.0 (11.3-19.7)	11.7 (9.1-14.9)	15.4 (11.4-20.6)	16.0 (12.1-20.8)	16.5 (13.0-20.7)	21.7 (16.5-27.6)	24.4 (19.7-29.8)	^b
Region											
GTA	30.4 (25.9-35.4)	27.7 (22.0-34.3)	28.9 (24.8-33.3)	32.6 (28.6-36.9)	28.8 (24.8-33.3)	32.4 (28.3-36.8)	34.9 (30.7-39.3)	41.8 (37.4-46.3)	45.0 (41.3-48.7)	47.8 (43.3-52.4)	^b
North	19.8 (13.4-28.2)	22.8 (17.1-29.6)	24.7 (19.3-31.0)	23.3 (18.6-28.7)	18.4 (14.7-22.8)	26.4 (21.0-32.5)	32.7 (27.9-37.8)	33.8 (26.0-42.5)	40.5 (35.5-45.7)	40.6 (34.8-46.6)	^b
West	23.1 (17.8-29.3)	30.4 (24.7-36.7)	25.7 (20.1-32.4)	27.6 (23.1-32.8)	29.0 (24.3-34.3)	29.0 (25.2-33.0)	26.3 (18.2-36.3)	32.7 (28.3-37.5)	38.4 (32.4-44.8)	41.3 (36.4-46.4)	^b
East	29.4 (22.0-38.0)	27.6 (21.6-34.7)	34.4 (30.5-38.4)	33.8 (27.9-40.2)	30.5 (25.8-35.7)	31.8 (26.7-37.5)	35.1 (30.2-40.3)	32.8 (25.2-41.3)	37.3 (30.1-45.1)	41.3 (31.9-51.4)	

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) based on a random half sample in each year; (4) the number of drugs asked about increased over time; (5) no significant differences 2017 vs. 2015; ^b 2017 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 3.9.1–3.9.3)

2017: 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, alcohol use, cannabis use, and other drug use in the past year. We also look at trends in incidence of use.

- Among all students, 4.9% smoked a whole **tobacco cigarette** for the first time during the 12 months before the survey. This estimate represents about 36,600 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 11th and 12th graders (about 8%).
- Among all students, 13.6% used an **electronic cigarette** (any type) for the first time during the 12 months before the survey. This estimate represents about 102,900 students in Ontario. First use significantly increases with grade, ranging from 5% or less among 7th and 8th graders to about 20% among 11th and 12th graders (data not tabled).
- About one-in-five (20.0%) students tried **alcohol** for the first time in the past year (representing about 150,700 students). First use of alcohol increases substantially between 8th and 10th grade (from 13.0% to 28.6%), and then decreases slightly in 11th and 12th grade.
- About one-in-ten (8.6%) students tried **cannabis** (about 64,400 students) for the first time in the past year. Grade is significantly associated with incidence of cannabis use. Trying cannabis is unlikely to occur in 7th and 8th grade (suppressed estimates). Incidence

increases between 9th and 10th grade (from 7.2% to 13.4%), and remains stable at about 13% in 11th and 12th grade.

- About 2.8% tried **another illicit drug** such as cocaine or ecstasy for the first time (this represents about 20,700 students). This significantly increases with grade, from less than 1% of students in grades 7–9 up to 6.7% of 12th graders (data not tabled).

1999–2017: Grades 7–12

- The percentage who smoked a **tobacco cigarette** for the first time in 2017 (4.9%) is similar to the percentage seen in 2015 (6.3%). The incidence of cigarette smoking has remained stable over the past decade, 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 2017 (13.6%) does not significantly differ from the percentage seen in 2015 (15.7%), the first year of monitoring.
- There has been no substantial change in the percentage of first-time drinkers since 1999 (between 16% and 20%) among the total sample.
- There has been no significant change in the percentage of first-time **cannabis** users between 1999 and 2017 (between 8% and 10%) among the total sample.
- First-time use of an **illicit drug other than cannabis** 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, 2017 OSDUHS

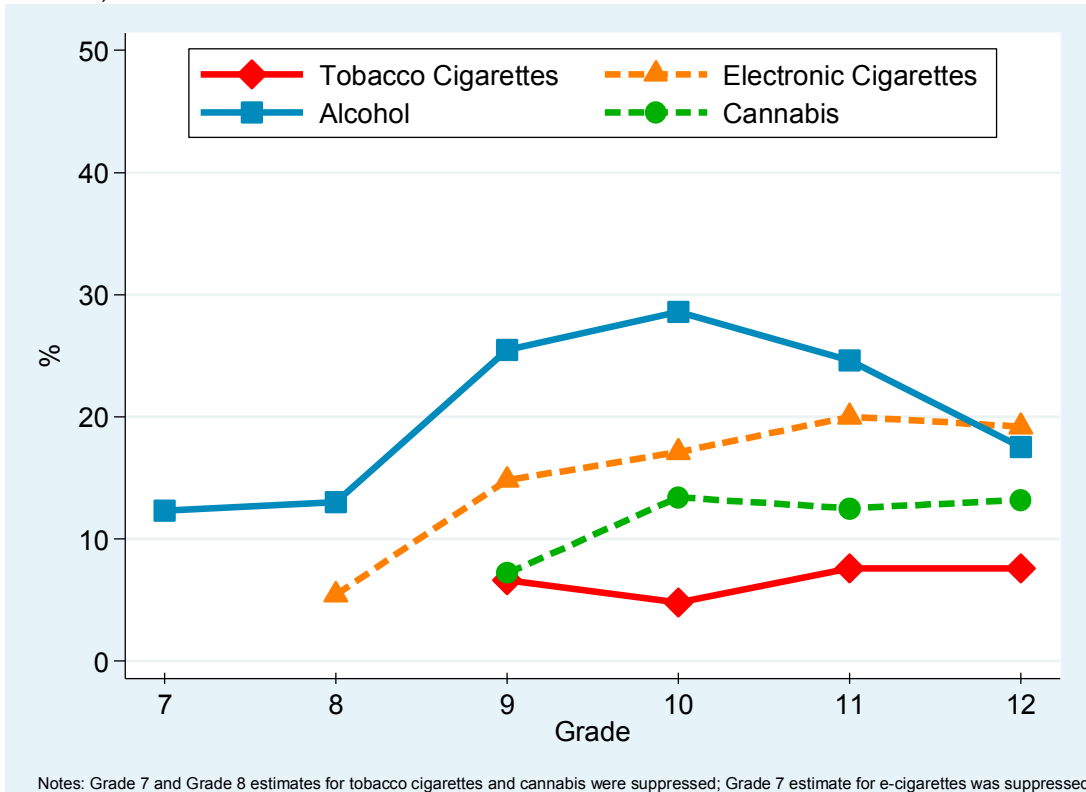


Figure 3.9.2
 Percentage Reporting First-Time Use of the Substance in the Past Year,
 1999–2017 OSDUHS (Grades 7–12)

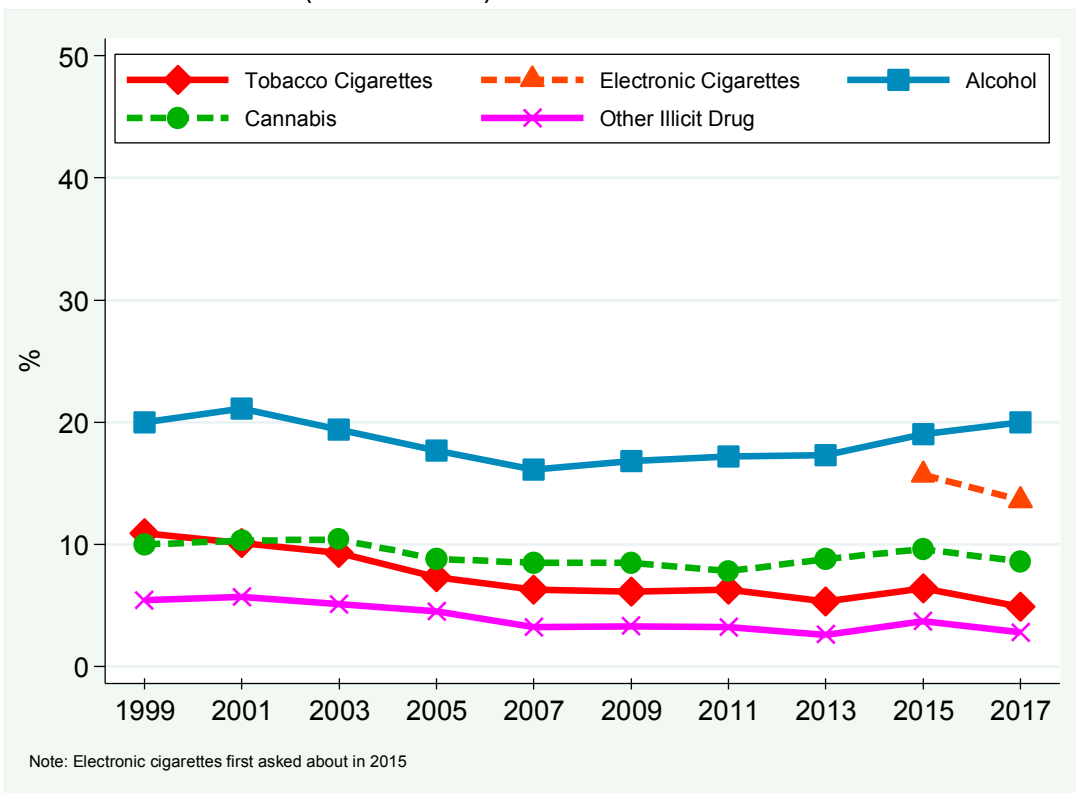


Table 3.9.1: Percentage Reporting Smoking a Whole Tobacco Cigarette for the First Time in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

	1999 (n=)	2001 (3898)	2003 (6616)	2005 (3648)	2007 (2935)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
Total (95% CI)	10.9 (9.7-12.4)	10.1 (9.0-11.4)	9.3 (8.4-10.3)	7.3 (6.4-8.3)	6.3 (5.2-7.7)	6.1 (5.1-7.4)	6.3 (5.1-7.6)	5.3 (4.3-6.5)	6.3 (5.4-7.4)	4.9 ^{bc} (3.6-6.6)
Sex										
Males	11.0 (9.3-13.0)	10.0 (8.3-12.0)	8.1 (7.1-9.2)	6.9 (5.8-8.1)	6.6 (5.1-8.4)	6.9 (5.4-8.7)	6.2 (4.6-8.3)	5.7 (4.2-7.7)	5.9 (4.7-7.4)	5.7 ^b (3.3-9.4)
Females	10.8 (9.3-12.6)	10.3 (8.5-12.3)	10.5 (9.0-12.1)	7.8 (6.4-9.4)	6.1 (4.7-7.9)	5.2 (4.0-6.9)	6.4 (4.5-9.0)	4.9 (3.8-6.2)	6.8 (5.5-8.4)	4.0 ^{ab} (3.1-5.2)
Grade										
7	7.9 (5.7-10.8)	7.8 (5.6-10.9)	5.8 (4.3-7.8)	2.9 (1.7-5.0)	†	†	†	†	†	† ^b
8	11.2 (9.0-13.9)	8.6 (6.7-11.0)	8.1 (5.2-12.3)	5.3 (3.2-8.6)	5.2 (2.7-9.8)	3.6 (2.0-6.5)	4.5 (2.6-7.7)	†	†	† ^b
9	14.6 (11.9-17.8)	14.2 (11.8-17.0)	12.3 (10.1-14.8)	7.7 (5.7-10.2)	6.6 (4.6-9.3)	4.3 (2.6-6.9)	5.7 (3.7-8.6)	2.7 (1.4-5.0)	4.9 (3.3-7.2)	6.6 ^b (3.6-11.9)
10	12.2 (9.7-15.4)	11.0 (8.4-14.2)	9.8 (7.9-12.1)	10.3 (8.0-13.2)	8.2 (5.8-11.6)	7.6 (5.5-10.5)	7.3 (4.5-11.5)	6.0 (3.8-9.4)	6.7 (5.0-9.0)	4.8 ^b (3.2-7.3)
11	9.2 (7.1-11.8)	9.2 (6.5-12.9)	10.6 (9.0-12.5)	8.8 (6.5-11.8)	7.6 (5.4-10.6)	8.8 (6.3-12.2)	6.1 (3.9-9.5)	9.9 (6.5-14.8)	12.2 (9.2-16.0)	7.6 (4.6-12.3)
12	9.6 (6.3-14.4)	7.5 (5.4-10.4)	8.2 (6.6-10.1)	8.1 (5.9-11.1)	8.0 (5.5-11.3)	8.6 (5.6-13.0)	9.1 (5.6-14.6)	5.6 (3.9-8.0)	7.9 (5.6-11.0)	7.6 (5.5-10.4)
Region										
GTA	11.6 (9.9-13.6)	10.0 (8.2-12.1)	8.4 (7.3-9.8)	6.8 (5.5-8.3)	5.6 (4.1-7.6)	6.5 (5.0-8.2)	4.6 (3.7-5.8)	5.3 (4.0-6.9)	6.2 (5.0-7.6)	2.8 ^{ab} (2.0-3.9)
North	12.1 (9.0-16.1)	12.5 (10.2-15.2)	9.8 (7.9-12.0)	9.6 (7.2-12.6)	5.2 (2.8-9.4)	10.7 (7.4-15.2)	7.0 (5.2-9.3)	6.4 (4.1-9.8)	7.6 (4.9-11.5)	5.5 ^b (3.1-9.4)
West	11.1 (8.4-14.5)	9.8 (7.7-12.3)	9.8 (7.7-12.4)	8.0 (6.4-10.0)	6.6 (4.7-9.1)	6.1 (4.0-9.2)	9.2 (5.5-15.1)	4.8 (3.1-7.3)	5.8 (3.9-8.5)	6.1 (4.0-9.1)
East	7.8 (6.2-9.8)	9.8 (7.3-12.9)	10.4 (8.7-12.3)	7.1 (5.0-9.8)	7.9 (5.2-11.7)	4.0 (2.6-6.3)	6.1 (4.8-7.8)	5.9 (3.1-10.9)	7.2 (5.5-9.4)	6.0 (2.6-13.3)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) question asked of a random half sample in each year since 2005; (5) ^a 2017 vs. 2015 significant difference, $p < .01$; ^b 2017 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 Alcohol for the First Time in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)
Total	20.0	21.1	19.4	17.7	16.1	16.8	17.2	17.3	19.0	20.0
(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)
Sex										
Males	20.1	21.9	20.4	17.5	16.1	16.3	15.9	15.7	18.4	20.2
	(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)
Females	19.8	20.3	18.4	17.8	16.0	17.5	18.6	19.0	19.6	19.9
	(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)
Grade										
7	20.3	21.5	21.4	17.9	15.0	14.8	14.4	11.6	10.4	12.3
	(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)
8	23.4	24.7	21.7	20.2	19.0	19.4	20.6	17.3	17.2	13.0 ^b
	(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)
9	25.6	25.6	23.4	20.1	19.0	23.0	21.6	21.1	24.1	25.5
	(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)
10	20.7	22.5	20.4	19.9	17.9	18.9	21.6	23.1	21.7	28.6
	(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)
11	13.5	15.1	16.1	16.5	14.0	15.4	15.4	20.0	20.0	24.6 ^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)
12	15.0	12.4	13.5	12.2	12.4	11.5	11.7	11.6	18.1	17.5
	(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)
Region										
GTA	21.8	22.4	18.8	18.6	16.5	18.4	16.8	16.6	18.2	20.2
	(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)
North	18.5	19.4	22.2	19.2	14.8	19.2	16.5	24.1	23.7	18.9
	(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)
West	19.7	19.0	19.3	17.1	14.2	14.5	16.0	15.6	19.4	20.7
	(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)
East	15.4	22.2	19.6	16.0	18.0	16.6	19.4	20.6	19.0	18.9
	(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)

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) question asked of a random half sample in each year since 2005; (4) no significant differences 2017 vs. 2015; ^b 2017 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 3.9.3: Percentage Reporting Trying Cannabis for the First Time in the Past Year, 1999–2017 OSDUHS (Grades 7–12)

	1999 (n=)	2001 (3898)	2003 (6616)	2005 (3648)	2007 (2935)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
Total	10.0	10.3	10.4	8.8	8.5	8.5	7.8	8.8	9.6	8.6
(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)
Sex										
Males	10.7	11.2	10.8	8.8	8.8	9.7	7.2	9.2	9.2	7.7
	(9.3-12.2)	(9.4-13.3)	(9.5-12.2)	(7.3-10.6)	(7.2-10.8)	(8.1-11.6)	(5.6-9.2)	(7.1-11.9)	(7.5-11.1)	(5.4-10.7)
Females	9.4	9.3	10.0	8.8	8.2	7.2	8.5	8.4	10.0	9.5
	(8.0-11.0)	(7.9-11.0)	(8.9-11.1)	(7.2-10.6)	(6.7-10.0)	(5.7-9.1)	(6.7-10.7)	(6.8-10.3)	(8.2-12.2)	(8.1-11.2)
Grade										
7	†	4.2	3.2	2.9	2.9	†	†	†	†	†
		(2.6-6.5)	(2.1-4.9)	(1.8-4.8)	(1.5-5.3)					
8	7.6	6.0	5.4	4.2	4.5	3.7	5.5	6.5	1.8	† ^b
	(5.8-10.1)	(4.2-8.4)	(3.4-8.5)	(2.5-7.1)	(2.7-7.4)	(1.9-6.8)	(2.9-9.9)	(3.9-10.8)	(1.0-3.2)	
9	15.3	14.9	13.1	11.8	9.5	11.8	7.9	9.2	7.8	7.2 ^b
	(13.3-17.5)	(12.7-17.3)	(11.2-15.4)	(8.8-15.6)	(6.9-13.0)	(8.6-15.9)	(5.5-11.3)	(6.3-13.2)	(5.9-10.3)	(4.7-10.7)
10	11.2	12.6	14.8	12.8	10.2	12.7	10.0	11.5	15.0	13.4
	(8.4-14.9)	(10.5-15.1)	(12.7-17.3)	(10.2-16.0)	(7.7-13.2)	(9.8-16.4)	(7.6-13.2)	(8.4-15.5)	(12.2-18.3)	(10.7-16.6)
11	13.5	11.4	12.8	9.1	13.2	9.8	10.8	13.1	14.9	12.5
	(11.1-16.4)	(8.4-15.3)	(11.0-14.8)	(6.7-12.2)	(10.3-16.8)	(7.0-13.4)	(7.7-15.0)	(9.5-17.9)	(12.2-18.2)	(8.1-18.9)
12	8.2	10.7	10.4	11.1	10.0	10.1	8.4	8.8	11.7	13.2
	(5.9-11.1)	(6.6-16.9)	(8.6-12.4)	(8.1-15.0)	(7.6-13.0)	(7.6-13.5)	(5.0-13.6)	(6.4-12.0)	(8.7-15.6)	(10.4-16.6)
Region										
GTA	10.2	10.6	9.0	8.6	7.2	8.8	7.0	8.1	9.3	8.2
	(8.5-12.1)	(8.9-12.6)	(7.8-10.2)	(6.5-11.3)	(5.6-9.3)	(7.1-10.8)	(5.2-9.5)	(6.2-10.5)	(7.3-11.7)	(6.8-10.0)
North	11.5	9.2	13.2	10.4	12.2	10.8	8.1	9.2	7.5	10.9
	(9.8-13.5)	(7.8-10.9)	(10.9-15.8)	(8.3-13.0)	(8.6-17.1)	(6.9-16.3)	(5.7-11.3)	(6.3-13.4)	(5.1-10.8)	(8.6-13.7)
West	9.6	10.4	10.2	8.5	7.8	9.8	8.6	9.5	10.4	8.8
	(7.8-11.8)	(8.1-13.2)	(8.7-11.9)	(6.5-11.0)	(5.8-10.3)	(7.4-12.8)	(5.8-12.5)	(6.7-13.4)	(7.7-13.8)	(6.7-11.4)
East	9.6	9.8	12.4	9.3	11.2	5.3	8.4	9.6	9.8	8.4
	(7.6-12.2)	(8.0-11.9)	(10.4-14.8)	(7.3-11.6)	(8.2-15.0)	(3.6-7.8)	(6.0-11.6)	(7.3-12.5)	(7.2-13.1)	(4.8-14.0)

Notes: (1) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) question asked of a random half sample in each year since 2005; (5) no significant differences 2017 vs. 2015; ^b 2017 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

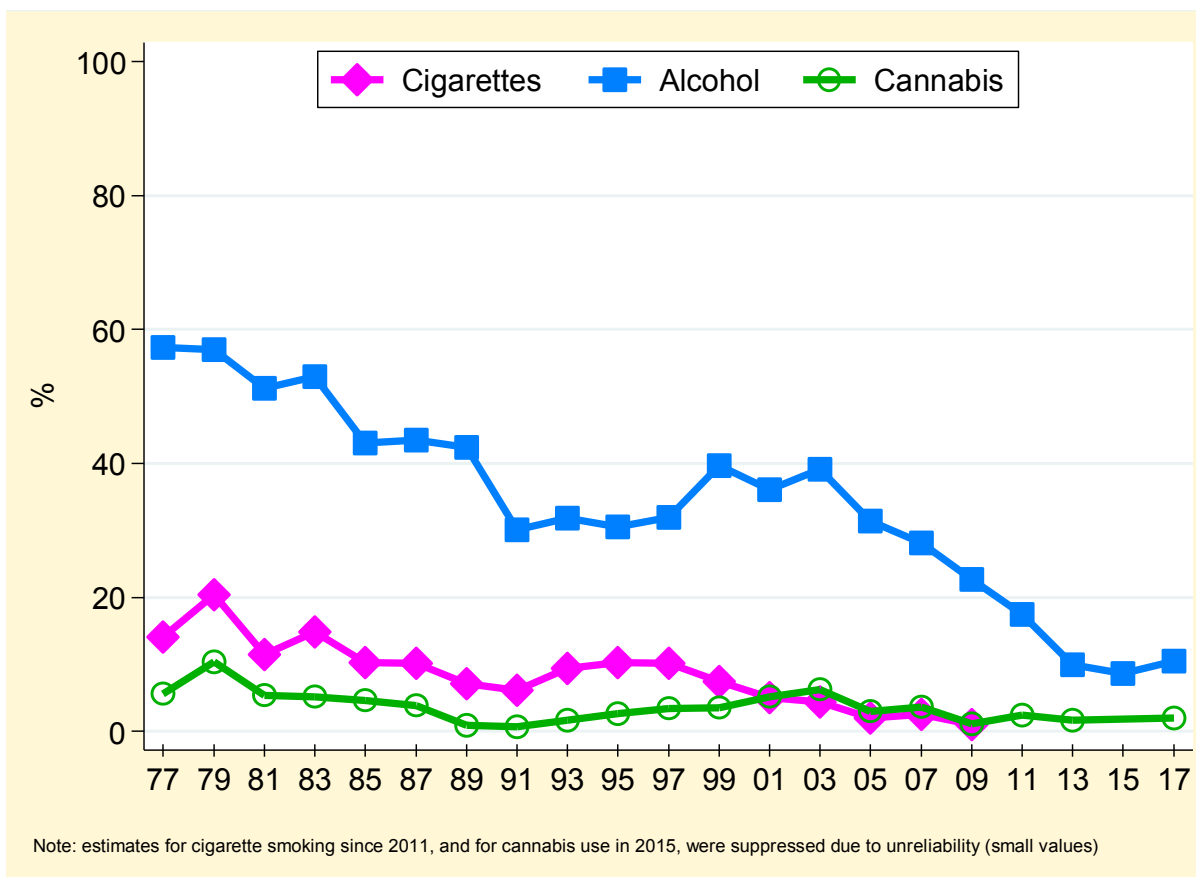
Drug Use Among 7th Graders, 1977–2017

(Figure 3.9.3)

Perhaps one of the most consistent and robust factors associated with 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 3.9.2 presents the past year prevalence rates for tobacco cigarettes, alcohol, and cannabis among 7th graders from 1977 to 2017. 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, 1977–2017 OSDUHS



Age at Initiation of Smoking, Drinking, and Cannabis Use, 1981–2017

(Figures 3.9.4–3.9.8)

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.

2017 OSDUHS: Mean Ages

■ As seen in Figure 3.9.3, in 2017 the average age at first cigarette smoking (smoking one whole tobacco cigarette) among grade 12 smokers was age 15.4. The average age at first alcoholic drink among grade 12 drinkers was 14.5, and the average age at first drunkenness among grade 12 drinkers was 15.2. The average age at first cannabis use among grade 12 users was 15.3.

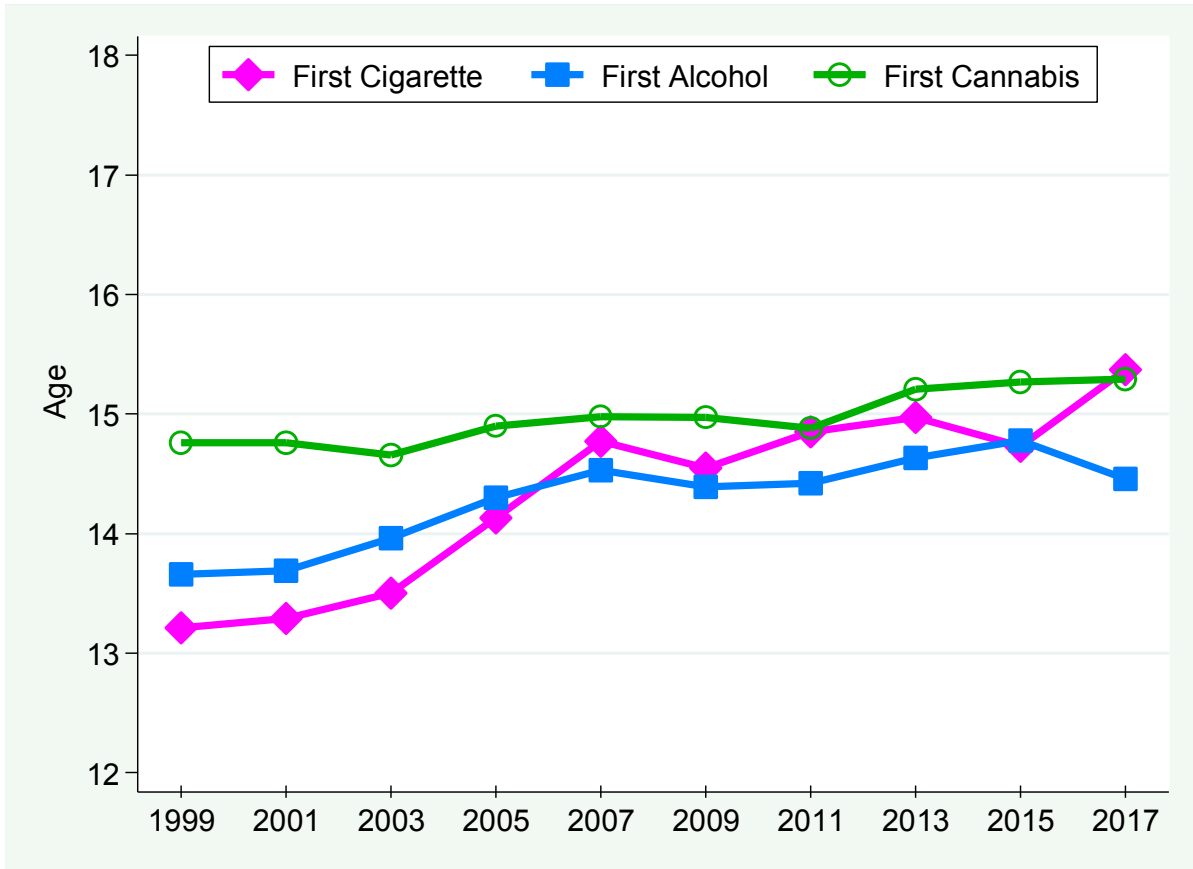
Trends, 1999–2017

- The average initiation age for cigarette smoking has remained relatively stable in recent years, 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 in recent years, 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, 1981–2017

- 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 (see Figures 3.9.5 and 3.9.6).
- The average initiation age for drinking was stable during the 1990s, followed by an increase since 1999/2001 (see Figures 3.9.5, and 3.9.7).
- The average initiation age for cannabis use increased between 1981 and 1995, decreased during the late 1990s/early 2000s, and increased slightly since then (see Figures 3.9.5 and 3.9.8).

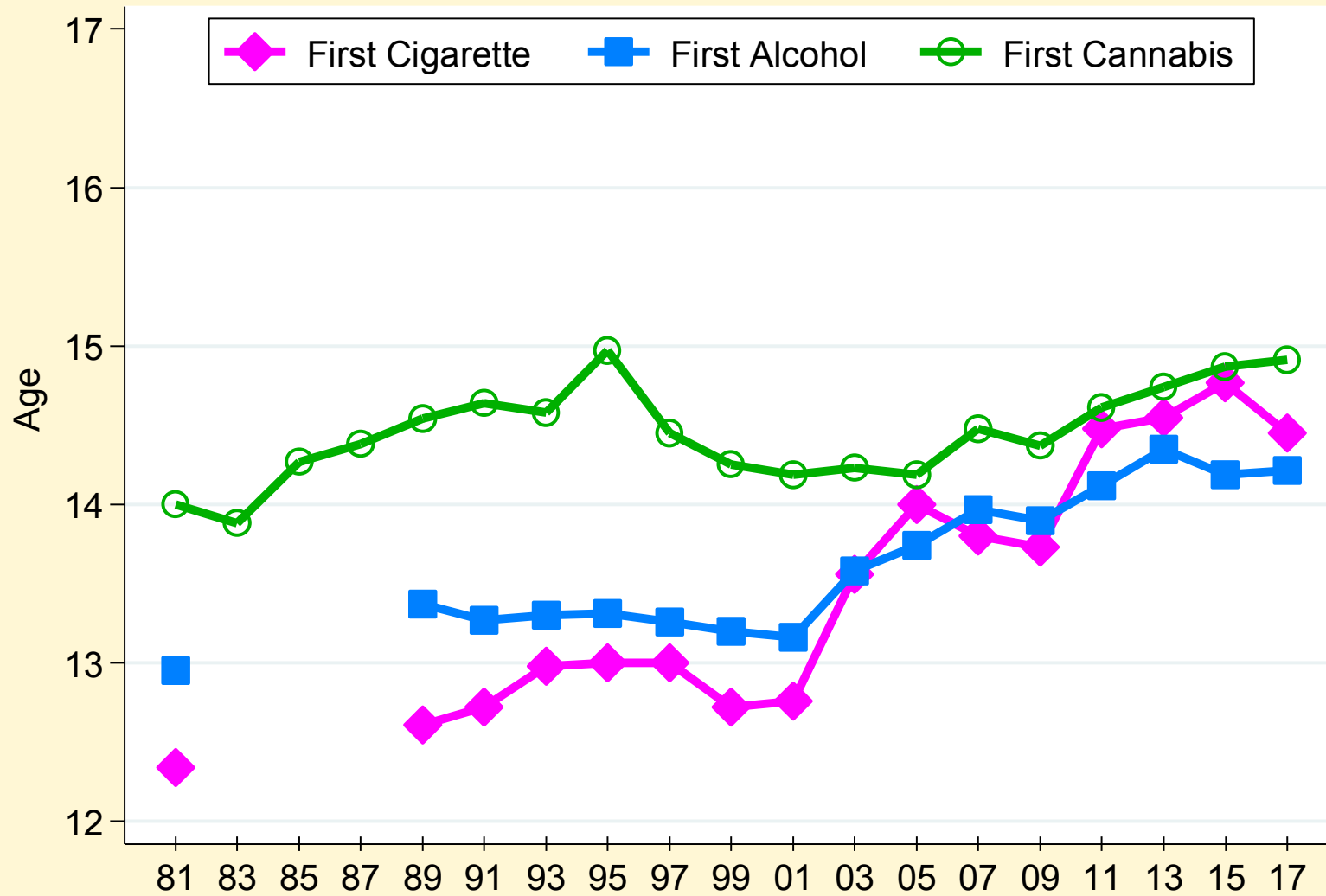
Figure 3.9.4
 Average Age at First Tobacco Cigarette Among 12th-Grade Smokers, First Alcoholic Drink Among 12th-Grade Drinkers, and First Cannabis Use Among 12th-Grade Users, 1999–2017 OSDUHS



	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
Cigarette	13.21	13.29	13.50	14.13	14.77	14.55	14.85	14.97	14.73	15.37
Alcohol	13.66	13.69	13.96	14.30	14.53	14.39	14.42	14.63	14.78	14.46
Cannabis	14.76	14.76	14.66	14.90	14.98	14.97	14.88	15.21	15.27	15.29

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, 1981–2017 OSDUHS



Note: age (grade) at first cigarette and first alcoholic drink not asked between 1983 and 1987

Figure 3.9.6
Grade at First Whole Tobacco Cigarette Among 11th-Grade Smokers, by Year of Survey, 1981–2017 OSDUHS

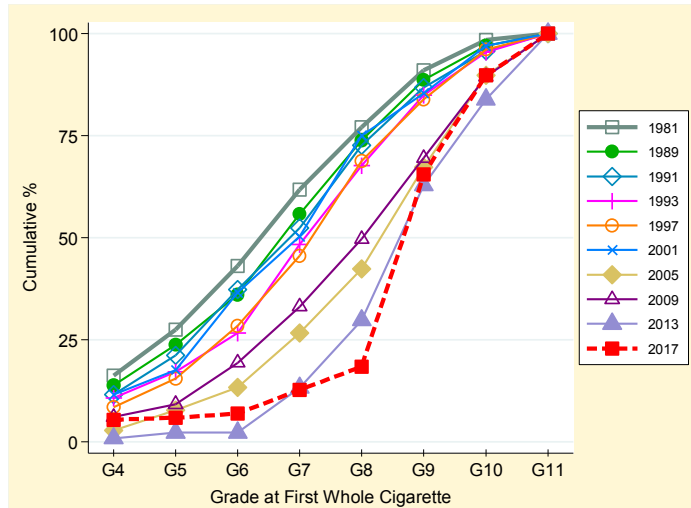


Figure 3.9.7
Grade at First Alcoholic Drink Among 11th-Grade Drinkers, by Year of Survey, 1981–2017 OSDUHS

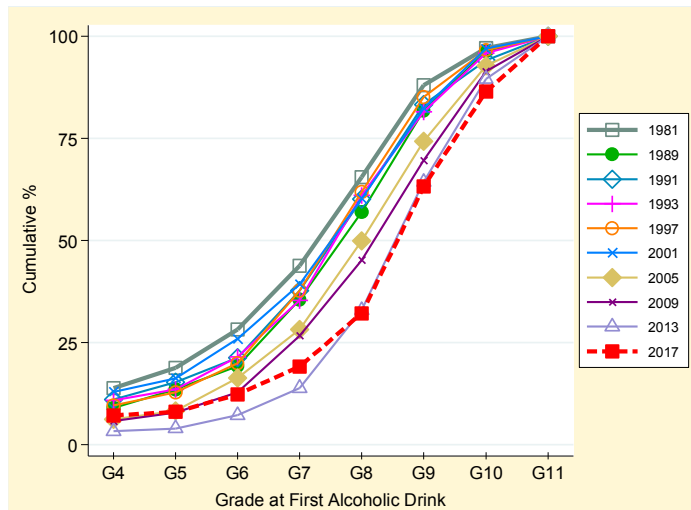
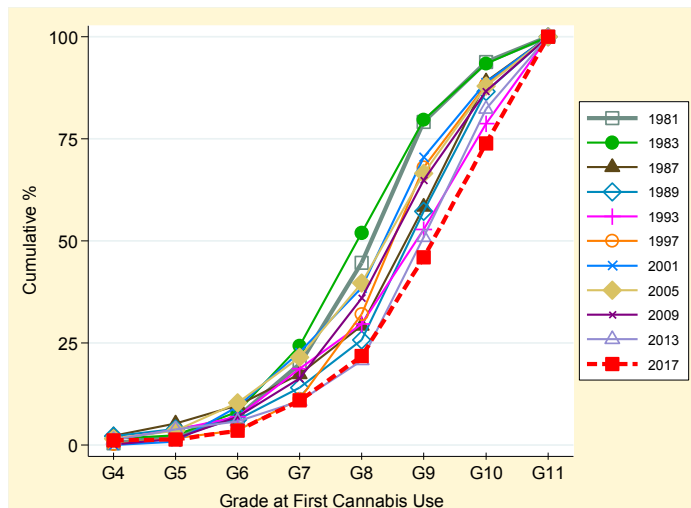


Figure 3.9.8
Grade at First Cannabis Use Among 11th-Grade Users, by Year of Survey, 1981–2017 OSDUHS



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 through 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.

2017: Grades 7–12

- About 15.9% of students rode in a vehicle at least once in the past year with a driver who had been drinking. This represents roughly 144,600 students in Ontario. About one-in-ten (9.9%) students rode with a driver who had been using drugs at least once in the past year. This estimate represents 90,400 students in Ontario.
- Males and females are equally likely to ride with a driver who had been drinking, or using drugs.
- The likelihood of riding in a vehicle with a driver who had been drinking or using drugs significantly increases with grade level.
- There are no significant regional differences regarding the likelihood of riding with a driver who had been drinking, or using drugs.

2001–2017: Grades 7–12

- The percentage of students who report riding with a driver who had been drinking alcohol in 2017 is similar to the percentages from 2015 (15.3%) and 2013 (17.8%). However, the current estimate is significantly lower than all estimates seen between 2001 and 2011.
- The percentage of students who report riding in a vehicle with a driver who had been using drugs did not significantly change between 2015 (12.3%) and 2017 (9.9%) However, the current estimate is significantly lower than all the estimates seen between 2003 and 2013.

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, 2017 OSDUHS

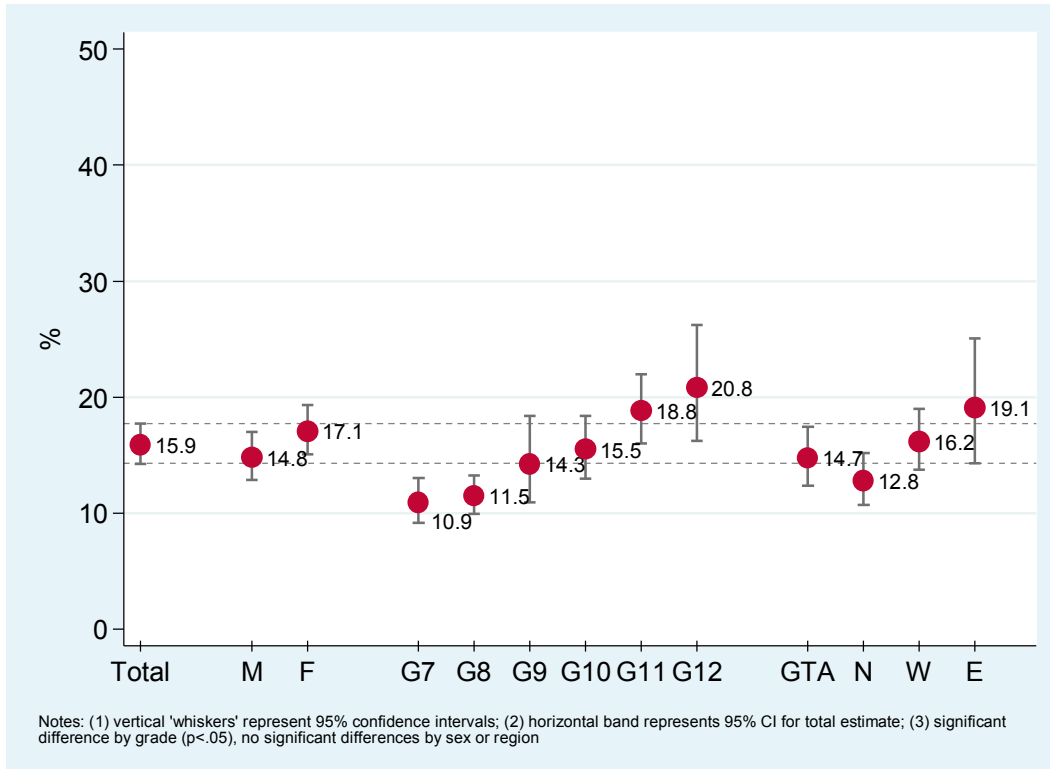


Figure 3.10.2
 Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Using Drugs (at Least Once in the Past Year) by Sex, Grade, and Region, 2017 OSDUHS

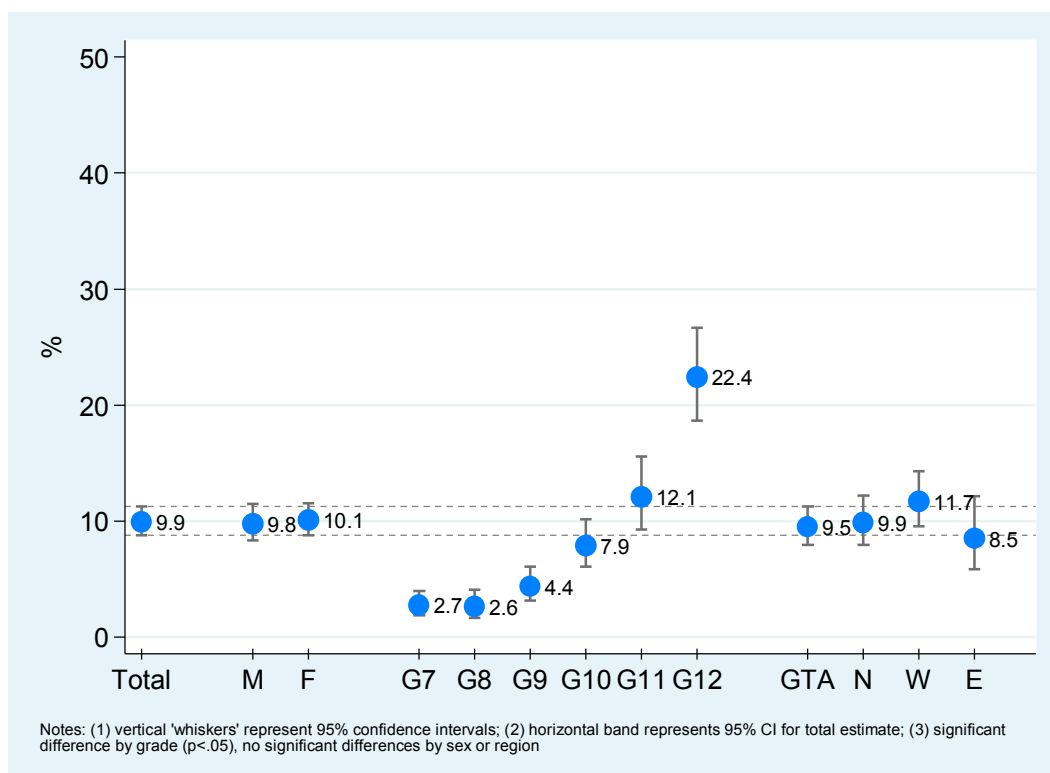


Figure 3.10.3
 Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Drinking Alcohol by Sex, 2001–2017 OSDUHS

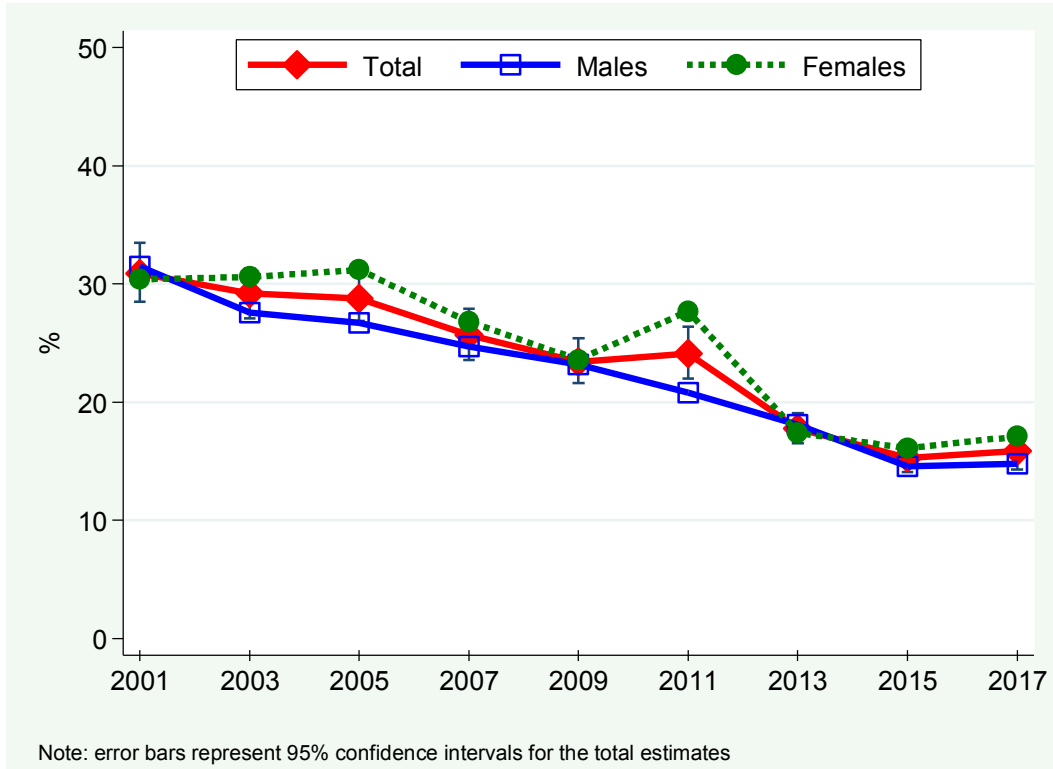


Figure 3.10.4
 Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Using Drugs by Sex, 2003–2017 OSDUHS

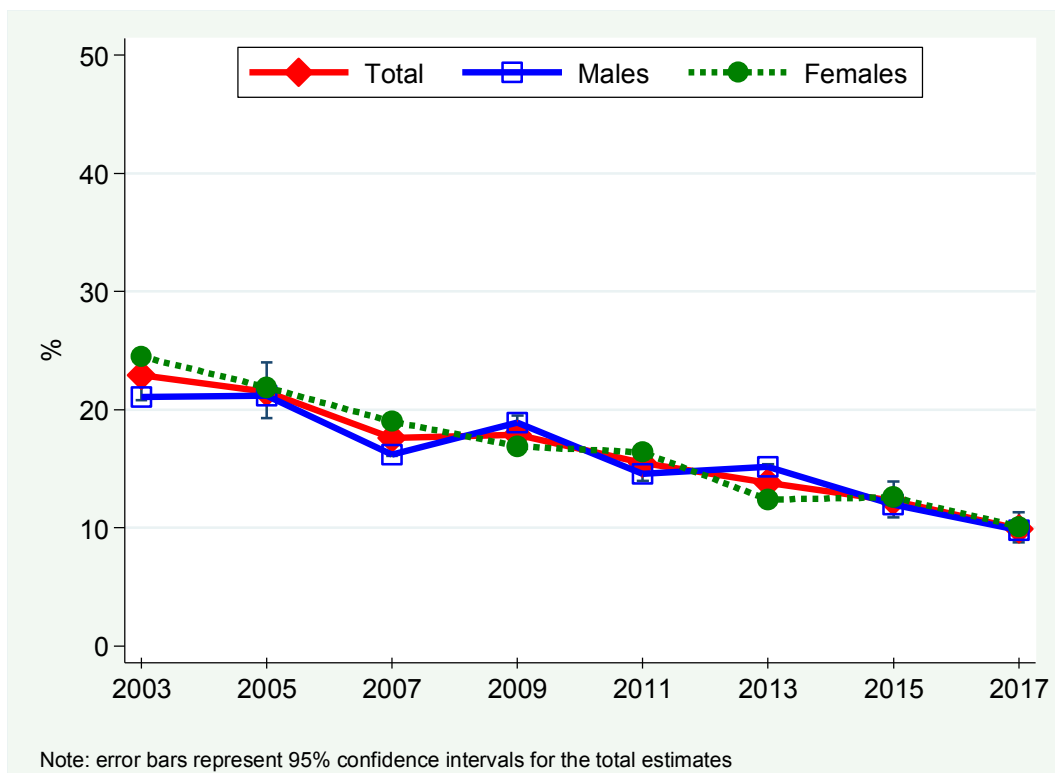


Table 3.10.1: Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Drinking Alcohol, 2001–2017 OSDUHS (Grades 7–12)

	2001 (n=)	2003 (3152)	2005 (3648)	2007 (2935)	2009 (4261)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (11435)
Total (95% CI)	30.9 (28.5-33.5)	29.2 (27.1-31.3)	28.8 (26.9-30.8)	25.7 (23.6-27.9)	23.4 (21.6-25.4)	24.1 (22.0-26.4)	17.8 (16.5-19.1)	15.3 (14.1-16.7)	15.9 ^{bcd} (14.3-17.7)
Sex									
Males	31.5 (28.2-34.9)	27.6 (25.0-30.5)	26.7 (24.3-29.2)	24.7 (22.2-27.5)	23.2 (20.5-26.2)	20.8 (18.7-23.2)	18.1 (16.3-20.0)	14.6 (13.1-16.3)	14.8 ^b (12.8-17.0)
Females	30.4 (26.7-34.3)	30.6 (27.7-33.6)	31.2 (28.5-33.9)	26.8 (23.9-29.9)	23.6 (21.1-26.3)	27.7 (23.6-32.2)	17.4 (15.8-19.2)	16.1 (14.3-18.0)	17.1 ^b (15.1-19.3)
Grade									
7	17.5 (12.9-23.4)	21.2 (16.6-26.8)	17.7 (14.1-22.0)	14.0 (10.8-18.0)	10.0 (6.6-14.8)	10.7 (8.7-13.2)	10.4 (8.3-12.8)	10.2 (7.4-13.9)	10.9 ^b (9.2-13.0)
8	23.2 (16.5-31.5)	25.2 (21.1-29.8)	19.9 (16.7-23.5)	17.3 (13.9-21.4)	14.8 (11.4-19.2)	18.6 (14.5-23.4)	10.7 (8.4-13.6)	10.2 (8.2-12.6)	11.5 ^b (9.9-13.2)
9	31.5 (25.1-38.6)	24.0 (20.1-28.4)	27.3 (23.2-31.9)	22.0 (18.4-26.0)	23.3 (18.9-28.3)	23.8 (20.3-27.8)	16.3 (13.5-19.5)	14.2 (11.7-17.1)	14.3 ^b (10.9-18.4)
10	36.0 (30.8-41.7)	30.2 (25.5-35.4)	28.9 (24.5-33.7)	24.9 (21.2-29.0)	23.0 (19.4-27.0)	24.7 (21.8-27.9)	19.9 (17.0-23.2)	15.7 (13.5-18.3)	15.5 ^b (13.0-18.4)
11	40.0 (33.4-46.9)	38.3 (33.9-42.8)	36.5 (31.9-41.2)	33.1 (29.0-37.4)	26.5 (22.0-31.6)	26.8 (21.6-32.6)	20.6 (18.1-23.4)	17.8 (15.3-20.6)	18.8 ^b (16.0-22.0)
12	36.2 (28.9-44.1)	34.1 (30.1-38.2)	39.4 (34.8-44.3)	37.4 (31.8-43.4)	34.1 (28.0-40.8)	32.7 (29.4-36.3)	22.6 (19.9-25.5)	19.9 (16.8-23.4)	20.8 ^b (16.3-26.2)
Region									
GTA	28.4 (23.9-33.3)	27.7 (24.4-31.1)	24.6 (22.6-26.7)	23.5 (19.8-27.7)	22.0 (19.0-25.3)	21.2 (19.6-22.8)	18.1 (16.2-20.2)	15.3 (13.4-17.3)	14.7 ^b (12.3-17.5)
North	34.7 (30.9-38.8)	29.8 (26.0-33.8)	31.7 (26.7-37.2)	27.2 (22.8-32.1)	27.3 (21.7-33.6)	24.6 (22.8-26.5)	15.9 (13.1-19.2)	14.8 (11.2-19.3)	12.8 ^b (10.7-15.2)
West	33.7 (29.3-38.4)	34.9 (31.5-38.5)	33.1 (28.6-38.0)	30.0 (26.6-33.7)	24.8 (21.2-28.8)	28.1 (23.0-33.9)	18.2 (15.6-21.1)	16.0 (13.2-18.6)	16.2 ^b (13.7-19.0)
East	30.8 (26.5-35.4)	24.7 (20.3-29.7)	32.1 (27.7-36.9)	24.2 (20.6-28.1)	23.0 (20.4-25.7)	25.1 (21.7-28.9)	16.6 (14.9-18.6)	14.8 (11.9-18.2)	19.1 ^b (14.3-25.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) question asked of a random half sample in each year between 2001 and 2009; (4) no significant differences 2017 vs. 2015: ^b 2017 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, 2003–2017 OSDUHS (Grades 7–12)

	2003 (n=) (3464)	2005 (4078)	2007 (3388)	2009 (4851)	2011 (9288)	2013 (10272)	2015 (10426)	2017 (11435)
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 ^{bc} (8.8-11.2)
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 ^b (8.3-11.5)
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 ^b (8.8-11.6)
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 ^b (1.9-4.0)
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 ^b (1.7-4.1)
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 ^b (3.1-6.1)
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 ^b (6.1-10.1)
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 ^b (9.3-15.6)
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 ^b (18.6-26.6)
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 ^b (7.9-11.2)
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 ^b (8.0-12.2)
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 ^b (9.5-14.3)
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 ^b (5.8-12.2)

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) question asked of a random half sample in each year between 2003 and 2009; (4) no significant differences 2017 vs. 2015; ^b 2017 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)

2017: Drivers in Grades 10–12

- In 2017, 4.2% 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. With the sampling error, we estimate that between 3.0% and 5.8% of adolescent drivers in Ontario drove after drinking alcohol. The estimate of 4.2% represents about 11,600 drivers in grades 10, 11, and 12.

- Male and female drivers are equally likely to drink and drive (5.4% vs. 2.8%, respectively).

- Drivers in 12th grade are most likely to drink and drive (5.6%).

- There are no significant regional differences.

1999–2017: Drivers in Grades 10–12

- Drinking and driving among adolescent drivers has been stable since 2011, at about 4%–7%. However, the current estimate is significantly lower than estimates seen between 1999 and 2009 when rates were between 12%–14%.

- Estimates among the subgroups have been stable over the past few cycles. However, all subgroups do show significant decreases since 1999.

1977–2017: Drivers in Grade 11 only

- Figure 3.10.6 shows trends in drinking and driving among grade 11 licensed drivers (including graduated licences). 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, 1999–2017 OSDUHS

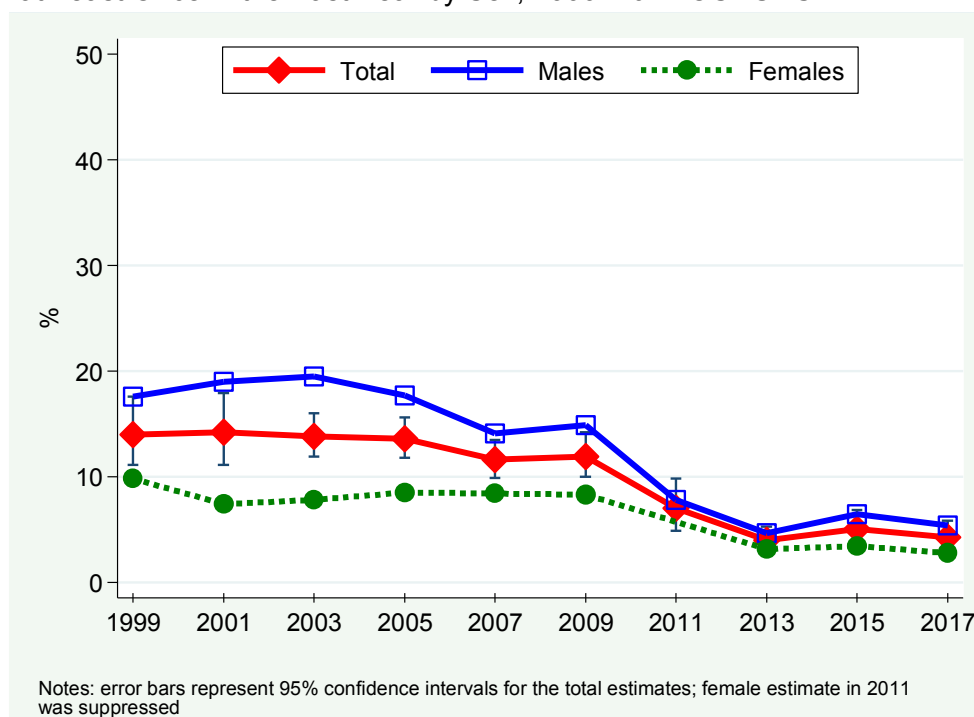


Figure 3.10.6
 Percentage of 11th-Grade Drivers Reporting Drinking and Driving in the Past Year, 1977–2017 OSDUHS

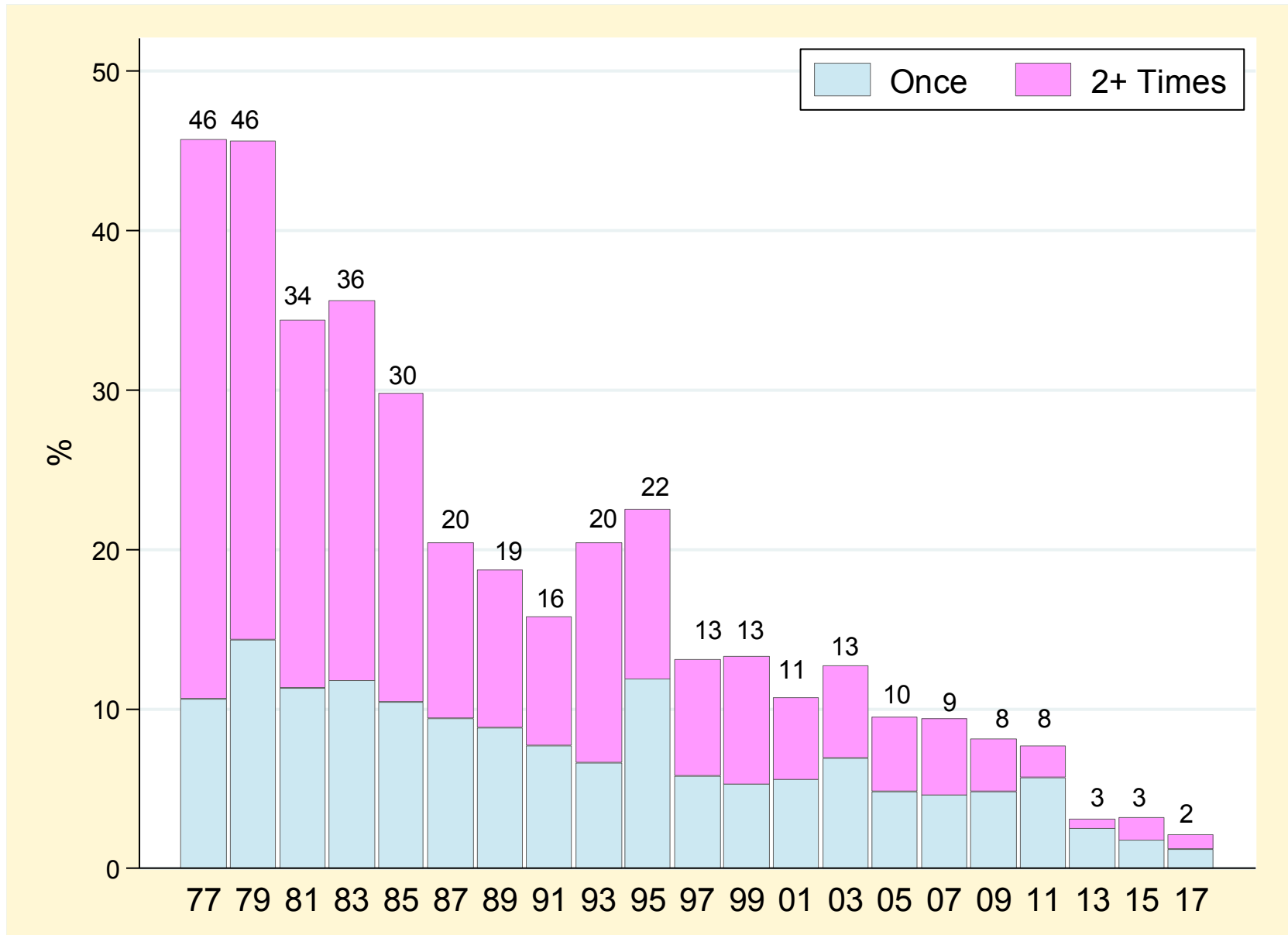


Table 3.10.3: Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2017 OSDUHS

	1999 (n=)	2001 (847)	2003 (1973)	2005 (2280)	2007 (1897)	2009 (2219)	2011 (2486)	2013 (2433)	2015 (2443)	2017 (2698)
Total	14.0	14.2	13.8	13.6	11.6	11.9	7.0	4.0	5.1	4.2 ^{bcd}
(95% CI)	(11.1-17.6)	(11.1-17.9)	(11.9-16.0)	(11.8-15.6)	(9.9-13.5)	(10.0-14.2)	(4.9-9.8)	(3.0-5.2)	(3.7-6.8)	(3.0-5.8)
Sex										
Males	17.6	19.0	19.5	17.7	14.1	14.9	7.8	4.6	6.4	5.4 ^b
	(14.0-21.8)	(14.2-25.1)	(16.5-22.9)	(15.0-20.7)	(11.5-17.2)	(12.3-18.0)	(5.8-10.6)	(3.2-6.7)	(4.6-8.9)	(3.4-8.4)
Females	9.8	7.4	7.8	8.5	8.4	8.3	†	3.1	3.4	2.8 ^b
	(6.4-14.7)	(4.6-11.8)	(6.0-10.0)	(6.7-10.7)	(6.5-10.9)	(6.3-10.7)		(2.1-4.6)	(2.2-5.2)	(1.6-4.6)
Grade										
10	8.1	9.8	9.8	7.6	9.0	3.8	†	†	†	† ^b
	(4.0-15.5)	(4.4-20.6)	(6.1-15.4)	(4.2-13.3)	(5.0-15.8)	(1.7-8.2)				
11	13.4	10.7	12.7	9.5	9.3	8.1	7.8	3.1	3.2	2.1 ^b
	(9.1-19.4)	(8.0-14.2)	(10.3-15.6)	(7.3-12.4)	(6.9-12.6)	(5.4-12.0)	(2.9-19.4)	(1.7-5.6)	(2.1-5.0)	(1.4-3.3)
12	16.3	20.9	16.2	17.4	13.4	15.1	7.0	4.9	6.2	5.6 ^b
	(11.4-22.8)	(15.4-27.7)	(13.1-19.8)	(14.7-20.6)	(11.2-15.9)	(12.3-18.5)	(5.0-9.8)	(3.4-7.1)	(4.0-9.6)	(3.5-9.0)
Region										
GTA	13.5	11.7	12.5	10.8	9.5	9.3	4.4	2.7	4.8	4.7 ^b
	(9.5-18.9)	(8.2-16.5)	(10.2-15.2)	(8.8-13.3)	(6.7-13.3)	(6.5-13.2)	(3.3-5.9)	(1.7-4.1)	(3.5-6.6)	(2.8-7.7)
North	26.0	12.5	16.8	16.8	12.7	12.5	9.8	†	†	† ^b
	(17.3-37.1)	(9.0-17.0)	(12.0-23.0)	(12.9-21.5)	(8.4-18.8)	(8.9-17.2)	(5.8-16.1)			
West	12.8	20.5	14.4	18.6	13.6	10.4	†	5.3	6.3	4.2 ^b
	(8.1-19.6)	(13.6-29.8)	(9.7-20.9)	(14.9-22.9)	(10.8-16.9)	(6.8-15.8)		(3.2-8.6)	(4.4-9.0)	(2.6-6.8)
East	9.2	9.3	14.8	12.4	12.4	17.6	9.0	4.3	†	† ^b
	(4.2-18.8)	(5.2-16.2)	(11.5-18.8)	(8.6-17.6)	(9.8-15.4)	(14.0-21.8)	(5.6-14.1)	(2.7-6.8)		

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) no significant differences 2017 vs. 2015; ^b 2017 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 3.10.7, 3.10.8; Table 3.10.4)

Beginning in 2001, the OSDUHS asked students how often, if at all, they had driven a vehicle within an hour of using cannabis during the past 12 months. We present the percentage of students in grades 10 through 12 with a licence who report doing so at least once in the past 12 months.

2017: Drivers in Grades 10–12

- In 2017, 8.8% of students in grades 10–12 with a driver’s licence report driving after using cannabis at least once in the past 12 months. With the sampling error, we estimate that between 6.9% and 11.1% of adolescent drivers in Ontario drove after using cannabis. This estimate represents about 24,100 adolescent drivers in Ontario.
- Male drivers are significantly more likely than female drivers to use cannabis and drive (11.3% vs. 5.6%, respectively).
- Despite some variation, there is no significant grade variation in the likelihood of using cannabis and driving.
- There are no significant regional differences.

2001–2017: Drivers in Grades 10–12

- Cannabis use and driving has remained stable during recent years, as the 2017 estimate (8.8%) is similar to the estimates seen since 2011 (about 10%-12%). However, it is currently significantly lower than all estimates seen between 2001 and 2009, when levels were between 16%-20%.
- All subgroups show stable estimates of cannabis use and driving in recent years. However, all show a significant decrease since 2001 or 2003.

Figure 3.10.7
 Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year by Sex, Grade, and Region, 2017 OSDUHS

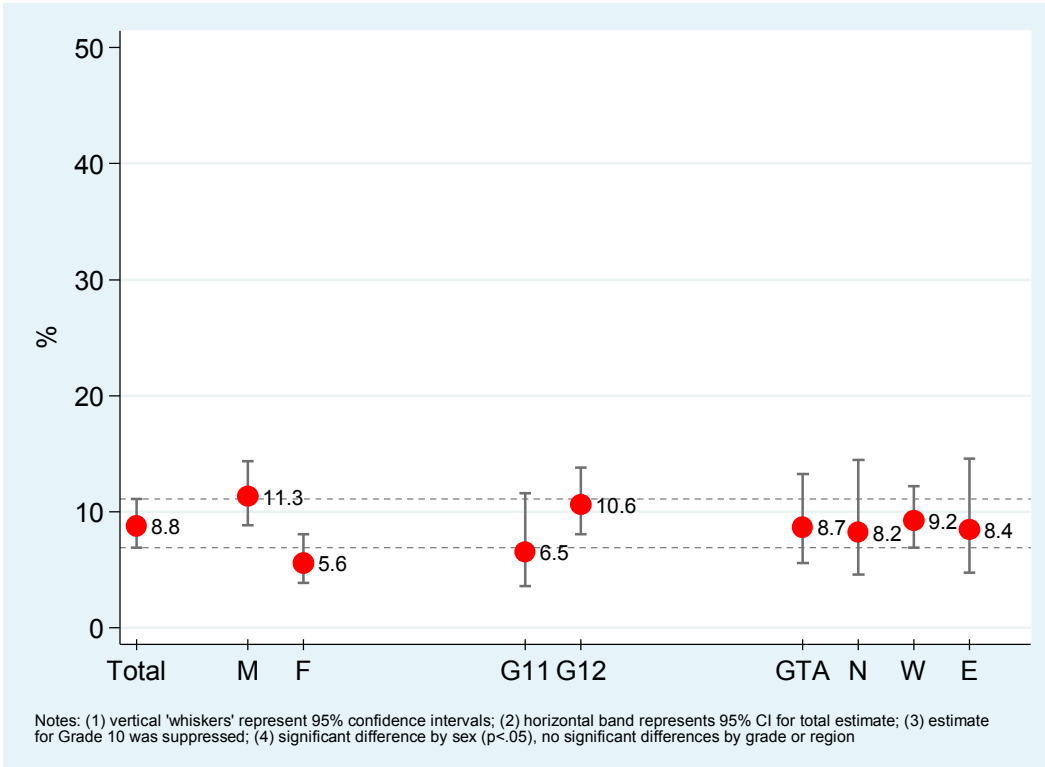


Figure 3.10.8
 Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year by Sex, 2001–2017 OSDUHS

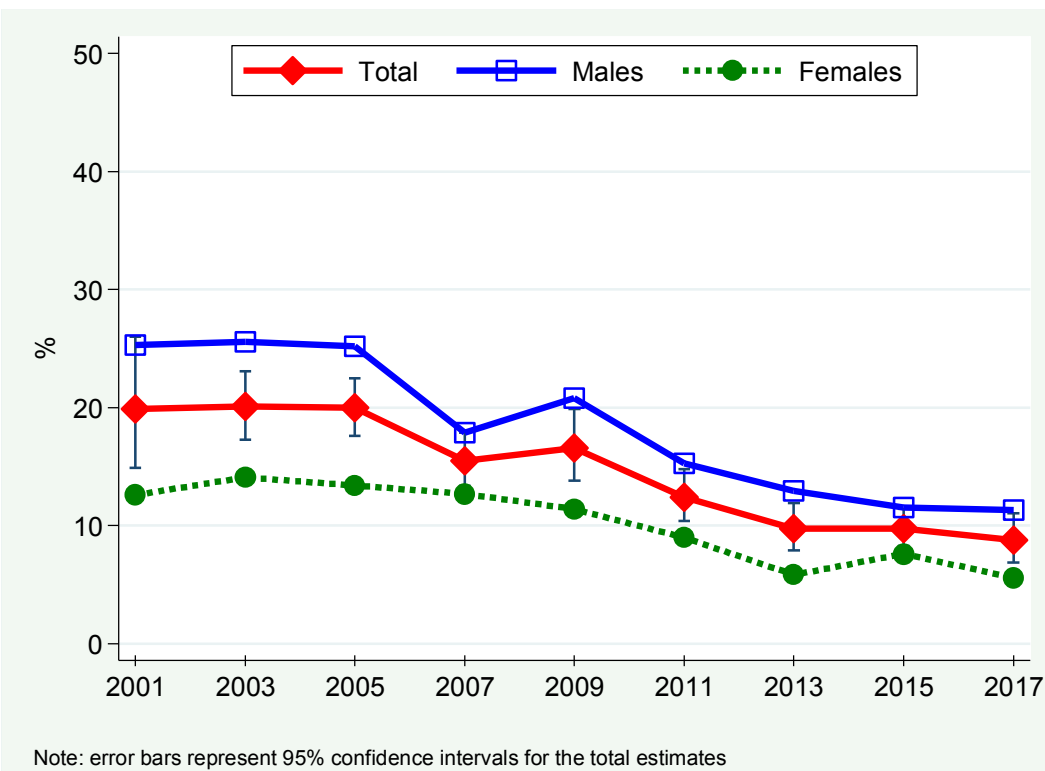


Table 3.10.4: Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, 2001–2017 OSDUHS

	2001 (n=)	2003 (1973)	2005 (2280)	2007 (1897)	2009 (2219)	2011 (2468)	2013 (2433)	2015 (2443)	2017 (2698)
Total (95% CI)	19.9 (14.9-26.0)	20.1 (17.3-23.1)	20.0 (17.6-22.5)	15.5 (13.4-17.9)	16.6 (13.8-19.9)	12.4 (10.4-14.8)	9.7 (7.9-11.9)	9.8 (8.3-11.4)	8.8 ^{bc} (6.9-11.1)
Sex									
Males	25.3 (17.3-35.5)	25.6 (21.4-30.2)	25.2 (22.1-28.7)	17.9 (15.0-21.2)	20.8 (16.9-25.4)	15.3 (12.2-19.0)	13.0 (10.2-16.3)	11.6 (9.4-14.1)	11.3 ^b (8.8-14.4)
Females	12.6 (8.5-18.4)	14.1 (11.3-17.6)	13.4 (10.8-16.4)	12.7 (9.8-16.4)	11.4 (8.9-14.6)	9.0 (6.9-11.7)	5.8 (4.3-7.8)	7.6 (5.5-10.5)	5.6 ^b (3.9-8.0)
Grade									
10	18.9 (9.6-33.8)	15.9 (11.3-21.9)	15.1 (9.7-22.6)	†	7.8 (4.1-14.4)	†	†	6.0 (3.4-10.2)	† ^b
11	18.9 (12.7-27.3)	18.0 (14.4-22.3)	15.4 (12.3-19.1)	12.8 (10.0-16.3)	10.8 (8.1-14.3)	12.3 (8.9-16.7)	8.0 (5.7-11.3)	8.6 (6.8-11.0)	6.5 ^b (3.6-11.6)
12	21.6 (14.1-31.6)	23.3 (18.9-28.3)	23.9 (20.5-27.6)	18.9 (16.2-21.8)	21.1 (17.0-25.7)	13.0 (9.9-16.8)	11.6 (8.5-15.7)	10.9 (8.7-13.7)	10.6 ^b (8.1-13.8)
Region									
GTA	20.8 (14.9-28.4)	17.5 (14.4-21.0)	17.5 (10.8-23.1)	13.5 (10.3-17.6)	13.8 (10.8-17.5)	10.8 (7.9-14.8)	8.0 (6.2-10.1)	8.7 (6.4-11.6)	8.7 ^b (5.6-13.3)
North	17.5 (10.9-27.1)	24.7 (16.3-35.6)	21.6 (17.0-27.0)	19.0 (12.5-27.7)	21.1 (13.9-30.6)	20.2 (15.5-25.9)	7.2 (3.9-12.8)	15.8 (10.8-22.7)	8.2 (4.6-14.5)
West	21.0 (12.2-33.7)	22.7 (17.1-29.5)	26.7 (22.2-31.8)	15.9 (12.3-20.4)	20.0 (14.2-27.4)	14.2 (10.1-19.7)	10.8 (6.7-16.8)	10.6 (8.2-13.6)	9.2 ^b (6.9-12.2)
East	†	20.4 (14.0-28.8)	16.8 (12.4-22.3)	17.6 (13.9-22.0)	15.3 (9.2-24.4)	10.6 (8.4-13.5)	11.9 (9.8-14.4)	8.9 (6.1-12.7)	8.4 (4.7-14.6)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) question asked of a random half sample in 2001; (5) no significant differences 2017 vs. 2015; ^b 2017 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 marijuana or hashish?

Source: OSDUHS, Centre for Addiction & Mental Health

Drug Use Problem (CRAFFT Screener) Among Grades 9–12

(Figures 3.10.9, 3.10.10; 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 drug use problem – that is, those who may be in need of further assessment or treatment ($\alpha=0.78$).

2017: Grades 9–12

- About one-in-seven (13.6%) 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 109,700 Ontario students in grades 9–12.
- Males are significantly more likely than females to meet the criterion for a drug use problem (15.9% vs. 11.2%, respectively).

- There is a significant increase in the likelihood of indicating a drug use problem as grade level increases, from a low of 4.8% among 9th graders to 21.6% among 12th graders.
- There is no significant regional variation.

2003–2017: Grades 9–12

- The percentage of secondary students who meet the CRAFFT criterion for a drug use problem has been stable in recent years, as the 2017 estimate (13.6%) is similar to those seen since 2011 (about 16%-17%). However, there has been a linear 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 Greater Toronto Area.

Table 3.10.5: Percentage Reporting Drug Use Problems Experienced in the Past Year, 2017 OSDUHS (Grades 9–12)

CRAFFT Item	% “yes” among the total sample
“In the last 12 months....”	
1. did you ride in a car or other vehicle driven by someone who had been using drugs	11.7
2. did you use drugs to relax, feel better about yourself, or fit in?	14.7
3. did you use drugs while you were by yourself (alone)?	10.0
4. did you forget things you did while using drugs?	6.9
5. did your family or friends tell you that you should cut down on your use of drugs?	3.2
6. did you get into trouble while using drugs?	3.7
% CRAFFT 2+ Score (95% CI)	13.6 (11.6-16.0)

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=4,298).
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.10.9
 Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, Grade, and Region, 2017 OSDUHS (Grades 9–12)

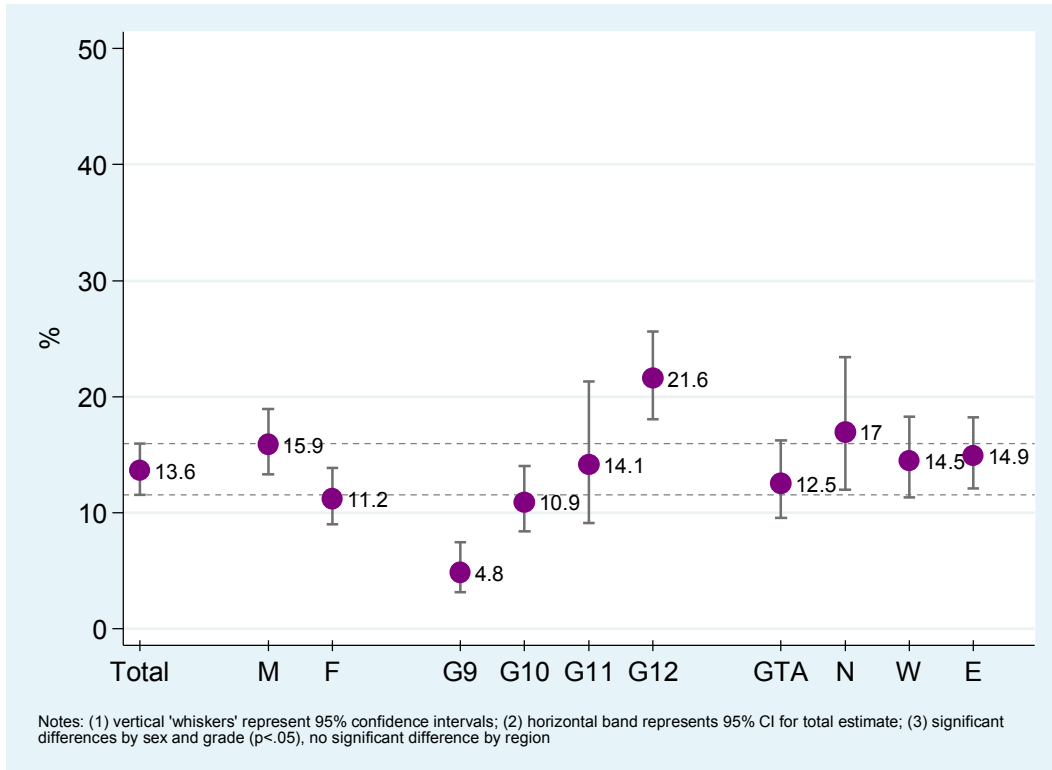


Figure 3.10.10
 Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, 2003–2017 OSDUHS (Grades 9–12)

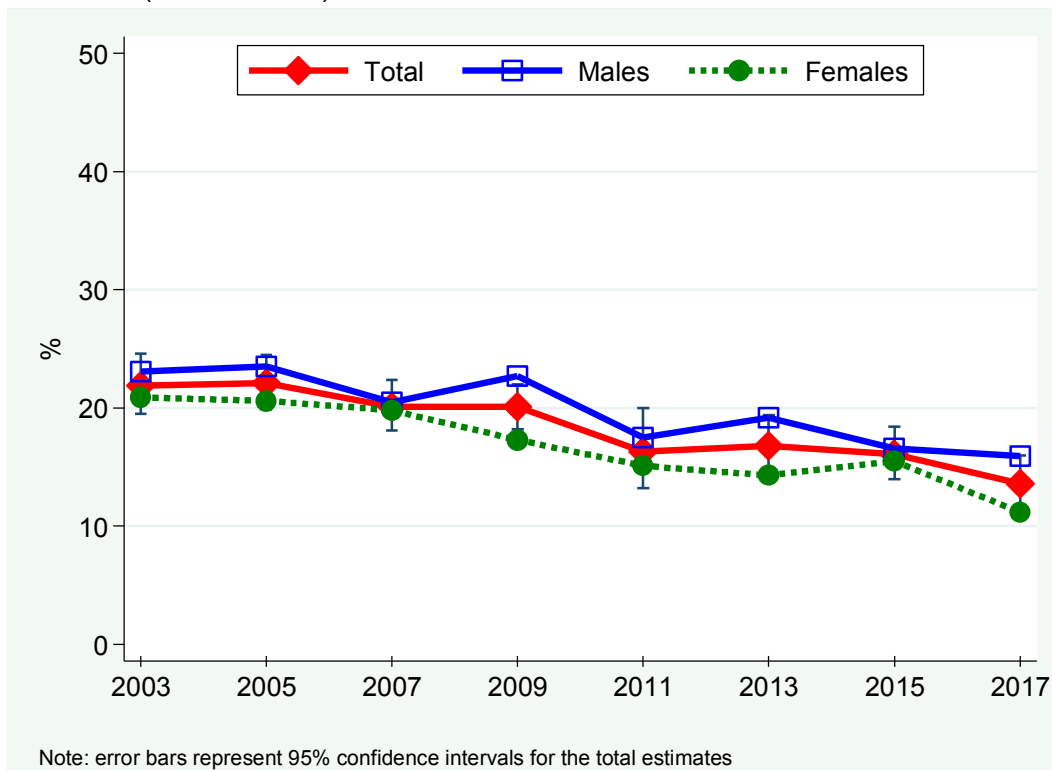


Table 3.10.6: Percentage Indicating a Drug Use Problem (CRAFT 2+), 2003–2017
OSDUHS (Grades 9–12)

	2003 (n=) (2455)	2005 (3069)	2007 (2587)	2009 (3055)	2011 (3358)	2013 (3264)	2015 (3426)	2017 (4298)
Total	21.9	22.1	20.1	20.1	16.3	16.8	16.1	13.6 ^{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)
Sex								
Males	23.1	23.5	20.5	22.7	17.5	19.2	16.6	15.9 ^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)
Females	20.9	20.6	19.8	17.3	15.1	14.3	15.5	11.2 ^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)
Grade								
9	14.1	13.4	14.0	11.7	7.5	7.5	6.4	4.8 ^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)
10	20.5	21.0	18.0	18.4	15.8	13.9	13.7	10.9 ^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)
11	27.0	25.4	23.0	19.4	18.4	18.8	17.6	14.1 ^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)
12	26.7	28.3	24.7	28.2	21.7	24.0	23.2	21.6
	(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)
Region								
GTA	20.9	19.2	18.3	18.8	17.1	15.6	15.6	12.5 ^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)
North	26.3	26.1	26.0	28.0	23.0	17.1	20.0	17.0
	(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)
West	21.3	27.4	20.5	21.9	13.6	19.9	14.7	14.5
	(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)
East	23.0	21.6	21.7	18.3	17.3	14.8	17.7	14.9
	(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)

Notes: (1) entries in brackets are 95% confidence intervals; (2) GTA=Greater Toronto Area; (3) based on a random half sample in each year; (4) no significant differences 2017 vs. 2015; ^b 2017 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 2017, 0.6% (95% CI: 0.4%-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 3,800 Ontario students in grades 9–12.
- The 2017 estimate of students who report receiving treatment is similar to estimates seen between 2011 and 2015 (about 0.6%-1%). However, the current estimate is significantly lower than those seen in 1999 and 2003 (about 2%).

Legal Warning or Arrest for Cannabis Use (Grades 9–12)

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 2017, the percentage of secondary students who report ever being arrested or warned by police for using cannabis is 1.3% (95% CI: 0.8%-2.3%). This estimate represents about 6,900 Ontario students in grades 9–12. The percentage reporting ever being arrested or warned for using drugs other than cannabis is suppressed due to low numbers.

3.11 Attitudes and Perceptions

Perceived Risk and Disapproval

(Figures 3.11.1–3.11.6; Tables 3.11.1, 3.11.2)

Research has shown that drug-related attitudes and beliefs strongly correlate with drug using behaviour (Bachman et al., 2014; Miech et al. 2016). Because the OSDUHS is a cross-sectional study, we cannot necessarily 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 Figure 3.11.1 and Table 3.11.1, 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. In Figure 3.11.2 and Table 3.11.2, we present the percentage who “strongly disapprove” of people aged 18 and older using particular drugs. The risk and disapproval questions regarding cocaine and ecstasy were asked of 9th to 12th graders only.

2017: Perceived Risk

- 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 NM prescription opioid use, followed by trying cocaine, whereas the least risk is associated with trying marijuana.

- Perceptions of risk significantly decrease with grade regarding marijuana use (trying and regular use), as well as regular use of e-cigarettes and waterpipes. No grade variation is evident for perceived risk of daily tobacco cigarette smoking, binge drinking, nonmedical use of prescription opioids, trying cocaine, or trying ecstasy.

2017: Disapproval

- A majority of students in grades 7 and 8 strongly disapprove of someone using marijuana regularly and almost half strongly disapprove of trying marijuana. Almost half of students in grades 9–12 strongly disapprove of someone trying ecstasy and cocaine.

- Disapproval of marijuana use (trying and regular use), binge drinking, trying cocaine, and trying ecstasy significantly decreases as grade increases.

1999–2017

- The perceived risk associated with **marijuana use** (trying and regular use) among the total sample of grades 7–12 has remained stable since 2013, but perceived risk is currently lower than levels seen between 1999 and 2011. The percentage strongly disapproving of marijuana use (trying and regular use) has decreased in recent years (since 2011).

- The percentage of students in grades 7–12 who perceive there is great risk associated with **daily tobacco cigarette smoking** significantly decreased between 2015 and 2017, and is currently similar to the estimate seen in 2003, the first year of monitoring.

- The percentage of students in grades 7–12 who perceive a great risk associated with regular **waterpipe use** in 2017 is similar to the estimate from 2015, but significantly lower than the estimate from 2013, the first year of monitoring.

- The percentage of students in grades 7–12 who perceive a great risk associated with regular **electronic cigarette use** remained stable between 2015 and 2017.

□ Among grades 7–12, the percentage who perceive a great risk of harm associated with **binge drinking** on weekends has remained stable since 2011, but is currently lower than in 2007, the first year of monitoring. The percentage who disapprove of binge drinking also remained stable in recent years, but is currently lower than in 2007, the first year of monitoring.

□ Among grades 7–12, the percentage who perceive a great risk of harm associated with using **prescription opioid pain relievers** nonmedically is currently lower than estimates seen in 2015 and 2013, the first year of monitoring.

□ Among grades 9–12, the percentage who perceive a great risk of harm associated with trying **cocaine** is currently lower than estimates seen over the past decade (since 2007), and resembles those seen in 1999 and the early 2000s. The percentage who strongly disapprove of trying cocaine has decreased in recent years (since 2011), but is currently higher than estimates seen in 1999 and 2001.

□ Among grades 9–12, the perception of great risk associated with trying **ecstasy** has remained stable since 2013, but is currently lower than estimates seen in the mid-to-late 2000s. The percentage who strongly disapprove of trying ecstasy has decreased in recent years (since 2013), but is currently higher than in 2001, the first year of monitoring.

1989–2017

□ Over the long-term, perceptions of great risk associated with marijuana (trying and regular use) was highest in the late 1980s/early 1990s. Perceptions remained stable during the late 1990s, increased slightly in the late 2000s, and decreased again in recent years.

□ The perceived risk of trying cocaine decreased during the 1990s, gradually increased until 2009, and decreased again since then.

□ Over the long-term, the disapproval of marijuana use (trying and regular use) was highest in the late 1980s/early 1990s, decreased during the 1990s, increased during the 2000s, and decreased again in recent years.

□ Disapproval of trying cocaine was lowest in 1999 and 2001, increased during the 2000s, and decreased in recent years.

Figure 3.11.1
 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use by Grade Level, 2017 OSDUHS

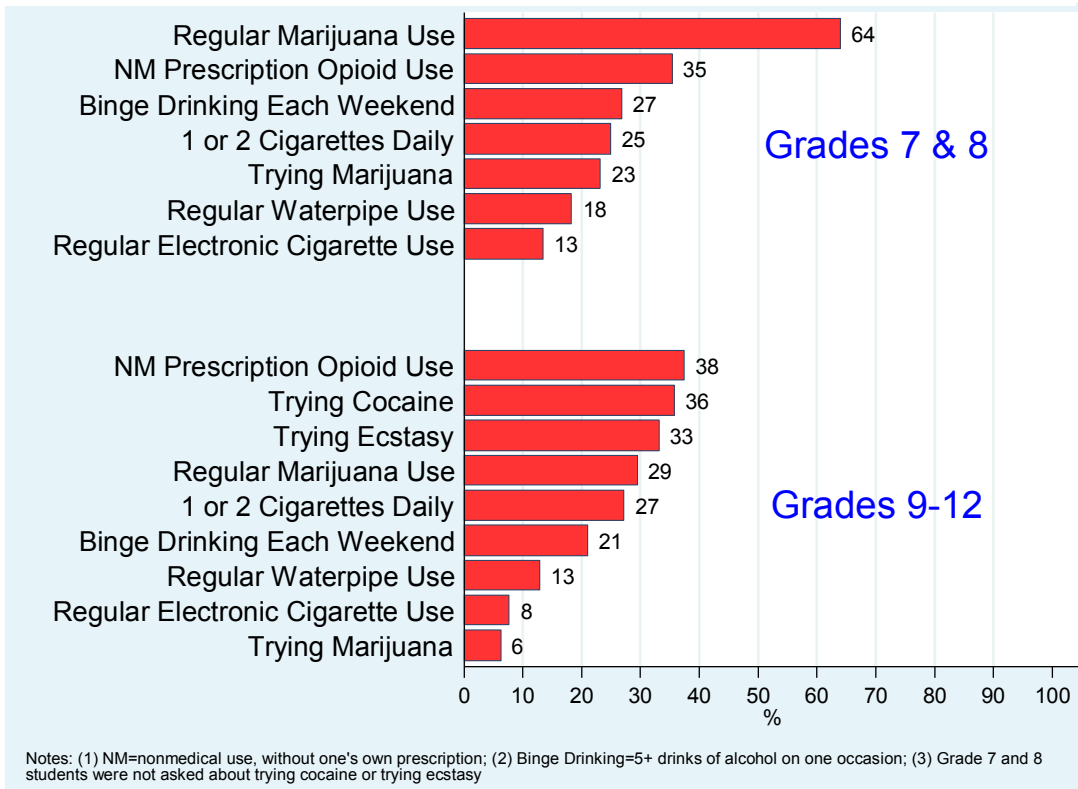


Figure 3.11.2
 Percentage Who “Strongly Disapprove” of Drug Use by Grade Level, 2017 OSDUHS

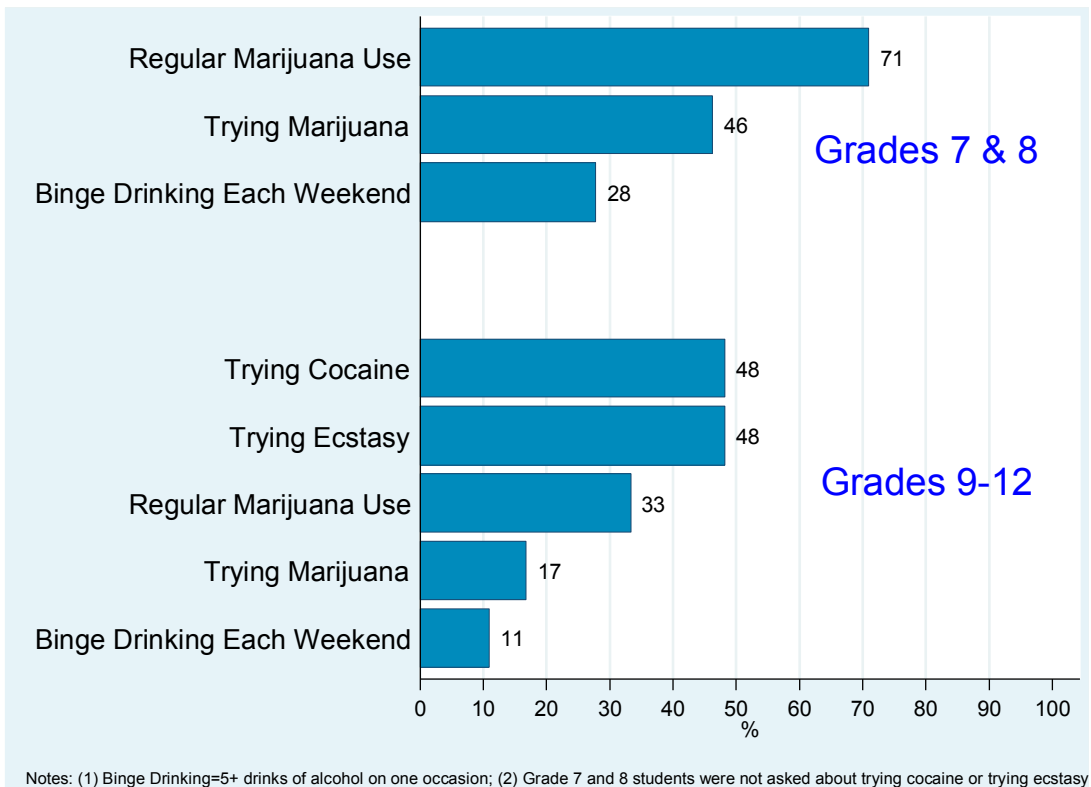


Figure 3.11.3
 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use,
 1999–2017 OSDUHS (Grades 7–12)

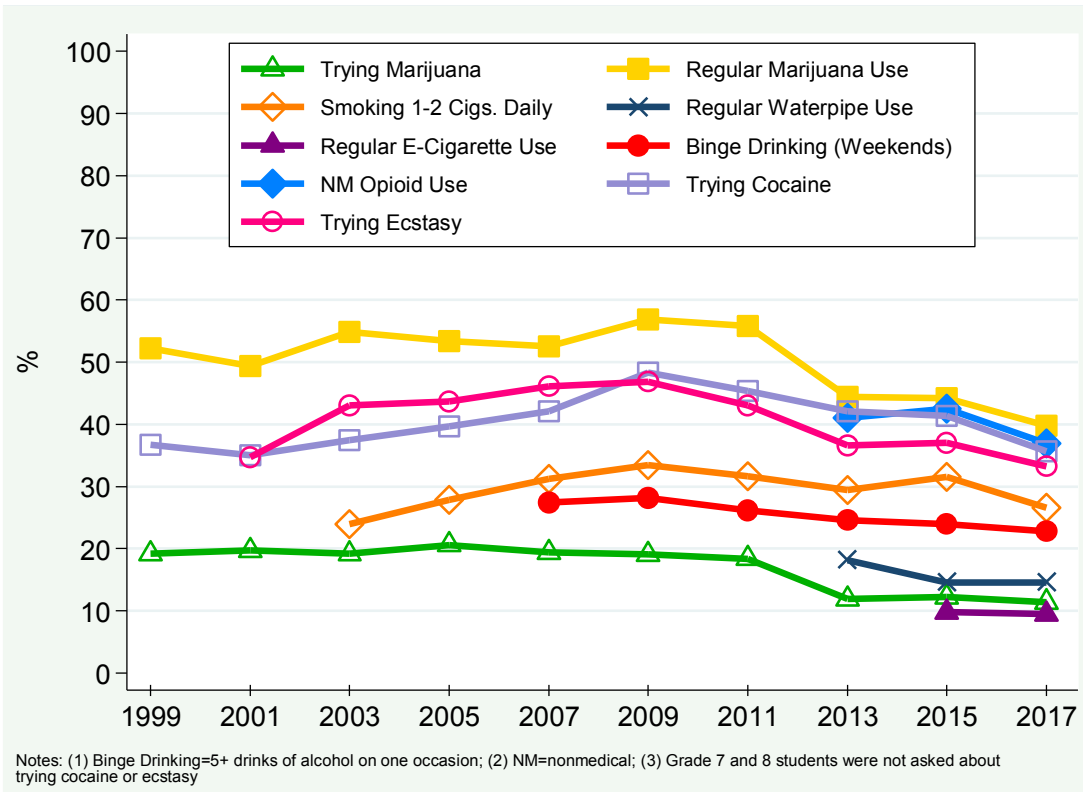


Figure 3.11.4
 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use,
 1989–2017 OSDUHS (Grades 7, 9, and 11 only)

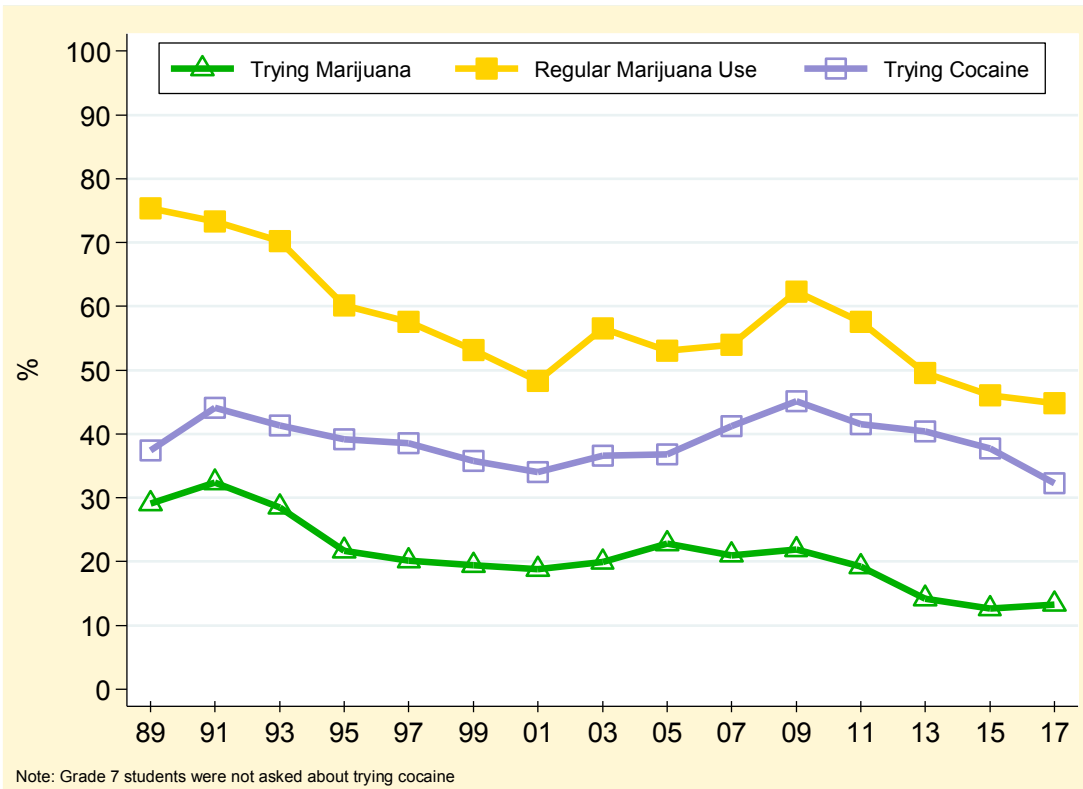


Figure 3.11.5
 Percentage Who “Strongly Disapprove” of Drug Use, 1999–2017 OSDUHS
 (Grades 7–12)

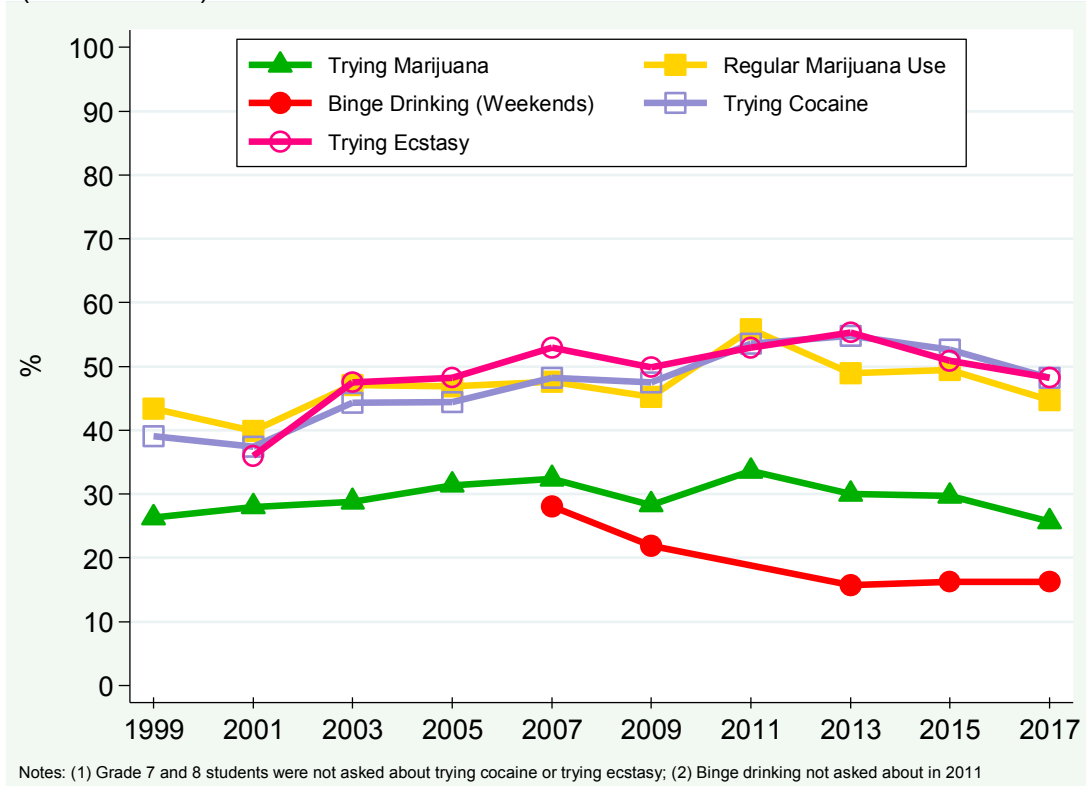


Figure 3.11.6
 Percentage Who “Strongly Disapprove” of Drug Use, 1989–2017 OSDUHS
 (Grades 7, 9, and 11 only)

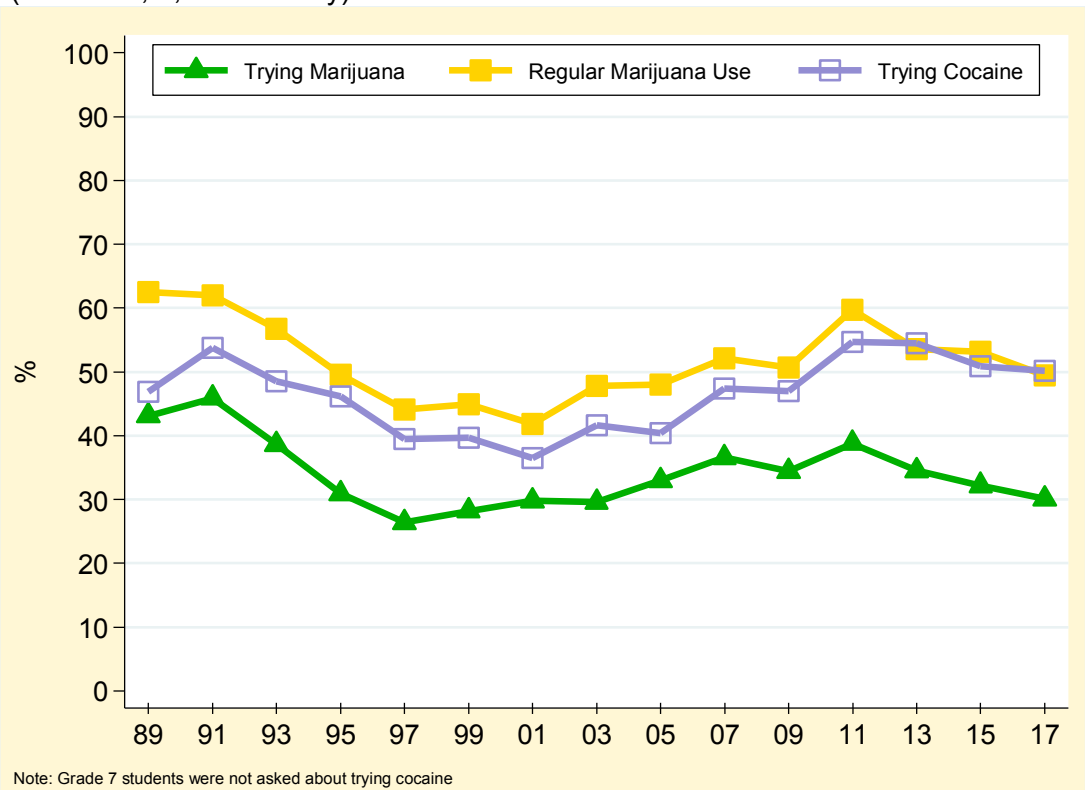


Table 3.11.1: Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use by Grade, 1989–2017 OSDUHS

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
AMONG GRADES 7–12																
(n ¹)						(4447)	(1837)	(3152)	(3648)	(2935)	(4262)	(4472)	(4974)	(5023)	(5071)	
(n ²)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	
Great Risk in Trying Marijuana Once or Twice																
Total ¹	—	—	—	—	—	19.2	19.7	19.2	20.6	19.4	19.1	18.4	11.9	12.2	11.4	bcd
Total ²	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	cd
Grade 7	39.3	37.0	35.3	34.1	33.4	28.4	27.0	30.8	32.7	29.7	34.6	27.7	26.0	20.7	27.4	b
Grade 8	—	—	—	—	—	27.7	30.5	29.4	24.7	27.0	27.1	24.8	13.9	22.3	19.5	b
Grade 9	29.4	35.4	29.6	21.4	17.6	16.6	18.5	18.8	21.8	20.0	19.7	16.0	12.8	12.2	9.1	b
Grade 10	—	—	—	—	—	13.9	16.6	13.3	18.9	14.6	17.4	19.1	12.2	10.7	5.7	b
Grade 11	18.0	25.2	21.8	11.6	11.6	15.2	11.1	12.4	14.9	14.0	14.2	15.7	7.5	7.4	4.9	b
Grade 12	—	—	—	—	—	13.8	16.0	14.6	12.9	14.2	9.6	12.4	6.1	7.0	5.8	b
Great Risk in Smoking Marijuana Regularly																
Total ¹	—	—	—	—	—	52.2	49.4	54.9	53.4	52.5	56.9	55.8	44.4	44.2	39.8	bcd
Total ²	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	cd
Grade 7	72.3	72.0	69.9	67.6	65.9	63.6	61.1	69.4	59.2	61.9	74.0	67.0	68.0	61.2	66.3	b
Grade 8	—	—	—	—	—	60.2	58.7	66.8	59.5	59.8	67.0	63.8	54.5	62.0	61.8	b
Grade 9	78.8	74.0	73.7	64.1	59.4	53.1	47.8	55.4	53.6	55.7	64.5	61.0	51.1	50.3	42.6	b
Grade 10	—	—	—	—	—	45.5	48.2	48.4	54.9	50.6	52.4	52.3	39.0	44.3	28.4	b
Grade 11	74.6	73.8	66.9	50.0	49.2	44.9	36.8	47.4	46.8	45.3	51.5	46.8	35.8	31.8	28.2	b
Grade 12	—	—	—	—	—	45.2	44.4	46.8	47.8	45.2	42.3	50.1	32.8	31.3	22.4	b
Great Risk in Smoking 1 or 2 Tobacco Cigarettes Daily																
Total ¹	—	—	—	—	—	—	—	24.0	27.9	31.2	33.4	31.7	29.4	31.6	26.6	ad
Grade 7	—	—	—	—	—	—	—	20.4	23.2	24.0	30.3	24.7	24.0	20.5	28.1	a
Grade 8	—	—	—	—	—	—	—	21.4	19.6	28.3	26.2	25.6	19.6	31.1	22.0	a
Grade 9	—	—	—	—	—	—	—	22.5	28.0	28.9	35.4	25.5	29.5	31.3	28.1	a
Grade 10	—	—	—	—	—	—	—	23.8	31.4	31.6	33.8	35.2	32.5	30.2	23.4	a
Grade 11	—	—	—	—	—	—	—	26.0	28.8	34.5	35.7	32.8	29.6	32.2	24.4	a
Grade 12	—	—	—	—	—	—	—	29.2	34.6	37.4	36.2	40.5	34.7	38.4	31.6	

(cont'd)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
Great Risk in Having 5 Drinks of Alcohol (Binge Drinking) Once or Twice Each Weekend																
Total ¹	—	—	—	—	—	—	—	—	—	27.4	28.2	26.2	24.6	23.9	22.8	bc
Grade 7										32.2	31.6	30.3	27.9	24.8	27.0	
Grade 8										26.4	28.0	30.9	22.0	28.7	26.8	
Grade 9										27.3	33.1	24.3	28.1	26.6	22.0	
Grade 10										27.1	28.3	29.5	26.2	27.7	20.1	a
Grade 11										29.8	27.6	25.1	25.3	22.6	21.0	b
Grade 12										23.2	23.1	21.0	20.5	17.2	21.2	
Great Risk in Taking a Prescription Opioid Pain Reliever* Without a Prescription																
Total ¹	—	—	—	—	—	—	—	—	—	—	—	—	41.0	42.5	36.9	abcd
Grade 7													35.6	26.0	35.7	
Grade 8													33.9	33.0	35.1	
Grade 9													40.9	41.4	31.9	a
Grade 10													41.3	46.1	35.8	a
Grade 11													43.2	47.6	39.6	
Grade 12													45.8	50.5	40.8	
Great Risk in Smoking a Waterpipe (Hookah) Regularly																
Total ¹	—	—	—	—	—	—	—	—	—	—	—	—	18.2	14.6	14.6	bc
Grade 7													21.0	16.8	19.2	
Grade 8													20.6	19.3	17.7	
Grade 9													18.9	15.0	18.1	
Grade 10													19.1	12.5	9.4	b
Grade 11													13.7	9.3	12.4	
Grade 12													18.0	16.3	12.2	
Great Risk in Using Electronic Cigarettes Regularly																
Total ¹	—	—	—	—	—	—	—	—	—	—	—	—	—	9.8	9.5	
Grade 7														10.4	16.1	
Grade 8														10.6	11.0	
Grade 9														11.1	11.4	
Grade 10														8.3	5.6	
Grade 11														7.2	7.9	
Grade 12														11.0	6.6	

(cont'd)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
AMONG GRADES 9–12 ONLY															
(n ¹)						(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	(3171)	(3289)
(n ²)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1320)	(1536)	(1459)	(1656)	(1690)
Great Risk in Trying Cocaine Once or Twice															
Total ¹	—	—	—	—	—	36.7	35.0	37.5	39.7	42.1	48.3	45.4	42.1	41.4	35.7 ^{acd}
Total ²	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 ^d
Grade 9	40.7	41.3	37.1	34.8	33.0	27.8	30.0	32.0	34.8	33.0	41.1	34.7	36.7	31.7	30.5
Grade 10	—	—	—	—	—	35.4	34.3	33.7	37.6	38.2	48.8	41.8	38.9	43.8	36.7
Grade 11	33.2	46.8	45.6	43.6	43.8	45.1	38.8	41.2	38.8	49.4	48.7	48.4	43.7	43.2	33.9 ^a
Grade 12	—	—	—	—	—	40.8	40.2	44.0	46.6	46.9	52.9	53.4	46.8	45.2	39.9
Great Risk in Trying Ecstasy Once or Twice															
Total ¹	—	—	—	—	—	—	34.7	43.0	43.7	46.1	46.9	43.0	36.6	37.0	33.2 ^{cd}
Grade 9							31.7	38.7	39.7	40.4	40.7	35.1	29.1	29.7	29.7
Grade 10							31.3	43.5	42.9	42.0	45.5	40.6	36.4	39.9	32.0
Grade 11							39.4	43.4	42.8	51.2	45.8	42.1	37.2	35.9	34.4
Grade 12							39.8	46.9	48.8	50.2	53.2	51.0	41.2	40.6	35.4

Notes: (1) based on all grades (full sample); (2) based on limited grades (long-term sample); (3) based on a random half sample since 2001; (4) * such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, or codeine; (5) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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 and waterpipe); ^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 3.11.2: Percentage Who Strongly Disapprove of Drug Use by Grade, 1989–2017 OSDUHS

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
AMONG GRADES 7–12															
(n ¹)						(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	(5023)	(5071)
(n ²)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)
Strongly Disapprove of Trying Marijuana Once or Twice															
Total ¹	—	—	—	—	—	26.3	28.0	28.8	31.4	32.4	28.3	33.6	30.0	29.7	25.7 ^{ad}
Total ²	43.1	45.9	38.6	30.9	26.4	28.2	29.8	29.6	33.0	36.6	34.4	38.8	34.5	32.2	30.1 ^{cd}
Grade 7	59.1	57.9	48.7	47.6	44.0	44.3	48.2	47.3	49.1	58.1	57.4	58.2	59.9	52.2	50.9
Grade 8	—	—	—	—	—	35.0	38.6	38.6	43.2	46.2	38.6	46.2	44.3	49.9	42.0
Grade 9	37.9	48.4	39.0	30.5	22.3	25.7	23.7	26.4	28.8	30.5	27.9	38.1	33.6	33.0	26.0 ^a
Grade 10	—	—	—	—	—	18.4	19.0	27.5	31.0	28.3	22.2	29.9	27.8	27.0	18.2 ^a
Grade 11	32.8	32.5	30.1	17.7	15.5	18.2	19.4	18.9	22.8	23.8	23.0	24.4	18.4	18.1	15.6
Grade 12	—	—	—	—	—	16.1	22.5	19.0	18.0	16.0	13.6	18.7	15.8	16.2	10.8
Strongly Disapprove of Smoking Marijuana Regularly															
Total ¹	—	—	—	—	—	43.4	39.9	47.1	46.9	47.6	45.2	55.8	48.9	49.4	44.7 ^{acd}
Total ²	62.5	62.0	56.8	49.6	44.1	44.9	41.8	47.8	48.0	52.1	50.7	59.7	53.6	53.0	49.2 ^{cd}
Grade 7	73.7	72.1	66.8	65.0	61.3	63.6	64.0	66.6	63.7	72.2	75.1	74.3	76.5	75.5	73.1 ^b
Grade 8	—	—	—	—	—	53.5	53.5	62.3	57.8	61.4	60.4	68.2	62.5	72.0	69.1 ^b
Grade 9	59.5	62.5	54.6	50.5	40.8	43.6	34.3	47.7	45.7	48.8	47.0	63.3	57.8	56.2	46.8 ^a
Grade 10	—	—	—	—	—	35.7	30.6	42.4	44.4	43.8	37.0	54.5	47.6	44.2	34.0 ^a
Grade 11	54.6	52.4	50.8	36.4	32.8	31.2	29.8	33.0	36.4	37.8	35.6	44.8	34.5	35.2	30.4
Grade 12	—	—	—	—	—	33.2	30.1	36.8	37.1	30.5	30.2	41.6	33.8	34.5	26.0 ^a
Strongly Disapprove of Having 5 Drinks of Alcohol (Binge Drinking) Once or Twice Each Weekend															
Total ¹	—	—	—	—	—	—	—	—	—	28.1	21.9	—	15.7	16.2	16.2 ^{bcd}
Grade 7	—	—	—	—	—	—	—	—	—	49.7	36.9	—	29.1	24.5	30.8 ^b
Grade 8	—	—	—	—	—	—	—	—	—	37.1	29.2	—	19.1	20.8	25.2 ^b
Grade 9	—	—	—	—	—	—	—	—	—	26.3	23.8	—	18.7	18.2	15.2 ^b
Grade 10	—	—	—	—	—	—	—	—	—	23.6	18.3	—	13.2	16.1	11.3 ^b
Grade 11	—	—	—	—	—	—	—	—	—	21.6	19.5	—	12.1	12.2	11.0 ^b
Grade 12	—	—	—	—	—	—	—	—	—	16.7	11.7	—	9.9	11.4	8.0 ^b

(cont'd)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
AMONG GRADES 9–12 ONLY															
(n ¹)						(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	(3171)	(3289)
(n ²)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1320)	(1536)	(1459)	(1656)	(1690)
Strongly Disapprove of Trying Cocaine Once or Twice															
Total ¹	—	—	—	—	—	39.1	37.4	44.3	44.4	48.2	47.5	53.6	54.8	52.6	48.2 ^{abcd}
Total ²	46.9	53.8	48.5	46.2	39.5	39.7	36.5	41.6	40.4	47.4	47.0	54.7	54.5	50.9	50.2 ^d
Grade 9	48.5	54.5	46.4	42.6	37.3	35.5	34.9	41.5	38.8	42.6	43.3	55.2	55.6	54.5	52.0 ^b
Grade 10	—	—	—	—	—	35.0	37.6	46.3	46.3	47.9	44.5	51.1	53.3	53.8	50.7 ^b
Grade 11	44.9	53.1	50.6	49.8	41.7	44.7	38.4	41.7	42.0	52.1	50.5	54.2	53.4	47.6	48.5 ^a
Grade 12	—	—	—	—	—	41.5	40.2	48.4	49.6	49.8	50.5	53.9	56.3	54.0	43.8 ^a
Strongly Disapprove of Trying Ecstasy Once or Twice															
Total ¹	—	—	—	—	—	—	36.0	47.5	48.2	52.9	49.9	52.9	55.3	50.9	48.2 ^{bcd}
Grade 9							35.1	48.5	45.2	52.3	46.9	58.9	56.7	54.4	54.6 ^b
Grade 10							35.6	51.1	47.7	51.8	48.0	49.1	57.2	50.3	49.8 ^b
Grade 11							35.7	43.0	47.6	53.1	54.0	51.3	50.5	46.9	48.0 ^b
Grade 12							38.8	47.4	51.9	53.9	50.2	52.4	56.6	51.8	43.1 ^a

Notes: (1) based on all grades (full sample); (2) based on limited grades (long-term sample); (3) based on a random half sample since 2001; (4) “having 5 drinks each weekend” was not asked in 2011; (5) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 vs. 1999 significant difference, p<.01 (vs. 2007 for binge drinking, vs. 2001 for ecstasy).

Q: Do you disapprove of people (18 or older) doing the following...[behaviour]?

Source: OSDUHS, Centre for Addiction & Mental Health

Perceived Drug Availability

(Figures 3.11.7-3.11.9; Table 3.11.3)

In this section, we present the percentage reporting that it is “**fairly easy**” or “**very easy**” to get alcohol, tobacco cigarettes, cannabis, cocaine, ecstasy, LSD, and prescription opioid pain relievers without visiting a doctor. Note the questions about the availability of cocaine, ecstasy, and LSD were asked of 9th to 12th graders only.

2017

- In 2017, the three drugs most readily available to elementary students are alcohol, tobacco cigarettes, and opioids. The three drugs most readily available to secondary students are alcohol, tobacco cigarettes, and cannabis.
- With the exception of prescription opioids, the perceived availability of drugs significantly varies by grade, as older students are more likely than younger students to report that drugs are easy to obtain.

1999–2017

□ The perceived availability of alcohol has been stable in recent years (since 2013), but it is currently higher than estimates from a decade ago and lower than estimates from 1999/2001. The perceived availability of cigarettes has decreased in recent years (since 2013) and it is currently lower than in 2005. The perceived availability of cannabis has decreased in recent years (since 2013) and it is currently lower than estimates from 1999/early 2000s. The perceived availability of prescription opioids shows a slight, but significant, *increase* between 2015 and 2017. The perceived availability of cocaine has been stable in recent years (since 2011), but is currently lower than estimates from 1999/early 2000s. The perceived availability of ecstasy decreased between 2015 and 2017, and it is currently lower than most estimates since 2001. The perceived availability of LSD has remained stable in recent years (since 2011), but it is currently lower than estimates from 1999 and the 2000s.

1981–2017

□ 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, increased and decreased again in recent years. The availability of cocaine increased between 1989 and 2001, decreased in the 2000s, and stabilized in recent years. The availability of LSD has been on a downward trend since 1995, stabilizing in recent years.

Figure 3.11.7
 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug by
 Grade Level, 2017 OSDUHS

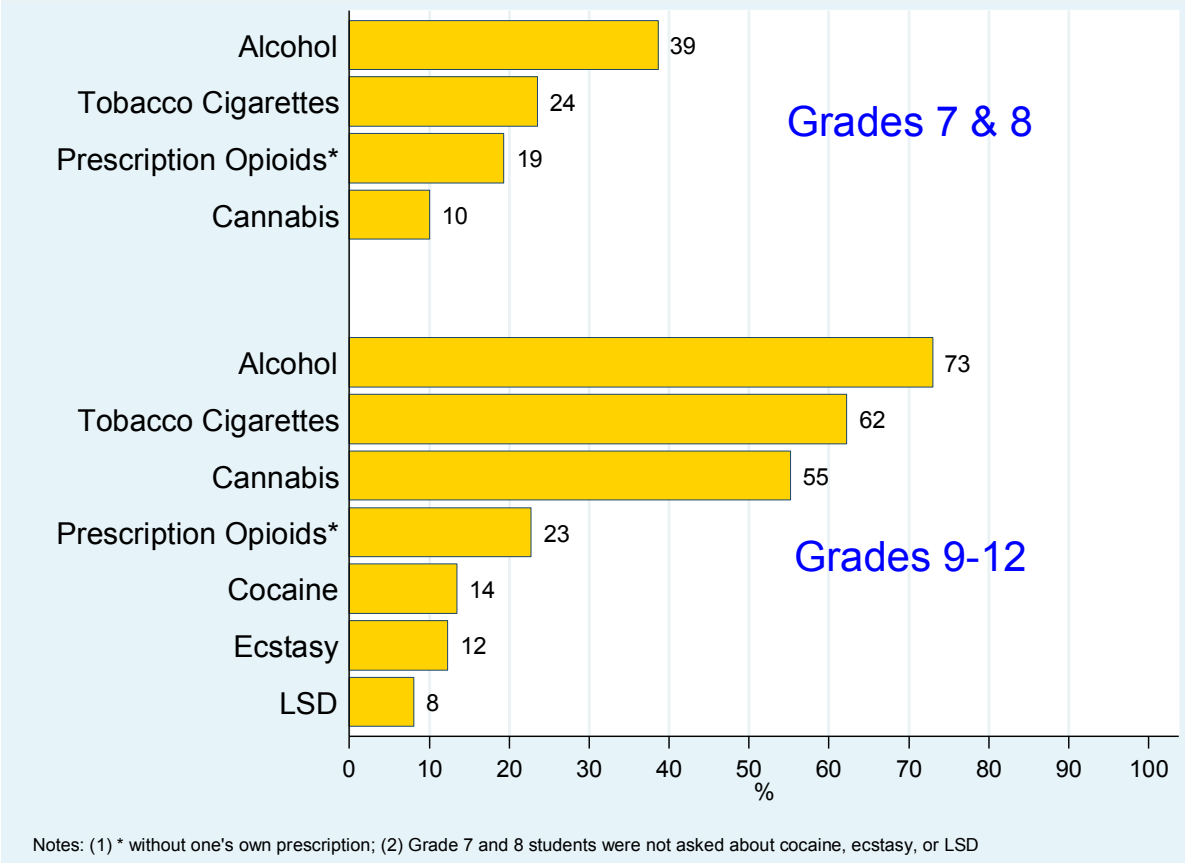


Figure 3.11.8
 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug,
 1999–2017 OSDUHS (Grades 7–12)

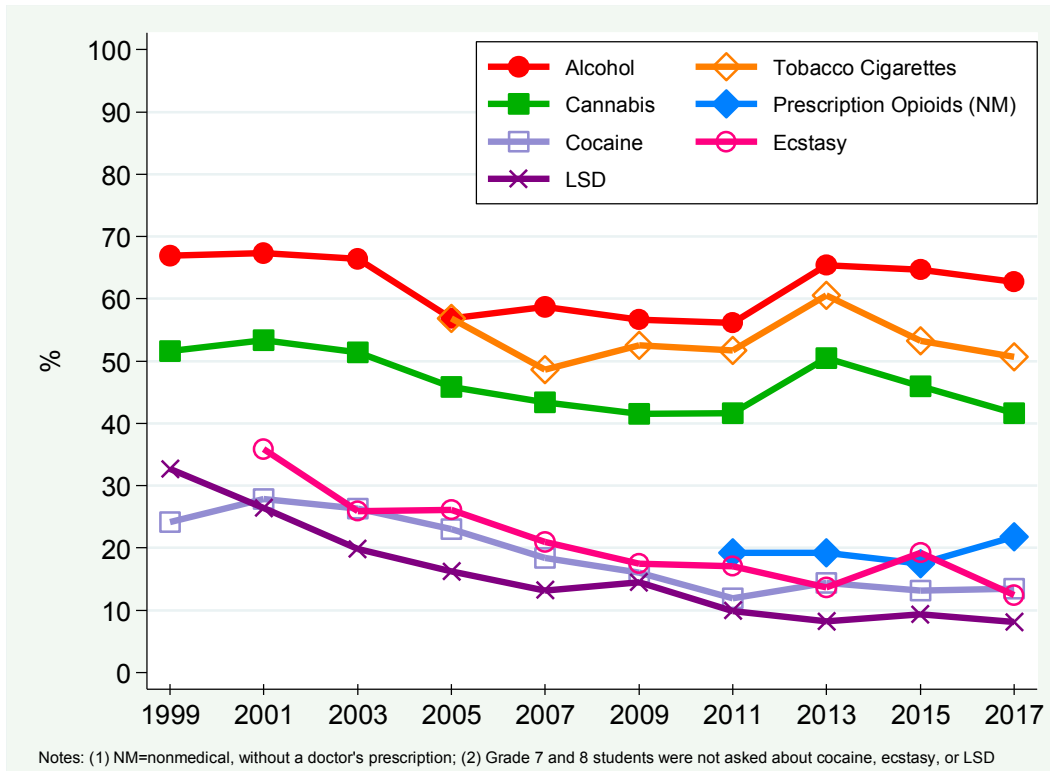


Figure 3.11.9
 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug,
 1981–2017 OSDUHS (Grades 7, 9, and 11 only)

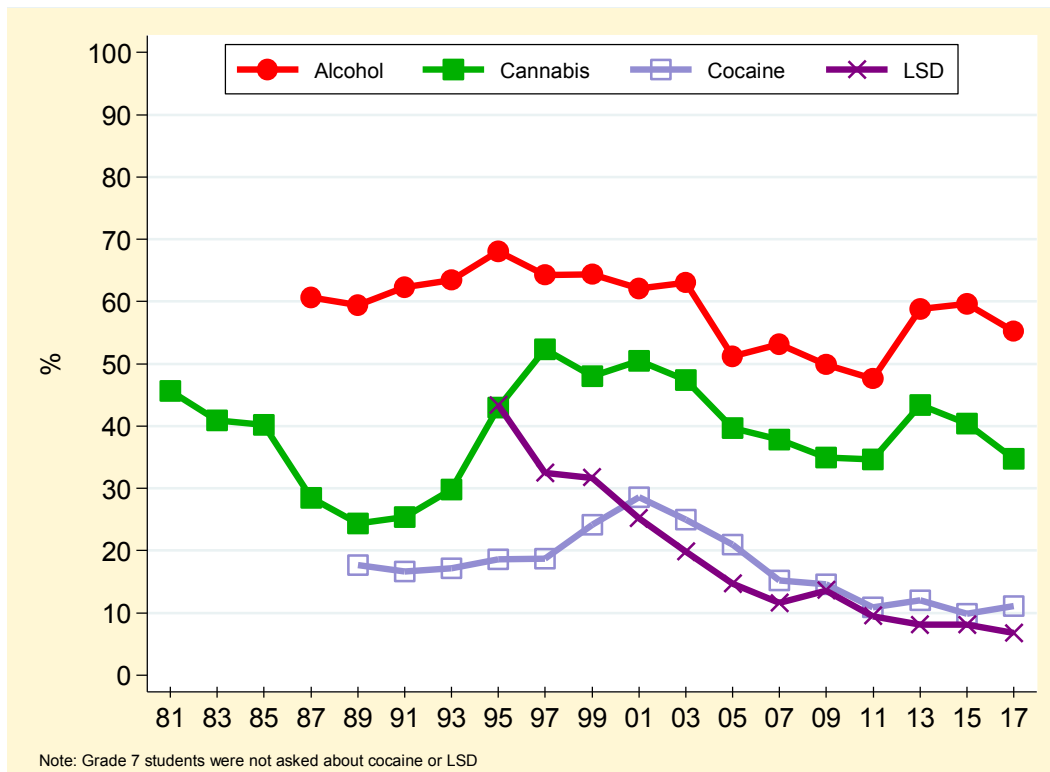


Table 3.11.3: Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug by Grade, 1981–2017 OSDUHS

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
AMONG GRADES 7–12																				
(n ¹)											(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	(5023)	(5071)
(n ²)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)	
Alcohol																				
Total ¹	—	—	—	—	—	—	—	—	—	66.9	67.3	66.4	56.9	58.7	56.6	56.1	65.4	64.6	62.7	bcd
Total ²	—	—	—	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	
Grade 7				37.0	38.1	40.1	42.8	43.7	40.8	33.8	31.9	33.8	24.6	29.4	19.7	21.0	23.0	29.1	32.0	
Grade 8				—	—	—	—	—	—	47.9	52.3	43.9	32.8	35.5	32.8	34.8	45.0	40.5	44.8	
Grade 9				61.6	60.1	62.6	64.8	69.1	63.8	66.6	68.8	66.2	53.0	54.2	50.0	48.1	63.5	59.2	53.4	b
Grade 10				—	—	—	—	—	—	79.2	80.0	75.1	66.0	63.8	62.1	56.3	68.3	70.2	68.1	b
Grade 11				80.6	80.8	81.7	78.4	87.2	84.5	87.2	85.1	82.6	74.5	74.6	73.0	68.6	78.4	80.7	77.1	b
Grade 12				—	—	—	—	—	—	87.6	89.6	86.7	83.8	84.5	82.0	85.8	86.8	83.3	86.5	
Cannabis																				
Total ¹	—	—	—	—	—	—	—	—	—	51.6	53.4	51.4	45.8	43.4	41.5	41.6	50.5	46.0	41.6	bcd
Total ²	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	
Grade 7	16.1	14.2	12.7	7.4	5.1	4.8	7.1	12.7	17.3	12.2	14.9	14.5	8.9	10.6	4.2	5.7	5.4	7.8	8.2	
Grade 8	—	—	—	—	—	—	—	—	—	30.9	27.6	28.4	21.4	15.7	13.5	15.6	22.0	13.2	11.9	b
Grade 9	51.8	49.1	39.4	28.9	26.9	22.3	28.0	45.1	51.1	50.3	59.5	51.6	43.8	39.0	35.3	32.4	43.4	35.6	31.2	b
Grade 10	—	—	—	—	—	—	—	—	—	66.7	68.6	63.5	58.1	54.0	54.0	43.7	56.5	52.8	53.1	b
Grade 11	69.4	68.6	67.6	47.2	42.0	47.7	50.2	66.4	77.3	75.2	76.6	70.6	64.2	62.3	58.5	60.2	68.8	67.0	61.5	b
Grade 12	—	—	—	—	—	—	—	—	—	76.2	73.6	70.9	71.3	68.1	63.8	69.6	74.4	69.6	68.3	
Tobacco Cigarettes																				
Total ¹	—	—	—	—	—	—	—	—	—	—	—	—	56.9	48.6	52.5	51.7	60.6	53.3	50.7	bcd
Grade 7													18.5	17.7	12.2	14.0	19.0	16.1	21.8	
Grade 8													29.4	24.3	26.2	28.9	34.6	26.4	25.1	
Grade 9													58.1	46.1	48.2	45.3	53.5	43.6	44.7	b
Grade 10													67.8	52.8	61.6	52.5	64.4	61.8	58.6	b
Grade 11													76.1	67.0	72.0	69.7	76.1	70.2	67.1	b
Grade 12													83.6	73.3	74.8	78.0	85.1	74.4	73.3	b
Prescription Opioid Pain Reliever*																				
Total ¹	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.2	19.2	17.5	21.8	a
Grade 7																6.6	13.4	13.6	15.5	
Grade 8																13.7	11.0	13.5	23.1	
Grade 9																22.1	14.4	14.9	16.8	
Grade 10																19.5	17.3	18.3	22.6	
Grade 11																24.4	25.6	19.6	24.5	
Grade 12																23.7	26.0	21.4	25.9	

(cont'd)

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
AMONG GRADES 9–12 ONLY																			
(n ¹)										(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	(3171)	(3289)
(n ²)				(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1350)	(1156)	(1459)	(1656)	(1690)
Cocaine																			
Total ¹	—	—	—	—	—	—	—	—	—	24.2	27.9	26.3	23.0	18.4	16.0	11.9	14.4	13.2	13.5 ^{bcd}
Total ²	—	—	—	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 ^b
Grade 9				17.0	14.4	12.5	12.9	15.7	15.1	19.6	26.3	21.2	15.8	10.6	9.9	5.4	7.9	4.7	5.9 ^b
Grade 10				—	—	—	—	—	—	23.6	24.4	24.4	20.6	18.5	13.6	10.7	11.6	9.4	13.2 ^b
Grade 11				21.3	21.9	20.6	21.6	21.5	22.1	29.5	31.4	28.8	26.3	19.8	18.9	16.4	15.7	14.8	15.9 ^b
Grade 12				—	—	—	—	—	—	25.1	32.5	31.5	28.5	23.7	20.1	14.4	19.7	20.5	17.2 ^b
LSD																			
Total ¹	—	—	—	—	—	—	—	—	—	32.7	26.4	19.8	16.2	13.2	14.5	9.9	8.2	9.3	8.1 ^{bc}
Total ²	—	—	—	—	—	—	—	43.4	32.5	31.7	25.2	19.8	14.7	11.6	13.6	9.5	8.1	8.1	6.8
Grade 9								29.7	23.1	23.6	21.3	13.9	10.6	8.7	8.4	4.9	4.5	3.3	3.4
Grade 10								—	—	33.3	24.9	19.3	17.4	13.6	12.4	8.9	6.5	6.6	7.9
Grade 11								56.9	41.6	40.9	30.6	25.7	18.9	14.4	18.2	14.1	11.3	12.5	10.0
Grade 12								—	—	35.2	34.3	20.1	17.6	15.6	17.2	11.3	9.6	12.8	10.1
Ecstasy																			
Total ¹	—	—	—	—	—	—	—	—	—	—	35.9	25.9	26.1	21.0	17.5	17.1	13.7	19.2	12.4 ^{abcd}
Grade 9											28.7	14.4	16.8	12.8	9.7	8.2	7.4	6.9	4.3 ^b
Grade 10											37.4	22.3	23.8	18.7	15.9	12.0	9.3	12.6	11.6 ^b
Grade 11											36.8	33.3	32.2	22.7	20.8	25.0	16.1	26.4	12.6 ^{ab}
Grade 12											46.0	34.7	30.9	28.3	21.9	21.6	19.3	26.7	18.2 ^{ab}

Notes: (1) based on all grades (full sample); (2) based on limited grades (long-term sample); (3) based on a random half sample in each year; (4) † indicates estimate suppressed due to unreliability; (5) * such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, codeine, without visiting a doctor; (6) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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 3.11.10)

The OSDUHS included a question about where students obtained 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 or family member; Someone else; a Native Reserve [First Nations Community]; 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.

2017: Smokers in Grades 7–12

- Among underage students who reported smoking at least one whole cigarette in the past 12 months ($n=445$), the most common source was a friend or family member. The least common source was the Internet (estimate suppressed).

Source of Electronic Cigarettes

(Figure 3.11.11)

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 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 smoke e-cigarettes. We restricted our analysis to students who were under age 19.

2017: Smokers in Grades 7–12

- Among underage students who reported smoking at least one e-cigarette in the past 12 months ($n=972$), the most common source was tried a friend’s or borrowed one. The least common sources were gas station, pharmacy, the Internet, and gift/free sample (all estimates suppressed).

Figure 3.11.10
Source of Previous Whole Tobacco Cigarette Among Smokers Under Age 19, 2017 OSDUHS (Grades 7–12)

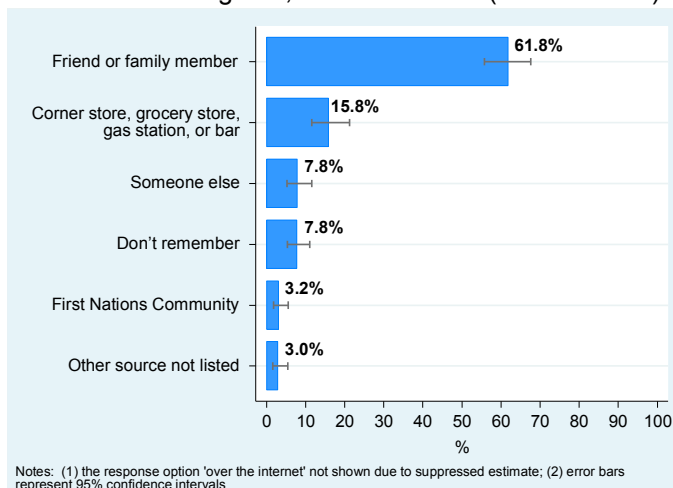
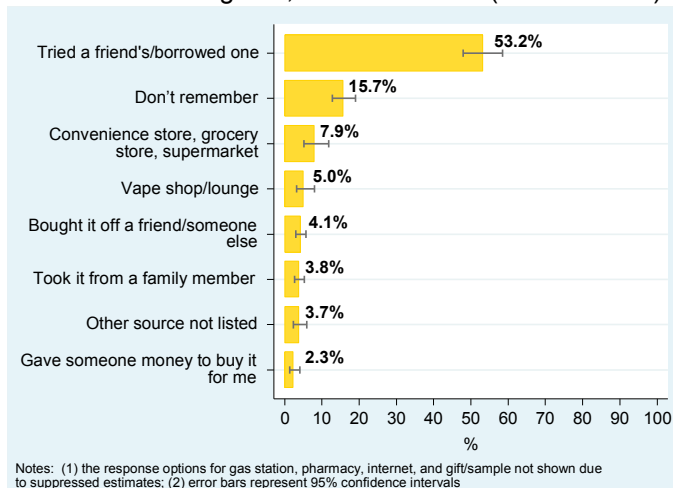


Figure 3.11.11
Source of Previous Electronic Cigarette Among Smokers Under Age 19, 2017 OSDUHS (Grades 7–12)



Source of Alcohol

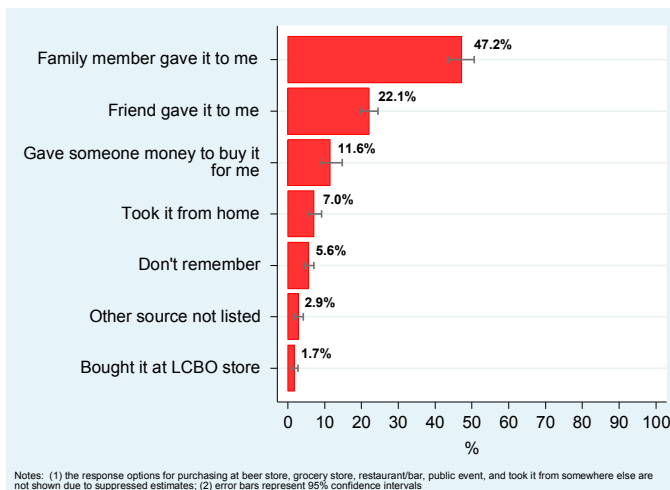
(Figure 3.11.12)

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: *A friend gave it to me; A family member gave it to me; I took it from home; I took it from somewhere else; I bought it in a LCBO store; I bought it in a beer store; I bought it in a grocery store; I bought it at a restaurant, bar, or club; I 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 in the last 12 months, or in their lifetime. We restricted our analysis to students who were under age 19.

2017: Drinkers in Grades 7–12

- Among underage students who reported drinking in the past year ($n=2,511$), 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 beer store, grocery store, restaurant/bar, at a public event, or taking it from somewhere else other than home (all estimates suppressed).

Figure 3.11.12
Usual Source of Alcohol Among Drinkers Under Age 19, 2017 OSDUHS (Grades 7–12)



Opinions About Purchasing Beer in Grocery Stores

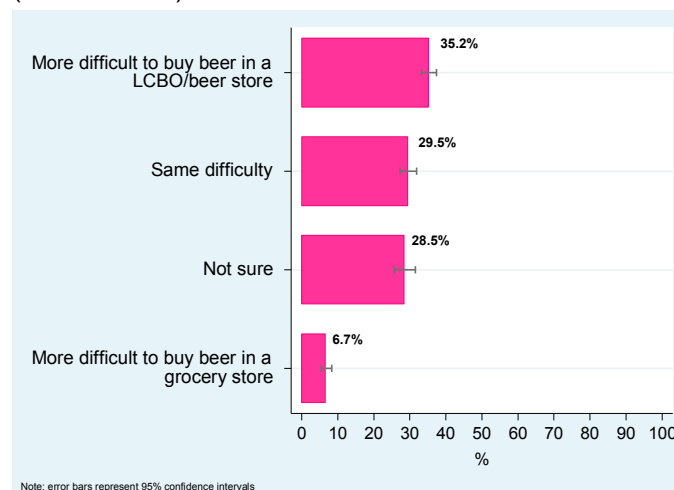
(Figure 3.11.13)

For the first time in 2017, 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 “*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.*

2017: Grades 9–12

- Over one-third (35.2%) of secondary students feel that purchasing beer would be more difficult to do in a LCBO or a beer store in Ontario than in a grocery store. Only 6.7% of students feel that it would be more difficult to purchase beer in a grocery store than in a LCBO or beer store. Over one-quarter (29.5%) feel that there would be no difference in difficulty between these types of retailers, and a similar proportion are not sure.

Figure 3.11.13
Opinions About Purchasing Beer in a Grocery Store versus a LCBO/Beer Store in Ontario, 2017 OSDUHS (Grades 9–12)



Parental Permission to Drink Alcohol at Home

(Figure 3.11.14)

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 following 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 in the last 12 months, or in their lifetime.

2017: Grades 9–12

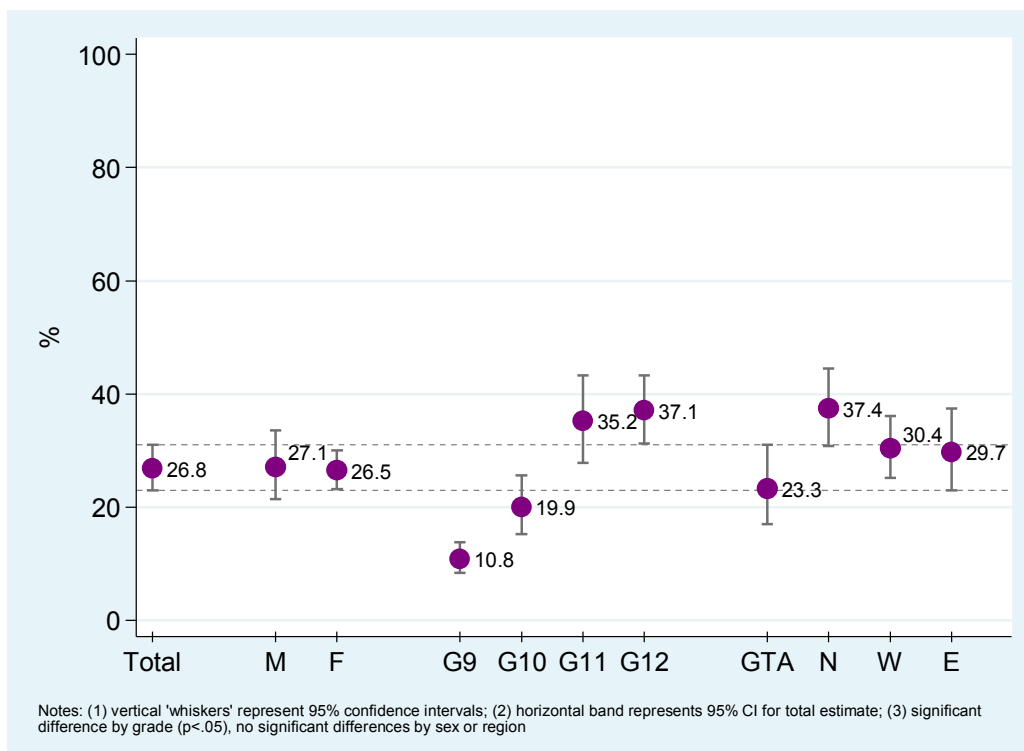
- About one-quarter (26.8%; 95% CI: 23.0%-31.0%) of secondary students report that they are allowed to drink at home with their friends. This percentage represents about 215,000 students in grades 9–12.

- There is no significant sex difference.
- There is significant grade variation, ranging from 10.8% of 9th graders to 37.1% of 12th graders.
- Despite some variation, there are no significant differences by region.

2017 vs. 2015: Grades 9–12

- The 2017 estimate (26.8%) is similar to the estimate from 2015 (26.6%).

Figure 3.11.14
Percentage Reporting Parental Permission to Drink Alcohol at Home with Friends by Sex, Grade, and Region, 2017 OSDUHS



Source of Cannabis

(Figure 3.11.15)

Students were asked about how they usually obtain cannabis. A random half sample was asked “*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 from a medical marijuana dispensary; Given to me by one of my parents; Took it from home without my parents’ permission; I got it some other way; or Don’t remember.* Students also had the option of responding that they did not use cannabis in the last 12 months, or in their lifetime.

2017: Cannabis Users in Grades 7–12

■ Among those who reported using cannabis in the past year ($n=861$), the vast majority reported obtaining the drug through friends. The least common methods of obtaining cannabis were from a medical dispensary, from parents, or taking it from home (estimates suppressed).

Opinions About Cannabis Legalization

(Figures 3.11.16, 3.11.17)

Starting in 2017, students were asked their opinions about cannabis legalization. The first question was “*Do you think cannabis use should be legal for adults ages 19 and older, just like alcohol use is?*” The response options were *Yes, No, or Not sure.* The second question was “*If cannabis use were made legal for adults tomorrow, which of the following would you be most likely to do in the next 12 months?*” The response options were: *Not use it even if it were legal, Try it, Use it about as often as I do now, Use it more often than I do now, Use it less often than I do now, or Not sure.*

2017: Grades 7–12

■ Among the total sample, about one-third (34.8%) of students think cannabis use should be made legal for adults, another third (33.2%) said it should not be legalized, and another third (32.0%) are not sure. Students in secondary school (grades 9–12) are more likely than younger students (grades 7 and 8) to indicate that cannabis use should be legalized for adults (40.8% vs. 21.5%, respectively)

■ Among the total sample, about two thirds (62.1%) of students indicate that they do not intend to use cannabis even if it is legalized for Ontario adults. About one-in-ten (11.4%) will use cannabis as often as they do now, a similar proportion (8.1%) will try cannabis, 3.6% will use cannabis more often than they do now, and 14.2% are not sure about their intentions to use. The percentage reporting that they will use less often than they do now was suppressed due to a low value. Younger students (grades 7 and 8) are more likely than older students (grades 9–12) to indicate that they will not use cannabis if legalized for adults (83.0% vs. 53.0%, respectively). Older students are more likely to indicate that they will try cannabis or use more often if it legalized for adults.

Figure 3.11.15
Usual Source of Cannabis Among Users, 2017 OSDUHS
(Grades 7–12)

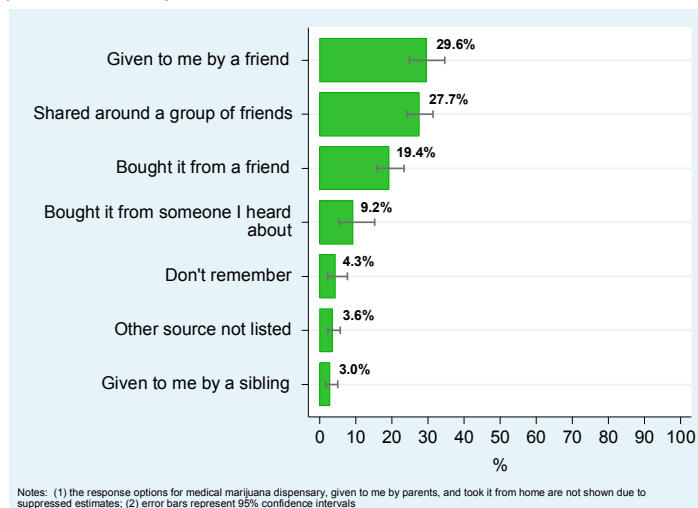


Figure 3.11.16
 Percentage Reporting Whether or Not They Think Cannabis Should be Legalized for Adults, 2017 OSDUHS (Grades 7–12)

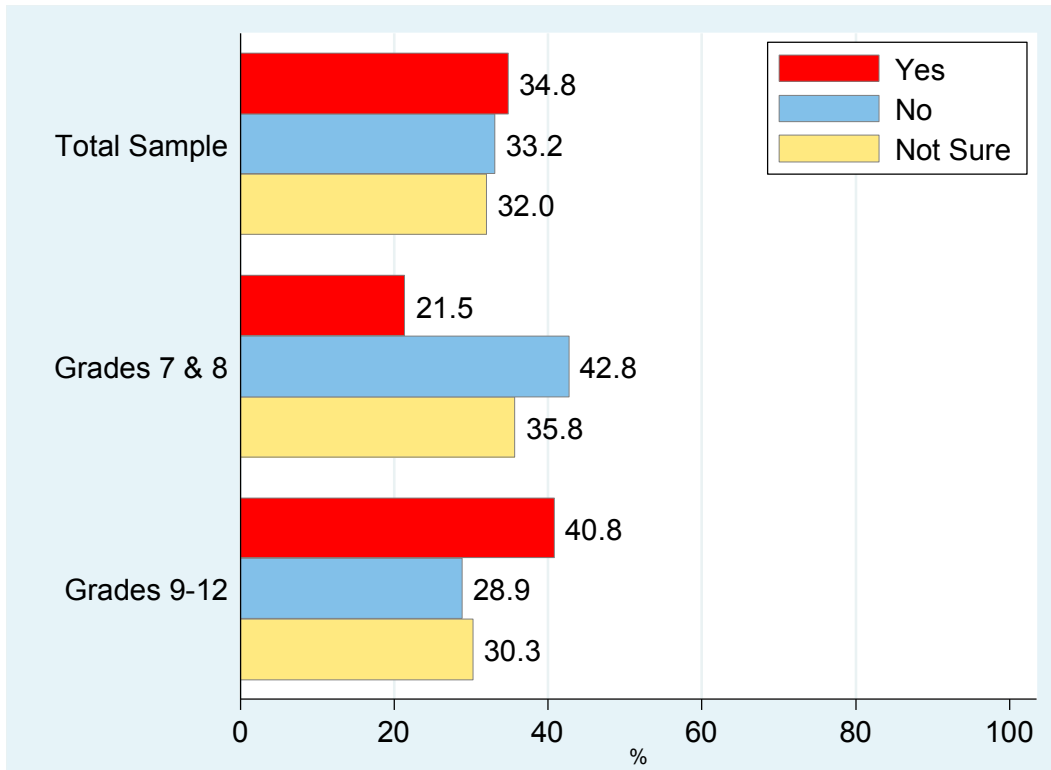
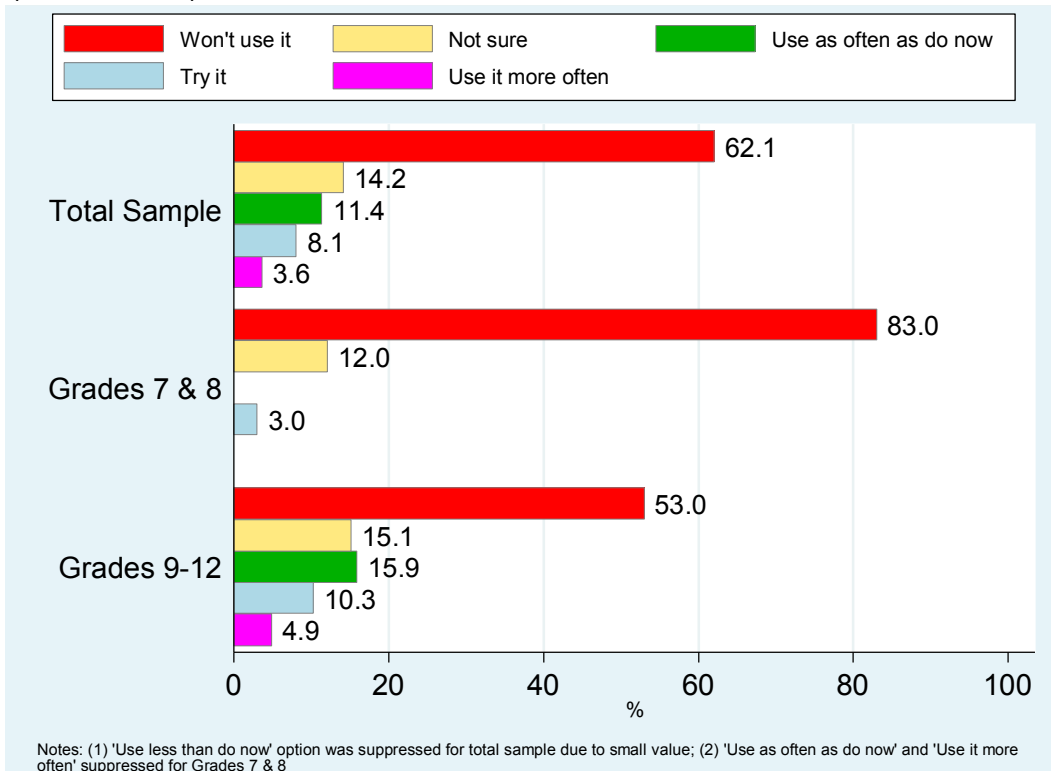


Figure 3.11.17
 Percentage Reporting Intentions to Use Cannabis if Legalized, 2017 OSDUHS (Grades 7–12)



Source of Diverted Prescription Opioid Pain Relievers

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 pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, Dilaudid, OxyNeo, codeine) in the last 12 months without a doctor’s prescription, who did you get them from? (If you used them more than once think about who you usually got them from.)*” The response options were: *Got them from a parent/brother/sister; From someone else I live with; From a friend; From someone else I know; From someone at a party; From someone at a bar/club; From someone on “the street”; From another source not listed; or Don’t remember.* Students also had the option of responding that they have never used this type of drug at all, or never used without their own prescription.

2017: Users in Grades 7–12

■ Among those who used opioid pain relievers nonmedically in the past year ($n=620$), the most common source was a parent or sibling. The least common sources were someone else at home, someone at a party, someone at a bar, and someone on the street. Estimates for these latter sources were suppressed due to low values.

Percentage reporting usual source:

- A parent or sibling 55.0%
- A friend 5.9%
- Someone else I know 2.0%
- Other source not listed 7.7%
- Don’t remember 21.0%

3.12 School and Neighbourhood Factors

Recall of Substance Use Education at School

(Figure 3.12.1)

Substance use education is a component of the Health and Physical Education (HPE) curriculum in Ontario’s publicly funded schools. HPE is mandated for students in grades 7 and 8. Secondary school students require at least one HPE credit in order to graduate. Most students fulfill this requirement in 9th or 10th grade.

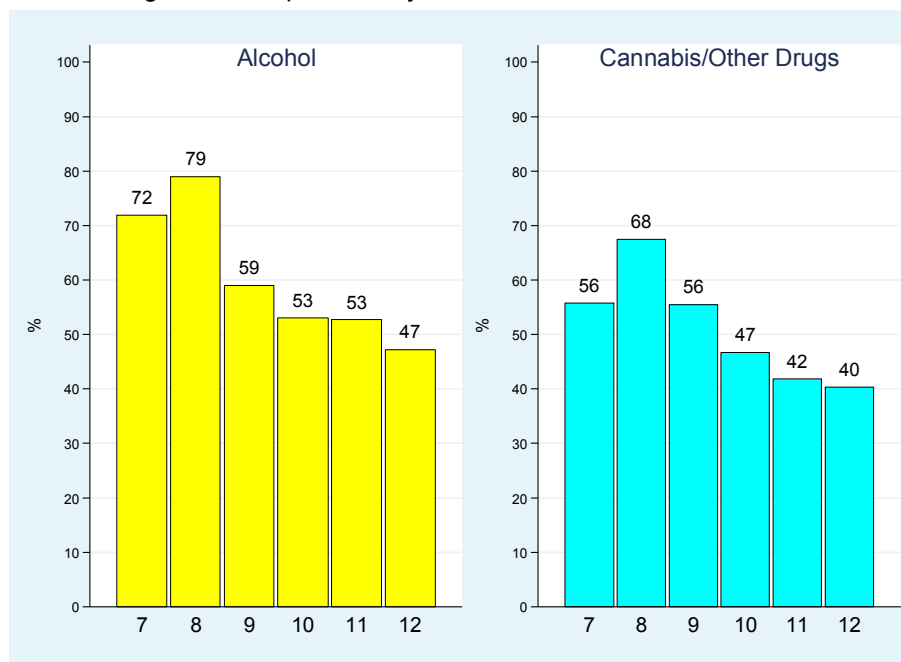
The OSDUHS asked a random half sample of students about the number of classes/lectures they received about alcohol, cannabis, and other illicit drugs during the current academic year. Typically, the majority of schools that participate in the survey do so between March and June. Specifically, the questions 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 (“weed,” “pot,” “hash”) 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.)

2017: Grades 7–12

- In 2017, 59.6% (95% CI: 53.8%-65.2%) 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 2017, 50.5% (95% CI: 45.0%-56.0%) of students could recall at least one class about drugs, such as cannabis, 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, 2017 OSDUHS



Drug Problem at School

(Figure 3.12.2; Table 3.12.1)

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?*”

2017: Grades 7–12

- In 2017, one-fifth (21.3%) of students believe that drug use in their school is a “big problem,” almost half (47.1%) believe it is a “small problem,” and one-third (31.6%) believe that drug use is not a problem in their school.
- Males (20.4%) and females (22.2%) are equally likely 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 10%).
- There are no significant differences among the regions regarding the perception that drug use in school is a “big problem.”

Trends:

- Despite a slight but significant decrease between 2015 and 2017 (from 25.5% to 21.3%), the perception that drug use is a “big problem” at school has been relatively stable since 1999.
- Looking over the long-term, this perception is significantly more prevalent now than in 1993 (14.8%), the first year of monitoring.

Figure 3.12.2
Percentage Reporting that Drug Use in Their School is a Big Problem, Small Problem, or Not a Problem, 2017 OSDUHS (Grades 7–12)

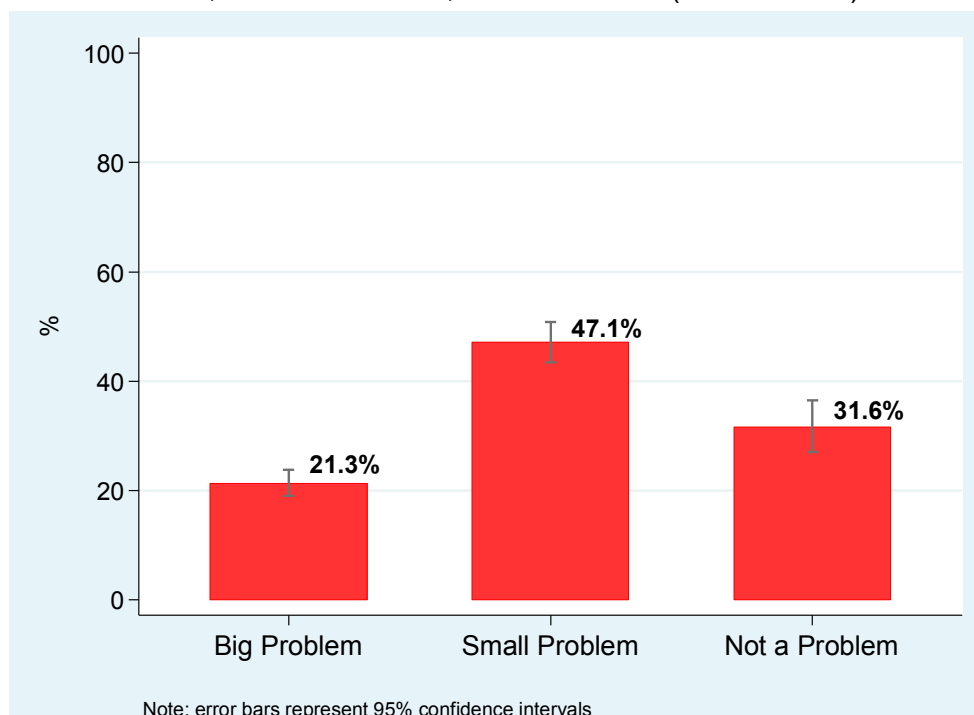


Table 3.12.1: Percentage Reporting the Perception that Drug Use at School is a “Big Problem,”
1993–2017 OSDUHS

	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)				(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)
(n ²)	(1241)	(1453)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)
Total¹ (95% CI)	—	—	—	23.5 (20.5-26.7)	26.6 (23.1-30.5)	27.8 (25.2-30.5)	24.9 (22.4-27.6)	25.0 (22.2-28.0)	23.7 (21.4-26.2)	24.8 (22.2-27.6)	24.7 (21.8-28.0)	25.5 (23.3-27.9)	21.3 (19.0-23.8)
Total²	14.8 (11.4-19.0)	26.2 (21.5-31.5)	25.4 (22.1-29.1)	25.9 (22.2-30.0)	25.5 (20.7-31.0)	28.2 (25.0-31.6)	24.1 (21.4-27.1)	23.5 (20.5-26.7)	22.6 (19.7-25.8)	23.5 (20.8-26.5)	23.6 (20.5-26.9)	23.9 (21.1-27.0)	21.2 (18.5-24.1)
Sex													
Males ¹	—	—	—	22.3	26.7	25.7	23.2	22.2	20.2	21.5	21.3	23.8	20.4
Males ²	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
Females ¹	—	—	—	24.6	26.5	29.7	26.9	28.1	27.7	28.5	28.3	27.4	22.2
Females ²	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
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
8	—	—	—	14.6	8.0	14.8	11.3	13.3	9.6	11.4	11.2	10.2	9.8
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
10	—	—	—	21.4	37.0	35.7	34.4	30.3	35.5	34.2	31.5	31.6	28.9
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
12	—	—	—	26.1	37.4	28.8	29.8	32.8	25.8	28.7	29.2	32.7	24.3
Region													
GTA ¹	—	—	—	25.4	25.0	29.3	26.0	25.4	23.7	22.0	23.4	25.7	22.4
North ¹	—	—	—	26.6	30.7	31.4	30.8	32.0	28.4	33.2	28.3	32.8	26.2
West ¹	—	—	—	23.8	29.7	28.2	28.1	27.1	22.4	28.7	25.3	24.4	22.0
East ¹	—	—	—	13.1	23.6	21.6	18.1	19.0	24.4	24.4	26.8	25.0	17.3

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) GTA=Greater Toronto Area; (5) long-term trends for region are not available; (6) question asked of a random half sample in each year; (7) significant decrease between 2015 and 2017 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 being drunk or high at school at least once in the past year.

2017: Grades 7–12

- About one-in-ten (9.5%) students report that they were intoxicated at school at least once during the 12 months before the survey. This percentage represents about 70,200 Ontario students in grades 7 through 12.
- Males (9.3%) and females (9.7%) are equally likely to report being drunk or high at school.
- Students in grades 10, 11, and 12 (13%-18%) are significantly more likely than younger students (<5%) to report being intoxicated at school.
- Despite some variation, there are no significant differences among the regions.

2005–2017: 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 2017 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?*”

2017: Grades 7–12

- About one-in-seven (14.6%) students report that they were offered, sold, or given a drug at school during the 12 months before the survey. This percentage represents about 108,300 Ontario students in grades 7 through 12.
- Males (15.4%) and females (13.8%) are equally likely to report being offered, sold, or given a drug at school in the past year.
- Students in grades 10, 11, and 12 (20%-24%) are significantly more likely than younger students to be offered, sold, or given a drug at school.
- Despite some variation, there are no significant differences among the regions.

2005–2017: Grades 7–12

- The percentage of students who reported they had 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 2017 percentage to those seen between 2005 and 2011, when estimates were about 20%-23%.

Figure 3.12.3
 Percentage Reporting Being Drunk or High at School in the Past Year by Sex, Grade, and Region, 2017 OSDUHS

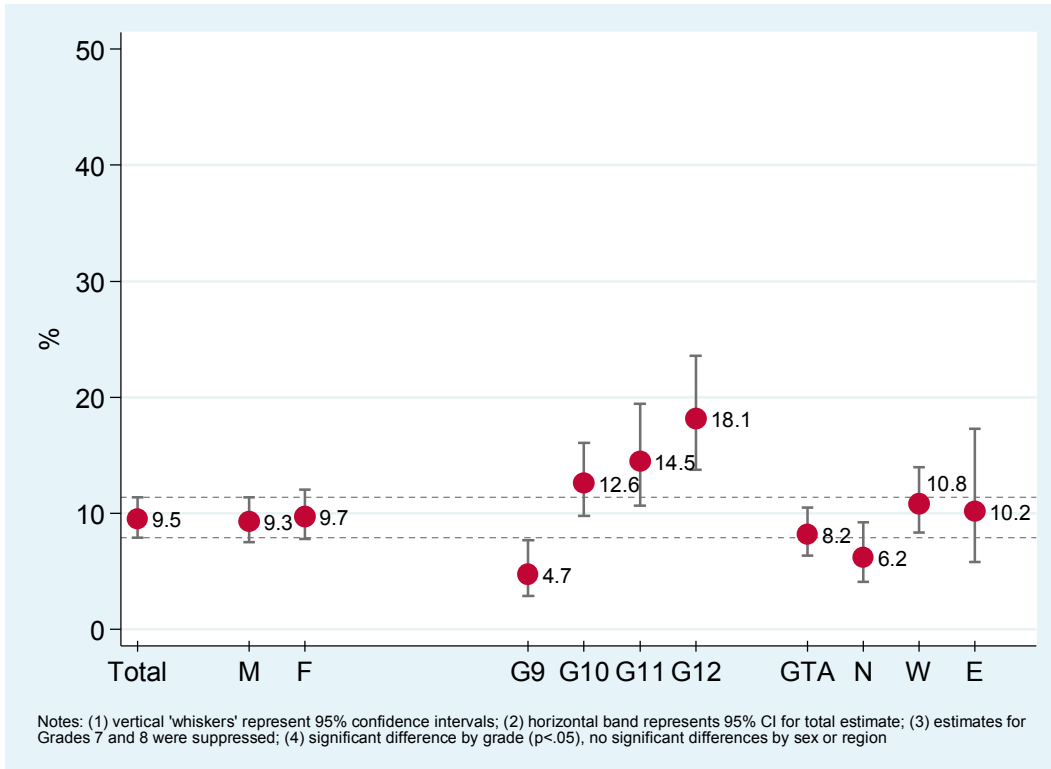


Figure 3.12.4
 Percentage Reporting Being Drunk or High at School in the Past Year by Sex, 2005-2017 OSDUHS

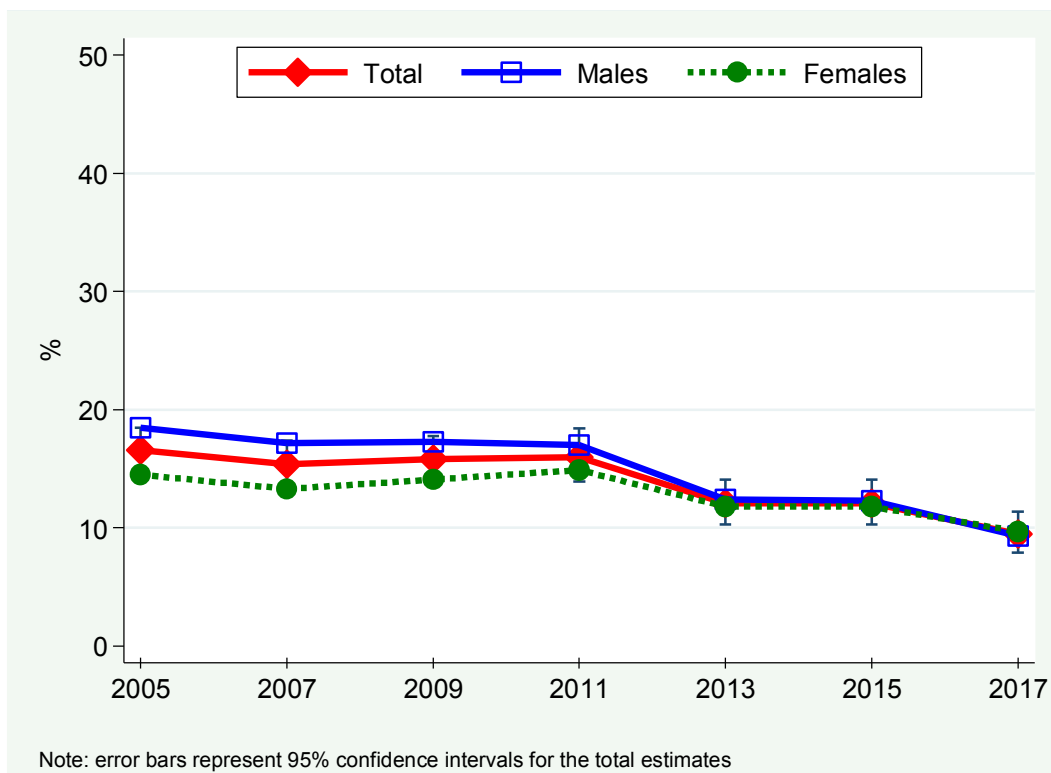


Figure 3.12.5
 Percentage Reporting Having Been Offered, Given, or Sold an Illegal Drug at School in the Past Year by Sex, Grade, and Region, 2017 OSDUHS

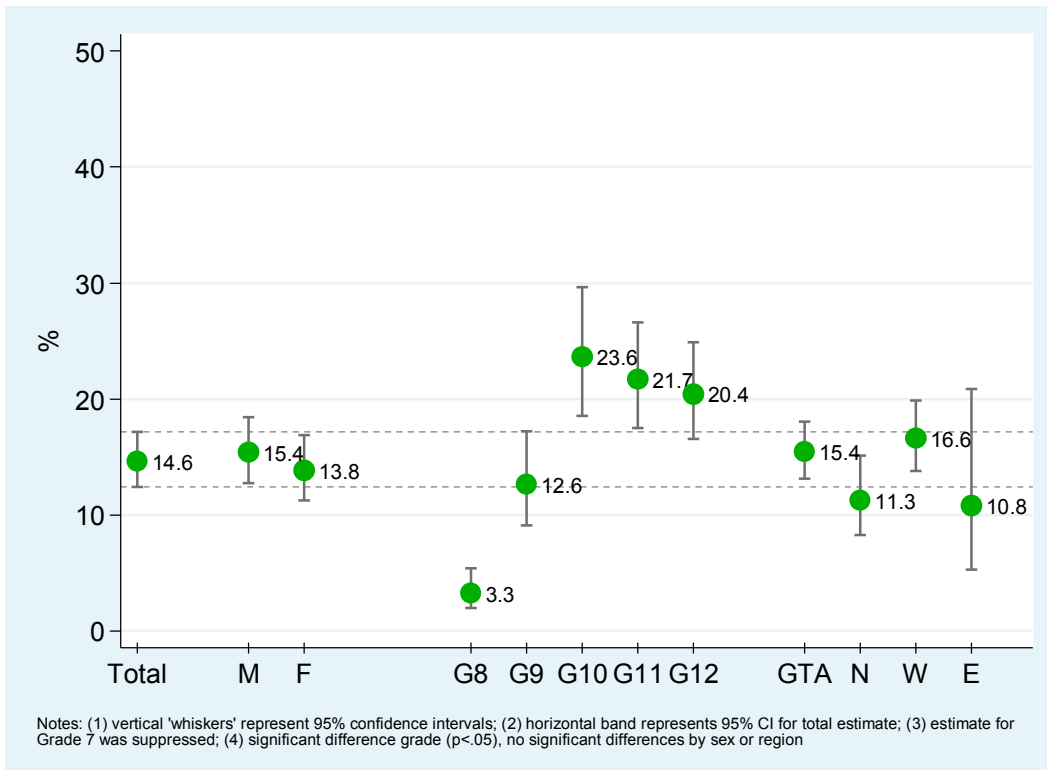


Figure 3.12.6
 Percentage Reporting Having Been Offered, Given, or Sold an Illegal Drug at School in the Past Year by Sex, 2005-2017 OSDUHS

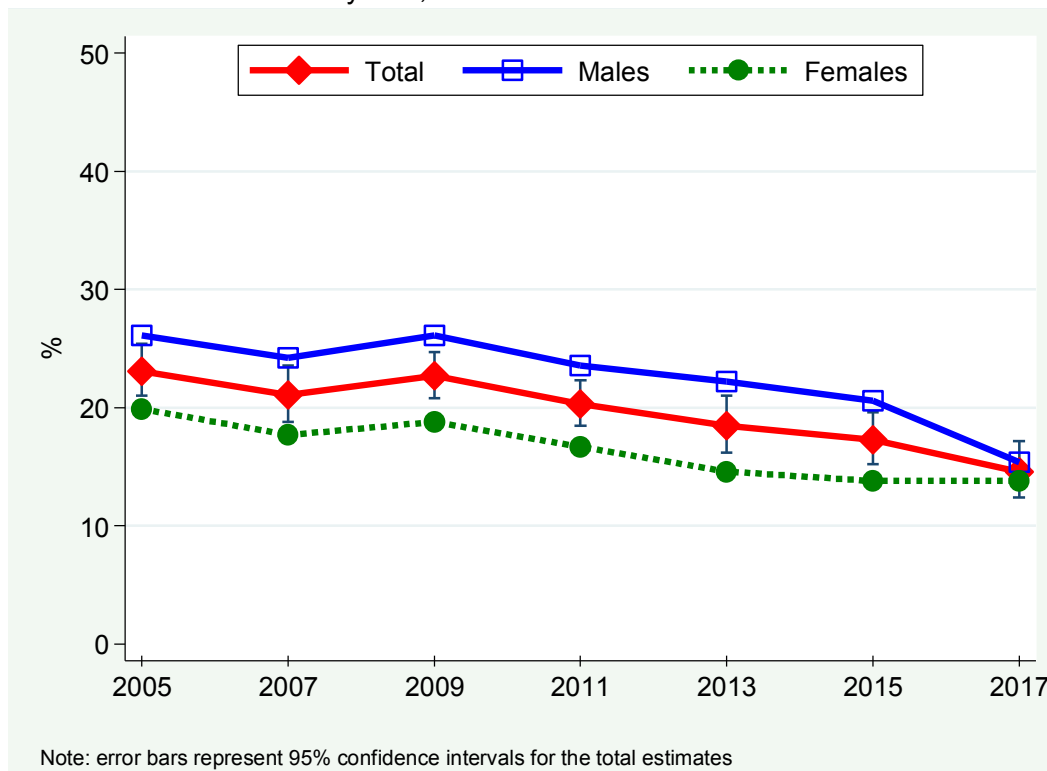


Table 3.12.2: Percentage Reporting Being Drunk or High at School in the Past Year, 2005–2017 OSDUHS

	2005 (n=)	2007 (2935)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
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 ^{bc} (7.9-11.4)
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 ^b (7.5-11.4)
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 ^b (7.8-12.0)
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)	†	†	†
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 ^b (2.9-7.7)
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 ^b (9.8-16.1)
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 ^b (10.6-19.4)
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)
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 ^b (6.3-10.5)
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 ^b (4.1-9.2)
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 ^b (8.3-14.0)
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)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) question asked of a random half sample in each year; (5) no significant differences 2017 vs. 2015; ^b 2017 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 Being Offered, Sold, or Given a Drug at School in the Past Year, 2005–2017 OSDUHS

	2005 (n=)	2007 (2935)	2009 (4261)	2011 (4472)	2013 (4794)	2015 (5023)	2017 (5071)
Total (95% CI)	23.1 (21.0-25.4)	21.1 (18.8-23.6)	22.7 (20.8-24.7)	20.3 (18.5-22.3)	18.5 (16.2-21.0)	17.3 (15.2-19.6)	14.6 ^{bc} (12.4-17.2)
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 ^{ab} (12.8-18.5)
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 ^b (11.2-16.9)
Grade							
7	3.3 (2.0-5.6)	4.6 (2.6-8.0)	†	†	2.5 (1.4-4.2)	†	†
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)
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 ^b (9.1-17.2)
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)
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 ^b (17.5-26.6)
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 ^b (16.6-24.9)
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 ^b (13.1-18.1)
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 ^b (8.3-15.1)
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 ^b (13.8-19.9)
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)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) GTA=Greater Toronto Area; (4) question asked of a random half sample in each year; (5) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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

Friends' Use of Drugs

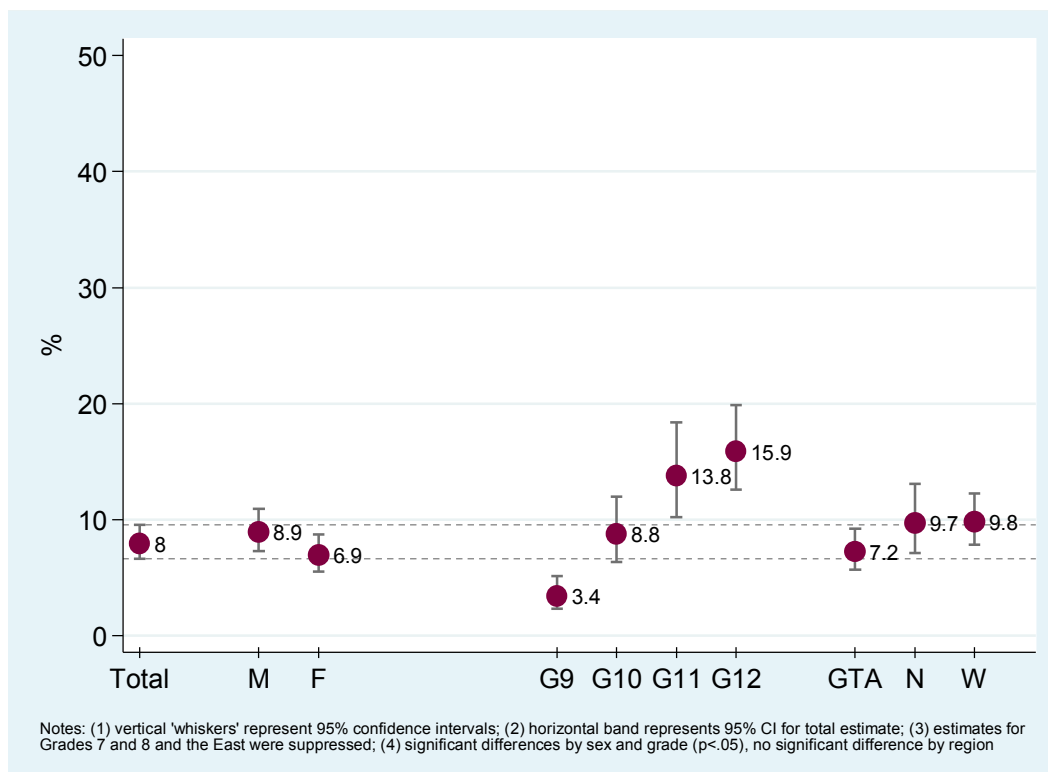
(Figure 3.12.7)

Students were asked how many of their closest friends use illegal drugs. Specifically, the question was: “How many of your closest friends use cannabis (‘weed’) or other illegal drugs?” The response options were: *None of my friends*; *Some of my friends*; *About half of my friends*; *Most of my friends*; *All of my friends*; or *Don’t know*. Here we present the percentage of students who report that most or all of their closest friends use drugs.

2017: Grades 7–12

- Among the total sample, 8.0% (95% CI: 6.6%-9.5%) of students in grades 7 through 12 report that most or all of their friends use drugs.
- Males (8.9%) are significantly more likely than females (6.9%) to report that their friends use drugs.
- There is significant grade variation showing that students in grades 11 and 12 are most likely to have friends who use drugs (14%-16%).
- There are no significant regional differences.

Figure 3.12.7
Percentage Reporting that Most or All of Their Closest Friends Use an Illegal Drug by Sex, Grade, and Region, 2017 OSDUHS



Exposure to Drug Selling

(Figures 3.12.8, 3.12.9; Tables 3.12.4, 3.12.5)

Starting in 1995, 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.

2017: Grades 7–12

- One-in-five (19.8%) students report that someone had tried to sell them drugs anywhere during the past year. This estimate represents about 145,900 students in grades 7 through 12 in Ontario.

- Older students are significantly more likely than younger students to report that someone tried to sell drugs to them. There is no significant sex difference. Despite some regional variation, there are no significant differences among the four regions.

- About one-in-five (19.3%) students – an estimated 142,200 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.

1999–2017: Grades 7–12

- Among the total sample, the percentage reporting that someone had tried to sell them drugs was relatively stable between 1999 and 2009, but has since significantly decreased, reaching an all-time low in 2017.

- The percentage of students who reported witnessing drug selling in their neighbourhood has been stable since 2013 at about 19%-22%. However, there has been a downward trend over time as the current percentage is significantly lower than estimates seen between 1999 and 2011 (about 26%-32%).

Figure 3.12.8
 Percentage Reporting that Someone Had Tried to Sell Them Drugs in the
 Past Year by Sex, Grade, and Region, 2017 OSDUHS

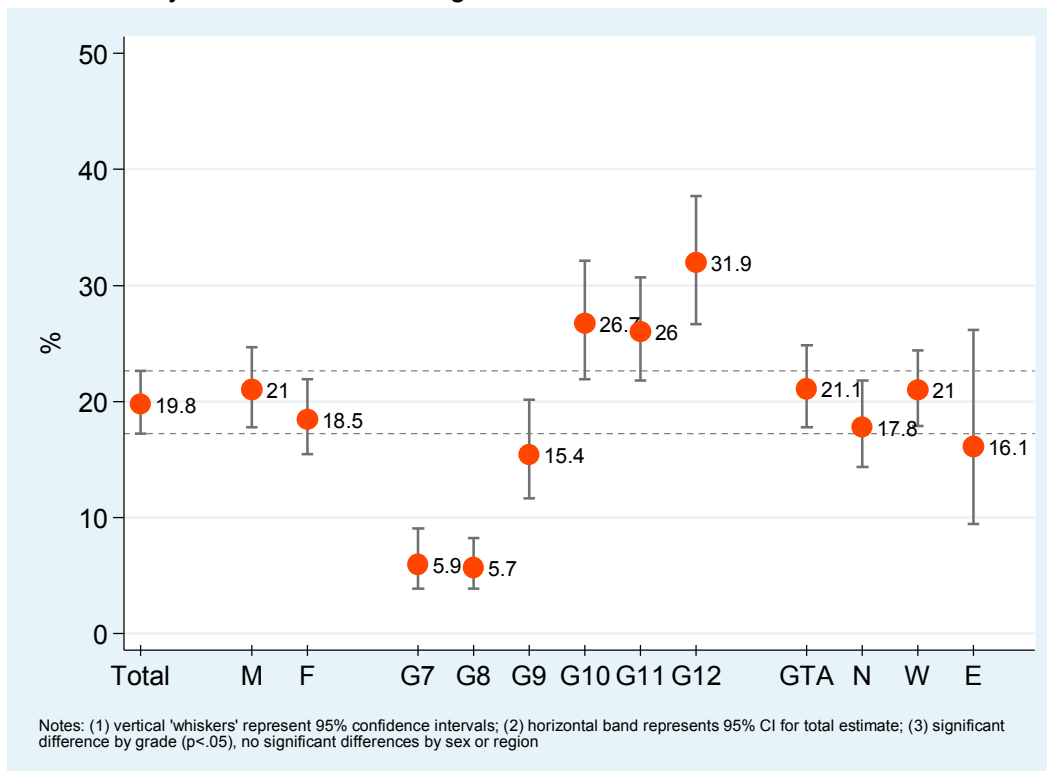


Figure 3.12.9
 Percentage Reporting Witnessing Drug Selling in Their Neighbourhood in the
 Past Year by Sex, Grade, and Region, 2017 OSDUHS

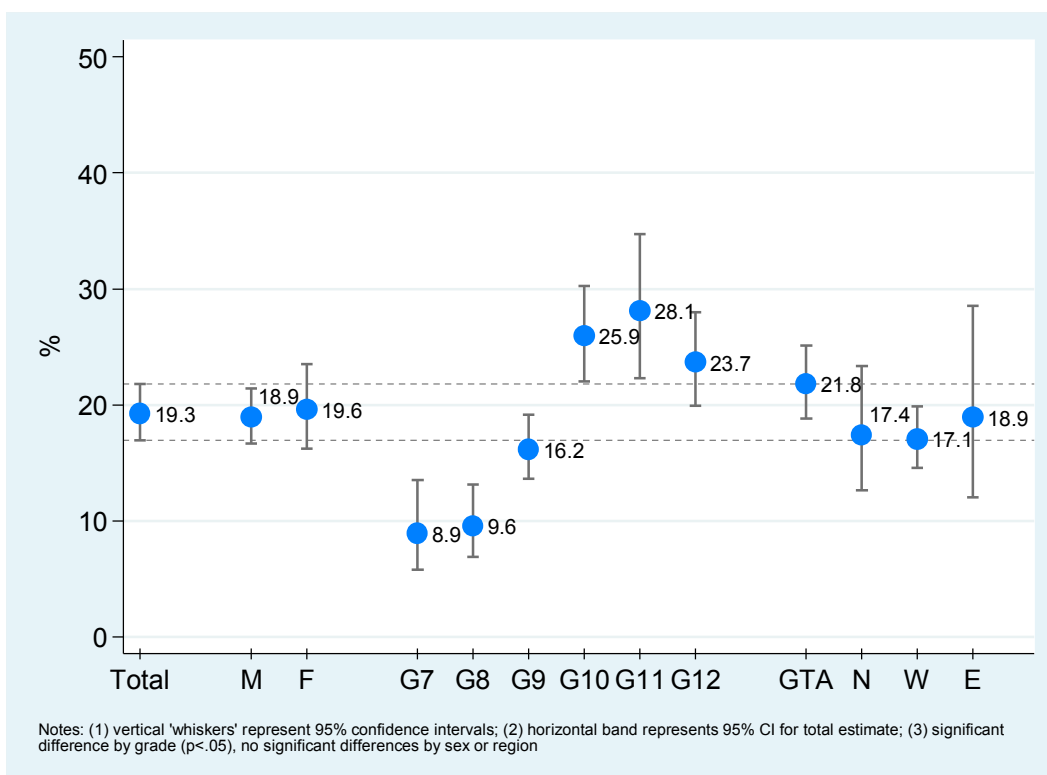


Table 3.12.4: Percentage Reporting that Someone Tried to Sell Drugs to Them in the Past Year, 1995–2017 OSDUHS

	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)			(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)
(n ²)	(2907)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)
Total¹	—	—	35.4	38.8	36.7	33.0	31.0	32.2	26.8	25.2	24.8	19.8
(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)
Total²	30.6	31.0	34.5	37.3	34.8	30.5	27.1	28.3	22.8	21.3	21.7	16.2
	(28.0-33.3)	(28.8-33.2)	(31.2-38.0)	(32.4-42.6)	(31.9-37.8)	(27.5-33.7)	(23.9-30.6)	(25.6-31.1)	(20.4-25.3)	(18.1-25.0)	(18.9-24.7)	(13.7-19.0)
Sex												
Males ¹	—	—	42.8	45.6	45.3	37.8	35.6	38.7	30.0	30.8	28.5	21.0
Males ²	35.1	38.9	42.5	43.9	44.6	34.2	30.6	34.6	24.9	28.1	24.2	18.9
Females ¹	—	—	27.9	32.4	28.7	27.6	25.8	24.9	23.1	19.4	20.9	18.5
Females ²	26.4	24.1	26.4	31.0	25.8	26.8	23.2	21.2	20.5	14.1	19.1	13.5
Grade												
7	11.3	11.7	11.5	13.1	11.9	8.5	10.8	5.7	5.4	3.1	†	5.9
8	—	—	23.1	20.2	21.0	16.2	14.2	14.0	10.1	13.7	8.6	5.7
9	30.4	33.5	36.8	46.6	36.8	35.1	29.0	28.1	20.9	17.8	19.1	15.4
10	—	—	45.2	53.7	47.2	43.7	41.5	41.2	33.5	29.0	29.0	26.7
11	46.9	45.3	51.2	50.8	51.2	46.4	39.9	45.4	38.3	37.0	35.6	26.0
12	—	—	44.9	42.0	44.8	43.6	43.4	45.4	39.8	36.0	36.8	31.9
Region												
GTA ¹	—	—	35.1	36.3	37.9	32.0	30.2	29.6	24.3	23.7	23.7	21.1
North ¹	—	—	36.0	34.9	35.8	36.2	35.2	44.2	33.1	23.7	23.1	17.8
West ¹	—	—	39.1	42.3	36.9	34.7	29.8	33.5	30.2	27.0	24.0	21.0
East ¹	—	—	27.7	41.2	34.0	32.3	32.7	31.8	26.8	27.1	29.6	16.1

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) GTA=Greater Toronto Area; (4) long-term region trends are not available; (5) question asked of a random half sample in each year except 1995; (6) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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, 1995–2017 OSDUHS

	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
(n ¹)			(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	(5023)	(5071)
(n ²)	(2907)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	(2566)	(2514)
Total¹	—	—	31.4	32.1	32.0	27.0	28.0	28.3	26.0	21.1	21.9	19.3
(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)
Total²	24.5	25.5	29.3	31.9	31.5	24.7	26.7	23.6	21.9	18.8	18.7	18.1
	(21.8-27.5)	(22.8-28.4)	(25.2-33.7)	(27.3-36.8)	(28.8-34.2)	(22.1-27.4)	(24.0-29.6)	(21.0-26.5)	(19.5-24.5)	(16.5-21.4)	(16.7-20.9)	(15.5-21.0)
Sex												
Males ¹	—	—	36.2	37.6	37.7	29.9	29.4	30.8	27.4	21.8	24.5	18.9
Males ²	26.7	30.6	35.2	36.9	38.5	27.0	28.2	26.9	22.5	22.0	19.7	18.7
Females ¹	—	—	26.5	26.8	26.7	23.9	26.4	25.6	24.4	20.3	19.1	19.6
Females ²	22.6	21.0	23.2	27.0	25.0	22.3	25.0	20.0	21.3	15.5	17.7	17.5
Grade												
7	8.7	12.8	12.2	14.2	14.3	7.8	12.5	10.2	5.8	5.9	6.7	8.9
8	—	—	22.8	17.8	22.3	13.4	13.1	14.0	10.6	11.2	9.2	9.6
9	24.4	26.4	27.5	36.6	30.8	28.1	30.0	26.3	21.2	16.4	17.4	16.2
10	—	—	43.8	39.9	36.7	34.0	35.3	34.8	30.6	23.6	27.9	25.9
11	38.0	35.6	45.8	44.2	46.2	36.9	36.2	31.4	35.4	29.9	28.1	28.1
12	—	—	38.7	36.7	37.2	38.2	35.7	42.6	39.6	28.7	30.5	23.7
Region												
GTA ¹	—	—	33.6	33.6	33.1	27.5	31.1	30.1	25.9	23.2	23.2	21.8
North ¹	—	—	33.0	26.0	27.6	27.8	29.9	24.1	26.8	16.0	19.7	17.4
West ¹	—	—	28.3	31.8	33.0	27.8	24.6	27.9	28.4	18.6	19.8	17.1
East ¹	—	—	29.2	31.3	29.8	25.2	25.2	26.7	23.3	21.0	22.0	18.9

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) GTA=Greater Toronto Area; (4) long-term region trends are not available;(4) question asked of a random half sample in each year except 1995; (5) ^a 2017 vs. 2015 significant difference, p<.01; ^b 2017 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

3.13 Overview of Drug Use in the Ontario LHIN Areas

(Table 3.13.1)

In 2006, the province designated 14 geographic areas, each to function as health systems that plan, integrate and fund local health services. These areas are called Local Health Integration Networks or LHINs (see www.lhins.on.ca). This section provides the 2017 estimates for most drug use measures **among secondary school students only (grades 9 through 12)** according to the LHINs. Students in grade 7 and 8 were excluded from the analysis because of a considerable imbalance of the number of elementary/middle schools across the LHINs. For the present analysis, students were assigned to LHINs using the six-digit postal code of the school. Some adjacent LHINs were merged due to small sample sizes. The nine LHIN areas presented here are:

- Erie St. Clair & South West (merged)
- Waterloo Wellington & Hamilton Niagara Haldimand Brant (merged)
- Central West
- Mississauga Halton
- Toronto Central & Central (merged)
- Central East & North Simcoe Muskoka (merged)
- South East
- Champlain
- North East & North West (merged)

Figure 3.13.1
Local Health Integration Networks of Ontario

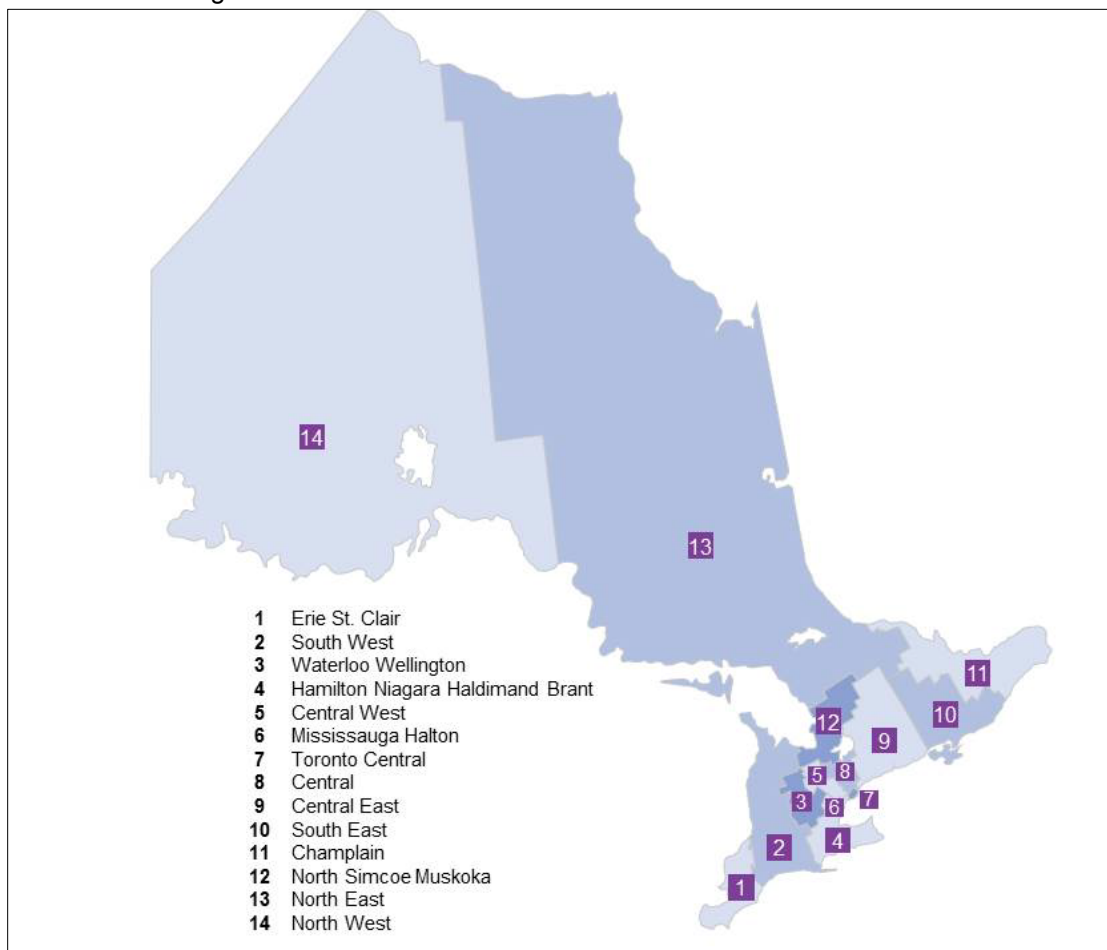


Table 3.13.1: Percentage of Secondary Students (**Grades 9–12**) Reporting Drug Use in the Past Year and Other Selected Indicators by Local Health Integration Network (LHIN) Area, 2017 OSDUHS

	Erie St. Clair + South West	Waterloo Wellington + Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central + Central	Central East + North Simcoe Muskoka	South East	Champlain	North East + North West	Ontario
(Student n=) (School n=)	(678) (12)	(722) (11)	(725) (12)	(795) (11)	(1,124) (17)	(1,386) (18)	(208) (5)	(938) (14)	(1,011) (20)	(7,587) (120)
Tobacco Cigarettes (95% CI)	14.0* (9.5-20.1)	12.3 (7.3-19.9)	4.6* (2.6-8.2)	6.4 (3.7-11.1)	6.3* (4.3-9.2)	9.6 (7.0-13.0)	†	12.3 (7.4-19.7)	12.3* (9.3-16.0)	9.5 (8.0-11.2)
Electronic Cigarettes	15.9 (11.1-22.1)	17.4 (10.4-27.7)	9.4 (5.5-15.6)	20.6* (13.9-29.5)	11.1 (6.9-17.5)	11.2 (7.3-17.0)	6.1** (3.3-11.2)	16.2 (12.2-21.1)	17.4 (13.2-22.6)	14.7 (12.3-17.6)
Waterpipes (Hookahs)	8.0 (4.8-13.3)	9.8 (7.6-12.6)	10.7 (7.3-15.4)	8.4 (6.4-10.9)	9.7 (6.4-14.6)	7.1 (4.2-12.0)	†	9.9 (6.2-15.4)	8.0 (5.5-11.5)	8.8 (7.6-10.2)
Smokeless (Chewing) Tobacco	6.9 (3.7-12.4)	†	†	7.3 (4.9-10.9)	†	5.6 (3.1-9.9)	†	†	10.7 (7.6-14.8)	7.5 (5.1-10.9)
Alcohol	60.0* (53.1-66.4)	59.8 (50.4-68.6)	41.1** (35.6-46.8)	55.6 (50.4-60.7)	45.9** (40.1-51.8)	58.9 (53.8-63.8)	53.7 (36.2-70.4)	54.3 (45.0-63.4)	65.4** (62.3-68.4)	54.2 (51.4-57.0)
Binge Drinking (Past Month)	26.9 (21.2-33.6)	27.2 (19.7-36.4)	11.1** (7.9-15.4)	22.5 (17.9-27.8)	19.5 (16.3-23.2)	24.1 (18.8-30.3)	23.0 (14.6-34.2)	23.1 (16.0-32.2)	27.2* (22.6-32.3)	22.7 (20.6-25.0)
Drunkness (Past Month)	27.1* (22.1-32.7)	27.8 (21.2-35.5)	8.9** (6.3-12.4)	20.2 (16.3-24.7)	18.1 (14.9-21.9)	23.4 (19.1-28.4)	24.9 (17.5-34.1)	21.8 (15.1-30.4)	23.7 (19.1-28.9)	21.7 (19.7-23.8)
Cannabis	30.0 (24.1-36.6)	30.1 (23.8-37.3)	22.0 (17.6-27.0)	25.5 (21.1-30.4)	19.6* (14.9-25.2)	26.3 (22.8-30.0)	30.6 (18.7-45.8)	24.9 (20.5-29.9)	30.5 (24.5-37.2)	25.4 (23.2-27.9)
Cannabis & Alcohol	21.9 (15.9-29.3)	24.0* (17.3-32.2)	13.2 (9.0-19.1)	17.5 (12.7-23.7)	12.8 (8.5-18.8)	17.6 (13.8-22.1)	15.9 (9.0-26.4)	19.5 (14.8-25.3)	18.4 (13.8-24.2)	18.8 (16.6-21.3)
Synthetic Cannabis ("Spice," "K2")	1.1 (0.6-2.0)	2.2 (1.4-3.3)	†	†	†	†	†	1.8 (1.0-3.2)	2.4 (1.3-4.4)	1.9 (1.3-2.8)
Mushrooms/Mescaline	4.6 (3.1-6.8)	5.6* (4.0-7.8)	1.9* (1.1-3.2)	3.8 (2.0-7.3)	2.4 (1.3-4.2)	5.6** (4.5-7.0)	†	3.8 (2.2-6.5)	4.8 (3.3-7.0)	4.0 (3.3-4.8)
Cocaine	†	†	†	†	2.0 (1.2-3.4)	5.0** (3.7-6.6)	†	†	3.4 (2.3-5.0)	3.1 (2.2-4.2)
Ecstasy	4.3* (3.0-6.1)	5.5* (2.9-10.3)	†	5.5* (2.8-10.5)	2.3 (1.4-4.0)	†	†	†	2.9 (1.8-4.5)	3.4 (2.6-4.4)
Opioid Pain Reliever (NM)	10.5 (8.1-13.5)	12.8 (10.4-15.6)	13.6 (10.0-18.3)	10.8 (7.3-15.6)	12.9 (9.5-17.2)	9.1 (7.4-11.1)	7.5* (5.5-10.1)	11.5 (9.5-13.9)	11.1 (8.7-14.1)	11.6 (10.3-12.9)
ADHD Drugs (NM)	2.6 (1.4-4.6)	4.0* (2.7-5.9)	†	†	†	†	†	3.6* (3.0-4.4)	3.4 (2.2-5.0)	2.7 (1.9-3.8)
Tranquillizers (NM)	2.2 (1.4-3.5)	2.8 (1.5-5.1)	†	†	3.2 (2.0-5.0)	2.6 (1.8-3.6)	†	†	2.0 (1.4-2.8)	2.7 (2.1-3.4)
OTC Cough/Cold Medication (NM)	6.8 (4.1-11.1)	9.8 (7.4-12.8)	10.8 (8.5-13.7)	9.3 (7.7-11.2)	13.7* (10.9-17.0)	8.3 (5.4-12.6)	7.9 (4.8-12.7)	8.4 (5.5-12.6)	9.3 (6.7-12.6)	9.9 (8.5-11.4)
High-Caffeine Energy Drinks	41.2 (33.9-48.8)	42.1 (36.4-48.0)	33.7 (26.7-41.6)	33.5 (29.2-38.1)	32.2 (26.2-38.9)	37.5 (34.5-40.7)	35.2 (30.2-40.7)	46.4 (34.2-59.1)	41.7 (36.5-47.1)	37.9 (34.8-41.2)

(continued...)

	Erie St. Clair + South West	Waterloo Wellington + Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central + Central	Central East + North Simcoe Muskoka	South East	Champlain	North East + North West	Ontario
<i>(Student n=)</i> <i>(School n=)</i>	<i>(678)</i> <i>(12)</i>	<i>(722)</i> <i>(11)</i>	<i>(725)</i> <i>(12)</i>	<i>(795)</i> <i>(11)</i>	<i>(1,124)</i> <i>(17)</i>	<i>(1,386)</i> <i>(18)</i>	<i>(208)</i> <i>(5)</i>	<i>(938)</i> <i>(14)</i>	<i>(1,011)</i> <i>(20)</i>	<i>(7,587)</i> <i>(120)</i>
Any NM Prescription Drug Use	12.3 (9.9-15.3)	15.8* (13.1-18.9)	14.2 (10.5-19.0)	14.5 (9.5-21.5)	14.5 (10.5-19.7)	11.1* (9.6-12.8)	8.6* (6.3-11.8)	14.1 (12.1-16.2)	13.5 (10.6-17.0)	13.7 (12.4-15.2)
Any Drug Use incl. Cannabis	37.0 (27.2-47.9)	41.9 (36.9-47.1)	38.4 (32.8-44.3)	37.3 (31.1-44.0)	32.8 (26.3-40.0)	33.8 (28.4-39.7)	42.2 (32.6-52.4)	42.8 (34.3-51.8)	38.3 (34.2-42.6)	37.8 (34.5-41.2)
Any Drug Use excl. Cannabis	21.1 (15.3-28.3)	27.8 (23.2-32.8)	25.9 (19.8-33.1)	28.2 (21.6-36.0)	21.8 (16.7-27.9)	19.6* (16.5-23.0)	19.8 (12.5-29.7)	27.2 (22.6-32.3)	19.4 (15.1-24.6)	23.8 (21.5-26.4)
Hazardous/Harmful Drinking (AUDIT)	17.6 (13.0-23.4)	22.8* (16.2-31.0)	6.1* (3.3-11.2)	12.6 (6.4-23.3)	12.9 (10.2-16.2)	12.9 (8.8-18.6)	†	12.1 (8.4-17.1)	17.6 (13.7-22.30)	14.1 (12.2-16.3)
Drug Use Problem (CRAFT)	13.2 (9.9-17.2)	15.8 (10.8-22.5)	12.5 (8.0-19.0)	13.7 (10.5-17.7)	11.2 (7.2-17.0)	17.8* (15.4-20.4)	†	13.4 (10.5-16.9)	17.0 (12.0-23.4)	13.6 (11.6-16.0)
Passenger/Alcohol	16.7 (13.2-20.8)	20.1 (15.0-26.4)	14.8 (12.1-18.1)	16.8 (11.4-23.9)	15.6 (10.5-22.6)	18.9 (16.8-21.1)	10.4* (6.5-16.4)	24.2* (16.7-33.8)	13.1* (10.8-15.7)	17.7 (15.6-20.0)
Passenger/Drugs	12.0 (8.6-16.5)	19.0** (15.1-23.5)	13.1 (9.7-17.6)	12.5 (8.6-17.9)	9.4 (6.7-13.0)	12.7 (7.8-20.2)	†	11.9 (7.8-17.8)	13.3 (10.3-16.9)	12.7 (11.2-14.4)
Cannabis-Driving (Drivers Grades 10-12)	8.9 (5.4-14.1)	9.6 (7.0-13.0)	†	†	†	9.7 (5.9-15.3)	10.3 (5.7-18.0)	†	8.2 (4.6-14.5)	8.8 (6.9-11.1)
Intoxicated at School	15.9 (10.5-23.3)	14.0 (10.3-18.9)	9.4 (6.2-14.0)	13.9 (11.2-17.2)	10.5 (6.6-16.4)	15.7* (11.8-20.7)	†	10.5 (5.4-19.4)	7.9 (5.0-12.4)	13.1 (11.0-15.6)
Was Given/Offered/ Sold a Drug at School	23.4 (17.4-30.7)	19.7 (15.7-24.3)	23.0* (17.8-29.2)	23.7* (20.3-27.5(0)	18.4 (14.2-23.6)	20.4 (14.5-28.0)	9.1* (5.0-16.0)	†	14.5 (10.5-19.7)	19.7 (16.9-22.9)
Was Offered/Sold a Drug Anywhere	28.2 (22.9-34.2)	25.5 (20.1-31.8)	27.6 (24.9-30.5)	31.7* (26.1-37.8)	22.9 (17.9-28.9)	29.3 (22.2-37.4)	16.6* (11.4-23.4)	†	22.3 (17.7-27.6)	25.8 (22.5-29.4)
Seen Drug Selling in Neighbourhood	18.6 (13.9-24.4)	20.7 (17.2-24.7)	27.0 (21.5-33.3)	30.8* (26.1-35.9)	24.6 (19.4-30.6)	28.4* (23.2-34.2)	14.5 (8.0-24.7)	21.6 (14.0-31.8)	19.8 (13.4-28.1)	23.6 (21.0-26.4)
Easy or Very Easy to Get Cigarettes	66.8 (59.6-73.3)	64.6 (56.5-72.0)	54.0** (50.3-57.7)	55.2** (51.4-58.8)	56.3 (50.3-62.2)	65.0 (57.0-72.3)	58.0 (43.9-70.8)	66.5 (51.8-78.6)	61.5 (54.2-68.4)	62.3 (59.4-65.1)
Easy or Very Easy to Get Alcohol	77.1 (68.9-83.6)	74.0 (66.3-80.4)	66.6 (58.5-73.8)	71.0 (67.0-74.7)	67.0 (61.9-71.9)	79.0* (73.8-83.5)	65.7 (53.3-76.3)	69.4 (61.1-76.7)	71.9 (66.1-77.0)	73.0 (70.5-75.3)
Easy or Very Easy to Get Cannabis	59.4* (53.6-64.9)	58.5 (49.5-67.0)	53.4 (48.7-58.1)	53.9 (49.1-58.5)	48.9 (43.3-54.4)	57.3 (51.1-63.2)	40.6 (25.0-58.4)	49.6 (44.5-54.8)	57.4 (50.3-64.3)	55.2 (52.7-57.7)
Easy or Very Easy to Get Prescrip. Opioids	23.8 (18.8-29.6)	23.6 (18.4-29.7)	23.5 (19.3-28.4)	26.3 (20.7-32.8)	24.6 (19.1-31.0)	23.6 (19.6-28.1)	12.1* (7.4-19.3)	16.6 (9.4-27.6)	18.9 (14.0-24.9)	22.8 (20.4-25.6)

Notes: (1) due to small sample sizes, the Erie St. Clair and South West LHINs were merged, the Waterloo Wellington and Hamilton Niagara Haldimand Brant LHINs were merged, the Toronto Central and Central LHINs were merged, the Central East and North Simcoe Muskoka LHINs were merged, and the North East and North West LHINs were merged; (2) binge drinking is defined as drinking 5 or more drinks on one occasion; (3) NM=nonmedical use, without a doctor's prescription; (4) "Any NM Use of a Prescription Drug" refers to the nonmedical use of prescription opioids, ADHD drugs, or tranquilizers/ sedatives; (5) "Any Drug Use Including Cannabis" refers to the past year use of any one of the 18 drugs asked about in the survey (excludes tobacco cigarettes, electronic cigarettes, waterpipes, alcohol, and caffeine drinks); (6) "Passenger/Alcohol" refers to being a passenger in a vehicle with a driver who had been drinking alcohol; (7) "Passenger/Drugs" refers to being a passenger in a vehicle with a driver who had been using drugs; (8) estimates for inhalants, salvia, jimson weed, methamphetamine, crack, heroin, fentanyl, mephedrone, cannabis dependence, and drinking and driving are not presented due to suppressed estimates in most of the LHIN areas; (9) entries in brackets are 95% confidence intervals; (10) † estimate suppressed due to unreliability; (11) *p<.05, **p<.01 significant difference, LHIN area vs. Ontario.

Source: OSDUHS, Centre for Addiction & Mental Health

4. SUMMARY AND DISCUSSION

The Public Health Approach to Drug Use

Tobacco, alcohol, and illicit 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 fairly stable across time, and so the trends reported should, again, 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, 1992; 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., 2010). In our case, the group of adolescents excluded from our target constitutes only about 9% 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 illicit drugs, and the nonmedical (NM) use of prescription drugs. It also examined changes in drug use and other behaviours and attitudes since 1977. There are many encouraging findings from the 2017 OSDUHS, as described below.

- **Tobacco/Smoking:** 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, reached a historical low in 2011, and has remained stable since then. The past year use of a **waterpipe** (hookah, shisha) is currently lower than when monitoring first began in 2013.
- **Alcohol:** Past year drinking reached a historical low in 2013 and has remained stable since then. Currently less than half of the student population in grades 7–12 drinks alcohol. The magnitude of the decline in drinking has been even greater over the long-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 between 2015 and 2017, reaching an all-time low.
- Past year prevalence estimates for three drugs declined since the last survey in 2015: **ecstasy**, **jimson weed**, and **salvia divinorum**.
- Past year prevalence estimates for all **illicit drugs** monitored (e.g., cannabis, mushrooms, cocaine, ecstasy) 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, yet no further decline was evident in 2017 as one-in-ten students use these drugs without their own prescription.

- Almost half (44%) of students **used no drug** in the past year, including alcohol and cigarettes. This proportion 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 2017 than estimates from about a decade ago, and markedly lower than rates evident in the late 1970s and early 1980s. It is worth noting that the declines in drinking and driving seen earlier this decade 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, and increasing the sanctions for drivers who are apprehended with BACs in the “warn range” (.05% to .08%).

- **Driving after cannabis use** among licensed students is also lower in 2017 compared with estimates from about a decade ago. 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** significantly declined since monitoring of these behaviours first began in 2001.

- 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 2011, the OSDUHS asked students about the use **mephedrone** (4-methylmethcathinone, more commonly known as “bath salts”). Starting in 2013, we asked about **synthetic cannabis** (“spice” or “K2”) use. These are relatively new synthetic drugs available for purchase over the Internet and are dangerous because of their unknown chemical compounds. These drugs have appeared in other countries, but only anecdotal evidence exists for use in Canada. The 2017 survey shows that synthetic cannabis (“spice,” “K2”) is used by about 1% of students (over 2% of 12th graders), but there has been no change over time. The prevalence of mephedrone (“bath salts”) continues to be extremely low (suppressed estimate in 2017). This suggests that these drugs have not measurably diffused into the mainstream student population at this time. However, we must remain cautious. When the OSDUHS first began monitoring ecstasy 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 they eventually increase in popularity.

- The **perceived availability of cannabis and tobacco cigarettes** has significantly decreased in the past few years (since 2013). The **perceived availability of cocaine, LSD, and ecstasy** has significantly decreased over the past two decades or so. Thus, 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.

- **Perceptions about the legalization of cannabis** were measured in the 2017 cycle of the survey. Only one-third of students in grades 7–12 feel that cannabis should be legalized. More encouraging is that the majority of students report that they would not use cannabis even if/when it is legalized.

Some Public Health Concerns

Several findings should be viewed as public health concerns. Tobacco and alcohol remain topics of concern because these legal drugs are responsible for greater harm to the physical and social well-being of youth, as well as to the population as a whole, when compared with illicit drugs.

- **Tobacco cigarette smoking** is the leading preventable cause of disease. Although student smoking has substantially declined over time, there is still a significant proportion – about 7% – that smoke cigarettes (about 63,800 students in Ontario). The consistent decline in smoking seen throughout the 2000s appears to have stagnated as no further decline has occurred since 2011.

- The OSDUHS asked students about using **electronic cigarettes**, which are battery-operated devices that look like cigarettes and are designed to deliver nicotine and/or other chemicals to the lungs without burning tobacco. A vapour or mist is inhaled to simulate the act of smoking. The liquid that is vaporized comes in hundreds of flavours, which are attractive to youth. Just over one-in-ten (11%) students (an estimated 80,800 in Ontario) use e-cigarettes, either with or without nicotine, and this proportion has remained stable since the previous survey in 2015. It is worth noting that more students in Ontario 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

“regular” e-cigarette use to be less physically harmful than smoking one or two tobacco cigarettes daily. Much is yet to be understood about the health implications of using e-cigarettes, with or without nicotine. Potential harms include adverse health effects from inhaling e-cigarette vapour, which may contain nicotine and other toxins, and concerns about the “renormalization” of cigarette smoking (Rigotti, 2015; Stanwick, 2015). Some prospective studies show that vaping is a strong risk factor for future tobacco cigarette smoking among youth (Hammond, Reid, Cole, & Leatherdale, 2017; Leventhal et al., 2016; Miech, Patrick, O’Malley, & Johnston, 2017; Wills, Gibbons, Sargent, & Schweitzer, 2016). However, others suggest that e-cigarettes are less harmful than tobacco cigarettes and could possibly be beneficial in smoking cessation efforts (Bullen et al., 2013; Etter & Bullen, 2014; Kozlowski & Warner, 2017).

- While the proportion of students in grades 7–12 who use a **waterpipe** is currently lower than in 2013, when monitoring first began, still 6% use a waterpipe, representing an estimated 46,600 in Ontario. Students’ perception of potential risk of harm associated with regular waterpipe use has decreased since 2013. Waterpipe smoking is linked to health risks and diseases similar to tobacco cigarette smoking, and infectious diseases may be transmitted due to the sharing of the mouthpiece (Akl et al., 2010; El-Zaatari, Chami, & Zaatari, 2015; Martinasek, McDermott, & Martini, 2011).

- Despite a downward trend in use, **alcohol** remains the most commonly used drug among Ontario students. Just under half (43%) of all students drink alcohol, and this increases to 68% among 12th graders. **Binge drinking** remains at an elevated level, as about one-in-six students (17% or an estimated 153,300 in Ontario) report drinking five or more drinks on the same occasion at least once in the past month. Among 12th graders, one-third (32%) binge drink at least once a month. Alcohol consumption in adolescence, especially binge drinking, has been associated with various adverse consequences such as family problems, academic problems,

mental health problems, risky sexual behaviours, injuries, as well as poorer neurocognitive performance and altered brain development (Jacobus & Tapert, 2013; Kuntsche, Kuntsche, Threl, & Gmel, 2017; Meruelo, Castro, Cota, & Tapert, 2017), and some problems can persist into adulthood (McCambridge, McAlaney, & Rowe, 2011).

- Despite the decrease since 2015, about one-in-seven (14%) secondary students **drink hazardously/harmfully** (about 110,600 in Ontario), meaning that their drinking increases their risk of current or future physical and social problems. One-in-six (16%) secondary students **could not remember what happened when they were drinking** on at least one occasion in the past year, and one-in-twelve (8%) were **injured or injured someone** in the past year due to their drinking.

- The one drug class showing an increase in past year use since the previous survey is over-the-counter **cough and cold medications with dextromethorphan** used to “get high,” increasing from about 6% in 2015 to 9% in 2017, returning to a level seen in prior years. Taken in large doses, these substances can cause feelings of euphoria, detachment from one’s body, hallucinations, and impaired motor coordination.

- One-in-ten (11%) students report using a **prescription opioid pain reliever** without their own prescription at least once in the past year (representing about 97,100 in Ontario). The nonmedical use of this class of drugs, which includes Tylenol #3, codeine, Percocet, Percodan, Demerol, and Dilaudid ranks just after cannabis and electronic cigarette use. Opioids 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 use of opioids can lead to dependence (Manchikanti, Fellows, Ailani, & Pampati, 2010; Okie, 2010).

- The 2017 cycle began to measure **fentanyl** use among secondary students. Results show that about 1% of students used fentanyl at least once in the past year (representing about 5,800 students in grades 9-12), suggesting that this dangerous drug has surfaced in the student population. Fentanyl is a potent synthetic opioid associated with a high risk of overdose and death from ingesting even a small quantity. The number of deaths attributed to fentanyl has risen in Canada between 2009 and 2014 (Canadian Community Epidemiology Network on Drug Use, 2015), and public health concerns about the drug’s potentially deadly impact persist.

- **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 11,600 in Ontario). A higher proportion (almost one-in-ten) of licensed students report driving after using cannabis (an estimated 24,100). Both of these behaviours have remained stable for a few years, despite continued efforts to reduce impaired driving. About 16% 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.

- Over one-third (38%) of secondary students report past year use of **at least one drug**, including a prescription drug or an OTC drug used for nonmedical purposes. The proportion using a drug increases with grade, reaching almost half (48%) by grade 12.

- **Cannabis** remains the most commonly used illicit drug among students. About one-in-five (19%) students in grades 7–12 use cannabis (an

estimated 172,200 in Ontario). This prevalence reaches 37% 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., 2016).

- Secondary students were asked about the different ways they consumed cannabis in the past year. Smoking cannabis in a pipe, bong, or joints are the most common modes of use. About one-in-ten (11%) secondary students use **cannabis edibles** (e.g., cookies, candy). 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 (National Academies of Sciences, Engineering, and Medicine [NASEM], 2017).

- About 7% of secondary students use **cannabis in an electronic cigarette or vaporizer**. Vaporizing cannabis concentrates in an e-cigarette device, commonly called “vaping cannabis,” is a relatively new method of consuming cannabis and is gaining popularity (Budney, Sargent, & Lee, 2015). The degree to which vaping cannabis decreases or increases the health risks, compared with smoking cannabis, is not yet known, although some research suggests the THC content in vaporized oils and waxes is much higher than in a traditional marijuana joint (Budney et al., 2015; Morean, Kong, Camenga, Cavallo, & Krishnan-Sarin, 2015). Further, the perception of greater safety with using e-cigarettes 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 1% of students in grades 7–12 (an estimated 13,100 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). 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) 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-Lending et al., 2013; Kuepper et al., 2011; Large, Sharma, Compton, Slade, & Nielsse, 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 13% of students (representing 98,900 students in grades 7-12), and reaches 29% 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 prevalence of **nonmedical use of drugs typically used to treat Attention-Deficit/Hyperactivity Disorder (ADHD)**, such as Ritalin and Adderall, is slightly but significantly higher than the estimate from 2007, the first year of monitoring (2% vs. 1%),

respectively). This is worth noting because it is the only drug class 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).

- One-in-five (20%) students report that **someone tried to sell drugs to them** (anywhere) at least once during the year before the survey. This estimate increases to almost one-third among 12th graders, suggesting that drugs are readily available to older adolescents.
- Although the consumption of **highly caffeinated energy drinks** does show a significant decline since a few years ago, use remains quite high with about one-third (34%) of all students (an estimated 304,600 in Ontario) reporting past year use. One-in-eight (13% or an estimated 112,800) 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).
- Although a majority of drugs examined in the 2017 OSDUHS had 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 that are 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 (approximately 917,800 students), we estimate that about 13,100 (1.4%) use cannabis daily, about 13,800 (1.5%) used synthetic cannabis (“spice,” “K2”) in the past year, and 20,800 (2.3%) used an ADHD nonmedically in the past year.

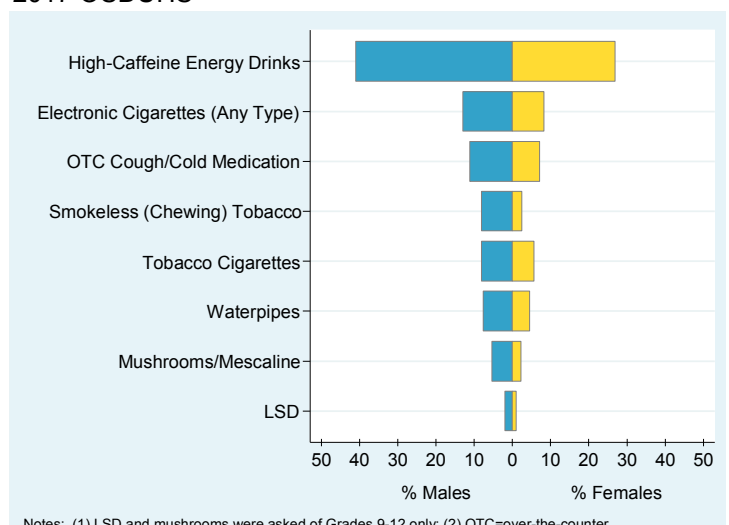
Demographic Correlates of Drug Use

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 tobacco cigarettes, electronic cigarettes, waterpipes, smokeless tobacco, LSD, mushrooms, over-the-counter cough/cold medication used to “get high,” and energy drinks. No drug shows a higher prevalence of use among females in 2017.

Only a few differences in student drug use according to **region** of the province are evident in 2017 (Table 4.2). Compared with the provincial average, students in the Greater Toronto Area (GTA) are *less likely* to smoke tobacco cigarettes, use mushrooms, and energy drinks, but are *more likely* to use inhalants (i.e., sniff glue or solvents) and over-the-counter cough/cold medications to “get high.” Students in the North, West, and East regions do not significantly differ from the province as a whole on any drug use measure.

Figure 4.1
Significant Sex Differences in Past Year Drug Use, 2017 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 11th grade, and drinking continues to increase in 12th grade, suggesting that prevention efforts should extend into the older grades as well.

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. Special efforts should continue to address the relatively high rate of driving after cannabis use among youth.

The results also highlight the emergence of alternative methods of tobacco and nicotine use (electronic cigarettes, waterpipe), which are perceived as less harmful than traditional tobacco cigarettes. Public education about the potential hazards associated with these devices should be considered, especially as the vaping of substances seems to be increasing in popularity.

Except for cannabis, 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 over-the-counter cough/cold medications nonmedically. Similar changes in the “drug landscape” over the past decade have been seen in the United States (Miech et al., 2016). 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 (Friedman, 2006; Levine, 2007). 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., 2016). Our findings show that attitudes and beliefs about risk of harm and disapproval 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, the misconceptions youth have about harms from use (McKiernan & Fleming, 2017), and the impending legalization of cannabis in Canada, there is a need for education about the short-term and long-term effects of cannabis use, different forms of use, and the implications of any policy change for youth.

Finally, the findings also suggest a relationship between the use and availability of certain drugs such as alcohol, cannabis, ecstasy, and LSD. That is, past year use and perceived availability have been decreasing in tandem over time. While prevention efforts cannot control access to drugs through peer groups, the availability and accessibility of cigarettes 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 drinking age laws, and reducing the number of sales outlets can reduce 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 illicit 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. The past decade has seen 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., 2016) and Europe (The ESPAD Group, 2016).

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 forms of administration emerge regularly, but 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 recent decision to sell beer and wine in selected grocery stores, and the Canadian government's decision to legalize cannabis use by adults by mid-2018. Both decisions have important implications for the availability of these two substances, and availability is a major determinant of substance use and problem rates (Babor et al., 2010; Mann, 2005). The public health response to these changes requires accurate information. Although we cannot be certain what the near future holds for student drug use, we can closely monitor the trends in use, we can closely monitor the 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 violence. The next release of this companion report will be in the summer of 2018.

Table 4.1: Significant Changes in Past Year Drug Use by Subgroup

	Tobacco Cigarettes	Waterpipes/ Hookahs	Alcohol	Binge Drinking	Cannabis	Inhalants	Salvia Divinorum	LSD	Mushrooms/Mesc.	Jimson Weed	Methamphetamine	Cocaine	Crack	Heroin	Ecstasy	OTC Cough/Cold Medication	Opioid Pain Relievers (NM)	ADHD Drugs (NM)	Any NM Prescription Drug Use	Any Drug Use excl. Cannabis	High-Caffeine 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 2017 vs. 2015, p<.01; (2) △▽ significant increase or decrease in 2017 vs. 1999 for most drugs, p<.01 (vs. 2001 for ecstasy, vs. 2003 for cocaine, vs. 2007 for jimson weed, opioid pain relievers, ADHD drugs, and Any NM Prescription Drug Use, vs. 2009 for salvia and cough/cold medication, vs. 2011 for energy drinks, vs. 2013 for waterpipes); (3) -- indicates question not asked of that grade; (4) binge drinking refers to drinking five or more alcoholic drinks on one occasion at least once in the past month; (5) OTC = over-the-counter; (6) NM = nonmedical use, without one's own doctor's prescription; (7) "Any Drug Use excluding Cannabis" index is based on eight drugs asked about over time; (8) GTA=Greater Toronto Area; (9) no significant year differences were found for electronic cigarettes, smokeless tobacco, synthetic cannabis, mephedrone, or tranquilizers/sedatives (NM), therefore these drugs are not presented.

Table 4.2: Significant Subgroup Differences in Past Year Drug Use, 2017 OSDUHS

	Tobacco Cigarettes	Electronic Cigarettes	Waterpipes/ Hookahs	Smokeless Tobacco	Alcohol	Binge Drinking	Cannabis	Synthetic Cannabis	Inhalants	LSD	Mushrooms/Mesc	Cocaine	Ecstasy	ADHD Drug (NM)	OTC Cough/Cold Medication (NM)	Tranquilizers/ Sedatives (NM)	Any Drug Use incl. Cannabis	Any Drug Use excl. Cannabis	High-Caffeine Energy Drinks
Sex Effect	*	**	***	**	ns	ns	ns	ns	ns	**	**	ns	ns	ns	***	ns	ns	ns	***
	M ↑	M ↑	M ↑	M ↑						M ↑	M ↑				M ↑				M ↑
Grade Effect	***	***	***	***	***	***	***	**	**	ns	**	**	***	***	ns	*	***	***	***
(compared with previous grade)										--	--	--	--			--	--	--	
	9 ↑ 8	9 ↑ 8	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			10 ↑ 9	10 ↑ 9		
	11 ↑ 10			11 ↑ 10	11 ↑ 10	11 ↑ 10	11 ↑ 10				11 ↑ 10								
					12 ↑ 11								12 ↑ 11						
Region Effect	*	ns	ns	ns	ns	ns	ns	ns	**	ns	*	ns	ns	ns	**	ns	ns	ns	*
(region compared with Ontario)	GTA ↓								GTA ↑		GTA ↓				GTA ↑				GTA ↓

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=non-significant; (5) binge drinking refers to drinking five or more alcoholic drinks on one occasion at least once in the past month; (6) OTC=over-the-counter; (7) NM=nonmedical use, without one's own doctor's prescription; (8) GTA=Greater Toronto Area; (9) past year use of salvia divinorum, jimson weed, methamphetamine, crack, heroin, fentanyl, mephedrone, prescription opioids (NM), and any NM use of a prescription drug show no significant differences according to sex, grade, or region and therefore are not presented.

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6. APPENDIX

Table A1
District School Boards in Ontario by Region

GREATER TORONTO AREA	WESTERN ONTARIO
Conseil scolaire catholique MonAvenir *	Avon Maitland District
Conseil scolaire Viamonde *	Bluewater District
Dufferin-Peel Catholic District	Brant Haldimand Norfolk Catholic District
Durham Catholic District	Bruce-Grey Catholic District
Durham District	Conseil scolaire catholique Providence
Halton Catholic District	District School Board of Niagara
Halton District	Grand Erie District
Peel District	Greater Essex County District
Toronto Catholic District	Hamilton-Wentworth Catholic District
Toronto District	Hamilton-Wentworth District
York Catholic District	Huron Perth Catholic District
York Region District	Lambton Kent District
	London District Catholic
	Niagara Catholic District
	St. Clair Catholic District
	Thames Valley District
	Upper Grand District
	Waterloo Catholic District
	Waterloo Region District
	Wellington Catholic District
	Windsor-Essex Catholic District
NORTHERN ONTARIO	EASTERN ONTARIO
Algoma District	Algonquin and Lakeshore Catholic District
Conseil scolaire catholique de district des Grandes Rivières	Catholic District Board of Eastern Ontario
Conseil scolaire catholique du Nouvel-Ontario	Conseil des écoles catholiques du Centre-Est
Conseil scolaire catholique Franco-Nord	Conseil des écoles publiques de l'Est de l'Ontario
Conseil scolaire de district catholique des Aurores boréales	Conseil scolaire de district catholique de l'Est ontarien
Conseil scolaire public du Grand Nord de l'Ontario	Hastings and Prince Edward District
Conseil scolaire public du Nord-Est de l'Ontario	Kawartha Pine Ridge District *
District Ontario North East	Limestone District
Huron-Superior Catholic District	Ottawa Catholic
Keewatin-Patricia District	Ottawa-Carleton District
Kenora Catholic District	Penetanguishene Protestant Separate
Lakehead District	Peterborough Victoria Northumberland and Clarington Catholic District *
Near North District	Renfrew County Catholic District
Nipissing-Parry Sound Catholic District	Renfrew County District
Northeastern Catholic District	Simcoe County District
Northwest Catholic District	Simcoe Muskoka Catholic District
Rainbow District	Trillium Lakelands District
Rainy River District	Upper Canada District
Sudbury Catholic District	
Superior-Greenstone District	
Superior North Catholic District	
Thunder Bay Catholic District	

* board with schools in more than one region

Table A2
 Ontario Public Health Regions Sponsoring Oversamples in the OSDUHS, 2009–2017

Public Health Region	2009	2011	2013	2015	2017
Brant County	--	--	--	●	--
City of Hamilton	●	--	--	--	--
City of Ottawa	●	●	●	--	●
Durham Region	●	●	●	●	●
Haliburton, Kawartha, Pine Ridge District	●	--	●	--	●
Leeds, Grenville and Lanark District	●	--	●	--	●
Niagara Region	--	●	--	●	--
North Bay Parry Sound District	--	●	--	●	--
Peel Region	--	--	●	●	●
Simcoe Muskoka District	--	--	--	●	--
Sudbury and District	--	--	●	--	--
York Region	●	●	●	●	●

Table A3
Student Completion Rate by Year of Survey

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017
Total	Selected (N)	(5077)	(5092)	(4832)	(4781)	(4640)	(5167)	(5231)	(6564)	(6094)	(9411)	(10922)	(9497)	(14196)	(15005)	(16535)	(17804)	(18,733)
	Completed (%)	82	84	81	83	77	76	77	76	71	72	72	68	65	62	63	59	61
	Absent (%)	14	12	15	14	13	15	15	12	13	12	12	13	13	12	11	11	12
	No consent (%)	4	4	4	3	9	9	8	12	16	16	16	19	22	26	26	29	27
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0
Grade 7	Selected (N)	(1257)	(1440)	(1340)	(1106)	(1083)	(1165)	(1054)	(1030)	(1016)	(1446)	(1273)	(1104)	(2632)	(2434)	(3287)	(3260)	(3100)
	Completed (%)	84	86	84	86	83	80	81	76	75	68	76	66	63	60	65	58	58
	Absent (%)	7	6	7	5	8	6	5	10	7	7	9	9	9	8	8	7	10
	No consent (%)	9	7	9	9	9	13	14	14	18	25	14	25	27	32	27	35	30
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2
Grade 8	Selected (N)								(1061)	(1038)	(1449)	(1301)	(1085)	(2711)	(2467)	(3245)	(3349)	(3312)
	Completed (%)								76	68	68	75	72	63	60	63	59	62
	Absent (%)								10	8	9	7	9	10	9	9	9	9
	No consent (%)								14	24	23	18	19	26	31	29	31	29
	Other (%)								--	--	--	--	--	--	--	--	1	0
Grade 9	Selected (N)	(1315)	(1206)	(1265)	(1029)	(1248)	(1366)	(1442)	(1201)	(1017)	(1671)	(2110)	(1820)	(2111)	(2664)	(2536)	(2978)	(3331)
	Completed (%)	82	84	83	88	81	78	80	77	70	75	71	68	68	64	61	61	65
	Absent (%)	13	11	13	10	8	11	12	9	12	12	9	11	11	10	11	11	10
	No consent (%)	5	5	4	2	10	11	7	14	18	13	20	20	21	26	28	28	24
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
Grade 10	Selected (N)								(855)	(1177)	(1654)	(2120)	(1727)	(2332)	(2597)	(2417)	(2760)	(3262)
	Completed (%)								76	70	73	68	65	67	60	65	63	60
	Absent (%)								10	16	14	13	15	13	14	11	11	12
	No consent (%)								14	14	13	19	20	19	25	24	25	28
	Other (%)								--	--	--	--	--	--	--	--	1	0
Grade 11	Selected (N)	(1280)	(1341)	(1115)	(1392)	(1068)	(1270)	(1075)	(1046)	(874)	(1672)	(2128)	(1876)	(2140)	(2384)	(2604)	(2853)	(2894)
	Completed (%)	80	84	79	81	68	74	75	73	68	72	73	69	65	65	61	55	59
	Absent (%)	17	14	20	16	17	18	15	17	18	14	14	15	15	14	15	13	12
	No consent (%)	3	2	1	2	15	7	10	10	14	14	13	16	20	20	24	31	28
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
Grade 12	Selected (N)								(789)	(584)	(1519)	(1990)	(1885)	(2270)	(2459)	(2446)	(2604)	(2874)
	Completed (%)								76	68	72	69	66	65	66	62	60	61
	Absent (%)								19	23	19	18	19	19	15	16	14	18
	No consent (%)								5	9	9	13	14	15	19	22	26	21
	Other (%)								--	--	--	--	--	--	--	--	0	0

(cont'd)

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	2017	
GTA	Selected (N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(7406)
	Completed (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64
	Absent (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10
	No consent (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
North	Selected (N)	(626)	(584)	(426)	(327)	(253)	(386)	(490)	(1223)	(1448)	(1868)	(1965)	(1364)	(1079)	(3268)	(2305)	(2594)	(2534)	
	Completed (%)	84	86	87	86	81	76	79	77	76	70	64	60	61	55	56	53	59	
	Absent (%)	13	14	12	12	14	16	13	13	14	13	12	16	16	11	13	10	13	
	No consent (%)	3	0	0	2	5	8	9	10	10	17	24	24	23	33	31	36	28	
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0
West	Selected (N)	(1914)	(1917)	(2211)	(2054)	(2061)	(2261)	(1992)	(2321)	(2360)	(3628)	(4052)	(4030)	(4447)	(3841)	(5132)	(7469)	(3449)	
	Completed (%)	84	85	81	82	74	77	78	73	66	71	72	67	65	63	65	60	60	
	Absent (%)	12	12	14	10	14	13	15	13	14	11	12	13	14	12	9	11	14	
	No consent (%)	4	3	5	4	12	10	7	13	20	18	16	20	21	25	26	29	25	
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
East	Selected (N)	(1397)	(1404)	(1339)	(1340)	(1209)	(1407)	(1476)	(1881)	(1552)	(2298)	(3296)	(2787)	(7255)	(6010)	(7786)	(5769)	(5384)	
	Completed (%)	83	85	82	85	77	78	74	79	70	76	75	70	67	65	64	63	59	
	Absent (%)	14	11	14	12	13	13	13	10	12	12	12	12	11	11	11	10	12	
	No consent (%)	3	4	4	2	9	8	12	11	17	12	13	17	22	24	13	26	28	
	Other (%)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	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; surveys from 1985–1997 included grades 7, 9, 11, and 13 only; surveys in 1999 and 2001 included grades 7–13; surveys from 2003–2017 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

Table A4a
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 A4b
Sample Demographics by Year of Survey, 1999–2017

	1999		2001		2003		2005		2007		2009		2011		2013		2015		2017	
	(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
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
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
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
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
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
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
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
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)	
GTA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(4725) 46.1
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
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
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
Total N	4447		3898		6616		7726		6323		9112		9288		10272		10426		11435	

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 in 2017 as the GTA students were removed from these two regions.

Source: OSDUHS, Centre for Addiction & Mental Health

Table A5
Design Effects (Deffs) for Estimates by Year of Survey

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011 [*]	2013 [*]	2015	2017
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
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
Grade 8	--	--	--	--	--	--	--	--	--	14.6	1.55	3.11	4.96	3.12	2.12	6.70	11.17	2.45	17.38
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	3.798
Grade 10	--	--	--	--	--	--	--	--	--	12.5	20.4	2.17	1.55	2.80	3.14	2.52	4.25	3.23	6.157
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	9.861
Grade 12	--	--	--	--	--	--	--	--	--	12.6	23.0	3.18	2.90	1.59	3.69	5.50	6.37	5.85	7.614
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

Notes: 1981–1997 deffs are based on grades 7, 9, 11, and 13; 1999 and 2001 deffs are based on grades 7–13; 2003–2017 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.

Source: OSDUHS, Centre for Addiction & Mental Health

Table A6
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
Ketamine	2001	2013
Methoxetamine	2013	2013
Modafinil	2013	2015
OxyContin (prescription)	2005	2013
PCP	1981	2009
Rohypnol	2001	2009
Sleeping medication (OTC)	2007	2009
Steroids	1989	2015
Stimulants (prescription)	1977	2011

OTC= over-the-counter

2017 OSDUHS

STUDY INFORMATION SHEET
&
PARENTAL CONSENT/STUDENT ASSENT
FORMS

camh OSDUHS

Ontario Student Drug Use and Health Survey

Every two years students across Ontario are invited to participate in this important survey: *The Ontario Student Drug Use and Health Survey* (OSDUHS). This flyer answers questions you may have, and it includes the **consent form on the back**.



What is the OSDUHS?

The OSDUHS is an anonymous student survey that has been going on since 1977. About 11,000 students in grades 7 to 12 in big cities, small towns, and rural areas across the province take part each cycle. Questions in the survey cover a range of issues facing young people today, such as smoking, drinking, drug use, mental health, bullying, violence, gambling, and physical health.

Why Should Students Participate?

Many adults have impressions about young people that are not based on fact, but on stereotypes and media headlines. It's important to know about young people's own experiences, their problems, and their beliefs. The survey results provide an accurate picture of what it's like growing up in today's world.

Do Students Have a Choice?

Of course they do. Participation in the survey is completely voluntary. Plus, if a student begins the survey, he/she can stop at any time. We think once students know that their opinions count, they will agree that this is an important study to be part of.

What Do Students Have to Do?

Students who want to participate need to have one parent/guardian sign the consent form, and then return it to their teacher. Then, on the day of the survey, they complete a questionnaire in their classroom. It takes about 30 to 40 minutes. Students do not write their name anywhere on the questionnaire, so they cannot be identified.

Who Will See the Answers?

Students' answers are only seen by the researchers. The answers cannot be connected to individual students. Teachers and principals will not see students' answers. All information gathered in the study is confidential.

How Are the Results Used?

Results are presented in two OSDUHS reports, one about trends in drug use, and the other about trends in mental health and well-being. Both reports are available at: www.camh.ca/research/osduhs.

Results are used by education and health professionals to identify areas of concern and emerging trends, and to create programs and policies. The media also use the results when covering issues affecting youth.

How Are the Schools Selected?

About 200 elementary/middle schools and high schools are selected to represent students in grades 7 through 12 in Ontario. All schools are selected randomly (by chance) from a list of all public and Catholic schools in Ontario provided by the Ministry of Education. After schools are selected, a few classes in those schools are randomly selected. Just because a school or class is selected does not mean that there is a problem in that school or class.

Please read, sign and return the consent form on the other side.



The 2017 Ontario Student Drug Use and Health Survey Parent-Student Information and Consent Form

Dear Parents/Guardians and Students:

The Centre for Addiction and Mental Health (CAMH) conducts the longest ongoing school survey in Canada and one of the longest in the world. Since 1977, Ontario students have been asked about their beliefs and use (if any) of tobacco, alcohol and other drugs (for example, cannabis and medical drugs). The survey also covers topics about physical health, mental health, bullying, illegal activities (for example, theft and gambling), video gaming, and demographics.

This year, about 11,000 students in grades 7 to 12 across Ontario will be asked to complete a pen-and-paper questionnaire in their classrooms. Your child's class has been asked to participate. Both the school and the class were randomly selected (by chance). **Students do not write their names on the questionnaires. Students can never be identified or linked to school records.** Because we are interested in both the use and non-use of drugs, **there is no assumption that students who complete this anonymous survey have ever used any drug.**

Participation in the survey is voluntary, students do not have to answer every question, and they can stop at any time – if they do so, we will destroy their questionnaires. Refusal to participate or to answer certain questions, or stopping the survey, will not affect students' relationship with CAMH, their school or teacher, or any research group associated with the project. There are no expected risks in completing the survey. The survey results will be reported in a way that ensures complete confidentiality to the fullest extent possible by law. Data will be stored in a password-protected computer at CAMH and York University (who is administering the survey) for an indefinite period. For your interest, past survey reports and the 2017 questionnaire are posted on our website at www.camh.ca/research/osduhs. The back of this sheet has additional information about the survey.

The OSDUHS results are used by health and school organizations to identify key issues and develop health and education programs, and are widely reported in the media. I sincerely appreciate your co-operation. If you would like to receive more information about the study, please contact me at 416-535-8501 ext. 34496 or robert.mann@camh.ca. If you would like to discuss your child's rights regarding participation in this survey, please contact Dr. Padraig Darby, Chair, Research Ethics Board, CAMH at 416-535-8501 ext. 36876.


 Robert E. Mann, Ph.D.
 Study Director

Please sign and return the section below.



We (parent/guardian and student) have read the request for participation in the *2017 Ontario Student Drug Use and Health Survey*. We have discussed it and...

I (parent) **give permission** for my son/daughter to participate.

I (student) **agree** to participate.

I (parent) **do not give permission** for my son/daughter to participate.

I (student) **do not agree** to participate.

Signature of Parent/Guardian:

Signature of Student:

Name of Student (please print): _____

Transforming Lives - Transformer des vies

The 2017 Ontario Student Drug Use and Health Survey Parent-Student Information and Consent Form

Dear Parents/Guardians and Students:

The Centre for Addiction and Mental Health (CAMH) conducts the longest ongoing school survey in Canada and one of the longest in the world. Since 1977, Ontario students have been asked about their beliefs and use (if any) of tobacco, alcohol and other drugs (for example, cannabis, cocaine, and medical drugs). The survey also covers topics about physical health, mental health, bullying, illegal activities (for example, theft and gambling), video gaming, and demographics (for example, physical attraction and ethnic background).

This year, about 11,000 students in grades 7 to 12 across Ontario will be asked to complete a pen-and-paper questionnaire in their classrooms. Your child's class has been asked to participate. Both the school and the class were randomly selected (by chance). **Students do not write their names on the questionnaires. Students can never be identified or linked to school records.** Because we are interested in both the use and non-use of drugs, **there is no assumption that students who complete this anonymous survey have ever used any drug.**

Participation in the survey is voluntary, students do not have to answer every question, and they can stop at any time – if they do so, we will destroy their questionnaires. Refusal to participate or to answer certain questions, or stopping the survey, will not affect students' relationship with CAMH, their school or teacher, or any research group associated with the project. There are no expected risks in completing the survey. The survey results will be reported in a way that ensures complete confidentiality to the fullest extent possible by law. Data will be stored in a password-protected computer at CAMH and York University (who is administering the survey) for an indefinite period. For your interest, past survey reports and the 2017 questionnaire are posted on our website at www.camh.ca/research/osduhs. The back of this sheet has additional information about the survey.

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Robert E. Mann, Ph.D.
Study Director

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I (parent) **give permission** for my son/daughter to participate.

I (student) **agree** to participate.

I (parent) **do not give permission** for my son/daughter to participate.

I (student) **do not agree** to participate.

Signature of Parent/Guardian:

Signature of Student:

Name of Student (please print): _____

Transforming Lives - Transformer des vies

Selected Recent OSDUHS Peer-Reviewed Publications

- Cook, S., Shank, D., Bruno, T., Turner, N. E., & Mann, R. E. (2017). Self-reported driving under the influence of alcohol and cannabis among Ontario students: Associations with graduated licensing, risk taking, and substance abuse. *Traffic Injury Prevention, 18*(5), 449-455.
- Hamilton, H. A., Owusu-Bempah, A., Boak, A., & Mann, R. E. (2017). Ethnoracial differences in cannabis use among native-born and foreign-born high school students in Ontario. *Journal of Ethnicity in Substance Abuse, 1*-12.
- Larsen, K., To, T., Irving, H. M., Boak, A., Hamilton, H. A., Mann, R. E., Schwartz, R., & Faulkner, G. E. J. (2017). Smoking and binge-drinking among adolescents, Ontario, Canada: Does the school neighbourhood matter? *Health & Place, 47*, 108-114.
- Sampasa-Kanyinga, H., & Hamilton, H. A. (2017). Eating breakfast regularly is related to higher school connectedness and academic performance in Canadian middle- and high-school students. *Public Health, 145*, 120-123.
- Sampasa-Kanyinga, H., Hamilton, H. A., Willmore, J., & Chaput, J. P. (2017). Perceptions and attitudes about body weight and adherence to the physical activity recommendation among adolescents: The moderating role of body mass index. *Public Health, 146*, 75-83.
- Allison, K. R., Adlaf, E. M., Irving, H. M., Schoueri-Mychasiw, N., & Rehm, J. (2016). The search for healthy schools: A multilevel latent class analysis of schools and their students. *Preventive Medicine Reports, 4*, 331-337.
- Allison, K. R., Irving, H. M., Adlaf, E. M., Faulkner, G. E. J., Boak, A., Manson, H. E., . . . Ng, B. (2016). Ten-year trends in overweight/obesity among Ontario middle and high school students and their use in establishing baseline measures for government reduction targets. *Canadian Journal of Public Health, 106*(8), e514-e519.
- Larsen, K., Faulkner, G. E. J., Boak, A., Hamilton, H. A., Mann, R. E., Irving, H. M., & To, T. (2016). Looking beyond cigarettes: Are Ontario adolescents with asthma less likely to smoke e-cigarettes, marijuana, waterpipes or tobacco cigarettes? *Respiratory Medicine, 120*, 10-15.
- Mammen, G., Rehm, J., & Rueda, S. (2016). Vaporizing cannabis through e-cigarettes: Prevalence and socio-demographic correlates among Ontario high school students. *Canadian Journal of Public Health, 107*(3), 337-338.
- Cook, S., Turner, N. E., Ballon, B., Paglia-Boak, A., Murray, R., Adlaf, E. M., . . . Mann, R. E. (2015). Problem gambling among Ontario students: Associations with substance abuse, mental health problems, suicide attempts, and delinquent behaviours. *Journal of Gambling Studies, 31*(4), 1121-1134.
- Faulkner, G., Irving, H., Adlaf, E. M., & Turner, N. (2015). Subtypes of adolescent video gamers: A latent class analysis. *International Journal of Mental Health and Addiction, 13*(1), 1-18.
- Hamilton, H. A., Ferrence, R., Boak, A., O'Connor, S., Mann, R. E., Schwartz, R., & Adlaf, E. M. (2015). Waterpipe use among high school students in Ontario: Demographic and substance use correlates. *Canadian Journal of Public Health, 106*(3), e121-e126.
- Hamilton, H. A., Ferrence, R., Boak, A., Schwartz, R., Mann, R. E., O'Connor, S., & Adlaf, E. M. (2015). Ever use of nicotine and nonnicotine electronic cigarettes among high school students in Ontario, Canada. *Nicotine & Tobacco Research, 17*(10), 1212-1218.
- Ilie, G., Mann, R. E., Hamilton, H., Adlaf, E. M., Boak, A., Asbridge, M., . . . Cusimano, M. D. (2015). Substance use and related harms among adolescents with and without traumatic brain injury. *Journal of Head Trauma Rehabilitation, 30*(5), 293-301.
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